

This item was submitted to Loughborough University as a PhD thesis by the author and is made available in the Institutional Repository (<https://dspace.lboro.ac.uk/>) under the following Creative Commons Licence conditions.



For the full text of this licence, please go to:
<http://creativecommons.org/licenses/by-nc-nd/2.5/>



University Library

Author/Filing Title NIKOL, S

Class Mark T

Please note that fines are charged on ALL
overdue items.

FOR REFERENCE ONLY

0403177928



**Living and Working in an Information Dryland: -
A Study of the Information Behaviour of NGO Development
Workers in the Northern Region of Ghana.**

by


Samuel Kotei Nikoi

A Doctoral thesis
submitted in partial fulfilment of the requirements for the award of
Doctor of Philosophy of Loughborough University.

November 2005

Supervisors:

Professor Paul Sturges¹ and Dr. Anne Goulding²

 Loughborough University Pilkington Library
Date <u>Aua 2006</u>
Class <u>T</u>
Acc No. <u>0403177928</u>

Abstract

The last few decades have seen a rise in the number of civil society organisations involved in global development. This has been attributed to the end of the cold war and a shift in global economic and political thinking driven by beliefs organised around neo-liberalism. Non-governmental organisations (NGOs) as agents of civil society have become significant players in what is now described as the "New Policy Agenda" a fact evident in their visibility at many global policy forums. Today, NGOs are seen both as vehicles of democratisation and preferred channels for welfare service provision in direct substitution to the state. Ghana, like many African countries have been caught in this new wave of global socio-political developments. In 1992, the country adopted multi-party democracy ending a long period of military dictatorship. The result of this transition is that many organised civil society groups, including NGOs, have joined forces with government in the fight against poverty and in the socio-economic development of the country. Despite this positive development two major, but separate studies, carried out in the country in 1999 both reported that lack of access to information continues to undermine effective participation of civil society groups in the country's development, something seen as a threat to the country's nascent democracy. To address this issue, the study examined the information behaviour of NGO development workers as a segment of civil society in order to assess what implications, if any, this might have on the design of an information system better suited to their needs.

The findings of this study suggest that the information behaviour of NGO development workers, is greatly influenced by a number of factors. These include amongst others the aid system, participatory development rooted in human centred development, and also decentralised development reflected in various partnership arrangements. The study findings also show that the information behaviour of development workers is greatly influenced by their knowledge state, when they come into the social development environment, and also at various stages during the life of a project. Various information locales are identified which act as spaces for the open exchange and sharing of information. A framework is put forward – Knowledge Village and Information Pump-stations (KVIP) - as a useful way of looking at, and addressing information issues within the NGO work environment in Northern Ghana.

Acknowledgement

"I will give you thanks, for you answered me...the LORD has done this, and it is marvellous in our eyes". Psalm 118 Verse 21 and 23

I will first of all like to acknowledge the support of the Ford Foundation International Fellowship Programme, which granted me fellowship to study for this PhD. Their interest in global justice and social development, demonstrated by their commitment to develop the intellectual capacity of individuals from all across the global, especially developing countries, is producing an army of global leaders whose devotion to the cause of the poor is poised to challenge, and hopefully transform the global socio-economic structures that continue to perpetuate poverty around the world and threaten our dear planet. Without the support of the Ford Foundation, people like myself may never have known, let alone experienced the world of possibilities that exist beyond my little town of La in Accra, and the contribution ordinary members of society can make to the empowerment of the forgotten poor.

Secondly, I wish to sincerely thank my supervisors, Professor Paul Sturges and Dr Anne Goulding for their valuable support throughout the life of this project. Through their intellectual guidance my knowledge of information issues has developed beyond the realm of the "wheelbarrow library" into an array of global factors which shape and determine information interventions in the world of rural development.

Thirdly, my sincere thanks also goes to my Directors of Research Dr Ashok Jashaphara and Professor Cliff McKnight for their invaluable suggestions which went a long way to open me up to the world of scientific research and philosophy of knowledge. To Dr Mark Hepworth I also say a big thank you for the insight I got through our interactions on the many dimensions of human information behaviour. And to Janet Harrison who during a critical period of my PhD provided me with the opportunity to gain experience as a research associate, I say *Obrigada*.

I further like to acknowledge with gratitude the help of the Director of the Northern Ghana Network for Development, Mr Lansah who facilitated my access to the NGO world of Northern Ghana. To my very able and dependent co-field worker Ibrahim Babatu, who took pains to accompany me for the entire period of my field work I also

say, as is said in Dagbani "Nawuni soŋŋ" [thank you]. Without your help this field work would have been a daunting task and I may never have gathered the courage to learn how to ride a motor bike on the dusty terrain of the savannah dryland. To the Northern Ghana Director of ISODEC who allowed me to use their offices for the information audit, and also to the members of staff of New Energy a local NGO which allowed me to work with their staff on the field I say thank you.

My sincere thanks also goes to Prof. Nathan Pecku of The Methodist University College Ghana, Prof. Anaba Alemna of the Balm Library Legon, Prof. Edwin Badu, Mr Samuel Tackie, and Dr Emmanuel Adjei all of the Department of Information Studies, University of Ghana, who supported and encouraged me in many ways to fulfil my academic aspirations. To my *sister* Salomey Maku Nartey (Mrs Asare), and also Faustina Noye of The Methodist University College Ghana, who helped with transcription of the interviews I also render my sincere gratitude.

I would also like to acknowledge with gratitude the overwhelming support and prayers I received from my brothers and sisters namely Rebecca, Titus, Grace, Abraham, Edward, Caroline, Elizabeth, David, Solomon, Ebenezer, Nicholas, Paul, Christiana, Christian, Lydia, and uncle James which ensured that I never wavered but fought on till the end. My heart felt thanks also goes to my English brother of many years Peter Munday who supported me in many ways, my Ghanaian friend Felix Kwaku Atta who brought a breath of African brotherhood into my life in Loughborough, and the Edum-Fotwe's and Baiden's who made my stay here in Loughborough enjoyable.

And finally to my beloved wife Josephine-Adjekai, children; Tychicus-Victory, Dionysius-Faithful, and Damaris-Glory and also to Gifty-Korkor our dependable family member I say to all of you that you fought this battle every inch with me, and endured all my long and frequent absences from home. You were a permanent source of inspiration, comfort and optimism. Without your encouragement and prayers this academic endeavour would have seemed a much longer journey. TO GOD BE THE GLORY.

Dedication

To the memory of my late dad, Martin alias “*Still*” who upheld two kinds of human behaviour - seeking God and seeking after knowledge

To the memory of my late mum, Emelia who strongly cherished one type of human behaviour “multivoicedness” but opposed yet another - “voicelessness”

To the memory of my late brother, Emmanuel who died during the course of this PhD, and who firmly believed that “organised human abilities lead to success”.

and finally...

To the course of the poor and vulnerable in their struggle for a better livelihood and a desire to make their voices heard.

“The poor man’s wisdom is despised, and his words are not heeded”.

(Ecclesiastes Chapter 9 verse 16)

TABLE OF CONTEXT

	Page
CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY.	
1.0	Introduction 1
1.1	Developments in Development Science 1
1.2	Developments in Information Science 3
1.3	Justification of research 4
1.4	Research Aim and Objectives 6
1.5	Significance of the study 7
1.6	Structure of the thesis 8
1.7	Definition of terms 8
1.8	Conclusion 9
 CHAPTER TWO: INFORMATION ENVIRONMENT OF NGO DEVELOPMENT WORKERS	
2.0	Introduction 10
2.1	Overview of Global Development Strategies and Implications for Information 10
2.2	Information environment in colonial and post-independence era 12
2.3	Post 1980 information environment in Ghana 15
2.3.1	Government information Institutions 16
2.3.2	The media landscape in Ghana 21
2.3.3	Information and Communication Technology 27
2.4	Conclusion 31
 CHAPTER THREE: USER INFORMATION BEHAVIOUR STUDIES	
3.0	Introduction 32
3.1	Wilson's General Model of Information Behaviour 32
3.2	"Context" and human information behaviour 36
3.2.1	Context as "development identity" 37
3.2.2	Context as approach to development work 40

3.3	The concept of “information need”	43
3.3.1	Information need motivated by problem resolution / knowledge extension	44
3.3.2	Information need motivated by Orientation and Dissemination	46
3.4	Information channels and sources	48
3.4.1	Communities of practice	49
3.4.2	Indigenous knowledge system	53
3.5	Intervening Variables and information Seeking	54
3.6	Synthesized models of the information seeking process and dimensions	58
3.7	Conclusion	61

CHAPTER FOUR: RESEARCH DESIGN

4.0	Introduction	63
4.1	Research Paradigms in the Social Sciences	63
4.2	Epistemological perspectives in information behaviour research	65
4.3	Locating the study within the qualitative / social-constructionism perspective	67
4.4	Research strategy	71
4.4.1	Justification for the use of case study	72
4.5	Data collection tools and case study inquiry	73
4.5.1	Designing the interview schedule	74
4.5.1.1	<i>Critical incident technique</i>	74
4.5.1.2	<i>Use of prompt cards</i>	75
4.5.1.3	<i>Piloting the interview schedule</i>	75
4.5.2	Information Audit	77
4.5.2.1	<i>Reasons for the use of information audit in this study</i>	77
4.5.2.2	<i>Designing the information audit schedule</i>	78
4.5.3	Field Observation	79
4.6	Sampling and case study inquiry	81
4.6.1	The study population and selection of cases	83
4.6.1.1	<i>Criteria for selecting interview participants</i>	85

4.6.1.2	<i>Administering the interview schedule</i>	86
4.6.1.3	<i>Criteria for selecting information audit site</i>	87
4.6.1.4	<i>Selecting an NGO for information audit</i>	87
4.6.1.5	<i>Criteria for selecting an NGO for field observation</i>	89
4.6.1.6	<i>Selecting an NGO for field observation</i>	89
4.7	Data analysis strategies	91
4.7.1	Data management and reduction	91
4.7.1.1	<i>Data Transcription</i>	91
4.7.1.2	<i>Data coding and conceptualising</i>	92
4.7.2	Creating categories and display	94
4.7.3	Generating meaning and drawing conclusions	96
4.7.3.1	<i>Clustering</i>	96
4.7.3.2	<i>Pattern Building</i>	97
4.7.3.3	<i>Comparing and contrasting</i>	97
4.7.3.4	<i>Counting recurrence</i>	97
4.7.3.5	<i>Attending to deviant cases</i>	97
4.7.3.6	<i>Developing Conceptual Coherence</i>	98
4.8	Challenges experienced in the field	98
4.9	Generalisation to wider population	99
4.10	Conclusions	100

CHAPTER FIVE: INTERVIEW DATA ANALYSIS AND PRESENTATION

5.0	Introduction	101
5.1	The context of rural development work	101
5.1.1	Roles and tasks performed by development workers	102
5.1.1.1	<i>Interventions motivated by meeting basic needs</i>	103
5.1.1.2.	<i>Capacity Building Intervention</i>	109
5.1.1.3	<i>Advocacy Activities</i>	114
5.1.2	Development work norms	116
5.1.2.1	<i>Community participation</i>	117
5.1.2.2	<i>Development partnerships</i>	119
5.1.2.3	<i>Multiplicity of world views</i>	122

5.1.2.4.	<i>Management Structures</i>	125
5.1.3	Development environment challenges	125
5.1.3.1	<i>Socio-cultural environment</i>	126
5.1.3.2	<i>Physical Environment</i>	127
5.1.3.3	<i>Communication challenges</i>	129
5.1.4	Summary of context of rural development	130
5.1.4.1	<i>Context as a social problem</i>	130
5.1.4.2	<i>Context as divergent identities</i>	131
5.1.4.3	<i>Context as power relations</i>	132
5.1.4.4	<i>Context as inclusivity</i>	132
5.2	Information need	134
5.2.1	Sociological Information Need	135
5.2.1.1	<i>Soft sociological data</i>	136
5.2.1.2	<i>Hard Sociological Data</i>	137
5.2.2	Cognitive Needs	139
5.2.2.1	<i>Explicit Knowledge</i>	140
5.2.2.2	<i>Tacit Knowledge</i>	141
5.2.2.3	<i>Anecdotal Knowledge</i>	142
5.2.3	Ecological Needs	143
5.2.3.1	<i>Government Policies</i>	144
5.2.3.2	<i>Donor Policies</i>	146
5.2.3.3	<i>Policies of International Development NGOs</i>	147
5.2.3.4	<i>Development Communication Needs</i>	148
5.2.4	Summary of information needs of development workers	149
5.3	Information sources	151
5.3.1	Social information sources	152
5.3.1.1	<i>Solidarity Space</i>	153
5.3.1.2	<i>Knowledge Village</i>	159
5.3.1.3	<i>Information pump-stations</i>	162
5.3.2	Institutional Information Sources	167
5.3.2.1	<i>Government District Assemblies and other Institutions</i>	167
5.3.2.2	<i>Sources located within NGOs</i>	171
5.3.3	ICT and Media Information Sources	177
5.3.4	Summary of Information Sources	181

5.4	Information Behaviour Patterns	185
5.4.1	Information seeking behaviour	186
5.4.2	Information gathering behaviour	186
5.4.3	Information sharing behaviour	187
5.4.4	Information reporting culture	187
5.4.5	Information communication behaviour	188
5.4.6	Information monitoring behaviour	188
5.4.7	Information fortressing behaviour	189
5.4.8	Information coping behaviour	189
5.5	Conclusion	190

CHAPTER SIX: FIELD OBSERVATION DATA ANALYSIS AND PRESENTATION

6.0	Introduction	191
6.1	Representation	191
6.1.1	Community power relations	192
6.1.1.1	<i>Social positions</i>	192
6.1.1.2	<i>Spaces and voices</i>	194
6.1.2	Information handling capabilities	195
6.1.3	Participatory information alliances	199
6.2	Stakeholdings	200
6.2.1	Government-NGO information sharing	201
6.2.2	Northern and Southern NGO Partnership	203
6.2.2.1	<i>Agenda setting and knowledge transfer</i>	203
6.2.2.2	<i>Impact of linkages and de-linkages on information activities</i>	204
6.2.3	Remonstrations	206
6.3	Geo-Physical Patterns of Settlement	207
6.3.1	Mobility issues and options	207
6.3.2	Communication challenges	210
6.4	Conclusion	212

CHAPTER SEVEN: INFORMATION AUDIT DATA ANALYSIS AND PRESENTATION

7.0	Introduction	214
7.1	Information Products	215
7.1.1	Nature and characteristics of information products	215
7.1.1.1	<i>Operational or functional information products</i>	215
7.1.1.2	<i>Management information products</i>	216
7.1.1.3	<i>Socio-cultural information products</i>	216
7.1.1.4	<i>Relational information products</i>	217
7.1.1.5	<i>Protestational information products</i>	217
7.1.1.6	<i>A value chain perspective of the information products</i>	218
7.1.2	Information containers or format	220
7.1.2.1	<i>Print Based Materials</i>	221
7.1.2.2	<i>ICT Products</i>	222
7.2.	Information Origins / Sources	224
7.2.1	The social identity of information authors	226
7.2.1.1	<i>The case of edited voices</i>	227
7.2.2	Patterns of information flow	228
7.2.2.1	<i>Fragmented data gathering syndrome</i>	230
7.2.2.2	<i>A case of openness in the midst of secrecy</i>	230
7.2.2.3	<i>"General Merchant" and host selection</i>	231
7.2.2.4	<i>Event Chroniclers</i>	231
7.2.2.5	<i>Knowledge Broadcasters</i>	232
7.2.2.6	<i>Expert knowledge agents</i>	232
7.2.2.7	<i>Soft publishers</i>	233
7.2.2	The drivers for information flow	234
7.2.3.1	<i>Inter-agency collaborative authoring</i>	234
7.2.3.2	<i>Individual versus social learning</i>	236
7.2.3.3	<i>Accountability driven flows</i>	237
7.2.3.4	<i>Communities of interest</i>	238
7.2.4	Summary of section	238
7.3	Information management	239
7.4.1	Information storage and location	239
7.4.1.1	<i>Distributed information islands</i>	239

7.4.1.2	<i>Closet storage systems</i>	240
7.4.2	Information classification and organisation	242
7.4.3	Information Accessibility	243
7.5	Conclusion	244
CHAPTER EIGHT: DISCUSSION OF RESEARCH FINDINGS		
8.0	Introduction	246
8.1	The context of development worker information behaviour	247
8.1.1	Structural determinism as a key influence on NGO information behaviour	248
8.1.1.1	<i>External versus internal structures</i>	250
8.1.1.2.	<i>Structures constraining upon "means" and structures constraining upon "ends"</i>	251
8.1.1.3	<i>"Rational" constraints and "permissible" constraints</i>	251
8.1.2	Information behaviour and power relations	253
8.1.3	Implication for information behaviour models	256
8.2	Information Needs of Rural Development Workers	257
8.2.1	What they don't know we don't know	259
8.2.2	What we know we don't know	260
8.2.3	What we don't know we don't know	262
8.2.4	Implication for Information Behaviour Studies	263
8.3	Information Seeking	266
8.3.1	The Social Status Locale	267
8.3.2	Collaborative Locale	271
8.3.3	Deliberative Locale	272
8.3.4	Collective Action Locale	274
8.3.5	Implications for Theory and Practice	275
8.4	Information Use	277
8.4.1	Use, Reduce, Re-use, and Dis-use	278
8.4.2	A case for information economics	279
8.4.3	Moving from "information policing" to information policies	281
8.4.2	Moving from "information mounting" to information management	282
8.5	Conclusion	282

CHAPTER NINE: CONCLUSIONS AND IMPLICATIONS

9.0	Introduction	285
9.1	Conclusion One: What are the information needs of development workers	285
9.2	Conclusion Two: What factors motivate these needs?	286
9.3	Conclusion Three: What is the status and function of information in their development projects and programmes?	286
9.4	Conclusion Four: What are their sources of information and what factors influence the selection of these sources?	287
9.5	Conclusion Five: What factors impede the information seeking efforts of development workers?	287
9.6	Conclusion Six: What specific factors need to be considered in the provision of an information service designed to meet the information needs of NGO development workers?	288
9.7	Conclusion Seven: What form should such an information service take?	289
9.8	Conclusion Eight: Who should have responsibility for the management of this service?	290
9.9	Limitations of this study	291
9.10	Further Research	291
9.11	Conclusion	292
	References and Bibliography	294

Appendices

Appendix 1	Letter of introduction and informed consent	325
Appendix 2	Background data questionnaire	326
Appendix 3	Interview schedule	327
Appendix 4	Information audit sheet	329
Appendix 5	Field observation log sheet	330
Appendix 6	Interview prompt cards	331
Appendix 7	Information audit resource list	336

	List of Figures	Page
Figure 2.1	- Timeline of approaches to development	11
Figure 3 1	- Wilson's revised general model of information behaviour	34
Figure 3 2	- The Global Aid Architecture	42
Figure 3 3	- An intervention model of micro-development	48
Figure 4 1	- Process of Data Analysis	91
Figure 5.1	- Uni-Modal Development Intervention Model	103
Figure 5 2	- Community Participation in Development	119
Figure 5.3	- The Rural Development Players	131
Figure 5.4	- NGO Development Wheel	133
Figure 5 5	- Information need of development workers	134
Figure 5 6	- Tacit knowledge	141
Figure 5 7	- Anecdotal Knowledge	142
Figure 5 8	- The five pillars of NGO motivation for information	150
Figure 5 9	- Information Need Continuum	150
Figure 5.10	- Information Sources of development workers	152
Figure 5.11	- Community Knowledge Farms	164
Figure 5 12	- NGO Information Source Attributes	182
Figure 5.13	- Information Challenges	183
Figure 5.14	- Inter-relation between context, information needs, sources & challenges	185
Fig. 6 1	- Field Observation Themes	191
Fig. 6 2	- Community Power Brokers	193
Fig. 6 3	- Community Development worker interaction	195
Fig. 6.4	- Community key informants	197
Fig. 6.5	- Community drawn local maps	198
Fig. 6 6	- Community information alliances	200
Fig 6.7	- Development worker government information exchange	202
Fig 6.8	- Knowledge flows North to South	204
Fig. 6 9	- Donor linkage and de-linkages	205
Fig. 6 10	- Rural road network	208
Fig 6.11	- The most reliable means of transport for rural development workers	209
Fig 6.12	- Sometimes it has to be by boat	210
Fig. 6 13	- The rural transport service used by development workers	210
Fig 6.14	- A model of social power positions on information behaviour	213
Figure 7.1	- The information audit cycle	214
Figure 7. 2	- A value chain perspective of information products	218
Figure 7 3	- Information containers	220
Figure 7 4	- The functional value of information products	224
Figure 7 5	- Information flow into ISODEC	225
Figure 7 6	- Identity of information producers	227

Figure 7.8	-	Collaborative information production	235
Figure 7.9	-	State of information products	242
Figure 7.10	-	The tale of three worlds	245
Figure 8.1	-	Intersection of Power Positions / Structures on NGO Info Behaviour	248
Figure 8.2	-	Modified version of Wilson's General Model of Info. Behaviour	257
Figure 8.3	-	Poly-motivated Information Need	258
Figure 8.4	-	Development information locales	267
Figure 8.5	-	Dimensions of information use	279
Figure 9.1	-	Knowledge Village and Information Pump-station (KVIP)	289

	List of Tables	Page
Table 2 1	- Number of receivers of television	24
Table 2.2	- ICT development in Africa	28
Table 2.3	- Telephone distribution in Ghana	30
Table 2.4	- Information infrastructure in Ghana	31
Table 5.1	- Activities associated with agriculture and food security	104
Table 5.2	- Health intervention	106
Table 5.3	- Water and Sanitation Activities	108
Table 5 4	- Education sponsorship and literacy promotion	111
Table 5.5	- Micro credit activities	113
Table 5.6	- Advocacy Activities	115
Table 5.7	- Community participation	117
Table 5.8	- Development partnerships	120
Table 5 9	- Areas of development activity	122
Table 5.10	- Educational background of development workers	124
Table 5.11	- Community Beliefs	127
Table 5.12	- Physical challenges in the rural environment	128
Table 5 13	- Communication challenges	129
Table 5.14	- Sociological information need	135
Table 5.15	- Cognitive information need	139
Table 5 16	- Work experience of development workers	141
Table 5.17	- District Assembly policies	144
Table 5 18	- Government Policies	145
Table 5.19	- Donor Policies	146
Table 5.20	- Solidarity spaces	154
Table 5.21	- Workshop Themes	160
Table 5.22	- Sources of information within government	168
Table 5 23	- NGO information sources	172
Table 5.24	- Organisational information products	174
Table 5 25	- ICT and media information sources	178
Table 6 1	- Community Social Positions	193
Table 6 2	- Motivation for information exchange	203
Table 7.1	- Types of Information Products	221
Table 7.2	- ICT Products	223
Table 7.3	- Patterns of information flow	229
Table 7.4	- Dimensions of development learning	237
Table 7.5	- ICT products found	241

List of Abbreviations

1. AHRTAG	-	Appropriate Health Resources and Technology Action Group
2. AISI	-	The African Information Society Initiative
3. BILFACU	-	Bimoba Literacy Farmers Co-operative Union
4. CBS	-	Community Based Register of event booklet
5. CEDEP	-	Centre for the Development of People
6. CENCOSAD	-	Centre for Community Studies, Action and Development
7. CBO	-	Community Based Organisation
8. CSO	-	Civil Society Organisations
9. CWSA	-	The Community water and Sanitation Agency
10. DFID	-	Department For International Development
11. ECA	-	Economic Commission for Africa
12. FRHP	-	Family Reproductive Health Programme
13. GAPVOD	-	Ghana Association of Private Voluntary Organisations in Development
14. GLSS	-	Ghana Living Standards Survey, with the fourth,
15. GSA	-	Government Statistical Agencies
16. GPRS	-	Ghana Poverty Reduction Strategy
17. HIPC	-	Highly Indebted Poor Country Initiative
18. ICRAF	-	International Centre for research in Agro Forestry
19. IDRC	-	International Development Research Centre
20. IEA	-	Institute of Economic Affairs
21. IEC	-	Information education & communication activities
22. IFAD	-	International Fund for Agricultural Development
23. ILO	-	International Labour Organisation
24. IMF	-	International Monetary Fund
25. ISODEC	-	Integrated Social Development Centre
26. ISSER	-	The Institute of Statistical Social and Economic Research
27. JSS	-	Junior Secondary School
28. KVIP	-	Knowledge Villages and Information pump-stations
29. LSMS	-	Living Standards Measurement Study (World Bank's)
30. NED	-	Northern Network for Education Development
31. NGND	-	Northern Ghana Network for Development
32. ODI	-	Overseas Development Institute
33. PAPADEV	-	Partners in Participatory Development
34. PENORUDAS	-	The People's Nnoboia and Rural Development Association
35. PRSP	-	Poverty Reduction Strategy Programmes/Papers
36. PADIS	-	Pan African Development Information Systems
37. RUWA	-	Rural Women's Association
38. RCPLA	-	Resource Centre for Participatory Learning and Action

39	SCF	-	Save the Children's Fund
40.	SDA	-	Social Dimensions of Adjustment project
41.	SME	-	Small and Medium Enterprises
42.	SARA	-	Support for Analysis and Research in Africa
43	STPA	-	Statistical Training Programme for Africa
44.	SSS	-	Senior Secondary School
45.	TIDA	-	Tiyumtaba Integrated Development Association
46	UNHSCP	-	The United Nations Household Survey Capability
47.	USAID	-	United States Agency For International Development
48	WATSAN	-	Water and Sanitation Network
49.	WEDC	-	Water, Engineering and Development Centre (Loughborough)
50.	WHO	-	World Health Organisation
51	YARO	-	Youth Action on Reproductive Order
52.	ZOVFA	-	Zuuri Organic Vegetable Farmers Association

CHAPTER ONE:

INTRODUCTION AND BACKGROUND TO THE STUDY.

1.0 Introduction.

This study is about the information behaviour of development workers working within the development space of Non-Governmental Organisations in Ghana. The study was motivated by two significant developments, both of which occurred at about the same time, in development studies and information science and which together provide some basis for marrying the two to inform discourse in both disciplines. The relevant changes within development studies will be considered first, before a discussion of developments in information science, to provide a context for the study.

1.1. Developments in Development Science

Within development studies, the last few decades has shown a significant rise in the number of Non Governmental Organisations (NGOs) involved in global development and growing interest in civil society as an organising development framework. This renewed interest in, and enthusiasm for, NGOs as development agents, can be traced back to historical changes that have occurred in the area of global development ideology dating from the 1980s. The 1980s brought an end to the Cold War and what was seen as a triumph of the market in the long standing debate regarding the role of the state verses market forces in development. Around this same time, gradual disillusion with the role of the state as an agent of development led to a rise in neo-liberalism and structural adjustment programmes (economic and political) in many developing countries, particularly in sub-Saharan Africa. The result of these adjustment programmes was the creation of spaces for civil society organisations, including NGOs, to enter the global development scene not only as forces of democracy but also as welfare service providers in areas where government was deemed no longer capable of providing services effectively. In many African countries, civil society organisations also became a mobilising force for various segments of the society to participate in socio-economic activities.

In countries like Ghana, where this study was located, these changes in global development strategy brought in its wake a wave of political upheavals and calls by

various segments of the society, particularly student groups, trade unions, and professional bodies, for political change and economic transformation. Around the same time donor interest in good governance and accountability led to a transition from military rule to multi-party democracy in 1992. The result of this transition was the creation of opportunities for associational life and for the participation of various segments of the society in the development process of the country. Consequently, there have been growing concerns about access to information as an enabling instrument for the effective participation of organised civil society groups in Ghana's development. Two major studies carried out in Ghana around 1999 attest to these concerns. In a major report on the state of Ghana's economy, released by The Institute of Statistical Social and Economic Research (2000, p. 156), the Institute observed as follows:

"One of the main challenges facing good governance in Ghana today, include amongst others creation of accountable and transparent civil society organisations with the capacity and pro-activeness to engage government constructively and to meaningfully participate in public policy formulation, implementation and monitoring. A pre-requisite for this, is to give civil society organisations *access to information* [emphasis added]".

In the same year as the above report was released, another major study carried out this time by The Institute of Economic Affairs on "The state of Governance in Ghana" also raised concerns about the fact that a significant majority of Ghanaians knew very little about what government does and did not receive enough information from government (Institute of Economic Affairs 2000, p. 30).

The identification by these two influential bodies of information as the missing link, which militates against the means for harnessing the creative potential of civil society organisations to participate in Ghana's development, is very significant. It is a view which is shared by many individuals and organisations across the globe. For example it has been noted by UNESCO (1997, p. 5) that "improved communication and information access is directly related to the social and economic development of a country which requires that people at all levels of society, including the organisations that they serve and represent have access to *critical information*" [emphasis added]. Like many African countries, the situation in Ghana today shows

that many NGOs operate in development environments where existing information infrastructure and institutions required to serve their information needs, are either absent or totally unreliable (Government of Ghana 2003). This situation is further aggravated by the absence of national information policies, mechanisms for accessing information, service standards for information provision and interconnectivity of fragmented information systems (Alemna 2000, Kumado 2000, Heeks 2002, Government of Ghana 1962). The result of this has been that many NGO development workers operate in environments which could metaphorically be described as “information drylands,” raising several questions about how they survive in such an environment, for example;

- i. What is the nature of information required by NGOs to carry out their development roles?
- ii. How do they find out about information in the absence of national information policies?
- iii. How do they gain access to information in the absence of information access mechanism?
- iv. To what extent do they gain co-operation from government information agents in the face of the anti-statist and advocacy role they are expected to play on behalf of the poor?

Clearly, the lack of knowledge about NGO development workers’ information behaviour requires investigation to establish an understanding of their information behaviour and how this might affect the design of suitable mechanisms to serve their information needs. There is a growing importance of NGOs in rural development work but this must be supported by adequate information.

1.2 Developments in Information Science

When we turn our attention to information science, a review of the literature (detailed in chapter two) shows that various changes have occurred over the years, both in emphasis and focus, in how the information needs of individuals and groups are studied. Around the 1980s when NGO entered the development arena, information science also witnessed a paradigmatic shift (Dervin and Nilan 1986) towards user centred studies as opposed to the systemic/library use studies which had dominated past research. In more recent times, user centred studies have seen an emphasis on research conceptualised as “human information behaviour studies”.

4
This approach takes a more holistic view of user information behaviour, emphasising contextual factors and other variables which are seen as a better predictor for human information behaviour (Vakkari et al. 1996). The interest in this new approach has resulted in a biennial global conference dubbed "Information Seeking in Context" (ISIC), and the publication of a journal called "The New Review of Information Behaviour Research" (NRIBR), both dedicated to the outburst of multi disciplinary research in this new area, which is reported to be showing the benefits of accumulated knowledge (Wilson 2000, p. 53), and leading to learning about the rich social texture surrounding people which impacts on their information seeking (Bates 2002, p. 1). Sadly, however, a careful analysis of discussions both within the ISIC conference and in the NRIBR journal shows that the majority of reported studies emanate from countries which could be described as "information rich" as opposed to "information poor", the latter characterised as an information environment where the information institutions and infrastructure needed for the performance of various task are unavailable (Feather 2004, p. 121). Very little is known in any systematic and comprehensive manner about the information behaviour of various segments of society from the rural regions of developing countries. The absence of studies from information poor countries clearly leaves a big gap in current discussions on human information behaviour which could potentially inform and enrich ongoing discussions both within ISIC and NRIBR. It is these two global developments i.e. the retreat of the state as a development agent and the emergence of NGOs as development players with consequence for access to information, as well as the relative lack of systematic studies in human information behaviour from a developing country perspective, which motivated the decision to extend the information behavioural studies into a completely different work environment, that of NGOs in rural Africa.

1.3 Justification of research

The developments discussed above in the arenas of both information science and development studies suggest that research into the information behaviour of NGOs would add to our knowledge and understanding of a hitherto neglected area. There are some further research imperatives. When information and rural development issues are discussed in Ghana today, it is difficult to find studies focussing specifically on the work of NGO development workers aimed at understanding their

information needs. Literature on development information tends to focus on community libraries and the information needs of community members. It is taken as given that NGO development workers will somehow find the information they need to inform their development interventions. It appears that the structural adjustment programmes of the 1980s focused more on the economic and political dimensions of adjustment with little consideration for the adjustment to information mechanisms and systems required to engender civil society participation in the development process. Thus, the rationale for focusing on NGO development workers as exemplar of members of civil society was influenced by the following factors:

- i. Firstly, that globally there is a growing interest in civil society and its intersection with development which, since the 1980s, has stimulated a growing body of empirical research and academic reflection (Howell and Pearce 2001, p. 4).
- ii. Secondly, that in Ghana today civil society is regarded as the institutional foundation upon which democracy depends for survival and sustenance and hence is worthy of investigation. (Institute of Economic Affairs 2000, p. vii)
- iii. Thirdly, that despite an appreciation of the important role that non-profit organisations play in the countries of Africa, and in the process of economic and political change, the sector remains dimly understood and that even the most basic descriptive information about these organisations – their size, their areas of activity, their geographic distribution, their sources of revenue and the legal and policy framework within which they work- is unavailable in any systematic way (Anheier and Salamon 1998, pp. 1-2).
- iv. Finally, that where such information exist this has been pre-occupied with the organisational environment within which the information systems are implemented, with little acknowledgement and attention paid to the wider social and cultural context in which they operate (Lewis and Madon 2004).

The study is located in the Northern region of Ghana which has a high concentration of NGO development activities. The choice of the Northern region was influenced by a number of factors including, amongst others, the historical marginalisation of the region and emerging evidence of increasing endemic poverty in the region. For example, when the Third Ghana Living Standards Survey is compared with the Fourth, the evidence shows that while poverty, both in absolute and relative terms, has decreased overall in Ghana, it continues to increase in the rural savannah regions of Northern Ghana (Ghana Statistical Service 2000; Kote-Nikoi 2001, p. 2). Secondly, the choice of this region can be justified on the grounds that it reflects the socio-economic character of members of civil society in Ghana especially people living in the rural regions of Ghana who account for about two-thirds of the country's population. Thirdly, this region was selected because it has one of the poorest information infrastructures in Ghana both in terms of ICT and institutions, as discussed in the next chapter.

1.4 Research Aim and Objectives.

Taking the aforementioned factors, the aim of the study was to investigate the information behaviour of NGO development workers in the Northern region of Ghana as exemplars of members of civil society. This aim was expressed in two objectives:

Objective One: To identify and analyse the information requirements of NGO development workers and to assess the extent to which the socio-economic environment in which they operate influences their information activities. This objective was operationalised into the following research questions:

- i. What are the information needs of NGO development workers?
- ii. What factors motivate these needs?
- iii. What is the status and function of information in their development projects and programmes?
- iv. What are their sources of information and what factors influence the selection of these sources?
- v. What factors impede their information seeking efforts?

Objective Two: To establish whether the information behaviour of development workers has implications for information services designed to meet their needs. If so, what are these? This objective was operationalised into the following research questions:

- i. What specific factors need to be considered in the provision of an information service designed to meet the information needs of NGO development workers?
- ii. What form should such an information service take?
- iii. Who should have responsibility for this?

1.5 Significance of the study

As indicated above, despite the burgeoning of studies in human information behaviour since the launch of ISIC, a careful analysis of reported studies show a pre-dominance of information behaviour experiences in 'developed countries'. Very little has been reported or known from the context of a 'developing country' a situation which leaves a huge gap in on-going discussions of human information behaviour. This study bridges this gap, providing insight into behaviour patterns from a setting which lacks all the luxuries of information, and communication technologies as pertains in developed countries and where, to many of its indigenous inhabitants, the notion of "websites" and "nets" taken for granted in many information rich countries may simply be regarded as the domain of spiders and fisher folk (Werner 1998, p. 7).

Secondly, whilst several studies on human information behaviour exist focusing on various communities e.g. academics, students, lawyers, health professionals, journalists, scientists etc. , it is difficult to find specific studies focusing on NGO development workers tied to an understanding of their information behaviour in a holistic way. This study thus provides insight into the information work-life of a relatively unexplored community within an information poor environment and adds to our knowledge and understanding of information behaviour in context.

1.6 Structure of the Thesis

The thesis is divided into ten main chapters with the following headings:

- i. *Chapter One: Introduction.*

This focuses on the background to the study and the historical antecedents which led to the carrying out of this study.

ii. *Chapter Two: The Information Environment of NGO Development Workers.*

This sets the context of the study by describing the information environment in Ghana and highlighting some of the current challenges that exist in the country which militate against civil society participation development activities.

iii. *Chapter Three: Literature Review*

This reviews the literature on human information behaviour around the model employed to guide this study.

iv. *Chapter Four: Research Design*

The design of the study is described in this chapter which also discusses the instruments used for data collection.

v. *Chapter Five: Interview Data Analysis*

This presents the analyses of data for the interviews.

vi. *Chapter Six: Field Observation Data analysis*

Data from field observation are analysed and presented in this chapter

vii. *Chapter Seven: Information Audit Data Presentation*

The findings of the information audit are reported here.

viii. *Chapter Eight: Discussion of Research Findings*

This discusses the findings to all three data collection instruments in relation to previous studies in information behaviour.

ix. *Chapter Nine: Study Conclusions*

The conclusions of the study are outlined and the wider implications of the study on human information behaviour are explained.

1.7 Definition of terms.

Several terms are used in this study. Since these terms can be understood differently, an attempt is made here to define the sense in which they were used in this study.

- i. *Information Behaviour:* All the strategies employed, and activities engaged in, and difficulties encountered, in order to acquire and use information in a rural development project and/or programme.

- ii. *Rural Development*: Activities aimed at raising or improving the living conditions or welfare of rural people including both service provision and empowerment activities.
- iii. *Rural Development worker*: A person working under the umbrella of a Non Governmental Organisation engaged in any of the activities outlined by the Ghana Association of Private Voluntary Organisations in Development (GAPVOD).
- iv. *Information*: Any activity that leads to the acquisition of *meaningful* information or “any difference that makes a difference” (Bateson 1972, cited by Case 2002, p. 40). Examples would include meetings, group-networking, interpersonal communication, listening to radio, television programmes, films, books, journals, newsletters or environmental stimulus.
- v. *Facets of information*: This refers to the various ways in which information is represented including data and knowledge.
- vi. *Civil Society*: This is used to refer to self-organising communities of common interest situated between the state, and business organisations. These include voluntary associations, non-profit organisations, socio-political movements, and other forms of social organisations driven by shared values and goals.

1.8. Conclusion

This chapter has highlighted the factors which motivated this study and the contextual drivers surrounding why this study was undertaken both within development studies and also within information science. It has also outlined the fundamental objectives and questions surrounding this piece of research. As stressed in this chapter, the context within which information behaviour takes place is now considered of utmost importance by researchers in the field. As a result the next chapter provides an outline of the information environment in Ghana and how this impacts on access to information by civil society groups such as NGOs.

CHAPTER TWO

INFORMATION ENVIRONMENT OF NGO DEVELOPMENT WORKERS

2.0 Introduction

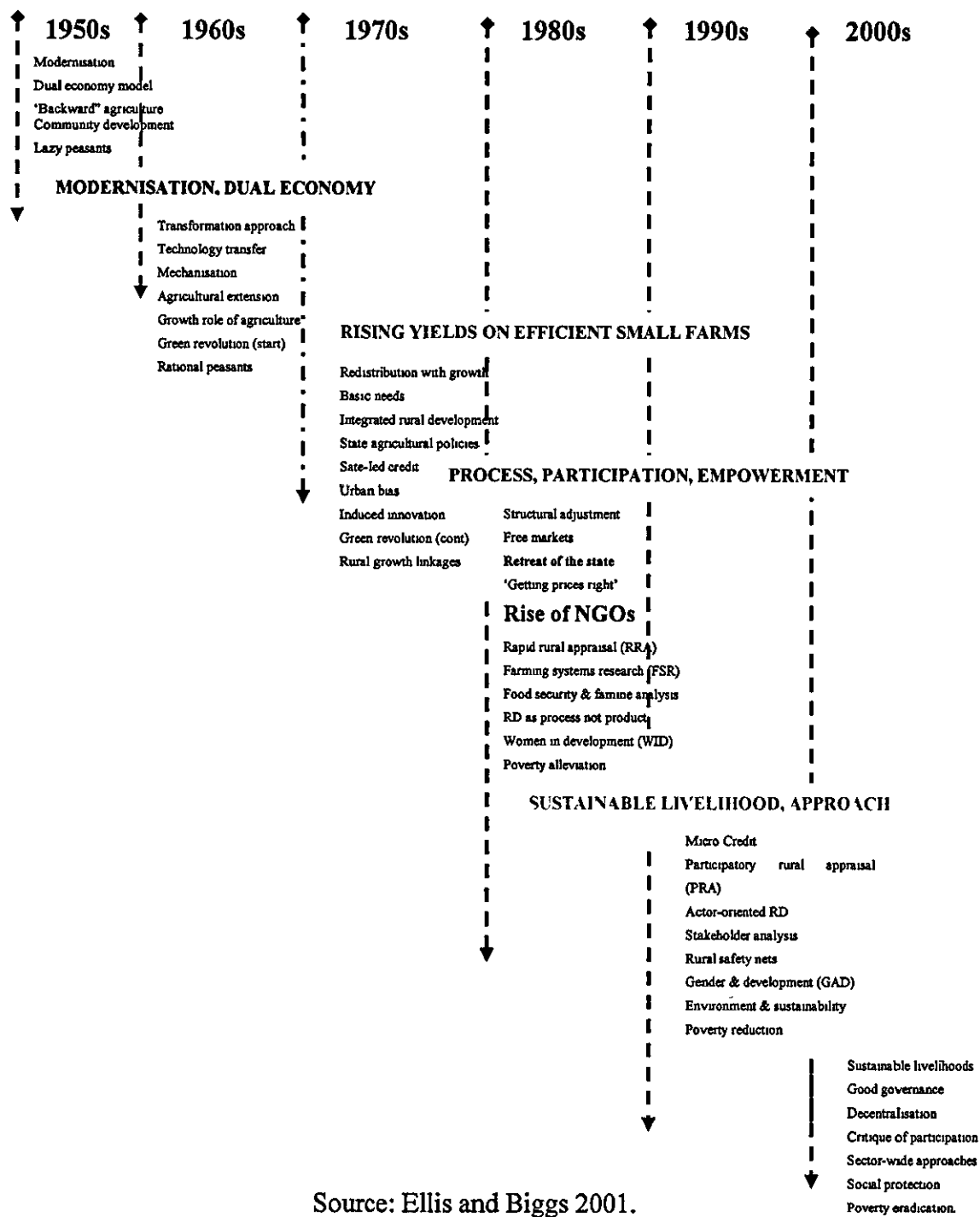
This chapter focuses mainly on the information environment of NGO development workers and is divided into two main sections. The first section sets the scene by providing a brief historical overview of development strategies and approaches which have underpinned global development ideologies in the past, aimed at tackling the phenomenon of poverty in developing countries. The second section shows how, in many ways, these various development thinking, and more significantly neo-liberal development policies (both economic and political) introduced into the country since 1980, have influenced the information environment prevailing in Ghana today.

2.1 Overview of Global Development Strategies and Implications for Information

The world has witnessed a number of development strategies targeted at improving the quality of life of people who are poor. The twenty-first century, in particular, has witnessed a global concerted effort aimed at eradicating the phenomenon of poverty both personal and community-wide poverty. In the past, these efforts were geared mainly towards the question of basic human needs such as food, shelter, and clothing. Today the world has shifted its attention towards poverty eradication and its associated variables of insecurity and powerlessness (IFAD 2001, p. 2), and also psychological poverty linked to self-esteem (Assenso-Okyere 2001). The global commitment to tackle this problem gave birth to the millennium development declarations of 2000 which is aimed at reducing the incidence of poverty by 2015 (United Nations 2000). All over the world today, especially in developing countries, Poverty Reduction Strategy Programmes/Papers (PRSP) have become central to the democratic and development agendas of many governments. Looking back at the various strategies which have been employed in the history of development studies aimed at dealing with the phenomenon of poverty, what emerges are various development models and frameworks tried with varying degrees of success. Principal amongst these models are the growth, modernisation, and neo-liberal development frameworks. More recently, emphasis has shifted to development

centred on human development (Brohman 1996, pp. 9-34). When these various approaches which have dominated development thinking are arranged in order of time of occurrence what emerges are various narratives and themes as shown in figure 2.1.

Figure 2.1. *Timeline of approaches to development*



Source: Ellis and Biggs 2001.

For our purpose, the period in 1980 when NGOs entered the rural development arena and the consequence of neo-liberal development philosophy linked to civil society participation, bottom-up development, and empowerment is significant in view of its impact on the information climate around the world, especially Ghana. Before exploration of the linkage between the neo-liberalist development approach and issues of information, it is important to take a short excursion back into Ghana's immediate past, and examine some of the development policies, especially economic growth, and how this laid the foundation for the present information environment existing in Ghana. This will set the context of where we have come from and thus help explain where the country is heading towards informationally.

2.2 Information environment in colonial and post-independence era.

There is no doubt amongst development planners that information is vital to human life and an important ingredient in rural development. Menou (1993, p. ix) has noted for example, that "logic dictates that information is an essential resource for social and economic development". Sturges (1998, p.18) has also observed that "relevant information is the key to the development of our communities and all development starts with information", whilst Pradervand (1980, p. 55) maintains that "information is the most basic of all basic human needs". If the above notions of the role information plays in development are accepted as valid, then it could be said that the history of Ghana with regards to the right of access to, and enjoyment of, information has been chequered, and in most cases designed to serve the economic and/or political interest of those who set development agendas rather than the masses.

During the days of British Colonial administration in Ghana, the primary motivation for developing information infrastructure was economic. This policy created two different nations in one, "southern Ghana" versus "northern Ghana", with northern Ghana mostly affected by the economic policies of the administration. The northern region of Ghana was incorporated by the British Colonial administration as a peripheral region known as the "protectorate" in an attempt to ward off other rival European economic interest, namely the French and German. The official attitude of the British to the people of Northern Ghana during the days of colonisation was that people of this region were only useful as soldiers,

policemen and labourers in mines and cocoa farms which were located in the south (Bening, 1990, p. 186). Compared to the capitalist/export regions of the south which were rich in cocoa and other minerals, the few economic attractions of the northern region meant that the region attracted very little social development, including the development of information institutions compared to their southern counterparts. This attitude motivated by economic interest, and underpinned by the philosophy "to whom that have much more will be given" is reflected in various statements made by some governors during this period. For example, Governor Hodgson is on record to have said that; "I would not at present spend upon the Northern territories – upon in fact the hinterland of the colony – a single penny more than is absolutely necessary for their suitable administration and the encouragement of the transit trade". Subsequent governors such as Thorburn were also to declare that "until the Colony and Ashanti have been thoroughly opened up and developed the Northern territories must be content to wait their turn" (Kimble 1963, pp. 533 & 534). The result of this policy was that development was concentrated in areas where resources could be tapped, a policy which also affected the way in which information infrastructure was developed across the country. Some few examples will serve to illustrate this point.

When we take road network, for example, which is considered vital for the movement of goods and services, one finds that the distribution of motorable roads across Ghana was uneven. The evidence shows that whilst most first class roads in the country were to be found in the southern part of the country, feeder roads, most of which were not officially regarded as motorable determined the economic and social fortunes of the people of the North (Dickson 1969). Consequently, the provision of library services through mobile and book box services to the north, which at the time was regarded as a major source of information, was greatly hampered by the treacherous, dusty and slippery roads on which they had to be carried (Evans 1964, p.14). Not surprisingly, library activities during this period of Ghana's history was concentrated mainly in the larger towns of the south e.g. Accra, Kumasi, Cape-Coast and Sekondi-Takoradi. In the area of broadcasting services, which can be regarded as an important media for the dissemination of development information, the evidence also shows that although broadcasting services were introduced in the country in 1935, broadcasting was carried out

mainly in the local dialects of the south namely Fanti, Twi, Ga, and Ewe with Hausa added much later although this language was not indigenous to the people of Northern Ghana. Whilst the official reason provided for the introduction of broadcasting services in the country was its potential for ending barriers of isolation and ignorance, in reality the service was reported to have been used to broadcast news about the war, a political move aimed at encouraging the populace to support the war. Little evidence exists to show that this was used for development education provision on agricultural techniques, health promotion, or for literacy and educational purposes. In the area of newspapers, one finds that majority of newspapers published during the days of British colonial administration were owned by educated elite in the south who used this as a tool for political agitation. Of the over 30 principal newspapers and periodicals published between 1930 - 1973 nearly all were located in the southern cities of Accra, Cape Coast and Kumasi (Jones-Quartey 1975, p. 112). Telecommunication and its adjunct postal services also had wide coverage along the coastal towns of the country (Adu-Boahen 2000, p. 100). An interesting dimension of the pattern of development in Ghana during the days of colonialism is the role played by religion. There is a certain strange development in Ghana to the effect that most southerners are mainly Christians and northerners Moslems. Strong suspicion amongst Moslem northerners that allowing Christian Missionaries to operate in the North would interfere with the Muslim religion greatly limited development of educational facilities, and its accompanying information and research services which were provided mainly by Christian missionaries. The consequence of the lack of access to education and information was reduced political leverage for the people of the northern region, something from which they could have benefited not only intellectually but also politically, as a bargaining tool for more development in their region.

Beyond independence, this pattern of development followed by the British appears to have continued. For example, the Council for Scientific and Industrial Research with its various institutes e.g. The Cocoa Research Institute, The Animal Research Institute, The Soil Research Institute, Water Research Institute, Food Research Institute, Forest Research Institute, was established to generate and apply innovative technologies for the socio-economic development of the country. All the institutes except one, The Savannah Agricultural Institute, were located in Accra

and Kumasi. The likelihood of extension agents working for the various institutes concentrating development information supply amongst mainly the rural population in the south cannot be ruled out. On the political front, post-independent Ghana witnessed socialist development orientation, followed by successive military dictatorships. The result of this command and control structure of political organisation was limited access to public information.

What this brief historical analysis has sought to do is show the way in which various variables, namely economic, religious, administrative and political, combined in an interrelated manner to create not simply glaringly economic disparities between the North and the South in Ghana, but also limited supply and access to information. The key question is what the post 1980 economic and political development offered so far as information is concerned. This is explored in the next section.

2.3 Post 1980 information environment in Ghana

The early 1980s witnessed the introduction of an Economic Recovery Programme (ERP) in Ghana driven mainly by the IMF and World Bank. The essential thrust of ERP was the emphasis it placed on privatisation, economic liberalisation and structural adjustment which saw the turning away from policies such as state intervention and centralised development planning. A cornerstone for this programme was decentralisation, which involved the establishment and transfer of political and administrative structures from central government to local government units. Toward the 1990s, development thinking shifted in favour of human centred development underpinned by various forms of partnership and participatory development. In tandem with the economic recovery programme introduced in 1980, multi-party democracy was also established in 1992 further creating spaces for associational life. These changes in the economic and political direction of the country had some profound influence on the information environment across the entire country and these are discussed under three main headings:

- i. Government information institutions
- ii. The media landscape and
- iii. Information and communication technology

2.3.1 Government information Institutions.

In many developing countries, development information is largely available from government departments or agencies who also determine how much information can be made available to the public, and the quality of such information in terms of accuracy and completeness. Before the period of structural adjustment in the 1980s, development planning was highly centralised and followed a top-down approach, an approach which made access to government information difficult as noted in the previous section. One of the essential features of the structural adjustment programme was the decentralisation of the political and administrative structures of government to bring them closer to the rural regions of the country. This entailed the establishment of District Assemblies and unit committees, and a restructuring of ministerial institutions and related powers and the allocation of resources to the district assemblies to promote not only co-ordinated development but also to provide technical and professional support at the local level. In theory, decentralisation both in terms of devolution of power and de-concentration of administrative structures can be viewed in a positive light, not least bringing government information institutions closer to the rural regions of Ghana where most NGO development workers operate. In practice, however, various problems emerged which continue to undermine public confidence and access to government information across the country.

All over the world, most governments have centralised departments and/or agencies responsible for collecting, analysing and disseminating statistical information. In many developing countries, especially sub-Saharan Africa, the performance of this function is carried out by government statistical agencies. Despite various initiatives aimed at supporting these agencies including for example The United Nations Household Survey Capability (UNHSCP), the World Bank's Living Standards Measurement Study (LSMS), and the statistical Training Programme for Africa (STPA) sponsored by the Economic Commission for Africa (Eele 1994), problems still exist which continue to undermine the ability of these agencies to provide information both to government departments and also to organised groups of civil society. These problems show up in the area of weak systems designed to effect knowledge transfer linked to poor communication between decentralised structures of government (Ayee 1994, p. 3; UNESCO 1997), fewer and weak information

institutions (World Bank 1999, p.72), and shortage of reliable databases for planning, as well as lack of requisite technologies to perform functions at the local level (Agyeman-Duah 2002). The result of the poor information management systems is that data on poverty levels, unemployment, farm outputs, diseases and the environment etc. is very difficult to come by. Sadly, one finds large volumes of qualitative development information and context relevant data residing within the offices of many government institutions in the form of reports, surveys and feasibility studies. The added difficulty is that there appears to be no institution in Ghana today with responsibility for pulling this stock of information together. Another dimension of the information problem within government departments is its bias towards the quantitative as opposed to disaggregated qualitative data which is more suited to the information needs of NGO development workers whose approach to development is bottom-up, targeted at specific poverty groups, and experimentation with unorthodox ideas. This latter point has created a gap between government data providers i.e. statistical agencies and data users i.e. members of civil society resulting in a situation where the information needed is not what is usually obtained (Davies 1994). Clearly, if development at the grass root is to be enhanced, it would require not merely mechanisms for information management and access but also intelligently presented information which is responsive to the preferences of members of civil society.

Closely following on the heels of information management and packaging is the issue of organisation and staffing within these government departments. It has been noted by some writers (Eele 1994) that the move by government away from direct participation in the large areas of the economy and the increased reliance on market mechanisms to allocate scarce resources, upon which neo-liberalism was founded, appeared not to have been matched by any corresponding change in the structure of organisations that collect and process data nor in the kinds of information they provided. In development literature when the issue of information is discussed, more often than not one finds that the structures that generate this type of information have generally been treated as given. This weak institutional foundation characteristic of many government departments in developing countries has resulted in a situation where little attention is given by government information institutions to the provision of information to non-government agencies and members of the

public whom they are also expected to serve. What this does is to limit their knowledge base and undermine the capacity of these groups to effectively participate in the development process. The problem of poor organisation of government departments is further compounded by weak staff capacity (Foster and Zormelo 2002) and poor staff attitude (Wallis 1989).

One of the main features of the Economic Recovery Process was the cutting down in size of staff in government ministries and the privatisation of formally owned state enterprises. It has been estimated that over 53,000 civil servants were made redundant by the second phase of the programme which ended in 1989 (Rothchild 1991, p. 9). The shortage of human resources and adequately qualified staff has created an additional institutional deficiency which continues to undermined availability and access to development information. The attitude of staff who work within this government environment is also ill-suited for information provision in terms of aloofness, poor motivation, lack of initiative and in some cases corruption, what is described by Chambers (1989, p.8) as "moonlighting" and "rent seeking". Many staff working for government agencies with responsibility for the supply of information see it as an opportunity for the display of power, which can take different forms such as "I am not responsible", "the person to provide the information is not around", "go and come another time". What this attitude and behaviour of staff does is to raise questions not simply about the human factor in information generation and transmission but also questions revolving around information policy.

In Ghana today, public access to information is greatly limited by the absence of information policy, defined by Oppenheim (1994, p.133) as "a series of decisions sometimes in the form of laws taken by a national government and designed to encourage better information infrastructure". The importance of an information policy in a country's development cannot be overstated. Besides helping to identify the information requirements of the country it also provides mechanisms which ensure that, whether through the efforts of people or that of their government, information which has been collected and stored by government agencies is supplied. Such a policy further helps to put in place a national information system which determines how information should be organised, what services should be

provided, and how this is to be done. According to Alemna (2000), a national information policy further serves as the basis for embracing the expansion of document holdings and collection of data that have been left to haphazard treatment, and ways of providing improved access to them through networking facilities, and standardisation both in terms of equipment and techniques for processing of information.

To give expression to the socio-economic benefits of an information policy for Ghana, Article 21 of the 1992 constitution provides a guarantee for freedom of information and envisaged that parliament would provide the necessary framework for the exercise of this freedom. Thirteen years on, this framework is yet to be put in place, a situation which is having debilitating effect on the information environment in Ghana. Legislative inaction has created a condition where access to information is denied by civil servants under the cover of the oath of secrecy and laws of confidentiality. The law related to oath of secrecy makes it an offence for public officials to give access to un-authorised information. Based on this, most public officers prefer to err on the side of caution and thus put a heavy lid on the most mundane piece of information rather than expose themselves to dismissal (Kumado 2000). What results from this is that permission for access to any piece of information has to go up several ladders before they are passed across to whoever needs it.

Currently there seem to be very little political commitment to change the situation. In view of the dangers associated with denial of access to information based on hierarchies, Davies (1994, p.12) has called for attention to be paid to how knowledge is used as a means for exercising power in developing countries. Her call is similar to what Marsden and Oakley (1990, p. 84) have referred to as the need for "democratisation of information flows". As noted by Killick and Abugre (2001, p. 29), the information problem in Ghana today is not simply one of availability but of continuity and accessibility based on demand. What could be added to this is that structural adjustment appears to have moved quickly without attention to the need for strong information institutions as an underpinning force. Its productionist approach, emphasising stimulation of the economy through increased production, created a situation where little attention was paid to the role of

information in the programme reflected, for example, in institutional information re-structuring. With a strong presence of central government which is reluctant to cede power and control, what structured adjustment may have achieved was a decongestion of government ministries but not devolution of power or de-concentration of information units from the centre to the peripheral.

Any discussion of institutions of government responsible for public information provision cannot be complete without a discussion of the role libraries are expected to play in the process. In many developing countries such as Ghana public libraries are expected to provide community information services to support the information needs of people in rural community. Whilst these services target largely the rural people, there seem to be some implicit assumption that rural development workers including NGOs also benefit from the use of these rural information services for their development projects. Whilst this assumption may be true to some extent, there is evidence to show that libraries come bottom on the list of sources used by development workers to inform their development interventions. For example, in a study of development workers in Borno State in Nigeria, Camble (1994) found that development workers rarely used libraries and/or librarians as sources of information. The reasons for this may not be far fetched; most of these libraries are plagued with problems common in most public library services in Africa including, amongst others, lack of funding, the low priority placed on development information by policy makers and shortage of trained staff (Kularatne 1997). In an international survey carried out by UNESCO and cited by Sturges (1998, p.25), the results showed that of the 55 countries and territories included under Africa only a few now produce books. In an overview study on the library and information research scene in West Africa, Alemna (1998) also found that of the 17 journal publishing initiatives that have been undertaken in Africa since 1954, only one, 'African Journal of Library Archives and Information Science' still runs regularly. This situation has prompted Sturges and Neil (1998, p. 24) to comment that "the book has failed to play a significant role in the social and cultural development of the African continent and its people". According to Dekutsey (1993, p. 67), "most Ghanaian regard a book as a commodity linked to the drudgery of school work...to be discarded as soon as one finishes school, and not as a commodity to be enjoyed like food".

Various factors such as multiplicity of language and dialects, short supply of machinery and spare parts, trade barriers and economic dependence leading to the supply of inappropriate foreign materials can be cited as some of the problems that inhibit a vibrant publishing industry to serve the needs of public libraries in Africa. Over the years, various suggestion of how the situation can be improved have been made such as targeting (Broadbent 1990), community involvement (Asamoah-Hassan 1997) and (Osei 1997), sustainability (Rosenberg 1993), relevance (Uhegbu 2001) and standardisation of rural information services (Adimorah 1994). In spite of this, development information best suited to the needs of members of civil society focusing on areas such as agriculture, health, the environment, water and sanitation have failed to sufficiently gain the attention of the public library systems. The failure to consider the information needs of civil society groups such as development workers, by the public libraries in Africa has prompted Tiamiyu (1989, p. 326) to strongly suggest that apart from the direct provision of library and information services to rural poor, there is also the need to provide development information to directly support the work of various development agencies. Whilst Tiamiyu's suggestion is valid in many respect, it is suggested that the information needs of rural development workers would be best served not simply in terms of expanding the information activities of libraries but also a rethinking of the entire philosophy of the African public library in terms of its purpose, mode of operation, services provided, target audience and the specific contribution it makes to the socio-economic development of the continent to make it an integral part of the global information society.

2.3.2 The media landscape in Ghana

The media landscape in Ghana presents yet another insight into the information environment in Ghana today. The work of Gadzepko (1998) would be drawn upon to show the current situation in Ghana. The word "media" is used in this context to refer primarily to radio, television and the print media. It is also used to refer to institutions involved in some way in news gathering activity in the Country. In Ghana, the introduction of political liberalisation in 1992 gave birth to multi-party democracy and also created a vibrant media landscape. Chapter 12 of the constitution is devoted to the freedom and independence of the media. As noted in the first section of this chapter, media activities in Ghana predate the 1992

constitution and go as far back as colonial days when broadcasting and print media flourished something which has carried on till today in various forms. Information institutions such as Ghana News Agency responsible for news gathering, and Ghana Film and Television Institute responsible for the production of films and documentaries have also existed alongside radio and print in the dissemination of socio-economic information across the country. There is no doubt that free and independent press and a high measure of media pluralism contributes to the political values of openness, accountability, and transparency in Ghana. A free press is evidently a countervailing force to dictatorship, abuse of power and corruption. Its informational role comes via the knowledge it makes available about government decisions, policies, programmes as well as the platform it provides for collective and critical discussion of government policies and where necessary putting forward alternative views for consideration by policy makers. Indeed, it is impossible to envisage a multi-party democratic system without a free press system. In Ghana, the history and prevailing culture of the media landscape has been one of state control and domination, sometimes through the promulgation of specific laws that serve this purpose. A good example of this was PNDC law 211 which was used to revoke the licences of many newspapers which were perceived to be anti-revolutionary during the days of the Rawlings revolution. Besides laws, sometimes control measures also occur through the back door based on appointment of specific persons to heads media institution, or the manipulation of the "system" regarding the appointment of editors to serve the propaganda agendas of government. Apologists for state domination of the media have proffered a number of reasons in support of why it is important for the state to maintain its hold on the media in Ghana (Gadzepko 1998, p. 4). This has included reasons such as political stability, national unity, national security, and harnessing resources towards the development goals of the country. Nevertheless, there has been a great transformation from the culture of silence which existed in the country prior to the introduction of multi party democracy in the country in 1992. There is a prevailing sense in Ghana today that a free and independent press exists with the capacity to debate and challenge government on various issues. Notwithstanding this, various problems and challenges still exist which continue to undermine the flow of information to members of civil society in Ghana. Three areas will be explored to illustrate how

some of these challenges occur and their implications for development activities in many parts of the country.

When one looks on the media landscape today, there is a proliferation of radio stations across the country both government and independent-private owned. What is termed FM radio stations can be found across the ten regions of Ghana made possible by provisions in the constitution which allowed the setting up of the National Communications Authority to grant licences for the operation of private radio stations. The importance of radio as a medium for communicating development information to members of the public cannot be overstated. Radio has particular characteristics which make it an attractive medium. Its potential to cover wide areas of the country, ability to overcome the language barrier by broadcasting in different dialects, its affordability, non-dependence on electrical power supply and its oral appeal make it one of the most important mediums for development communication. Despite its proliferation in Ghana, a careful analysis of the radio scene reveals several problems. The majority of the FM stations both government and local can be found mainly in the urban areas of the country. For example in Accra most of the major FM stations such as JOY FM, Choice FM, Radio Gold, ADOM FM all operate in the capital city. In Kumasi, Radio Mercury, Luv FM, Kapital Radio and FOX FM, to name but a few, also operate in the capital of the city. Despite their potential to cover wide areas, the coverage transmission of some of these private broadcast stations is limited, averaging between 60-100kms (Ghana Home Page). The business attitude of these various radio stations also means that they dwell more on marketing and promotion activities to the detriment of development oriented news and information in the areas of health, education, water and sanitation, and the environment. Judging from the advocacy and educational role of most NGOs, radio would have been best suited for some of these activities. Unfortunately, one is yet to find a private non-profit radio stations in Ghana that serves the development information needs of rural development agents.

When we examine government news gathering agencies, we find that perennial cuts in government subvention to institutions such as Ghana News Agency, the main news gathering body in Ghana, has forced it to curtail some of its news gathering activities, a situation which clearly debilitates against the dissemination of

development information. A survey by the Centre for Democracy and Development (1999, p.1) in Ghana, reported that the greater majority of Ghanaians depend on radio as their main source of information about government programmes. If one considers this finding, then the potential danger to the Ghanaian public of a limited radio broadcast system in terms of spread, content, interest and purpose becomes clear. Mchombu (2001) has demonstrated in a development information symposium organised in 2000, how satellite-driven digital radios have been used to provide educational and social development programmes from NGOs to rural and isolated communities. What this example serves to confirm vis-à-vis Ghana's current situation is that a balance needs to be struck between public broadcast that serves to nurture and develop society, and commercial broadcast motivated by big business.

When one takes a look at television, this is even more narrowly available, compared to its counterpart the radio, a situation which appears to be true of many other African countries. In fact, Ghana looks good by comparison. Statistics from UNESCO show that in 1997 the number of receivers of television per thousand (1000) inhabitants in some sub-Saharan African countries were as follows (UNESCO Institute of Statistics 1999):

Table 2 1. *Number of receivers of television*

Country	Number of receivers of television per thousand (1000) inhabitants
Burkina Fasso	9.1
Cameroon	32
Cote d'Ivoire	64
Gambia	3 6
Ghana	93
Nigeria	66
Senegal	41
Togo	17

Despite Ghana's better penetration compared to other African countries, state television broadcast in Ghana is plagued with problems in terms of spread, content of programme broadcasts, and a widely held perspective of government control. The question of government control requires some comment. Unlike its counterpart

the radio, the capital outlay needed to set up and run television stations is huge. What this has meant is that state television broadcast continues to be supported and dominated by government. The result is that development news on television is treated as reporting news about the Head of State and his ministers and officials. This has succeeded in turning television broadcasts into a kind of public relations agency of government, thus raising questions about credibility and impartiality. Another potentially limiting factor in television broadcast in Ghana is the question of payment of TV license fees. Whilst there is no doubt about the value of this for improved programme broadcast, the income level of many people in rural areas means that amount charged still remains a huge burden thus creating a situation of limitation based on affordability. When we turn to private television broadcast, this appears to have witnessed some improvement in Ghana. Structural adjustment programme linked to privatisation led to a divestiture of the Ghana Film and Televisions Institute which led to the introduction of commercial television into the country. Despite the competition this has generated, the profit motives of private television broadcast has created a situation where its programmes have become focused on entertainment. Metro Television one of the commercial television stations in Ghana, devotes much of its air time to the broadcast of foreign entertainment. The consequence of this is that the amount of programme content devoted to social development issues is very limited. The additional question this raises is what Gadzekpo (1998, p. 26) has called "cultural imperialism". In Ghana today a reasonable proportion of foreign programmes shown on TV channels are foreign including for example CNN and BBC World News. Whilst this may be interpreted by some as Ghana coming of age and plugging into the information society, the fact cannot be ignored that this is creating a kind of citizen in Ghana who knows more about the development conditions in other countries rather than conditions in their own. Psychologically what this is leading to is civil society more likely to take less interest in events around them, a mind set which undermines the development process in Ghana.

The print media presents yet another dimension of the information scenario in Ghana. Alongside state newspapers such as the Daily Graphic and Ghanaian Times which has a wider spread, many private newspapers also abound in Ghana today thanks to liberalisation, many of which devote their space to debate on public policy

and issues regarding development. Despite these developments there is a perception in Ghana today that state newspapers are uncritical of government due to job insecurity, with articles and news continuing to pander to the interest of a ruling party rather than providing a balance and objective assessment of the relevance of government policies vis-à-vis national development needs. The constitutional provision setting up the National Media Commission, and the divestiture of the two state owned newspapers - The Daily Graphic and Ghanaian Times- which was meant to insulate the state media against government control appears not to have achieved the desired effect. Gadzekpo (1998, p. 10) has drawn attention to the perception in Ghana of government influencing appointment of Editors of state owned newspapers, and the widely held view of stories and editorials planted from the seat of government. By highlighting these problems it is not presumed that these perceptions themselves make the state media unreliable for dissemination of information. The point being made is that if these perceptions are true then clearly they pose a serious threat to Ghana's nascent democracy. In the case of privately owned newspapers, the major challenge which continues to engage the attention of many is the business interest and profit motives of these papers. The result is that these papers tend to focus on sensational news linked to corruption and abuse of power neglecting their major development responsibilities on social issues relating to health, literacy, and general education.

If control and manipulation is the corrupting influence in the state own media it could be argued that business and profit motives have become the corrupting influence in the private press. Some private newspapers also lack properly trained journalists, and are seriously under-financed. The consequence of this has been poor investigative journalism, and limited circulation of these papers mainly in urban areas. Unfortunately only one private newspaper exists in Ghana today which serves as the mouth piece of development oriented civil society groups or organisations – The Public Agenda. Perhaps it is time for development workers to bridge the news gap between the political rhetoric of the state press, and the commercial sensational news churned out by the private press with a publication of a development focused newspaper. The bottom-up orientation of NGOs in terms of development strategy, the advocacy role they take up as mouth piece for the voiceless, their commitment to the well-being of the rural poor without seemingly

profit motives, their ability to undertake people-centred research which better articulates rural reality, and their capacity to learning through application of experience all demand that they develop for themselves a mouth piece which expresses these core values and which serves as the basis for challenging the existing state/market divide.

2.3.3 Information and Communication Technology

The importance of information communication technologies to a globalising world is a fact appreciated by most governments of the world. The marriage of the computer to telecommunication carrying content (information and data) shared amongst countries across the entire globe has completely revolutionised our world and transformed the ways in which information is shared and used amongst various people. According to Thapisa (2000) the aim of this global information system, heavily dependent on good National Information Infrastructure, is to impact on such important areas as access to information, freedom of expression and opinion, universal literacy and lifelong learning. Stilwell (2001, p.206) quoting Du Toit, has noted that “if the central objective of sustainable, people-driven development is to increase the capacity of people, communities, and institutions, then information and communication systems are crucially important”. On the African continent today it is not un-common to find both traditional ICTs e.g. computers, fixed telephone lines, and radios; as well as new ICTs such as email, internet, mobile phones, and wireless technologies being employed in many areas to accelerate the development of the continent (IDRC 2003). Despite its potential to support various area of life of the citizenry, (Mchombu (2001) has for example reported in a symposium how the internet was used as a warning system for ‘El Nino rains in Somalia in 1997/8 saving both human life and livestock), ICT infrastructure on the continent of Africa is still a worrying issue. Concern for addressing some of the challenges facing the continent has led to various initiatives. For example, the Pan African Development Information Systems (PADIS) was established in 1980 to act as a conduit for development information and data for development on the African continent. In 1995, The African Information Society Initiative (AISII) was also established to act as an action framework for building ICT in Africa and to accelerate its development (Economic Commission of Africa 1999). Many donor agencies have also provided various development assistance to help improve the situation. In spite of all these

laudable initiatives, evidence shows that many problems still abound in many African countries which greatly hinder the effective use of ICT for the socio-economic development of the continent. A look at some of the traditional and new information and communication technologies on the continent in terms of the number of people who have access to it will serve to illustrate the point about the state of ICT on the continent. The Telecommunication Development Bureau (BDT) of the International Telecommunication Union (ITU) has provided the following statistics about the state of ICT of the continent of Africa.

Table 2 2

ICT development in Africa

REGION	POPULATION	MAIN TELEPHONE LINES		MOBILE SUBSCRIBERS		INTERNET USERS	
	000s	000s	p. 100	000s	p. 100	000s	p. 100
North Africa	147,495	14,151	9.6	16,455	11.2	4,890	3.3
South Africa	46,365	4,800	10.4	16,860	36.4	3,300	7.1
Sub-Saharan Africa	647,686	6230	1.0	18,363	2.8	5,667	0.9

Source: Telecommunication Development Bureau (BDT), International Telecommunication Union (ITU) 2003

It is evident from the above table that, compared to other regions in Africa, sub-Saharan Africa including Ghana lies behind the whole of Africa in many areas of ICT services. The ICT problem in sub-Saharan Africa has been attributed to factors such as the absence of National Information Policies (discussed earlier) which are seen as a determining factor in setting up the underlying supporting infrastructure for enhancing the optimal use of ICT. The consequence of poor ICT infrastructure in a globalised world cannot be overstated. Stone (1993) has, for example, reported how a computer conference to assess the impact of information on development, excluded a number of potential participants based in parts of the world, including many countries in Africa. When one considers other challenges linked to unreliable power supply, lack of spare parts and also qualified technicians then the magnitude of the problem is further appreciated.

When we look specifically at the situation in Ghana, efforts aimed at developing and improving ICT led to a privatisation in 1996 of the telecommunication sector opening up the market for competition. Today there are four main players on the Telecommunication front namely Ghana Telecom, the major service provider who

provides over 70% of the telephone lines in the country (Ghana Home Page), Western Telesystems, the major competitor to Ghana Telecom, Capital Telecom licensed to provide rural telecom service, and finally liberalised value added service providers which include mobile cellular operators, Internet Service Providers, and public pager companies. Whilst significant improvement has taken place over the last decade in fixed network and cellular / mobile network services across the country, many challenges still remain which hinder development communication activities especially in the rural areas. These challenges have been analysed by Soderberg, Jensen and Sintim-Misa, (2003) in a report produced for the International Financial Corporation. In this report, they describe the efforts of the government of Ghana over the years to expand ICT infrastructure, develop policy and regulatory frameworks, and embark on various initiatives to promote ICT and also develop the human resource capacity in the country. Despite these seemingly laudable efforts, it is noted in the report that distribution of telephone lines in Ghana is highly skewed towards the urban areas with about 55% of all telephone lines found in the Accra regions despite the fact that close to 70% of Ghanaians live in rural areas. According to the report efforts at addressing the rural problem through a wholly owned Ghanaian telecom company has ended up with the provision of facilities mostly in district capitals and semi urban areas.

In respect of mobile communication, whilst reporting improvements in, for example, major mobile service providers, with a subscription base of 531,300; Soderberg, Jensen and Sintim-Misa, (2003) point to the extraordinary levels of patience sometimes required to get calls through on mobile phones in the country. It is not un-common in Ghana today for mobile phone subscribers to intentionally dial their own mobile phones only to be told that they had either switched off their phones or were out of coverage area when the phones were right in their hands. Unfortunately, alternative technologies such as wireless messaging do not appear to have gained the attention of development planners in the country. Another related factor is the problem of cost of access linked to the notion of commoditisation of information and the new institutional thinking which sees information as a private good and as an instrument of economic transaction (Davies 1994, p. 8).

Despite these problems, positive developments in Ghana today can be found in what is referred too variously as “Information Centres” or “Cyber cafes” common across many parts of the country providing various services for which charges are made. This includes accessing the internet, making calls, photocopying, fax and word processing services. In some areas of the country which includes the Northern region, however, where information infrastructure is limited, availability and access to these information services are limited, due both to physical barriers of access resulting from the distance one has to travel to these call centres, and also psychological access linked to slowness of the internet. A cursory look at telephone distribution in the country reinforces the point.

Table 2.3 *Telephone distribution in Ghana*

Region	Pay Phones	1997	1998	1999	2000
G. Accra	1,450	68,933	93,390	109,533	127,000
Ashanti	633	12,846	17,172	18,648	22,462
Western	335	5,024	6,048	8,270	12,153
Eastern	212	3,853	4,921	6,503	7,174
Central	120	3,546	4,100	4,842	5,629
B. Ahafo	82	1,791	1,808	3,455	5,275
Volta	81	1,711	1,783	2,001	3,441
Northern	100	1,804	2,083	2,369	4,498
U. East	100	823	992	1,757	2,708
U. West	53	601	1,000	1,020	1,040
National	3,166	100,932	133,396	158,398	191,380

Source: Institute of Statistical Social and Economic Research 2001. pp 133.

It is evident from the above table that the Northern region lies behind many regions in the country in terms of the spread of telephone services with a teledensity of approximately 1:400. This has serious implications not simple for the economic development of the region but also for development communication activities. When the overall picture of the information environment in Ghana is put together, the World Bank has provided statistics which show the following:

Table 2 4

Information infrastructure in Ghana

Newspaper per 1000 people – 1996	14
Radio per 1000 people – 1997	238
TV per 1000 people – 1998	99
Telephone Mainline per 1000 people – 1998	8
Mobile Phones per 1000 people – 1998	1
Personal Computers per 1000 people – 1998	1.6
Internet host per 10,000 (Jan 2000)	0 06

Source. The World Bank World Development Report 2000/2001

2.4 Conclusion

This chapter has demonstrated the dearth of information infrastructure across the country in Ghana. It is clear from the picture painted that a lot still remains to be done to improve the information environment in Ghana in the areas of information policy, improvement in infrastructure especially in the rural areas, mechanisms for information creation and processing, systems for information storage and management, and a network for information transmission and sharing. But, as cautioned by Tiamiyu (1989, p. 325) “what is required is a communication system that African information professionals and users can understand, maintain, nurture, develop and ultimately internalise” to accelerate the development agenda. In the next chapter, the literature on human information behaviour is reviewed and how the socio-economic context of countries such as Ghana provide other perspective from which human information behaviour can be viewed is demonstrated.

CHAPTER THREE

USER INFORMATION BEHAVIOUR STUDIES

3.0 Introduction

This chapter reviews the literature on human information behaviour. Because of the huge amount of literature that exists on this subject, traced back to the beginning of the twentieth century (Wilson 1994, p. 17), it is impossible to cover all of it in this review. What is presented here is a snapshot of the worldview on human information studies, focusing on aspects directly related to the research questions of this thesis.

The chapter is divided into six main sections. Section one provides an outline of Wilson's model which was employed to guide this study. The subsequent sections which follow thereafter provide a more detailed explanation of the core elements of Wilson's model of relevance to this study, supported with literature from both user centred information studies and development studies. Thus, section two discusses the notion of "context" and human information behaviour and put forward alternative ways of looking at the notion of "context" when applied to NGO development workers. The third section focuses on the concept of "information need" and the factors which are seen as motivating human information need. The underlining motivations for NGO information needs are also discussed. Section four outlines the various information sources and channels used in the quest for information. Emphasis is placed on social information systems and a case made for other social information sources which have gained little attention from information behavioural scientist. Challenges involved in dealing with information sources are discussed in section five. The last and final section looks at attempts made by some writers to synthesise the overall processes involved in human information behaviour. The applicability of their frameworks to NGO development work environments in general, and Ghana in particular, is questioned.

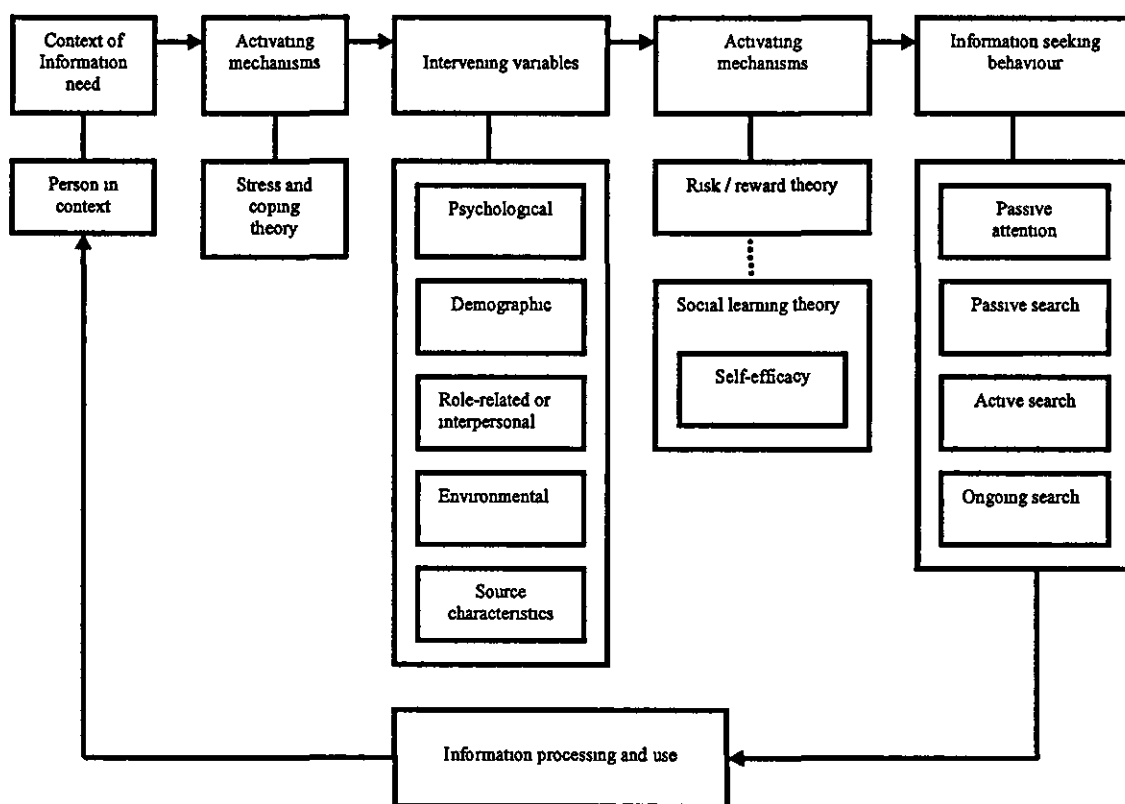
3.1 Wilson's General Model of Information Behaviour.

Since the 1980s when a shift in paradigm was reported towards user centred studies (Dervin and Nilan 1986), various attempts have been made to capture the essence and main features of what is described today as information behaviour studies.

Some have attempted this through definitions. For example, Pettigrew et al. (2001, p. 44) has defined information behaviour as “the study of how people need, seek, give and use information in different contexts, including the workplace and everyday living”. Taylor (1991, p.221) likes to think of the term as “the sum of activities through which information becomes useful”. According to Wilson (2000, p.49) information behaviour is “the totality of human behaviour in relation to sources and channels of information, including both active and passive information seeking and information use”. Besides attempts to define what human information behaviour constitutes, when the literature on user information behaviour is examined today it is clear that various models and frameworks have also emerged, all of which seek to conceptualise the processes and dimensions involved in human information behaviour. The models, of Belkin (1982), Dervin (1983), Kulthau (1991), Ellis, Cox and Hall (1993), Ingwersen (1996) Leckie (1996) Wilson (1996) Wilson (2000) and Bates (2002) are but a few examples of the models one could find on human information behaviour. In this thesis, Wilson’s 1996 model was employed to guide the study principally because of its general applicability and its relevance to the objectives of this study. Besides this, Wilson’s model was also found to be heavily informed by analytical concepts and theories in other disciplines namely consumer behaviour, innovation research, health communication studies, organisational decision making and systems design which in many ways have a bearing on the activities engaged in by development workers. Furthermore, Wilson’s model attempts to capture what could be described as the core elements of human information behaviour, including the *context* of needing information i.e. the circumstances or situation that give rise to information-seeking behaviour; emphasis on *activating mechanisms* linked to stress, coping strategies and risk and reward factors; consideration for *intervening variables* (barriers) such as personal, social, economic, and environmental variables; the dimensions of *information seeking* including its passive, active and ongoing dimensions; and finally a discussion of *information processing* and *use* involving acts of learning and decision making. These various dimensions of the model have a direct link to the research questions which were put forward at the beginning of this study. The elements of Wilson’s model are captured below.

Figure 31.

Wilson's revised general model of information behaviour.



Source: Wilson 1996

As is evident from the above, the model begins with what Wilson's calls person-in-context who makes a decision to seek information, the stress created by the need and the desire to cope with the knowledge gap serves as an activating mechanism which drives them towards an information source. However, as Wilson explains the characteristics of the information source may constitute a barrier either to information seeking or processing. A further activating mechanism occurs when the individual weighs the risk / reward, the social learning and personal self-efficacy as crucial factors in determining whether or not to pursue the need for information. The information seeking itself may occur in different mode i.e. actively, passively or in an ongoing manner. Once information is acquired it is processed linked back to the need arousing situation of the person in context.

Notwithstanding the suitability of Wilson's model to the objectives of this study it is argued that, because Wilson's model places emphasis on the individual, many of the elements of the model are developed at a rather micro level thus failing to

engage adequately with macro factors of significance to human information behaviour. Also, because the model is developed from an information rich environment, behaviour dimensions which are likely to be influenced by conditions prevalent in information poor countries do not seem to be adequately addressed by the model. For example, although the *context* that motivates the need for information is captured by the model, not very much is said about contextual factors rooted within specific socio-economic environments which are likely to define or shape information behaviour. In relation to this point, it is also noted that whilst Wilson's model outlines the various impediments or barriers that are likely to be encountered in pursuit of information, environmental impediment is only expressed in terms of time, geography and national cultures without adequate consideration for other environmental factors such the physical environment and challenges resulting from the absence and/or limitations of information and communication technologies and infrastructure as noted in the previous chapter. Wilson's treatment of source characteristics also fails to capture sources embedded within indigenous knowledge and social systems whose mode of organisation and medium of communication are likely to affect access to information. Furthermore, when we consider Wilson's explication of information seeking, this is expressed mainly in terms of effort expended e.g. passive or active seeking without due attention to, for example, pre-determined information behaviour and information behaviour of an ethical character. There is also a presumption in the word *seeking* as suggesting separation between the source of information and the user of the information without due attention to the co-generation of what is deemed to be *information*. In relation to this last point there is a lack of emphasis by the model on social norms, wider social drivers and information behaviour such as sharing. Lastly, whilst Wilson's model attends to the question of information use, something which other writers rarely pay attention to, this appears to be discussed mainly in terms of *immediate use* or current value. Very little is said about future value and the possibility of long term use of information. These issues are explored in the sections that follow looking at the wider literature on human information vis-à-vis the work carried out by NGO development workers.

3.2 "Context" and human information behaviour.

One of the hallmarks of human information behaviour study is the interest it takes in contextual factors and how they influence the information behaviour process. Contextual factors are regarded as "an influencing force and a better predictor of information needs and uses" (Chang and Lee 2001, p. 29), "constitute frames of reference for the information behaviour of individuals" (Vakkari et al. 1996, p. 8), "affects the flow and use of information and determines the criteria by which the value of information are judged" (Taylor 1993, p.178). Despite its importance to information behaviour studies, when attempts are made to explicate what the attributes of *context* are, one finds in the literature on information behaviour definitions and conceptualisations so varied and diverse, both in meaning and perspectives, that some writers like Dervin (1997) have labelled the term "the unruly beast" and "site of struggle". The various perspectives which fall under this concept include, "place", "time", "goals", "task", "system", "situations", "processes", "organisations" and "types of participants" (Sonnenwald 1999). Other dimensions have been added by (Chang & Lee 2001) such as "access" "cognition", "problem" "roles" "rules" and "settings". Context has also been used to describe everyday living condition (Chatman 2000; Spink et al 1999; and Savolainen 1995) individuals interacting with an information system (Saracevic 1996; Belkin 1982; and Ingwersen 1996), and a work environment (Bystrom & Jarvelin 1995; Algon 1997; and Berrel M. Wright P. and Hoa TT. 1999). In respect of work environment, which is of particular interest to this study, specific types of influences have been noted by various writers in relation to specific disciplines. For example, the information behaviour of journalists in a digital work environment has been found to be influenced by "lack of time" and the nature of different types of journalistic task (Fabritius 1999), the behaviour of auditors has been found to be influenced by task initiation, focus formulation, formulation of ideas and passing on ideas (Wai-yi 1998), those of people working in project groups has been found to be influenced by the nature of the task at hand; the role of individuals in work planning; and what constituted appropriate sources (Solomon 1999), those of Chief Executive Officers in companies were found to be influenced by agendas, and issue management (Keane 1999), whilst securities analysts have been found to be influenced by uncertainty and experience (Kuhlthau 1996).

A careful look at the appropriation of the term context to these various work environments reveal characteristics about these work professions which differ in many ways from those of NGO development workers and which thus limit the understanding one gains when the term is applied to the context of NGO work. Compared to the work of NGOs, most of these work professions follow strictly formal, as opposed to largely informal procedures; they have relatively well developed underlining principles going back several years as opposed to a work profession which is emerging and evolving; they are driven more by business gains or surpluses as opposed to a work of a charitable character aimed at tackling conditions of poverty; and finally, they employ information/knowledge as a tool for competition as opposed to the use of knowledge as an instrument of social empowerment and advocacy. The point being made here is that when one examines the origins, nature and location of NGO development work, additional perspectives on the subject of "context" can be found which has the potential to influence their information behaviour, but which has not sufficiently gained the attention of information behaviour studies. Specifically, and based on the literature from development science, two contextual factors can be identified which have the potential to significantly impact on the information behaviour of NGO development workers. These are context as a "development identity", and context as an "approach to work". Each of these is discussed drawing on literature from the NGO field.

3.2.1 Context as "development identity".

Identity is the distinguishing characteristics a person or group of people possess which tells us who they are and what is meaningful to them. Social identity as distinguished from self-identity provides us with a marker that indicate the collective and shared identity of a group of people predicated on a set of common goals, values or experience which form an important basis for their actions and from which they draw energy and motivation (Giddens 2001, p. 29). In this thesis, this collective or shared identity is organized around rural development. It is argued here that the *development identity* carried by NGO development workers has the potential of influencing how they behave towards information and therefore their information behaviour. This can be gleaned from the factors that gave rise to their involvement in development activities, the values they uphold and the collective

world-view they share. This identity is multiple as opposed to single, and is evident in the roles they take on as service providers, as agents of social empowerment and also as advocates on behalf of the poor.

Being Non-Governmental would suggest that NGOs are in theory different in meaningful ways and possess unique characteristics from the other agents involved in development activities, namely government and market agencies, notwithstanding the fact that they share some common characteristics with these two sectors. NGOs were brought into the development arena based primarily on disillusion among donors in the ability of governments to successfully tackle problems of poverty. This was due in part to bureaucratic, inefficient and corruption tendencies within many of these governments especially in some African countries. Beyond this, the attractions of privatisation and the change in development thinking towards an emphasis on human development as opposed to merely economic development provided additional grounds for the emergence of powerful social voices that demanded recognition and involvement in the development process (Lewis and Madon 2004; UNDP 1990; Fowler 1992; Meyer 1999; and Howell and Pearce 2001). This *reversal in development ideology* as Chambers (1989) refers to it, also meant that unlike governments, NGOs came to possess unique qualities and displayed a set of values which in many ways influenced how they approached development. For example, unlike governments, which are required to provide development everywhere, follow a top-down approach to development, operate through bureaucracies, and take decisions guided by policies and regulations, the character of NGOs reflected in their smallness, associationalism, voluntarism, altruistic intentions, and bottom up development orientation meant that their approach to development was different to that of governments. These differences have been identified as including the following:

- i. Target their assistance to chosen groups of poor people
- ii. Obtain a true and meaningful participation of intended beneficiaries;
- iii. Achieve correct relationship between processes and outcomes;
- iv. More flexible and responsive in their work;
- v. Work with and strengthen local institutions;
- vi. Achieve outcomes at less cost
- vii. Ability and preparedness to experiment with unorthodox ideas

- viii. Ability to undertake people-centred research
- ix. Faster learning through application of experience.
- x. Better able to articulate rural reality. (Fowler 1988, p. 8)

The effect of this on their attitude to information is significant. For example, their interest in people centred development as opposed to merely economic development means that they tend to take interest in qualitative information reflecting the living conditions of people who are the target of their interest. Their concentration on just a few activities relating to the needs of the poor means that they tend to take an interest in micro level information. Furthermore, because of their closeness to concentrations of poverty in remote areas, there is a tendency towards engaging with information institutions at the local level. Again, because they are less subject to the straitjacket of bureaucratic authority, they tend to have short lines of communication and non-profit information communication and sharing is thus facilitated. Their flexibility and capacity to experiment also means that they can easily demonstrate the efficacy of new ideas, publicise these ideas to other members of civil society and thus encourage adoption through learning. In these examples we see how the distinguishing features of NGOs, embodied in their identity has the potential of influencing how they behave towards information which presents a different way of thinking about the issue of context. In this sense, context becomes not simply an "event", "situation" or place limited by time and space, but also a distinctive feature or attribute by which an organisation is recognised.

It is important to acknowledge the challenges posed to NGO development workers due to this identity of being "non-government development agent" however. Because their role effectively erodes the power of the state, NGO development workers have to contend with tensions between themselves and government agencies. Gary (1996) has described the various acts of confrontation, co-operation and co-optation between NGO and government in Ghana. There are many in Ghana who believe that the perceived threat by the state of loss of legitimacy at the grassroots, through NGO activities, was the reason behind government introduction of PNDC law 221 in 1981 and also the NGO Bill circulated in the early part of 1995, in order to control and regulate NGO activities (Atingdui et al. 1998). This

led to controversy and resistance from the NGO community and reports in the media of foreign NGOs threatening to pull out of Ghana (Biney 1995). The formation of the Ghana Association of Private Voluntary Organisations in Development (GAPVOD) to co-ordinate activities of NGOs and present a collective voice was largely a reaction to this perceived threat. This raises questions about the extent to which such conflictual relationships inhibit access to public information held by government, in a political environment where information policies are lacking, oath of secrecy strictly upheld, administrative structures highly hierarchical, and where as noted by Wallis (1989, p. 1) "government staff serve the public with a mixture of arrogance and deliberate obstruction". Clearly there is the need for closer examination of how identity as "non-government development agents" determines the extent to which social development groups gain access to government held information for development intervention.

3.2.2 Context as approach to development work.

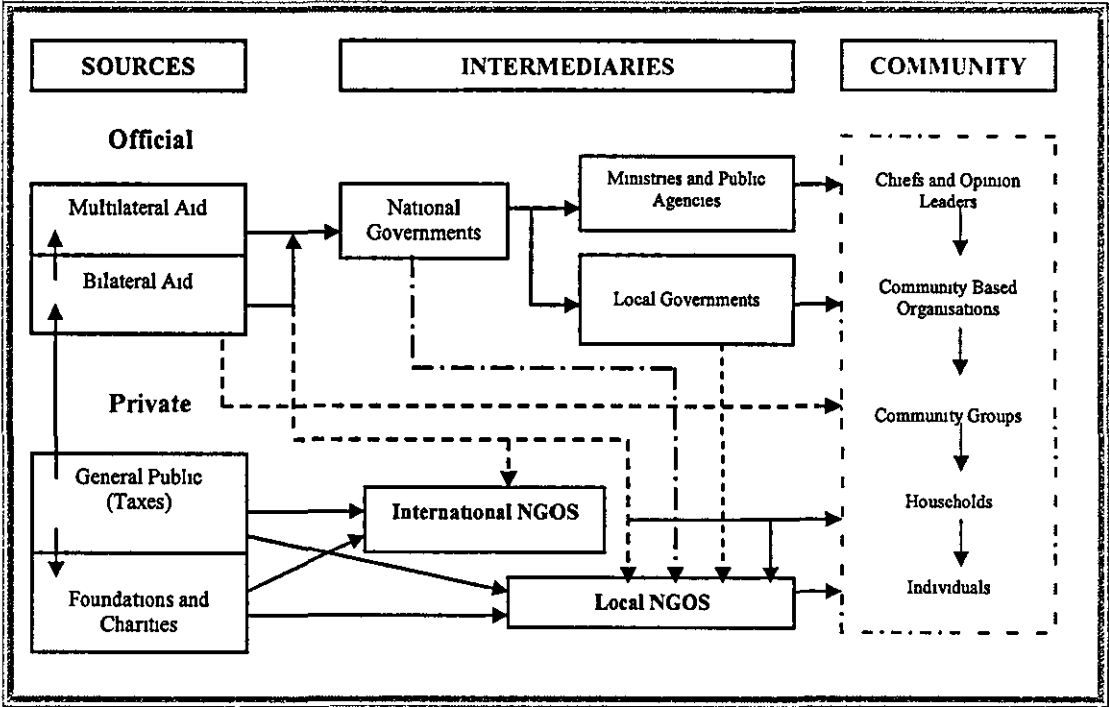
Closely related to the question of identity and values are the approaches to development work followed by NGOs in their rural interventions which have the potential to impact on their information behaviour. Unlike governments, NGOs follow a *participatory development philosophy* and also tend to value development interventions that come via *partnership* arrangements with other development actors. The participatory approach to development with its many interpretations, "nominal participation", "instrumental participation", "representative participation" or "transformative participation" (White 1996) is rooted in the belief that poverty is not only a function of physical impoverishment but also powerlessness and inability to exert influences that shape one's life (Oakley et al. 1991). What participatory development thus seeks to achieve is to permit the poor to re-acquire power and control over their own lives and strengthen their inherent capability to define development goals and draw up strategies for self-reliance (Brohman 1996, p. 254). Development intervention using this approach also considers the use of local knowledge and skills in rural development and also addresses issues related to the sustainability of development projects. When linked to information issues, participatory development requires not simply consultation with local communities but also the gathering of information from specific groups of people within rural communities. Bearing in mind the social hierarchies within these communities, the

degree of ethnic heterogeneity present, internal village politics, the nature of actual social relations including issues of gender, and the distribution of wealth in rural communities, these various factors raise questions regarding decisions of who is consulted for specific pieces of information within the social strata of rural communities for planning and implementation of development interventions. For example, it has been noted that in many local communities chiefs, elders and other opinion leaders are expected to be the ones to consult in a community for their permission, co-operation and opinion on new initiatives involving the whole community or groups in the community (Aryee 1998). The implication of maintaining contact with this local elite is that the views of other members of the community, such as women who are more likely to possess information about local conditions e.g. diseases affecting children, are less likely to be heard.

When we turn to development through partnerships, evidence available in the development literature indicates that social development today has come to require building partnerships at various levels with other constituencies including donors, governments agencies, and international and local NGOs for the achievement of social development objectives. The benefit of this is seen not only in terms of getting a wide variety of ideas heard, but also promoting indigenisation, local autonomy, legitimacy, and project sustainability (Mawdsley et al. 2002, Brehm 2001). There are also other benefits which come through the flow of important resources such as money, knowledge, technology and expertise. For example, most local NGOs are known to depend on various multi-lateral and bilateral agencies as part of partnership arrangements for the funding of their development interventions. Wallace (2002, p. 231) has, for example, noted how in recent times NGOs have become contractors to the World Bank, the DFID, and USAID. It has also been reported that 13 percent of Official Development Assistance (ODA) is channelled through Non Governmental Development Organisations (Fowler 2000, p. 6). According to Gyimah-Boadi et al (2000, p. 5), in Ghana specifically, if a project proposal by the government of Ghana to the World Bank includes NGO involvement, the Bank sees it as a strong plus. Furthermore, the withdrawal of many multilateral and bilateral agencies as well as northern NGOs from southern countries as part of the process of creating local autonomy has led to a situation where most northern NGOs now channel a high proportion of their development

funds directly to their local counterparts in the south. Partnership with local indigenous NGOs has also led to a surge in national and trans-national NGO networks and alliances leading to solidarity and a joint lobby force. The structure of the Aid System is produced here to give an overview of how the Aid system operates.

Figure 3.2 The Global Aid Architecture



Adapted from Fowler 2000 p. 4

All this sounds reasonable in theory but contrary to the implied equality of position, status and voice, in practice these joint ventures have led to many challenges which affect the information activities of NGOs in many ways. The very nature of these partnerships mean that they become embroiled in the exercise of various forms of power and also embedded in positions of authority and influence of a political, financial, and knowledge nature. For local NGOs, partnership leads to multiple accountabilities and thus multiple reporting systems tied to demands for value for money, transparency and various other conditionalities by donors. In many ways this has the potential effect of pre-structuring their information behaviour, in terms of what information is collected, how this is collected, how it is processed, what it is used for, and who else gets to know about it. Ebrahim (2002) has cited an example from India of how NGO/sponsor relationship leads to demands for specific

outputs of information from sponsors. Mawdsley et al. (2002) has also reported from a two-year study based on partnership between northern and southern NGOs of how formal scientific knowledge is privileged over local ways of seeing things. Amongst local NGOs, competition for funding from various donors is also reported by Mawdsley et al. (2002) as encouraging not only fragmentation of information, but also inhibition towards information sharing. Evidently, these examples tell us that participatory development and development through various forms of collaboration and partnership present yet another angle from which discussions on contextual factors on human information behaviour can be understood. We now turn our attention to the second core aspect of Wilson's model namely "information need" and explore how the contextual factors noted above have a bearing on its meaning in relation to this study.

3.3 The concept of "information need"

"Information need is the hook upon which hangs all the motivation for information seeking" (Case 2002, p. 65). Needing information would suggest something that goes to the heart of the mind, or as Westbrook (1993, p. 542) likes to put it, something that provides us with an understanding of users' frame of reference. Literature on user centred information studies abounds with various conceptualisation and definition of what *information need* constitutes. These include "sense making" (Dervin 1983, p.3), "an awareness of a state of not knowing" (Ford 1980, p. 100), "a need without which the individual cannot completely perform his roles" (Martyn 1974, p. 16) and "Anomalous States of Knowledge (ASK)" (Belkins et al. 1982, p.62). Other writers have discussed the subject of information need from the point of view of problem structure, and form or level of information need. For example Taylor (1991) talks about "well structured", "ill structured", "complex", "simple", "familiar" or "new pattern" information related problems. He also employs the terms "visceral level" "conscious level" "formalised level" and "compromised level" to describe the various levels information need can take. For example, *visceral level* is used to describe a need which is actual but unexpressed and *conscious level* where an internal description of the need is formed. In a recent study, Hepworth (2004) has also put forward a framework aimed at showing the various dimensions and levels on which human information need could be understood, i.e. sociological,

psychological, behavioural and source characteristics. For example, he explains that sociological information needs cover information needs related to the roles, task, and norms associated with work. Nicholas (2000) has also described extensively how information need can be expressed in terms of its subject; function, nature [conceptual, theoretical, historical, statistical or descriptive], intellectual level and also viewpoint

A very important dimension of the subject of *information need* is the question, "what is the goal of an information need?". For many writers, information need is a secondary need geared towards a more primary goal (Wilson 1999; Belkins et al. 1982; Line 1974; and Green 1990). This primary goal, it can be argued, gives us some indication of the inner motivation that give rise to the need for information. Chew, cited by Wilson (1996, p. 7) has classified these motivations into four major dimensions, namely: the need for information to discover what is happening [orientation]; the need for information to check that one is on track [re-orientation]; the need for information to form an opinion or solve a problem [construction]; and the need for information to build one's knowledge of a subject [extension]. To this one could add the need for information for purposes of dissemination [diffusion]. In information science, the need for information to solve problems [construction] and for developing a knowledge base [extension] appear to have received more attention compared to the other forms of motivation. In relation to this study, the evidence from the literature on NGO development workers indicates that, whilst motivation for seeking information can be problem related [construction], plus building knowledge of technical subjects [extension], there seem to be a high degree of interest for discovering what is happening in the external political, economic and social environment [orientation] tied mainly to dissemination [diffusion] activities. These two dimensions of problem resolution / knowledge extension and orientation / dissemination are explored in the sections that follow.

3.3.1 Information need motivated by problem resolution/knowledge extension

Generally, information to carry out projects and develop knowledge of project intervention is seen as what motivates NGO development workers (Rubin 1995, pp. 48 & 50). As noted above, much of the work of NGOs is directed towards the

provision of social services - water and sanitation facilities, health care services, environmental conservation activities, and relief services. The very nature of these jobs and the technical expertise required to execute projects demand that development workers have available to them various types of information and also build their knowledge of various subjects in order to ensure that a project intervention is directed towards its desired objective. If one considers the fact that to become a development worker does not normally require any "professional" training but rather a basic academic qualification and some form of human compassion, then the need to develop various kinds of knowledge on the job and at various times in the life of a project become apparent. For example, knowledge of a baseline nature may be required for "before" and "after" comparisons of a project intervention (Rubin 1995, p. 14). Such information may also be required in an ongoing manner (from notes of project workers, reports on field visits, team meetings etc) so that regular evaluation of progress and adjustments can be made while work is ongoing. When we focus on technical knowledge needs this can take different forms. For example, the decision to site water facilities in specific locations may require information not simply of a sociological nature about local living conditions but also technical scientific knowledge about underground water movement to ensure that, once located, the underground water charging rate would be high enough to sustain communities for long period of time. In the area of environmental conservation, for example, knowledge of the eco-system, of trees, rivers, natural habitats, etc. is important for environmental management interventions. The same can be said about health interventions where knowledge of diseases and drugs is essential for carrying out curative and promotional aspects of health interventions. For example, carrying out health education on HIV Aids would require knowledge of the causes of Aids, modes of transmission, methods of prevention, treatment, and living with Aids patients. Knowledge may also, for example, be required about community cultural and sexual practices to carry out health interventions successfully. In these examples one can see how information need motivated by *construction* and *knowledge extension* are likely to drive the information behaviour of development workers.

3.3.2 Information need motivated by Orientation and Dissemination

The need for information to discover what is happening i.e. [orientation] which is then tied to dissemination activities [diffusion] is very much evident in the role development workers take on as advocates for the poor and also in their empowerment activities. It could be argued that these two aspects of information need underpin the *raison-d'être* of NGO development workers. Because of their desire to influence development policies of government and donors, both local and international, in favour of the poor, NGO development workers devote quite a large proportion of their time constantly scanning their political, social and economic environment. These scanning activities are directed towards three different settings. The first is the grass roots where they systematically scan and make use of information from the grassroots in their advocacy work (Edwards 1994). Their aim is to channel information and experience from the field to decision-makers at sub-national, national and international levels in the hope that ideas, attitudes, policies and resource flows can be altered over time in ways that favour the poor. As varied as their origins and interest are, this watch-dog role can have different focus and emphases. For example, some NGOs would focus on specific groups of people in the population, e.g. women, and thus limit their information scanning activities to this group. Others would fix their attention on specific issues, e.g. child labour, environmental destructions, land ownership etc. Whatever their focus, it is worth pointing out that these roles are not mutually exclusive and thus it is possible to find a number of NGOs who have multiple objectives in their environmental scanning and information gathering activities.

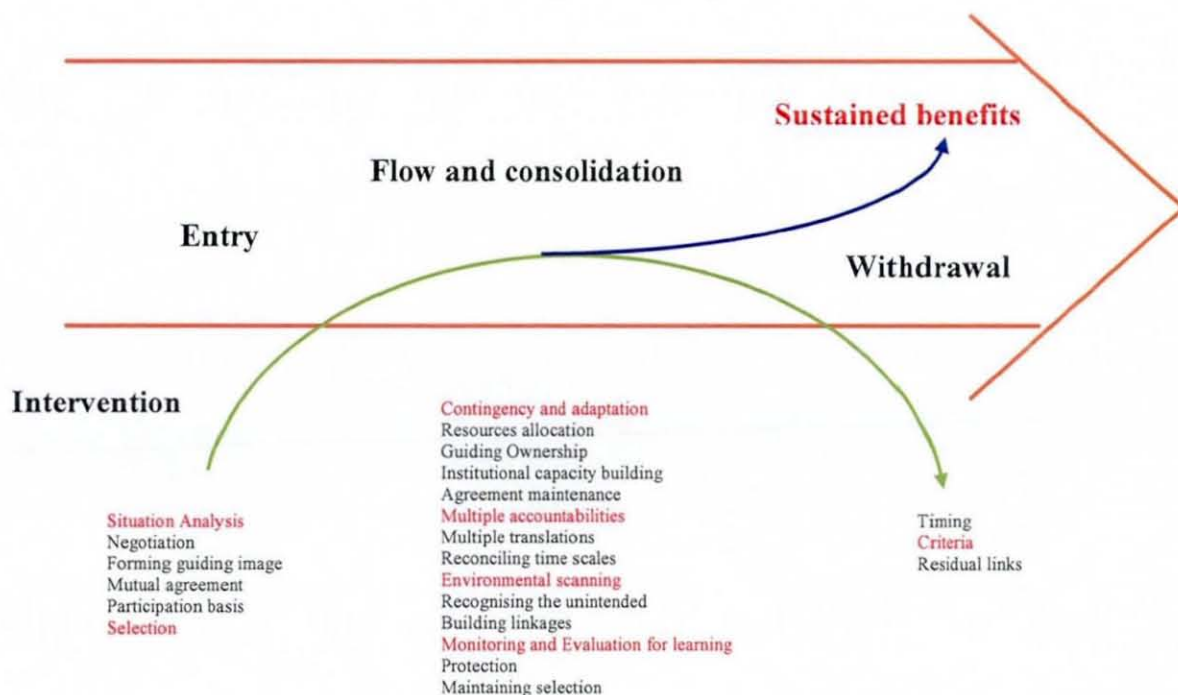
The second type of scanning focuses on gathering information about the policies of governments, bilateral and multilateral agencies and the private sector and then sharing this knowledge with community members [diffusion]. Disseminating information about the policies of government and international development agencies is linked to the interest of NGOs to empower rural communities and build their capacity to participate in various decisions that affect their lives (Stilwell 2001). For example, economic empowerment through micro credit schemes would require information on available micro credit schemes which favour the poor, or monitoring changes in interest rates. Intellectual empowerment via education and literacy would require them gathering knowledge about various sponsorship

programmes and linking various groups up with these sponsorship bodies. Political empowerment would require gathering information about various aspects of human rights, the political process and also various laws and bring this to the attention of members of the rural community. Whilst communicating information to the poor may be replete with difficulties, it is clear that NGO development workers act as "information providers" to disadvantaged rural communities.

The third type of scanning relates to developing knowledge about what similar NGOs or other organised groups of social development actors are doing in order to prevent a re-invention of the wheel and also develop strong links for purposes of solidarity. Most NGOs recognise the value that come from co-operative human action and, therefore, the need for sustained human working relationship with other social forces. What is clear from this is that the orientation activities of NGOs are not limited to "hard information" such as those gathered and published in the form of documents by governments, donors or multilateral agencies, it also extends to what can be described as "soft information" in the form of ideas that come through human and social contact both within and across national boundaries.

The point has to be made that in all three scanning activities the very dynamic nature of the settings in terms of demographic and social changes, changing economic trends, political and institutional changes that come through legislation, and trends in funding from governments and donors as well as changes in organisational and institutional priorities require that a capacity is developed to monitor multiple environments at the same time in order to review their own strategies and bridge micro/macro level interest. Fowler has provided a model of the development intervention of NGOs which sheds light on some aspects of their information need and the various motivations which drive this. This is produced below.

Figure 3.3

An intervention model of micro-development

Reproduced from Fowler 1988, p.15

As is evident from the above, the point of entry for any development intervention require carrying out situation analysis as well as taking decisions as to which community to select for the intervention. This requires data of various kinds to inform the decision making process. During the stage of consolidation, adapting to various conditions, remaining accountable to donors and monitoring and evaluation for learning purposes also require specific pieces of data and policy information. The time of withdrawal also requires assessing the impact of the intervention which in itself is an information intensive exercise.

3.4 Information channels and sources

When we turn our attention to the specific channels or sources from which information is acquired to meet the various needs identified above, these can be classified under various systems. Information technology systems, for example provide access to various types of electronic databases including online databases, CD-Rom databases, internet resources and bibliographic databases. Compared to other systems, the ability of IT systems to provide access from a wide variety of points and locations make them a valuable and increasingly preferred source of

information for many. Another system which has traditionally served the information needs of many communities is the library system. This provides access to predominantly print based materials such as books and paper based journals but increasingly has also become an access point for various types of electronic information resources. Because these two channels of information (IT and libraries) together with sources located within the broadcast media have been discussed extensively in the previous chapter attention will focus here on information and knowledge systems located within the social environment which are dependent mainly on human interaction and verbal exchanges between friends, colleagues, or experts. As noted by Kaye (1995), social systems have been proven by many studies as a frequently preferred source of information compared to published documents or formal sources. Two forms of social interaction are discussed below. The first relates to what is described as “communities of practice” and the second which is of particular relevance to rural development, but which is yet to gain the attention of information behaviour studies is “indigenous knowledge system”.

3.4.1 Communities of practice

The term “communities of practice” (CoPs) has become a common term employed today to describe various types of social interaction between people working within and/or across organisational boundaries. When the term is used, differences both in name and characteristics can be found in what are claimed to be necessary features of a community of practice. Terms such as “communities of interest”, “occupational communities”, “communities of discourse”, “strategic communities”, “learning communities” and also “distributed communities” are a few examples of names one comes across in the management literature (Wenger, McDermott and Synder 2002; Storck and Hill 2000; Sharp 1997 and Sapsed and Salter 2004). In terms of characteristics, CoPs have been described in terms of their size – big versus small; life span – short versus long; geography – co-located versus distributed; identity – homogeneous versus heterogeneous; boundary – same unit versus across divides; origins – spontaneous versus intentional; structure – formal versus informal; and legitimacy – recognised versus unrecognised can also be found. Despite these different understanding and appropriation of what CoPs constitute, and their role in social information provision, Wenger, McDermott and Snyder (2002) have identified three combinations of elements which in their opinion encapsulate what

CoPs stand for. These are a *domain* of knowledge defining a set of issues, a *community* of people who care about this domain, and the shared *practice* that is the speciality they seek to develop through common approaches, shared standards, rules, tools, best practice and competence. Together these three factors, according to Wenger, McDermott and Snyder (2002) provide the social fabric which foster interaction and a willingness to share ideas, information, stories, tools, and specific pieces of knowledge. Repeated interaction within this social space is also said to create a shared understanding of a domain's purpose, issues and problems for which sustained understanding is required that come via a spirit of inquiry, learning, innovation and knowledge transfer. Some of the communication patterns employed within CoPs to help the spread of ideas and common understanding include, amongst others, working together, face to face meeting, emails, websites, databases, phone interaction and even electronic conferencing. When the principles of CoP are examined in relation to NGOs two specific social information spaces can be identified. These are "training workshops" which for many NGOs is similar to what Pettigrew (1999) calls *information ground* or what Sonnenwald (1999) *solution spaces*, and secondly "activity networks".

Compared to the other forms of information sharing and communication within CoPs cited earlier, training workshops do not seem to have featured nor received the same level of attention amongst information behaviourists. When training is discussed as part of CoP, the discussions tend to focus more on *apprenticeship* in a master/servant type relationship. Within the NGO community, training workshops are directed not merely towards capacity building and skill development, but are also seen largely as an information exchange activity and as a good source of information for happenings both within the rural and wider socio-economic environment (Chetley 2003). One of the key feature of training workshop amongst NGO development workers is the importance it places on "Participatory Learning and Action" as the means for the sharing of ideas, experiences, and good practice. Participatory Learning and Action (PLA) is an umbrella term used for a wide range of similar approaches and methodologies which include Participatory Rural Appraisal (PRA), Rapid Rural Appraisal (RRA), Participatory Learning Methods (PALM), and Participatory Action Research (PAR). The common theme to all these approaches is the full participation of people in the processes of learning about their

needs and opportunities, and in the action required to address them (The International Institute for Environment and Development 2003). Participatory learning approaches are seen as offering a creative approach to investigating issues of concern to the poor and to planning, implementing, and evaluating development activities and also challenging prevailing biases and preconceptions about people's knowledge. They are also seen as offering opportunities for mobilising local people for joint action.

When the term is applied in the training workshop environment, it is employed to describe a learning environment whereby facilitators work with development workers to help them analyse their needs, identify solutions and develop and implement a plan of action to address their problems. Learners engage in critical thought and analysis through the posing of problems or questions. Visual images, role plays, story telling etc. are all employed in the learning and information exchange process. The final objective of this type of learning is for learners to initiate change in their work environment based on what has been learnt. The characteristics of the training workshop as a knowledge and learning space and also as a space for information exchange has been identified by Chetley (2003, p.9) who lists them as:

- i. diversity of participants who bring a variety of perspectives,
- ii. the focus on clearly defined output,
- iii. no experts telling rest what to do,
- iv. non competition,
- v. common and shared language,
- vi. facilitation, and
- vii. reflective moments at the end of each day.

The use of various types of social network as a means for information and knowledge exchange provides yet another dimension of how NGO development workers develop and maintain a "community of practice". Based on linkages which can be formal or loose affiliations, networking amongst NGOs both national and trans-national has become the space for organising the generation and flow of ideas, experience sharing, and expanding the pool of expertise available to members

working within this practice (Powell 1999, p 64). Meyer (1999) has, for example, described the activities of Concertacion an umbrella NGO in Costa Rica which works to help participating NGOs strengthen each other via information networking. Madon (1999) has also described the role ICT plays in facilitating networking amongst NGOs. Whilst acknowledging problems with ICT systems in developing countries, Madon nonetheless points to the value of ICT in encouraging the flow of ideas, experiences and information across national frontiers between International NGOs, national and local grassroots organisations. Focusing on Community Based Organisations (CBOs), as the lower rung of the NGO structure, they argue that electronic networks via the internet have radically altered the manner in which these organisations engage with the international community. Empowered with open information CBOs are said to be better placed to advocate for more equitable and transparent service delivery and obtain greater participation and ownership in decision making process. Such networks have also been used for lobbying and for strengthening the voice of civil society and the poor (Skuse 2001).

Whether *workshops* and *activity networks* can be classified strictly as “communities of practice” is a matter of debate. If the principles of CoP as outlined by Wenger, McDermott and Snyder (2002) is strictly applied to the workshop environment it is doubtful whether their underlining objective is the development and care of a “shared practice” which is what CoP is understood to mean. In many ways, these activities appear to be organised to help NGO development workers simply gain competence to deliver development projects. In the same vein judging from the motivational drives of the various activity networks one finds amongst NGOs, it is further doubtful whether they can be categories under the term communities of practice. This is evidenced from the fact that the objective of many of these NGO networks is challenging national and global policies, and/or influencing changes within the complex global social, economic and political forces which are seen as impacting on the lives of the poor and vulnerable. Taking these factors into consideration, it is argued that NGOs networking could at best be described as “communities of interest” or to use Velden’s (2004, p. 73) term “communities of resistance”.

3.4.2 Indigenous knowledge system

When the sources from which information is obtained are discussed in information behaviour studies, there appears to be a lack of acknowledgement of the value of what can be called variously, 'indigenous knowledge' 'indigenous technical knowledge' or simply 'traditional knowledge'. This knowledge is defined by Mchombu (1994, p. 124) as "the information, wisdom and technical know-how of a particular group of people developed over a long period of time and bequeathed to successive generations through oral and other forms of cultural self-perpetuation". Studied originally by anthropologists and ethnoscientists, indigenous knowledge has now gained interest amongst development agents as a source of development information which normally occurs through the participatory and consultative process of learning mentioned above. According to Mchombu, (2004, p.19) the emphasis on "people centred development" since the 1990s has changed the role of information services from what it used to be in the "modernisation or economic growth" model of development. In the new "people centred development", indigenous or traditional knowledge and locally generated information, which can be contrasted with institutionally organised scientific and technical knowledge, is now given high status and value amongst development practitioners instead of being regarded as barrier to development. This recognition is based on the repeated failures which have plagued development programmes which were sociologically ill-informed (Cernea 1987).

Indigenous social knowledge can be found amongst local people based on their knowledge of various subjects including, for example, soils, river flow, rainfall patterns, patterns of land use, credit management and medicinal plants. This knowledge, according to Warburton and Martin (1999), goes back to centuries when formal scientific approaches were absent. Notwithstanding its validity and applicability in development interventions, "those who have looked at the world from the viewpoint of organised science or the culture of which it is part have conventionally regarded indigenous knowledge as pre-logical or irrational and in so doing have either dismissed or greatly played down its validity" (Howes and Chambers 1980, p. 323). Howes and Chambers further argue that at the root of this problem lies the fact that scientific knowledge as opposed to indigenous technical knowledge serves to legitimise intellectual superiority and promote dependency. By

downplaying the value of indigenous many development practitioners have failed to gain the necessary insight this type of knowledge brings and how it can serve as a guide for introducing new knowledge, thus adding to scientific knowledge and promoting understanding between development practitioners and local people. On the other hand those who have acknowledged its value have developed successful development interventions. Lightfoot (1995) has, for example, reported the use of indigenous knowledge in the design of on-farm experiments in the Philippines. Price (1995) has also reported the use of local people's knowledge in managing the Niger River Fisheries Project. Warburton and Martin (1999) have cited an example in the Philippines where Hanunoo farmers were reported to be able to identify 400 more varieties of rice than taxonomists, and also Kenya, where farmers are reported to be able to describe aspects of the life cycle of variegated grasshoppers of which scientists were unaware. It is acknowledged that, in terms of the way indigenous knowledge is gathered, processed, stored and communicated, various questions can be asked about the extent to which it can be wholly reliable and thus useful for taking decisions on projects which are scientifically planned and implemented. Notwithstanding this question, the argument being made here is that information behaviour studies have paid little attention to this type of knowledge, and in so doing treated it as subjugated knowledge (Sanderson and Kindon 2004). The social fabric within which this type of knowledge exists, the challenges surrounding access to it, the value of its application to development project sustainability, as well as questions surrounding its ownership and management are clearly issues worth investigating by information behaviour practitioners.

3.5 Intervening Variables and information Seeking

A core feature of Wilson's model is what he labels intervening variables which he characterises as impediments or barriers that surround access to information which are seen as influencing the choice of specific sources of information in specific situations. Selection of an information source is not necessarily dichotomous but rather a combination of several sources either simultaneously or in sequence to fill an information need (Leckie et al. 1996). This continual interaction, Leckie et al. (1996) contend, contributes to the overall complexity of information source as a variable affecting information seeking. In discussions of the variables affecting source selection, various writers have focused on examples ranging from individual

abilities, how information systems are designed, problem with access mechanisms, communication factors, economic factors, the actual character of a piece of information e.g. its quality, and factors such as the social culture. For example, Kaye (1995) has identified factors such as relevance, timeliness, accuracy and perceived reliability as some of the criteria used in source selection. Kulthau (1996) has put forward impediments that come from prior experience, knowledge, interest, availability, problem requirement, and relevancy as critical factors that influence source selection. Paisely (1968) has also listed factors such as accessibility, ease of use, precision and accuracy, source credibility, recency or completeness, and cost of service as intervening factors. Amongst writers who focus on challenges within organisations, Solomon (1999) found in a study of work planning process that individual and organisational factors, mediated by interpersonal and group interactions as well as norms within work groups regarding who or what constitutes an acceptable information source, were key factors. Vickery and Vickery (1987)) also contend that barriers can take forms such as confidentiality between reference groups or professional associations and effective contact with a channel. In terms of social and cultural factors, Chatman's (2000) work stands out in terms of putting forward theories that explain how social systems influence how people select and use human information sources. Her theories of "Information Poverty", "Life in the Round" and "Normative Behaviour" show how social norms, social types, a collective world-view, and the sharing of similar cultural space dictate standards of rightness and wrongness of what is regarded as an acceptable source of information. Her findings are similar to those of Ford (1973) who has also described barriers along the lines of cultural factors, national character, language, and status as mediating the use of human sources of information. Stress and coping factors (including risk and reward) associated with specific information sources have been identified by Wilson (1996).

In many respects, these barriers could be said to apply to NGO development workers and it can be said to influence their selection of information source(s). However, when one considers the challenges obtained in the physical environment within which they operate, the nature of communities they deal with, leadership styles in their organisation, the background of staff who work within these organisations, as well as dependency on foreign partners, additional impediments

can be identified which require our attention. For example, most NGO development workers operate in environments which lack passable roads, or roads sometimes crossed by rivers and lakes. The poor state of roads in the rural regions of Ghana is a fact acknowledged by government. In the most recent version of the "Ghana Poverty Reduction Strategy 2003-2005" government acknowledges the bad state of rural roads and the need for better feeder roads which it considers "critically important to opening up the rural sector and expose it to market incentives" (Government of Ghana 2003, p. 37). Where such roads exist, the communities they serve mostly live in nucleated and scattered villages which require a lot of physical effort and long journeys to reach them. In places like Northern Ghana, temperatures are generally high (sometimes exceeding 40 ° C at certain times of the year) and there is persistent flooding in some areas during rainy season. For example, in areas such as West Mamprusi and West Gonja Districts accessibility at some periods of the year during raining seasons is practically impossible. When all these factors are combined, it is evident how these can influence or even inhibit selection and access to information sources within the community environment due to the additional stress they can bring.

Another major impediment is the challenge posed by socio-cultural groups and ethnicity and the heterogeneity of members of the rural community. Botchway (2001) has, for example, criticised the tendency by some development commentators to conceptualise communities in homogenous terms. The Northern region, where this study was located has many ethnic groups with distinct cultural practices making the region one of the most ethnically diverse and heterogeneous region in Ghana. Some of the major tribes in the region include the Dagombas, Gonjas, Konkombas, Mamprusis and Namumbas. These ethnic groups live in nucleated villages, mainly of farm-families. Over 60 percent of the region's population live in villages of less than a thousand populations (Kudiabor 1986, pp. 27 & 28). If one considers the fact that gathering information from culturally diverse groups requires knowledge not simply of their cultural practices but also the language of communication, this can clearly be a limiting factor in the selection of community information sources in the absence of an interpreter for most NGO development workers. In a region which has a low connectivity to the national power grid (Ghana Statistical Service 2000, p. 51.) the challenge also posed by poor

power supply for the use of energy dependent information resources such as the internet cannot also be ruled out.

When we turn our attention towards organisational practices, we find additional factors which could potentially affect the information behaviour of development workers. In two recent but separate studies Mawdsley et al. (2002) found substantial variations in the organisational structure of NGOs in Ghana with consequences for information management and co-ordination. Firstly, there are centralised international NGOs with overseas boards and trustees with office(s) in Ghana funding local partners to undertake portions of their activities. Secondly, there are Ghana members of international NGO federations. Thirdly, there are indigenous service NGOs with distinct Ghanaian identity but most of who depend on outside donors, and lastly, there are indigenous grass root NGOs with strong links to Community Based Organisations. Many of the field staff who work in these different NGOs are reported by Mawdsley et al. to be mainly young graduates the majority of whom come from the civil service with a low skill base. In the area of management, the studies report that many local NGOs are founded and run by members of the educated elite with strong, highly individualistic management styles. The effect of these combination of factors on the information activities of NGOs is not negligible. For example, dependency on foreign donors, who are not physically present in Ghana, to fund the development activities of local NGOs has enormous implication for information gathering and reporting activities. Fowler (2000) has, for example, pointed out how power imbalances in these various partnerships force many local NGOs to conform to standards and methods prescribed and favoured by these donors or partners. The potential effect of the Aid System and its accompanying powerlessness clearly creates a condition which structures the information behaviour of many NGO development workers. It is argued that discussions on intervening variables in information behaviour studies must be extended to examine the extent to which an individual information behaviour can be pre-structured based on the philosophy of "he who pays the piper calls the tune". It is important to determine whether individuals can be described, using Bystrom's (1999) terminology, as *Platonian* men whose thoughts are free from external restrictions, *Chessmen* who are moved according to particular rules or

social discourses, or as *Dialectical* actors whose behaviour is determined partly by the environment and partly by personal characteristics.

3.6. Synthesized models of the information seeking process and dimensions.

The variability of information behaviour both in terms of its processes, strategies dimensions and the sources from which information is sought has prompted attempts by various writers to develop models of the processes involved in human information behaviour and also of the nature of a specific type of behaviour. In many respects, these models have been drawn either based on published literature in information science or other disciplines or from searches based on computerised and networked resources. Thus, whilst some of the processes, behaviour patterns, sources of information and difficulties put forward in these frameworks could be said to be applicable transnationally, in some respect they are limited and do not sufficiently capture some of the peculiarities of other information environments and the behaviour patterns thereof. We first examine models focusing on the stages of information seeking.

Amongst the models which attempt to capture the stages of the information seeking process are those of Ellis, Cox & Hall (1993) and Kuhlthau (1991). In a study of academic social scientists Ellis, Cox & Hall identified six different generic stages of information seeking beginning with "starting", "chaining", "browsing", "differentiating", "monitoring", "extracting", "verifying" and lastly "ending", stages similar to a synthesis of information seeking processes by Westbrook (1993). As an example, Ellis's *chaining* is said to involve the following of footnotes and citations from known materials in citation indexes. Kuhlthau's model complements that of Ellis in terms of linking the information search stages with changes in *affection, thoughts and actions*. In a series of five studies investigating common experiences of users in information seeking situations, Kuhlthau identified the various stages of information search process as "initiation", "selection", "exploration", "formulation", "collection" and "presentation". As an example, she notes that at the stage of *initiation* when a person becomes aware of a lack of knowledge or understanding, the common feeling is that of uncertainty and apprehension, the appropriate task is that of simply recognising the need for information whilst thoughts may be centred on contemplating the problem,

comprehending the task, relating the problem to prior experience and knowledge and taking actions involving discussing possible topics and approaches.

When we examine the nature of behaviour exhibited during the process of information seeking, again various descriptions abound. For example Bates (2002) has classified the various modes of information seeking behaviour into four main dimensions namely *searching behaviour* which involves an active behaviour which is usually directed, *monitoring* behaviour which is a passive behaviour which is also directed, *browsing* behaviour which is an active behaviour which is usually undirected, and simply *being aware* also a passive behaviour which is undirected. Wilson (1996) has employed the terms, *passive attention*, *passive search*, *active search*, and *ongoing search* to describe various aspects of behaviour exhibited. As an example, passive attention is described by Wilson to involve situations where one engages in an activity not with the intention of seeking information but where information acquisition may take place nonetheless e.g. watching the television or listening to the radio. Palmer (1991) has also provided a classification of the types of information seeking behaviour based on a study of Biochemists, Entomologists and Statisticians. This was found to include, *non-seekers*, *lone-wide rangers*, *unsettled self conscious seekers*, *confident collectors* and *hunters*. For example, non-seekers are reported to find the business of finding information difficult and rarely seek information for problem-solving. The behaviour of *accidental discovery* and behaviour influenced by *personality types* have also been reported by Erdelez (1997) and Heinstrom (2003) respectively. The terms “holist” or “serialist” have also been employed to describe some aspects of behaviour (Ford 2004).

These classifications, whilst useful, nonetheless raise various questions. For example the use of the term *chaining* by Ellis which he links to citation indexes would suggest that the focus of Ellis’s frameworks is on “information as a thing” i.e. information objects such as data or documents as opposed to “information as a process” i.e. the act of informing (Buckland 1991, p. 351). Furthermore, the chaining behaviour occurs in searches of information systems without sufficient attention to other forms of chaining behaviour which could occur outside electronic information systems. Both Ellis and Westbrook employ the term “ending” and “closing” respectively to describe how search behaviour comes to an end. This tells

us very little about the outcome of the information behaviour whether information becomes useful or the use to which information was put. The lack of attention to *information use* and interest only in the factors that create information need, has attracted comments by other writers. For example, Touminen and Savolainen (1996, p. 81) have noted that, in information studies, the number of studies directly focusing on information use has so far remained rather low and overshadowed by surveys that reduce issues of information use to such questions as how often different information sources and channels are consulted. Amongst the few writers who have attempted to address the subject of information use are Wilson (1996) who describes information processing and use in his model, and also Dervin (1983) who divides *use* into "helps" or "hurts", depending on whether the information gathered from a particular source is helpful for the resolution of a problem or whether it is of no value. One author who has also given the subject of information use considerable attention is Taylor (1986 and 1991). In his "user driven model" and information use environment studies he addresses the various factors, which influence how users make choices about useful information. According to Taylor, they include *use* for enlightenment, or understanding. He further identifies other forms of use such as instrumental use, factual use, confirmational use, projective use, motivational use and personal or political use. Despite these attempts to address the question of information use, the use to which information is put is addressed mainly in terms of the immediate or short term value of information. Very little is said about the future use of information. Within the NGO world, data gathered on one aspect of development intervention may have value for another intervention, which therefore requires that the data is preserved for its related or future use. For example, data on the sources and quality of water, as well as sanitation conditions, could also very useful for other NGOs who may be involved in health education and hygiene promotion. Again, data collected on agricultural activities and food security could be valuable for planning future agricultural activities. Data on community groups and income activities are also useful, for example, for micro credit interventions. Taking into consideration the advocacy activities of NGOs and their desire to influence social policies in favour of the poor, the value of various pieces of information for project implementation can be potentially valuable for advocacy interventions. Discussions on the question of information use must clearly consider its future value.

When we turn our attention from the *stages of information behaviour* and focus on the behavioural manifestations, namely browsing, monitoring, encountering, passive behaviour, active behaviour etc., these explications of behaviour generally default to the amount of effort expended. Other behaviour manifestations which result from lack of skills, competition between organisations, lack of mechanisms or policies which create awareness of the existence of information, and issues of accessibility due to oaths of secrecy are likely to result in manifestations of a different kind from those identified by the above writers. For example, in information poor environments, as described in the previous chapter, a great deal of apprehension and trepidation are likely to accompany the recognition of information need taking into consideration the absence and/or unreliability of information systems, mechanisms and policies. To a large extent, therefore, information behaviour is most likely to involve what could be described as "wondering behaviour" i.e. not being sure where to go to for information. Dealing with communities which are culturally diverse for purposes of information gathering require first "community animation" activities (Mensah 1997). The value of this activity is to first of all build a social relationship before proceeding to gather information from the communities. Animation as a pre-information behaviour activity presents yet another dimension of information behaviour. These factors are of importance to the study of information behaviour in rural environments in most developing countries and clearly worthy of attention in the study of human information behaviour.

3.7 Conclusion.

This chapter has reviewed the literature on user information behaviour vis-à-vis NGO development workers. The chapter has outlined some of the prevailing notions held to be true about human information behaviour. As evident from the above, various factors are said to motivate the information behaviour processes. Whilst these factors are not in dispute, this chapter has shown, drawing on literature from development science, the inadequacy of prevailing understanding about human information behaviour. This is evident in the conceptualisation of context, information need, source selection and lastly information use. It has been argued that in order to strengthen their impact as sciences, information science appears to have placed a lot of emphasis on the hard theories of knowledge and on individual

cognition. By doing so they have isolated the mind from their environments to which they must rather be seen as adaptations. In the next chapter these issue are brought to bear on the design of the research methods for this study.

CHAPTER FOUR

RESEARCH DESIGN

4.0 Introduction

This chapter presents the research design and data analysis approaches for this study. It begins with an outline of paradigmatic concerns within the social sciences and then examines how these concerns are addressed in information behaviour research. This is followed by a discussion of the research methods adopted in this study and also the analytical strategies employed to make sense of data gathered. Lastly, the chapter outlines the limitations of this study and highlights some of the challenges encountered in the field where the data were gathered.

4.1 Research Paradigms in the Social Sciences.

Within the social sciences there exists a long standing debate and competing views about the ways in which “social reality” ought to be studied. What are described as “Objectivism – Positivist” or “Constructionism – Interpretivist” have come to represent two distinguishable research traditions. Thus, depending on the kind of research questions a study seeks to answer, a particular approach is seen as more appropriate. According to Crotty (1998, p. 5) “Objectivism” is the epistemology that things exist as meaningful entities independent of consciousness and experience, that they have truth and meaning residing in them as objects and that careful scientific research can attain this objective truth. This epistemology underpins positivism and has historically informed methodologies within the quantitative research paradigm. On the other hand “Interpretivism” drawn from constructionism maintains that “truth” and “meaning” come into existence in, and out of engagement with, the world. From the interpretivist standpoint, “meaning” is not “discovered” as pertains in positivism, but rather “constructed” and “interpreted”. The aim of interpretivists, who emphasize the subjectivity of knowledge, is therefore to reconstruct the self-understandings of actors engaged in particular actions. This epistemology has historically informed qualitative research. The main distinguishing features of the qualitative/interpretivist paradigm are provided by Gorman & Clayton (1997, pp. 24-26) and Bryman (1988, pp. 44-71) as follows:

- i. *Seeing through the eyes*: This means penetrating the frames of meaning of people being studied by viewing events, action, norms, values from their perspective, i.e. how they interpret events.
- ii. *Emphasis on context*: This involves using the natural setting where events occur, as the "observation post" rather than remaining detached from events. By entering, and collecting data from the actual setting where events take place, it is believed that a researcher gains insight from actually been on site, which can bring a breath of richness and depth not otherwise available if they remained detached.
- iii. *Description*: This refers to the description of occurrences and what they mean for participants usually using verbal narratives from the participants themselves.
- iv. *Process*: An understanding of the process of events and their inter-connections which helps to develop a fuller and richer understanding of an activity and a better grasp of the "natural history" of events.
- v. *Induction*: This means a bottom up approach, sometimes also referred too as grounded theory which involves providing an explanation of events based on the observed phenomena rather than imposing a framework.
- vi. *Flexibility and lack of structure*: What this implies is that rather than deciding in advance precisely what ought to be investigated, qualitative, interpretivist research favours an open strategy, with the possibility of coming across the unexpected. Thus it rejects pre-formulated, pre-imposed and pre-ordained theoretical frameworks in advance of field-work.

What appears from the above explanation to be a clear-cut philosophical divide between quantitative and qualitative approaches to research clouds a lot of the confusion and tapestry of perspectives which exist within these two research traditions. Within the interpretive research tradition specifically, there are many perspectives all of which compete for attention and justification of how qualitative social inquiry ought to be conducted leading to debates, controversies and contradictions amongst qualitative researchers. From phenomenology, hermeneutics, symbolic-interactionism, feminism, social constructionism to

ethnomethodology, the notion of how interpretive understanding, (*verstehen*) is grasped is represented as different positions, distinguished by different theoretical assumptions, or to use Patton's (2002, p. 80) term, "foundational questions". Thus, in phenomenology the foundational question is the essence of a lived experience, in heuristic inquiry it is about the personal (self) experience, in ethnomethodology the focus changes to understanding the ordinary methods used by people to accomplish taken for granted actions, whilst within symbolic interactionism efforts are directed towards understanding the symbolic world of people through interaction. What these differences in research tradition and perspective draw our attention to, is how different theoretical assumptions shape the sort of research questions a piece of research addresses, the type of technique(s) employed to gather data and the analytical strategies which may be applied.

4.2 Epistemological perspectives in information behaviour research

In information behaviour research there appears to be no consensus regarding which investigative tradition, positivist or interpretivism, is best suited for inquiry into human information behaviour. Within this area of information science research, when the question of formal theoretical assumption is raised, the common practice has been to evoke the use of models or frameworks, underpinned by theories drawn from a wide variety of disciplines. Some examples of such theories found in the literature include social learning and diffusion of innovation theories as used by Wilson (1996), alienation, gratification, and social network theories as used by Chatman (2000), activity theory as used by Hjørland (2000), and personal construct theory of Kelly as used by Kuhlthau (1991) to name but a few. In a review of methodologies and methods in human behaviour research, Wang (1999) has drawn attention to arguments and counter-arguments in this area of research and the justification by some researchers for the adoption of methodological pluralism as a means of taking advantage of the benefit that both quantitative and qualitative research offer. This view is not wholly shared by all information researchers. To the question, "which research paradigm is more appropriate?" Westbrook (1994) has argued that the choice of research approach must be determined by the *research problem* which a study seeks to answer. In her view, "if enough is known of an area to sustain a priori patterning, hypothesis formation or even theory explication then the positivist approach with its more quantitative methods might be used. On the

other hand, if little is known of an area that the simple identification of what is not known becomes problematic then the naturalistic approach with its more qualitative methods might be used" Westbrook (1994, p. 242). Some other writers have put forward other factors which in their opinion should be considered in the selection of research methods. Gorman and Clayton (2005, pp. 13-14) have, for example, argued that *information issues* do not readily lend themselves to quantification but rather favour more qualitative approaches which are better able to respond to complexities in the information environment and thus have the benefit of presenting different perspectives derived from potentially richer data. Linclon and Guba, cited by Wang (1999, p. 57), have also argued for the selection of research methods to be based on the phenomenon under study. To them *human behaviour* should be observed in natural settings and interpreted within that context.

Notwithstanding such admonitions, when one examines the growing literature on human information behaviour the evidence shows a trend towards locating studies within either of the two dichotomous camps - qualitative or quantitative whilst in some cases the two research methods have been combined. The studies of Chang and Lee (2001), Nancy, Nyce and Nyce (2001), Hersberger (2001), Allen and Wilson (2003), Mackenzie (2003), Nicholas et al. (2003), Miwa (2003) and Wikgren (2003) provide some examples of the use of quantitative methods in information behaviour research. Where a purely qualitative approach is adopted the evidence shows evocation of different perspectives. Thus we find Limberg (2000) bringing a *phenomenographical* perspective to human information behaviour research, Talja (1997) putting forward a case for *discourse analysis*, Anderson (2000) applying an *ethnographic* approach in his research, whilst Tuominen & Savolainen (1997) come to their research from a *social constructionist* perspective. Whilst these distinctions serve to provide some research focus linked to specific questions, the impression they also create is one of a sharp, clear-cut dichotomy between quantitative and qualitative approaches. In theory, this may be true but in practice it would be difficult not to find elements of one tradition in the other. It could be argued, for example, that quantitative data can occur initially as qualitative reports on activities which are later converted into statistical values for purposes of analysis. Similarly, qualitative research may have some elements of quantification

when, for example, a simple counting method is employed to ascertain the presence or absence of a particular trait.

4.3 Locating the study within the qualitative/ social-constructionism perspective.

In this study, a qualitative method was used whilst also gravitating towards the theoretical principles of social-constructionism. First the reasons for locating this study within the qualitative research tradition are explored. This was influenced by a variety of factors including the nature of the study, the setting where the study was located, the phenomenon under investigation, and the values which the work community which is the subject of this investigation adheres to. As noted in chapter one, this study is an exploratory one, seeking understanding of information behaviour within a specific socio-economic environment which has not received much attention in information behaviour research. The qualitative approach was considered to be more appropriate for carrying out this exploratory study due to the various issues and complexity of factors which motivate and drive the information behaviour of development workers. Secondly, this study is about human behaviour which attends to meaning, interpretation, perspectives etc. Thus locating this study within the qualitative paradigm was considered more appropriate to gain deeper insight into the patterns and dimensions of such behaviour. Thirdly, in rural development research the use of qualitative methods is seen as more appropriate and one that provides deeper insight into the life-world of members of the rural community. Morris and Copestake (1993, p. 6) have, for example, noted that rural data presently obtainable in developing countries are more likely to merit qualitative than quantitative treatment. In their view, there are many problems associated with the strong assumptions embedded in specific approaches to quantification which may invalidate the usefulness of data gathered in a quantitative way within such environment. An additional reason, closely linked to the above, relates to the specific information environment within which this study was undertaken. As noted in chapter two, the challenges which relate to this environment linked to weak institutional capacity for generating, analysing and correctly interpreting quantitative data renders the qualitative approach more appropriate. Furthermore, the problem of poor postal service, scattered settlements

and limited communication facilities within the Northern region of Ghana makes the qualitative approach involving personal contact more suitable.

To explain why this study gravitated towards the theoretical principles of social constructionism, an elaboration of the assumptions which underpin this perspective is provided in order to show some of its distinguishing feature. Social constructionism takes as its point of departure the individual human being i.e. knowledge as cognised or mental representations and shifts the explanatory locus of human action to the processes and structure of human interchange (Tuominen and Savolainen 1997). Social constructionism emphasises the communal basis of knowledge as shared intelligibility and processes of interpretation. The act of interpreting within social constructionism is aimed at gaining understanding of social practices. It is also assumed within this perspective that knowledge is not apolitical and exclusive of affective and embodied aspects of human experience but in some sense is ideological, political and permeated with values (Schwandt 2000, p.197). Thus, there is an interest within this perspective of the role social factors play in what constitutes legitimate knowledge. What distinguishes social constructionism from other interpretivist approaches, and which makes it relevant to this study, is to be found in the core features which this perspective espouses. These features have been outlined by Gergen (1985, pp. 3-7) and Gergen (1999, pp. 47 - 50) and are highlighted here to throw more light on them.

First, within social constructionism the terms by which we understand our world and ourselves are neither required nor demanded by "what there is". The supposition here is that for any state of affairs a potentially *unlimited* number of descriptions and explanations are possible. Thus in principle, but not in practice, not one of these descriptions or explanations can be ruled superior in terms of its capacity to map, picture or capture the features of the situations in question. For example, there are differing means of describing the concept of marriage across cultural and sub cultural climes.

Secondly, within social constructionism modes of description, explanation and/or representation are derived from a relationship which gains its meaning through language. In other words, the act of interpretation is the result of an active, co-

operative enterprise of persons in relationship. Within this assumption, the view is held that what we take to be true about our world is not a product of the individual mind; rather, meanings are born of co-ordinations among persons – agreements, negotiations, and affirmations. Such relationships stand prior to all that is intelligible; that is, nothing exists as an intelligible world of objects and persons until there are relationships.

Thirdly, in social constructionism the process of describing, explaining or otherwise representing serves to fashion the future. What is assumed here is that our relationships are not bound only within language but also within the broader patterns of practice, rituals, traditions and forms of life i.e. generative discourse. Sustaining such traditions or practices depends on continuous processes of generating meaning together which also challenge existing traditions of understanding whilst offering new possibilities for action.

Lastly, reflecting on forms of understanding is integrally connected to the future well-being of the activities engaged in. From this standpoint, social constructionism is an invitation to reflexivity which calls for placing one's premises into question, suspending the "obvious" and listening to alternative framings of reality. This type of critical reflection is not a rejection of other major traditions but recognising them as traditions which are historically and culturally situated and inviting dialogues that might lead to common ground.

The question is, how do these theoretical assumptions connect with the objectives of this study? When one examines information behaviour research as currently pertains in developed information environments, the trend shows an overwhelming leaning towards understanding of individual cognition and changes in mental structures. Many of these studies are also focused on information behaviour linked to the availability and use of information technology systems. This study on the other hand, focuses on development workers and the primary concerns are not so much the changes in mental structures or individual cognition/invention but rather greater interest is taken in the significance of social, political and environmental factors and how these affect the way and manner in which information/knowledge is *passed on* or *passed around* and therefore comes to be possessed within the

tradition-bound practice of rural development. In this respect the social constructionist assumption which maintains that human beings do not *discover* knowledge, but rather knowledge is something people *do* together is seen as relevant for understanding the issues of interest to this study. It is important to quickly point out that a claim is not being made here that rural development and NGO activities are necessarily rooted within a social constructionism perspective. What is simply being put forward is that the principles which underpin the social constructionism perspective in terms of its emphasises on the communal/participatory basis of knowledge, value for persons in relationship, and negotiated understanding are deemed relevant to the work ethos of NGO development workers and thus to the objectives of this study. A lot has been said about these values in the previous chapter but perhaps it is important to add that, from a research perspective, rural development research favours what is often termed *participatory research*, an approach to research which ties in with the bottom-up, and human centred approach to development (Chambers 1985). Participatory research emphasises stakeholder involvement in the research process which can take different forms including Participant Observation (OB), Rapid Rural Appraisal (RRA), Participatory Rural Appraisal (PRA) and Participatory Action Research (PAR). Participant Observation is a common approach used in many rural research projects (Morris and Copestake (1993, p. 60). RRA is a variant of participatory research which is essentially an extractive process for learning more clearly, but quickly, about what is happening within the rural environment. A core aspect of RRA research according to Chambers (1985, pp. 400 and 404) is the use of the wealth of information already in existence within the rural environment such as field reports, surveys, and existing statistical information generated by the people who already operate within this environment. The underlining principle of participatory research is the *learning outsider* who avoids the attitude of patronising and monopolising information but rather, through participation in the activities of local people, results emerge which come to be shared with and owned by local people.

When we turn to the issue of relationships, the previous chapter has highlighted the value of various forms of partnerships (relationships) between NGO development workers, local communities, government, international NGOs, and international

development agencies and institutions. In principle, these various types of relationship are predicated on what Davies and Roberts (1985, pp. 147 – 148) term *I-Thou-relationship* which they contrast with *I-Them* and *I-It* relationships. As they explain, in I-Thou-Relationships there is mutual status assignment and a shared world which is co-created and in which each others interest and values have a place and where standards are mutually agreed upon and subject to negotiation. In many respects, the principles which underpin such relationships have the potential to define the nature of information which may be needed, what sources or channels are used, what challenges are encountered, and what constitutes acceptable information. To sum up, the reasons why social constructionism was deemed relevant to this study are as follows:

- it emphasises the communal basis of knowledge
- it is aimed at gaining understanding of social practices
- it focuses attention on the role social factors play in what constitutes legitimate knowledge

4.4 Research strategy.

Within the qualitative research tradition there are a number of research strategies which are adopted for investigating a given phenomenon. This study followed a *case study* approach as a method of inquiry. This approach is defined by Gorman and Clayton (1997, p. 50) as “an *in-depth* investigation of a *discrete entity* (which may be a single setting, subject, collection or event) on the assumption that it is possible to derive knowledge of the wider phenomenon from intensive investigation of a specific instance or case”. Other definition such as “a logic of design / empirical inquiry that investigates a contemporary phenomenon within its real-life context especially when the boundaries between phenomenon and context are not clearly evident” (Yin 2003, p. 13). What distinguishes “case studies” from other qualitative approaches e.g. grounded theory or ethnography is not simply its orientation towards the *choice* of object to study, but also its boundedness in terms of time and place of study and also its focus on discrete event(s), activit(ies)y or on individual(s) seeking the emic meaning held by the people within the case. Stake (2000, p. 437) likes to classify the case study approach into three different types according to what they seek to achieve:

- i. *Intrinsic cases*: The aim of this type of case study is to understand a case in all its particularity and ordinariness;
- ii. *Instrumental cases*: This type of case study plays a supportive role in facilitating understanding of something else, an issue;
- iii. *Collective case studies*: This involves studying a number of cases together to investigate some general phenomenon.

4.4.1 Justification for the use of case study

In selecting a *case study* strategy for this piece of research, the first two types of approaches are deemed more applicable. Thus the case study as used in this study is to be understood in the following sense.

- i. Firstly, the exploratory nature of this study focusing on *development workers* as exemplars of members of civil society in Ghana present this study as a case of intrinsic interest. This interest is aimed at gaining in-depth knowledge about a user community i.e. development workers representing the case) and to understand what it means to them to be informed.
- ii. Secondly, unlike other professionals for example, lawyers, doctors, academics, or engineers, rural development “professionals” (if one can refer to them as such) present themselves as a different group of workers distinct in many ways from these other professional groups. This is evident in terms of their approach to work (bottom-up development), their motivation for working (empowerment of the poor and vulnerable) and the expected outcome of their work (poverty eradication and improved conditions of living). In this respect they present themselves as a case of instrumental interest in terms of what can be learnt about their information behaviour.
- iii. Thirdly, and as argued in the first chapter, studies in human information behaviour available in the literature have mainly emanated from information rich countries, focusing largely on electronic information systems and mostly placing emphasis on the cognitive state of users to the disadvantage of other factors. The purpose of this study is to develop understanding of a group of people and a multiplicity of variables from a completely different setting. The context sensitivity of this study in

terms of its location in an "information poor environment" makes this study both a case of intrinsic and instrumental interest.

The case study subjects chosen were NGOs working in the area of health, education, water and sanitation, micro credits, environment and advocacy. The organisation specific cases chosen were ISODEC and New Energy. Further details about these organisations and the justification of their choice are given in the sections that follow.

4.5. Data collection tools and case study inquiry

In qualitative case studies, data collection can take different forms depending on the objectives of a study. Some of the most common methods used include interviews, observation, photographs, videotapes, documents and focus group discussions. The use of these data gathering instruments in qualitative case studies have been discussed by House (1994), Denzin (2000), Gorman and Clayton (1997), Silverman (2005) Morse and Richards (2002) and Yin (1994). The relevance of these instruments in rural development research has been specifically commented on by Morris and Copestake (1993, pp. 54-62) and Chambers (1985, pp. 399 – 415). In information behaviour research, Wang (1999) has provided a review of various methods of data collection which include the above methods. The choice of methods and their value when combined (triangulation) have also been addressed by some of these writers. Suggestions have also been provided for selection of methods including consideration of issues such as what is already known about a phenomenon, the objectives of a study, the extent to which a researcher can gain access to study participants and the location, the type of analysis to which the data gathered would be subjected and how the data would be reported. Even within these methods there can be various types which require additional considerations. Interviewing, for example, can take the form of *structured*, *semi-structured* or *unstructured*. In this study data were gathered using three separate instruments in a triangulated fashion. These were *interviews* to understand what NGO development workers *do*; *information audit* to capture what they have *done* in the past; and *field observation* to develop insight into what they are currently *doing*. These three methods focusing on "do" "doing" and "done" were considered relevant to:

- the phenomenon of interest to this study i.e. information behaviour;
- the nature of work which is the focus of this study i.e. development;

- the environment where this study was based i.e. rural environment and lastly
- the values adhered too by this community i.e. participatory development

4.5.1 Designing the interview schedule (see appendix 3)

The interview schedule was designed thematically in a semi-structured manner taking into consideration the research questions and also Wilson's model of information behaviour which was employed to guide this research. The interview schedule covered five major themes. The first set of questions explored issues relating the various roles and tasks carried out by development workers. The objective was to gain knowledge about the "development work context" by understanding in detail goals associated with each task and the dimensions or forms these various task took. This was considered important in the light of the research perspective of this study. The next set of questions focused on the perception of respondents regarding what they considered relevant information for carrying out their respective task. The objective this time was to understand issues related to information need. The third segment of the interview schedule addressed the question of information sources and communication channels used to locate or gather information to carry out each task. Attention turned to issues related to barriers to information in the fourth segment. The objective here was to gain understanding of the challenges which had to be contended with in the pursuit of information. The interview explored in the last segment the question of information use. This was intended to understand how information was assessed to be useful or not useful. All the questions were largely open ended but also designed with specific probes aimed at flexibility of response from participants whilst maintaining focus. Specific techniques were employed to understand specific situations and also to aid the clarity of questions posed to participants. These included the use of the critical incident technique, the use of prompts and also pre-testing the interview instrument through piloting.

4.5.1.1 Critical incident technique

This was used to capture detailed and accurate accounts of the information behaviour of development workers based on specific incidents or situations. The critical incident technique (CIT), originally developed in psychology but also applied in other disciplines (Urquhart et al. 2003, p.64) has been described by

Flanagan (1954, p. 335) as "a procedure for gathering certain important facts concerning behaviour in defined situations". In information need studies, Menzel (1966, p.52) has noted that "the critical incident technique helps to focus on information seeking episodes; that is, chunks of information used to accomplish tasks, their effect on recipient's work, changes in cognitive state in the light of previous knowledge and the nature and phase of work in which the information proved useful". Using this technique in this study was considered valuable for gaining deep insight into the pattern of behaviour of development workers in relation to specific incidents.

4.5.1.2 Use of prompt cards (see appendix 6)

Another feature of the interview schedule was the use of prompt cards which was intended to manage the differences that were likely to arise between information science jargon and those of development studies. Since this study was designed to gain knowledge of the various dimensions of behaviour, e.g. active behaviour, passive attention, ongoing behaviour, it was felt that some terminologies or phrases may be unfamiliar to respondents or that their meaning and/or understanding may not be readily construed. In view of this, examples of concepts, terms and phrases of what a question sought to elicit were provided to aid respondents in their understanding of questions posed. Another reason for the use of prompt cards was to ensure that respondents had knowledge of the array of possible responses to a particular question. The value of prompt cards for phrasing questions and managing differences in language when formulating interview questions has been noted by Sapsford and Jupp (1996).

4.5.1.3 Piloting the interview schedule

A third strategy used to refine the quality of the interview schedule was testing it on a small scale to assess the adequacy of the instrument. An important consideration in piloting the interview schedule was ensuring variety in terms of the individuals who were selected to reasonably reflect the sort of people the main study intended to cover. To achieve this objective the interview schedule was tried on five purposively selected MSc students from the Water, Engineering and Development Centre (WEDC) of Loughborough University who had background and experience in rural development work in various countries. These included people from

Uganda, Ethiopia, Indonesia, Angola and Kenya. The main objective of the pilot was to test the following:

- a. The order of the questions
- b. Whether respondents understood the questions as phrased
- c. Effectiveness of application of the CIT technique and prompt card
- d. Duration of the interview e.g. do respondents show signs of impatience
- e. Unexpected or difficulty in coding responses which may need revising
- f. Proper functioning and manipulation of recording equipment
- g. Personal skills at administering the interview

Based on the piloting of the interview schedule the following changes were made to the original schedule.

- a. Some of the questions were re-phrased. For example the original question "can you recall any instance when you obtained information passively" was changed to "can you recall an instance when you were engaged in an everyday activity e.g. watching TV, listening to the radio, shopping when a piece of information relevant to your work caught your attention?".
- b. Also, it became obvious during the pilot that there was the tendency for respondents to want to talk about every single item on the prompt card. Thus, it was decided that respondents should be told about the prompt cards at the beginning of the interview; explaining its purpose and function. Moreover, the use of the prompt card would be restricted only to those occasions when it was obvious that respondents needed something to aid their understanding of the question based on examples.
- c. Furthermore, based on the pilot study some words, terminologies and phrases were changed or modified. For example, the use of the term "job description" was replaced with "task, duties and activities". Similarly the question "Which sources do you prefer and rely on for information?" was changed to "Where do you generally go to, or look for answers to questions and problems you encounter in your duties?"
- d. The use of more probing questions was also applied to the schedule after the pilot. For example probing questions, like "why", "how", "can you tell me more about" were added to the schedule after the pilot. Also, the length of the interview schedule was reduced as it became

obvious that some of the original questions were repetitive and hence redundant.

- e. The pilot also revealed that it was important to assign headings to the interview schedule to aid the memory during the process of asking question.

4.5.2 Information Audit

The information audit was the second instrument of data collection in this study which was considered appropriate for a number of reasons. The value of this instrument for understanding information needs, sources and flow within the voluntary sector has been reported by Saxon-Harold (1998). Similarly Chambers (1985, p. 404) has also commented on the wealth of information available in rural areas which take the form of reports, surveys, maps, statistics and even academic articles and which can be useful for learning about various issues in the development world. Information audits have largely been applied in business organisations to map out information resource entities of critical importance to the success and profitability of the organisation. The objective of such exercises has been to define the information needs of the organisation, its information holdings, information handling functions and the cost and value of meeting information needs (Burk and Horton 1988). Information audits are also meant to identify relative strengths and weaknesses with respect to information quality, accessibility, performance, use and effectiveness. Such discovery processes in organisational audits lead eventually to a comprehensive overview of an organisation's information resources, services and systems including knowledge of both the information itself and the means for handling it. The overall emphasis is one of serving the corporate interest in terms of improving a product or services and maximising profit and sustainability.

4.5.2.1 Reasons for the use of information audit in this study

Whilst acknowledging that the use of information audit as an instrument of data collection is positivist in outlook, it needs to be pointed out that its use in this study was intended to gain knowledge of the wider social factors which drive information production activities amongst NGO development workers.

- a. Firstly, an audit in the corporate sector is meant to understand organisational information issues whereas its use in this study was geared towards knowledge of the information activities of members of individual members within civil society.
- b. Traditionally, organisations carry out audits with the view of becoming more competitive. The purpose of this audit though, was to understand issues related to information flow in the work environment of development workers and the drivers which underpin such flows.
- c. Thirdly, the outcome of audits in organisations is the development of information policies and the development of information systems that store and disseminate information over the wider business area. The use of information audit in this study was concerned with understanding what could be termed information relationships between community members within the NGO world and the factors that engender co-operation and information sharing.

4.5.2.2 Designing the information audit schedule (see appendix 4)

To map out the information resources, an information audit sheet was designed to gather data on various information issues including the following:

- a. Type of information products held e.g. reports, training manuals etc.
- b. Purpose of such information products
- c. Who was responsible for preparing them and / or where they had come from
- d. Core contents and issues covered.
- e. Where and how stored or managed.

When these issues are operationalised as research questions they can be framed in the following ways:

- a. Where does information flow into the development work environment?
- b. Who is responsible for its production?
- c. What is the nature of existing information products?
- d. How is this information managed?
- e. Who has responsibility for its management?
- f. What is the potential value of such information?

It is important to point out that within information behaviour research, the use of information audit as a data collection instrument has yet to be considered as an appropriate instrument for investigating human information behaviour when compared with interviews and observation. In some respects, therefore, the use of this method of data collection can be considered a methodological innovation. Its downside was that it could only focus on information as a "product" neglecting information as a "process".

4.5.3 Field Observation

The third instrument of data collection was field observation. This ethnographic method was considered relevant because of its potential to provide first hand knowledge of NGO development workers undertaking everyday work tasks. Field observation was also considered relevant in terms of the opportunity it could provide for developing knowledge of the working norms, processes, challenges and expected outcomes. As pointed out by Burgess (1984, p. 79), participant observation facilitates the collection of data on social interaction, on situations as they occur rather than on artificial situations. The value of this data collection instrument, as he further points out, lies in the opportunity that it provides for collecting rich and detailed data based on observation in the natural setting, which allows for constructing an account of a social situation on the basis of the various accounts that are obtained from informants. In field observation, researchers can adopt a number of positions which Gold cited by Burgess (1984, pp. 80 - 82) classifies into four:

- a. First, the "complete participant" who conceals the observer dimension of the role with the result that covert observation is involved
- b. The "participant-as-observer" role, which involves situations where the researcher participates as well as observes by developing relationships with informants. The participant-as-observer makes no secret of his investigation but makes his research interest known.
- c. The "observer-as-participant" role, which refers to situations where contact with informants is brief, formal and openly classified as observation.

- d. "Complete observer" role is identified with eavesdropping and reconnaissance in which the researcher is removed from sustained interaction with the informants.

This study followed a participant-as-observer approach in order to gain insight into the perspectives ideas, attitudes, motives and intentions of development workers. An "observation protocol" (*see appendix 5*) i.e. a predetermined information log sheet was designed to gather data on the following:

- a. Daily tasks or duties for which information was required.
- b. The sources and channels used to acquire information to carry out duties
- c. Problems encountered in the acquisition process and
- d Suggestion of what would have been useful

An important aspect of the field observation was the recording of information during observation. To ensure that the development workers took an active part in making their own voices heard, recording of the above information on the *observation protocol* was entrusted to the development workers themselves during each field trip, whilst this researcher made notes in his field diary. The language barrier (local dialect Dagbani) meant that it was sometimes difficult to understand all what was said during the field trip, however.

Since it was not possible to pilot the observation schedule prior to going in for data collection, a strategy was adopted to hold a brief meeting each morning to outline the day's work task and note pieces of information that may be required. This strategy later proved to be unworkable because most development workers spend the greater part of their morning putting together logistics for the field and thus found very little time for the meeting. Also, it became obvious that because of the long distances that had to be travelled on motor bikes, setting off into the bush very early in the morning, sometimes at dawn, was considered advisable.

Having put together the instruments for data collection, the next stage of the research dwelt on issues of sampling cases as targets for data collection.

4.6. Sampling and case study inquiry

The case study, as a qualitative research strategy, raises important questions regarding the selection of sample(s) from within a given population. Again, the theoretical orientation of quantitative and qualitative research come into play. What is often described as probability and non-probability sampling is used to describe sampling procedures in quantitative and qualitative research respectively. In quantitative research, the primary aim of sampling is the confidence of representing without bias (in true proportions) members of the population and the possibility of generalising findings to the overall population (Ritchie and Lewis, 2003, p. 78). When such random and stratified sampling procedures are applied to qualitative case-studies a perennial problem is created. This is because the aim of case study research is not necessarily to statistically represent nor generalize but rather aid in-depth understanding about the salient features or characteristics of the case, an objective which works against quantitative principles. Bryman (2001, pp. 49-51) has made the point that exponents of qualitative case study argue that it is not the purpose of their craft to generalise to other cases or populations as pertains in social survey research. This argument has been refuted by other writers who argue in favour of other forms of generalisation in qualitative research. Stake (2000, pp. 22 and 439) has, for example, put forward the concept of *naturalistic generalisation* as the key purpose of generalisation in qualitative study which, in his opinion, is derived from the tacit knowledge of how things are, how people feel about them and how things are likely to be later on. Lincoln and Guba (2000, p. 40) have also used the concept *transferability* as an alternative to the question of generalisation as pertains in social survey research. Bryman (1988, p. 90) has also argued that unlike the purely statistical logic of quantitative research, the aim of qualitative research is to generalise to *theoretical propositions* rather than a population or universe. The key question which still needs to be answered is how to select samples from within a case so that some explanations are produced which have some wider resonance while avoiding the purely statistical logic of quantitative research and its random sampling procedures. The answer to this question, according to Silverman, (2005, p.128), lies in the use of specific sampling procedures and/or analytical model to produce explanations of some wider possibility or significance. In this research, *purposive* and *opportunistic* sampling strategies were adopted.

As its name implies, purposive sampling is a sampling procedure where members of a sample are chosen with a "purpose" in relation to some "criteria" informed by factors such as the aim of the study, existing knowledge or theories about the field of study or gaps in knowledge about a study population (Ritchie and Lewis 2003, pp. 79 - 80). Units are chosen because they have particular features or characteristics which enable detailed exploration and understanding of the central themes and puzzles which a researcher wishes to study. This can be achieved through *criteria* which ensure that some diversity weighted by considerations of access and hospitality are included so that the impact of specific characteristics can be explored. The aim in this type of sampling, as noted by Stake (2000, p. 446) is to "select a case of some typicality, but leaning towards those that seem to offer opportunity to learn", or, as pointed out by Creswell (1994, pp. 62 and 120), displaying multiple perspectives.

Turning to *opportunity sampling*, this involves simply using as a sample whoever happens to be available from the population of interest and is willing to be involved (Sapsford and Jupp 1996). In this type of sampling a researcher takes advantage of unforeseen opportunities as they arise during the course of fieldwork using such opportunity to avail him or herself of encounters and events as they arise (Ritchie and Lewis 2003, p. 81). The value of this approach lies in what can be learnt about a phenomenon more by accident than by design.

Despite the potential of these two strategies to enrich the quality of knowledge one could gain about a phenomenon, they are not without challenges and in many respects shortcomings. Purposive sampling, for example, requires knowledge about the characteristics of the population being studied to aid the development of criteria which aid the purposive selection of units of interest. Where such knowledge is lacking (as would be explained in due course) there is bound to be difficulty in exploring and understanding the puzzles a researcher may wish to explore. The possibility of researcher bias in terms of the choice of cases cannot also be ruled out. There can also be constraints on the part of the researcher in finding specific units or features which adequately fit a set criterion, a challenge which could undermine the objective of achieving diversity and thus explanations put forward about a case. The lack of clear sampling strategy in opportunistic sampling also

makes this a type of sampling method lack rigor. But whatever their shortcomings, *purposive* and *opportunistic sampling* methods were employed because they were relevant both to the objectives of this study and the challenges in the environment where this study was located. It is also important to emphasise that the overall objective of this study is not to generalise findings to the entire NGO work population in the Northern region. The choice of this group of workers was more to do with what could be learnt about their information behaviour within the environment where they operate which could enrich current debates in the field of information behaviour research. If one thinks in terms of generalisation, then the concept of *transferability* as used by Lincoln and Guba (2000, p. 40) is considered a more preferred term. What the term implies is that, where there are similarities base on fit in other areas and regions of Ghana then the patterns that occur in this case may be assumed to have the likelihood of recurring in that region.

4.6.1 The study population and selection of cases

When this study began, a major challenge which had to be faced was the question of making contact with, and gaining access to, members of the NGO population in Northern Ghana. Through the help of a friend, contact was made with the Executive Director of the Northern Ghana Network for Development (NGND). As a gate keeper, the Executive Director served as a very useful link for gaining access to the NGO work environment. The importance of gatekeepers in ethnographic studies linked to their status and power to grant or refuse access to a group has been commented on by some writers (Silverman 2005, p. 378, Creswell 1998, p. 117). Through the help of the Executive Director a local development worker (Ibrahim Babatu Adams) was recruited to provide company and guidance for the duration of the field work. As a member of the local NGO community, the presence of this "local co-researcher" facilitated access to the offices of many NGOs and also co-operation from many development workers.

Once the problem of access was overcome, the next question was selection of cases informed by some known features within the study population. This challenge was due mainly to the fact that very little by way of formally published and comprehensive profiles of NGOs exists in Ghana. A directory of NGOs prepared by a local NGO (ISODEC 1995) turned out to be non-comprehensive. The absence of

a register of NGOs and, by extension, development workers may have links to some of the issues surrounding NGO/Government relations discussed in the previous chapter under section 3.2.1 (Atingdui et al. 1998; Gary 1996; Biney 1995). The closest this researcher came to finding some basis for developing a typology or criteria as suggested by Silverman (2005, p. 130) and Ritchie and Lewis (2003, p. 78) was a classification list by The Ghana Association of Private Voluntary Organisations in Development (GAPVOD) an umbrella body in Ghana which is seen as having responsibility for co-ordinating activities of development organisations in Ghana. The GAPVOD classification was along the lines of development activities which they divide into ten (10) categories as follows:

- i. Women in Development
- ii. Health and Population
- iii. Agriculture and Food Security
- iv. Water and Sanitation
- v. Advocacy and Media Relations
- vi. Small Scale Enterprise Development
- vii. Youth and Culture
- viii. Environment and Disaster Relief
- ix. Child Survival and Development
- x. Non-Formal Education and Training.

Based on the above information, three different types of NGOs were also identified namely: local, national and international NGOs. Local NGO is used here to refer to NGOs whose activities are limited only to the Northern region of Ghana. A national NGO refers to NGOs whose activities are carried out in more than one region, or an NGO which is actively involved in deliberation of issues of national importance. An international NGO refers to an NGO originating from outside Ghana but which carries out development interventions either directly or in partnership with local or other national NGOs. It also emerged, mainly through informal conversation, that the development activities of NGOs in the Northern region were spread across the thirteen districts in the region. It is important to point out that the Northern region of Ghana, is also the largest region in terms of land space. Based on these considerations, three main criteria were adopted for the selection of cases:

- i. Type of NGO- local, national and international
- ii. Nature of development activities e.g. health, water and sanitation etc.
- iii. Geographical spread in the thirteen districts.

The overall aim in using this combination of factors was to ensure diversity and balance between development workers, development activities and development settings. An explanation of how these three different criteria were applied in the three separate instruments is discussed below.

4.6.1.1 Criteria for selecting interview participants

In recent times, especially in some developing countries, the question of NGO credibility has been the focus of some development writings. Fowler (1997, pp. 5-8) has, for example, identified NGOs whose motivation for engaging in development is based on other factors apart from empowerment of the poor and improvement in their livelihood. Briefcase NGOs – BRINGOs; Commercial NGOs – CONGOs; and Government Owned NGOs - GONGO are but a few examples of NGOs which operate for other motives. Bearing this in mind it was important to identify development workers who work for credible NGOs and who were actively involved in development interventions aimed directly at benefiting the poor. Thus, to qualify for inclusion in the interviews it was necessary to ensure that a development worker belong to a *known* NGO (local, national and international), operated in one of the recognised areas of development activity identified by GAPVOD above, and that such activities occurred in more than one district.

Working for a local, national or international NGO was considered necessary to capture information activities of the different types of NGOs which operate in the region. Specificity of activity and geographical spread of activity were considered important to provide some reasonable basis for credibility. As indicated above, in view of the notion of development through partnership, most International NGOs in the Northern region were not themselves directly involved in development activities but rather operated in partnership with local NGOs. There were a few exceptions, though, such as World Vision International which was directly involved in development interventions.

Once criteria were developed, development workers who fell into the criteria were targeted. One key issue of concern which needed to be tackled was ethical. Kvale (1996, p. 111) has highlighted the importance of obtaining subjects' informed consent to participate in a study, securing confidentiality and considering the possible consequences of the study for the subjects. To obtain informed consent of participants in this study, a letter of introduction, providing information about the researcher, the objectives of the research, the potential benefit of the research to the development worker community and anonymity of respondents was prepared. This was distributed to over one-hundred (100) development workers in different NGOs together with a one page background information request. The background information sought to gather pre-interview background information on respondents in order to gain some basic knowledge of them and of the context of the activities they were engaged in (appendix 1). This background information also helped to assess the credibility of the organisations which the development workers worked for with the help of the co-local-researcher and the Executive Director of the Northern Ghana Network for development. Of the hundred (100) interview request forms distributed, sixty-nine (69) development workers agreed to participate in an interview and also completed the background information form.

All together, fifty-five (55) development workers from the sixty-nine (69) who returned the form were interviewed. Of the fourteen (14) who could not be interviewed, the reason was mainly because despite repeated visits to their offices, they were not available for interviewing. Of the fifty-five (55) interviewed, only forty-eight (48) were transcribed, coded and analysed for this study. The other six couldn't be transcribed mainly because of the poor quality of sound of the tapes partly attributable to the distractive and/or noisy environments in which some of the interviews were carried out and also equipment failure due to run down batteries. Very good co-operation was obtained from all those who participated in the interview, which could perhaps be attributed to the seemingly intriguing nature of the research topic - *information behaviour*, a desire on the part of individual development workers to be part of a study which has the potential of raising important issues related to information, and lastly the role of the Northern Ghana Network for Development in facilitating the process. On a negative note, one local

NGO declined to participate citing as reason the fact that they were not too sure how beneficial the outcome of the research would be to them.

4 6 1.3 Criteria for selecting information audit site

An important consideration in the selection of an NGO office where the information audit could be carried out was the question of willingness on the part of the NGO to open its doors for the exercise. Beyond willingness, the following combination of factors were used in the selection of an NGO office where the information audit could be undertaken.

Firstly because this study was interested primarily in the conditions prevailing in an information poor environment, it was deemed more appropriate to focus on a *local* or *national* NGO as opposed to an International NGO which may not give a true reflection of local conditions. Secondly to ensure that a wide variety of information activities and situations were captured to enhance learning it was also necessary to select an NGO whose *activities* were quite *diverse* and also had a reasonable geographical spread. Thirdly, the selection of an NGO took into consideration the extent to which the NGO maintained *links* with other local and / or national development actors. The importance of this last criterion is that knowledge gained from the audit exercise was more likely to capture issues of interest pertaining not only to the said NGO but the wider development community.

4 6 1 4 Selecting an NGO for information audit

Based on the above criteria, the "Integrated Social Development Centre (ISODEC)", a local cum national capacity building NGO was purposively selected for the audit. This was achieved with the formal permission of the Director of the Northern Ghana operations of ISODEC on condition that the organisation would be formally identified in any report which brought mutual benefit to both ISODEC and to this researcher. The reasons why ISODEC was selected amongst a host of other NGOs were as follows:

- a. ISODEC is seen as one of the leading National NGOs in Ghana with offices both in Accra and a strong regional presence in the Northern region (Gary 1996, p. 156). Being a National NGO, ISODEC's selection also meant that rural development issues facing the country in

general were more likely to come up especially in the area of public policy. It emerged during the course of the field trip that ISODEC was one of the key NGOs involved in discussions with government regarding a proposed policy on water privatisation.

- b. Secondly, ISODEC's selection was also based on its interest in "integrated development" which was deemed relevant to the objectives of this audit. As its name indicates, ISODEC is involved in development activities, which include, amongst others, health, education, advocacy and women in development. It operates in 13 district of the Northern regions, 8 in the Northern Region and 4 in the Upper East Region.
- c. Thirdly, ISODEC works in partnership with a number of Local NGOs spread across various districts of the Northern region. These include, amongst others, Rural Help Integrated, Youth Action on Reproductive Order (YARO), Baptist Women Development Programme, Tiymtaba Integrated Development Association (TIDA), Partners in Participatory Development (PAPADEV), The People's Nnoboa and Rural Development Association (PENORUDAS), Zuuri organic vegetable farmers association (ZOVFA), Catholic Family Health Project and Tuma Kavi. This was seen as appropriate for the objectives of this audit from the point of view of geographical spread and collaboration with various NGOs.
- d. Furthermore ISODEC's reputation as a Capacity Building NGO meant that it was more likely to have good institutional memory. It claims to be the architect behind the establishment of the Northern Ghana Network for Development.
- e. An additional factor considered was the strong links ISODEC has with other International NGOs such as the UK's Save the Children's Fund. Such links were also considered to be important in providing insight into information issues of global significance.
- f. Lastly ISODEC's willing to co-operate with this exercise was a vitally important consideration.

The audit itself was carried out using the audit sheet designed for capturing information activities of ISODEC (see appendix 4). The audit began in the office of

the programme co-ordinator for health, followed by the office of the Deputy Director for ISODEC, and then the Director of ISODEC. Some basic information about each document was recorded. This includes the type of document e.g. report, the title and purpose of the document, the source of the document i.e. who prepared it, the intended recipient(s) of the document, a short summary of the contents of the document, and lastly where and how the document was stored.

4 6 1 5 Criteria for selecting an NGO for field observation

Like the information audit, selection of an NGO for field observation was primarily determined by the willingness of an NGO to allow this researcher to work with its staff. Again the selection was based on the following three interconnecting factors.

First, there was a focus on a local or national NGO as opposed to an International NGO. Secondly, there was a focus on an NGO in an area of development intervention which had links with other development objectives to enhance learning. Thirdly, because the field observation was primarily intended to develop knowledge of the socio-economic and physical environment, it was necessary to select an NGO which maintained contact with a number of local communities and indigenous groups and had reasonable spread in terms of geographical activities. How were these three criteria applied?

4 6 1 6 Selecting an NGO for field observation

The field observation was carried out in the Water and Sanitation sector. The main reason for selecting an NGO in the water sector was because its activities appear to have quite a number of links to other sectors including, health, agriculture, the environment, education, youth and women. Besides this reason, it also emerged during the process of data gathering that a recent report released by the World Health Organisation indicates that Ghana runs second on the World league table for Guinea worm infestation, with the Northern region reporting the highest incidence of this epidemic in the whole country affecting both human beings and livestock. The cause of Guinea worm is attributed to contaminated water and lack of sanitary facilities.

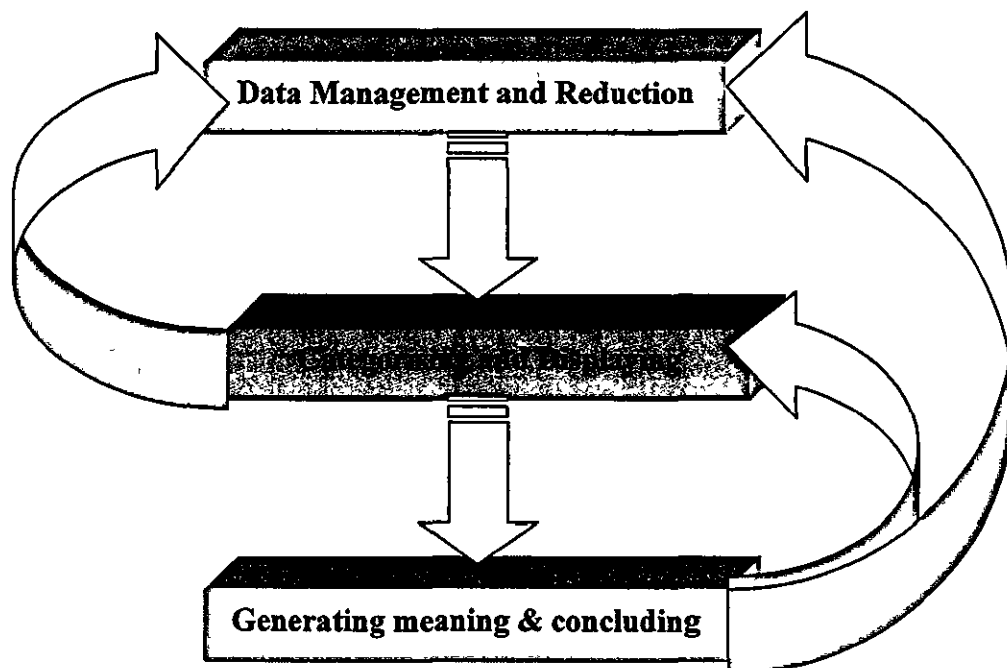
The second reason for focusing on water and sanitation relates to the fact that before the commencement of this research the Government of Ghana had put forward a case for water privatisation in the Country. The NGO community, especially in the Northern region, had reacted to this, pointing to the consequence of such a policy on the livelihood of the rural poor. There were various manoeuvres from a coalition of NGOs in this sector to initiate a dialogue with government on the policy, arguing that water is the basis of life and any policy that sought to make this unaffordable will threaten the very existence of the rural poor. This added to the importance of selecting an NGO in the water and sanitation sector to gain insight into public policy issues. The third reason for selecting this sector was that the Ghana Living Standards Survey (Ghana Statistical Service 2004, p. 133) shows that the Northern region has the highest amount of time spent on fetching water. This averages 74 minutes per day which is 30 minutes more than the second highest region in Ghana and thus provides good grounds for focusing on the water sector.

On the basis of these issues, New Energy, a local NGO working mainly in the area of water and sanitation was selected. The purposive selection of New Energy was based not only on the fact that its activities were focused on water and sanitation, but also that its operations were spread over a wide geographical area in the Northern region. New Energy is the main representative of Water Aid UK in the Northern region of Ghana and also works closely with the Government District Assembly in implementing water and sanitation projects in areas of the Northern region. In all, over thirty (30) communities were visited with staff of New Energy as part of the field observation in four districts of the Northern region namely, Tamale peri-urban, Tolon Kumbungu, Gushegu Karaga and West Mamprusi Districts over a period of three weeks. During the entire field trip, opportunities occurred to participate in a local workshop, a partnership meeting, a network forum of NGOs in the water sector, and also an evening social gathering of development workers to meeting the UK Director of Water Aid. These occasions provided opportunity for also sampling people to talk to informally in order to develop knowledge on development issues and also information activities within the Northern region of Ghana.

4.7 Data analysis strategies

When we turn to how the data gathered were analysed, three major steps and a variety of specific processes were followed. The steps applied in the analysis of data were not necessarily linear but rather involved moving in analytic circles. The three steps are depicted in an iterative or cyclical process as follows.

Figure 4.1 *Process of Data Analysis*



4.7.1 Data management and reduction

Data management and reduction involved two distinct components and processes. The first was to do with data transcription and the second involved the generation of codes linked to specific pieces of data.

4.7.1.1 Data Transcription

Transcription of data in qualitative research is important for the process of data analysis. Silverman (1997) has noted, for example, that proper transcribing and coding of data helps to identify topics, ways of talking, themes, events and actors to help retain good access to the words of subjects and thus increase the confidence that the patterns reported actually existed throughout the data. To achieve this objective data transcription started in the field during the period of data collection and proved to be very challenging. The process started with labelling of interview

tapes and information audit sheets as well as field observation sheets in order to make it easy to identify, for example, by whom or when an interview was granted, or the setting of a specific field observation.

In an environment where electricity supply is erratic, coupled with the fact that a data transcription device was unavailable, the services of a secretary (based in Accra the capital city) was initially engaged to transcribe the interview tapes whilst the data gathering exercise was ongoing. The reason for taking this decision was to avoid a situation where tapes might go missing because of the amount of travelling to and from remote parts of the region had to be carried out. Back in the UK, a second filling-in/double checking transcription was carried out, this time with a data transcribing device. Gaps in terms of missed out phrases and terminologies or terms which were mistaken for other words were corrected. In some cases, though, it was not possible to transcribe interviews verbatim due partly to the fact that some of the words were not very audible and also because the interviews were carried out in a non-soundproof environment sometimes under a tree. Nonetheless, effort was made to transcribe each tape as faithfully as possible, through repeated listening which ensured that close to about ninety percent of taped interviews was fully transcribed. Interview transcripts averaged between 8 - 10 pages. The information audit and field observation data were much easier to transcribe since these were captured on data sheets that could easily be read and typed. The transcripts were organised into files and folders for coding and analysis.

4.7.1.2 Data coding and conceptualising

The process of coding and generating concepts have been the subject of much discussion in qualitative research literature. One focus of such discussions is the use of computer assisted qualitative data analysis software (CAQDAS) for sorting or condensing data for analysis. Silverman (2005, p. 189) has outlined the advantages of CAQDAS including its ability to handle large volumes of data, carry out sorting, aid rigorous analysis of data and the examination of the whole corpus of data. This would include, for example, the identification of deviant cases, counting the number of times a particular phrase or words are used to demonstrate their significance, and consistency of coding. There are various computer assisted qualitative data software available on the market today most of which share common features. Examples of

this include ETHNOGRAPHY, NUDIST (Non-Numerical Unstructured Data Indexing Searching and Theorizing) and NVivo. NUDIST, for example, offers complex boolean searches but imposes a hierarchical structure on the generation of codes. This study used the ATLAS/ti software based on grounded theory to aid data analysis. The use of this software was not because this study was aimed at developing a grounded theory, but rather it was due to features of the software which were judged to be appropriate for analysis of datasets. ATLAS/ti, like most qualitative data analysis software, has the capability to manage a large body of text data for coding and retrieving. Beyond this it offers tools for extracting, comparing, exploring and re-assembling meaningful pieces from data in creative ways. The flexible and systematic way in which emerging ideas can be recorded through its memo facility allowed for the exploration and uncovering of complex phenomena hidden in data in an exploratory way. Furthermore ATLAS/ti allows a number of entities to be created and also develop conceptual diagrams showing links between these entities. These conceptual diagrams can be linked to instances of data i.e. quotations that illustrate the underlining motives, feelings, and meanings held by respondents. Although useful, the software is initially rather complex and requires some time to learn and make sense of the numerous functions. Compounding the problem of complexity is the fact that the actual handbook accompanying the software appears to have been written by non native English speakers thus making it difficult to grasp some of the explanations provided by the handbook. Notwithstanding this, the software proved to be useful both for managing and analysing data gathered.

The actual process of coding i.e. generating tags or labels for assigning meaning to data was informed by the conceptual model employed to guide this study and also the research questions which served as basis for the design and collection of data for this study. Three types of qualitative coding have been described by Miles and Huberman (1994, p. 57). *Descriptive codes* are said to attribute a class of phenomenon to a segment of text. *Interpretive codes* attend to the different meanings respondents attach to a phenomenon, whilst *pattern codes* are more inferential and explanatory in terms of thematic links. The coding process in this study started with a "start list" of codes based on the conceptual framework employed to guide the study and also the research questions serving as a priori or

predefined codes which helped to initially structure the data. Segments of data were coded relating to the variables of interest to this study namely the work context and roles which motivate need, actual information needs, information sources and channels, and lastly information use creating four broad classes.

The next stage of the process involved opening up each of the above four categories through an *open coding* strategy (Strauss and Corbin 1998, p. 103) This type of coding was directed towards looking for broad ideas contained in sentences within each category to help break down the data sets into more discrete parts and to uncover differences and similar. To illustrate this point, whilst initially a broad category was created for the *work context*, through the use of the open coding process a variety of tasks and subtasks were uncovered. This same process was applied to the other broad categories through a process of coding and recoding until all incidents, activities, situations were coded in reasonable regularities and a point of saturation was reached. Where necessary in-vivo codes i.e. catchy or recurring phrases used by respondents which provide insight as to what was going on, were used. A special feature of ATLAS/ti which allows for writing memos i.e. ideas or key organising concepts that occur to a researcher, was used to further explore other properties of the data associated with specific events, objects, incidents or happenings. Over 500 codes were generated by the end of this process.

4.7.2 Creating categories and display

The second major stage in the analytical process was data categorisation and display. This should not be confused with the first process of coding, which was primarily to breakdown data into discrete units. This second process was more a re-assembling exercise of creating a family of themes and showing their features. In qualitative research there appears to be no standards or convention of how data should be displayed, visualised or represented. The practice has been to use a combination of representational strategies. These strategies have been identified to include presenting data in text, tabular or figure form and using matrixes to represent themes and categories emerging from a study (Creswell 1998, pp.139 – 154). Other alternatives include hierarchical diagrams showing different levels of abstraction. Miles and Huberman (1994) have also suggested analytical processes of representation including the following:

- a. Putting information in different arrays
- b. Making a matrix of categories and placing evidence within categories
- c. Creating data displays in flowcharts
- d. Tabulating the frequency of different events
- e. Putting information in chronological order

Data presentation in this study took the form of matrix, tables, flowcharts and conceptual diagrams. The process of generating these representations was in essence a clustering and categorising exercise to create more abstract and higher order concepts which had the ability to explain what was going on. To create these representations, a process of classifying i.e. putting codes together to form major categories or themes (families) and sub-themes (children) linked to specific segments of data was carried out. In some respect, this was also a winnowing exercise which involved reducing data into manageable sets by using a specific feature of ATLAS which allowed for merging codes where an overlap in meaning was found. The analytical tool employed to examine sameness or variations between these categories was a *questioning* and *comparison* strategy which looked for events, incidents, actions or non-actions which share the same characteristics or properties whilst also exploring how these properties vary along certain dimensions (sub-categories) to increase knowledge of specific categories. These forms of data representation provided detailed description of what was seen in the data linked to persons, places or events to provide a visual view of major themes and/or issues. The labels used to describe each category were drawn from the data itself and also from the information and development science literatures. Care had to be taken, however, to avoid the biases associated with some of the commonly held meanings of these concepts within these disciplines which could prevent seeing what was new in the data. Each category so generated was then followed by an explanation of its properties or characteristics. Where necessary, direct quotations or narratives in the form of words used by respondents which provided insight into their mental frames were used to throw more light on a category. It also helped to explain the conditions under which events, actions, or inactions occurred. The categorisation process reduced the over 500 concepts initially generated through the open coding process into 15 broad codes each of which had sub-codes. To provide an example, initially concepts were created for segments of data which talked about, leadership,

organising meetings, managing community facilities, group formation and management, developing community action plans, managing conflict, family management, training in tree nursery, training in bush fire prevention. In the rebuilding exercise a category was created called "community capacity building" to represent these different activities. Sub-categories were then created along the lines of "project oriented capacity building", "management capacity building", and "intellectual capacity" each with core activities.

4.7.3. Generating meaning and drawing conclusions

The focus of this aspect of data analysis was more an act of interpretation geared towards creating understanding and meaning which came via noting regularities, patterns, logic models, explanation building, possible configurations, casual flows and propositions (Miles and Huberman 1994, p. 11; Yin 2003, pp.116-133). Emerging meanings from the data had to be tested for their plausibility. Patterns of behaviour were developed looking out, for example, for the relationship between specific *needs* for information and *use* of specific information sources. The specific tactics for generating meaning included:

- i. clustering
- ii. pattern building
- iii. comparing and contrasting
- iv. counting
- v. identifying deviant cases and
- vi. causal networks.

4 7 3 1 Clustering

This was an inductive process for generating meaning through sorting, grouping, subsuming particulars into general and then conceptualising. It focused on actors, settings and processes at a much higher level of abstraction to help draw conclusion. Categories created at this level were not treated merely as mutually exclusive entities but where necessary the ways in which the clusters overlapped were also explored, focusing on attributes which were critical for differentiating or showing similarities between cases. Attention was paid to intervening variables.

4 7 3 2 Pattern Building

Pattern building focused both on *variables* as well as *processes*. Patterns related to variables have been described under 4.6.2 above which focused mainly on similarities and differences between categories. The focus here was on *patterns as process* involving looking at connections which tie pieces of data together in time and space but within a specific context which provides some explanation. This was achieved mainly through the critical incident analysis using an *if-then* tactic which explored the logical relationships between variables noting for example the *conditions* that give rise to an information need, the *actions* or *interactions* engaged in, and the *consequence* or *outcome* of an action or inaction. A process of tentative testing, modifying, refining, defining and concluding was also used. Attention was paid to repeated behaviour, norms associated with behaviour, and the local meaning attached to such behaviour.

4 7 3 3 Comparing and contrasting

Comparing and contrasting was simply used as a tactic for differentiation between person, roles, activities and outcomes. The objective was to explore how big a difference existed between variables of importance taking into consideration their properties.

4 7 3 4 Counting recurrence

This tactic was used to explore the extent to which a phenomenon was significant by simply counting its recurrence. The objective was to examine the general drift of the data by looking at trends and distribution of specific incidents, activities, or interactions. The counting here was not to establish *how much* but rather to isolate the number of times and the consistency with which certain events happen. This was a means for verifying hunches by exploring what particulars exist more often, matter more than others, or go together in some way.

4 7.3 5 Attending to deviant cases

This focused on what Miles and Huberman (1994, p. 269) have described as outliers, i.e. taking a good look at exceptions to help build a better explanation. Where appropriate, negative cases in a category were highlighted to show the extent to which some behaviour patterns deviated from the norm. For example, an aspect

of the analysis showed that despite a seemingly positive view about the role of the Northern Ghana Network for Development as a platform for NGO interaction, one respondent spoke of this body in a highly critical manner suggesting that some members of this work community see this body as being more divisive than a platform for unity.

4.7.3.6 Developing Conceptual Coherence

This involved moving up from the empirical trenches to a more conceptual overview of the entire information behaviour landscape by gluing together the successive layers of inferences. The idea here was finding broader constructs that put the findings together in a coherent way throwing light on larger issues. The process was progressive from the bottom up, starting from identifying discrete entities, relating the entities to each other, developing patterns and then identifying a broad construct which puts everything together.

4.8 Challenges experienced in the field

Despite all the positive experiences in this research design, some challenges emerged which are worth pointing out. The first is related to the use of the critical incident technique in the interview. Because this is based on the ability of respondents to recall experiences, this proved to be very challenging. On some occasions respondents reported that they could not recall any experience. For example one exchange was:

Question:- Can you recall a specific situation in your job when you were faced with a major difficulty or problem, if so who did you turn to for advice?

Answer - No

Another reason for this negative type of answer could be attributed to the fact that where everyday work life follows a certain routine in a mechanistic fashion, it is possible to have experiences without giving them much thought because they are considered to be part of normal everyday work life.

The second major challenge was the issue of language and jargons. Because of the inability to speak the local dialect *Dagbani*, in many cases during the field trip there was the need to depend on my fellow co-workers to translate discussions in the

various communities to me. It was difficult to correctly represent these views due to their second order nature. Another dimension of the language problem had to do with the meaning of some words and how they are understood in the rural development environment. To the question:

Que:- In terms of your duties, which aspect do you find difficult and which ones do you find less difficult and why?

Ans - With development work I would not say I have been confronting difficulties, always I see it as challenges or constraints.

Other challenges were linked to the large geographical spread of development interventions, which meant that travelling through the savannah regions of Northern Ghana was also found to be daunting. Learning to ride the motorbike proved to be very useful. In terms of the interview process itself, equipment failure at one point due to run down batteries resulted in the poor quality of some recording, which meant that six of the interviews could not be used. Also linked to this is the fact that because of the small size of most NGO offices it was sometimes difficult to find a quiet place to actually record interviews. On one occasion this had to be done under a big shaded tree. Also, communicating with field workers in the bush and with the external world proved to be frustrating.

4.9 Generalisation to wider population

The development workers who participated in this study are not statistically representative of the entire development worker population in Ghana, or indeed all members of civil society. Thus the findings of this study cannot be generalised to the whole development worker population even in the Northern region of Ghana. As observed by Case (2002, p. 5) information seeking behaviour defies generalisation, since behaviour varies so much across people, situations, objects of interest and also because so much takes place inside a person's head. Nogueira (1987, p.70.) has also noted in respect of NGOs that "it seems rash to venture a general characterisation of NGOs". In his opinion "their diversity in nature, objectives, fields of action and methodologies mean that, if they are treated as a homogeneous group, the risk is run of making a few trivial, superficial statements". What the findings of this study thus does is to give a fair indication or reflection of the information behaviour of rural development workers in the northern region of

Ghana which may be similar to other development workers in other parts of the country and possibly beyond the borders of Ghana.

4.10 Conclusions

This chapter has outlined all the processes involved in designing this piece of research. It has addressed the epistemological perspective which informed the design of this study and the reasons why a case study approach was adopted in this study. The processes through which individuals and organisation were selected for inclusion in this study have also been explained. Furthermore the instruments employed for data collection and also issues related to data analysis have been addressed. Indication has also been given regarding the challenges that pertain to research in a rural savannah environment. The chapters that follow present the findings from the data analysis, beginning first with findings from the interviews.

CHAPTER FIVE

INTERVIEW DATA ANALYSIS AND PRESENTATION.

5.0 Introduction.

This chapter presents the finding of the interviews, the main instrument of data collection in this study. The chapter is divided into two main parts. Part one presents a micro level analysis of the information related activities of development workers along the lines of the main themes embodied in the conceptual framework which served as a guide for this study. These themes are:

- i. Firstly, the *contextual* factors which motivate development work;
- ii. Secondly, the *information needs* resulting from the contextual drives;
- iii. Thirdly, the *information sources* and channels used to resolve identified information needs.

The second part of the presentation is a macro level interpretive analysis of the actual behaviour patterns of development workers as they emerged from the micro analysis. All the results are presented in the form of matrixes, tables, flowcharts and conceptual diagrams depending on what best explains a given phenomenon. Where appropriate, direct quotations from respondents have also been used to support explanation of datasets and to also provide further insight into specific issues. The quotations are chosen to either represent the essence of the views expressed by many respondents or to illustrate the diversity of opinion on given issues.

PART ONE: MICRO LEVEL ANALYSIS

5.1 The *context* of rural development work.

As evident from the interview schedule (see appendix three), the interview questions started with an invitation to each interviewee to describe in more general terms the nature of the jobs they do. The purpose was to gain some understanding of the development interventions which serve as a reference for the information activities of development workers. This segment of the interview focussed on the factors which motivate such interventions. Three main themes were explored in the analysis namely:

- i. Work *roles* and *tasks* performed by development workers,

- ii. The *norms* associated with work roles, and
- iii. The *challenges* which must be confronted in pursuance of tasks.

Each of these is examined in more detail to show how they define the information world of development workers.

5.1.1 Roles and tasks performed by development workers.

The focus on work roles and tasks was based on the normative assumption that the specific situations in which development work occurred, and the conditions surrounding how it was carried out, are capable of providing insight into the frame of reference of rural development workers. A focus on tasks, was also deemed important to help place the information needs of development workers in the day to day work context and also gain knowledge of the levels of abstraction of such needs. The view was taken that the completion of tasks imposes information requirements if they are to be completed. The objective was, for example, to understand the goals of a task, its duration as well as the physical and mental demands required to carry it out successfully.

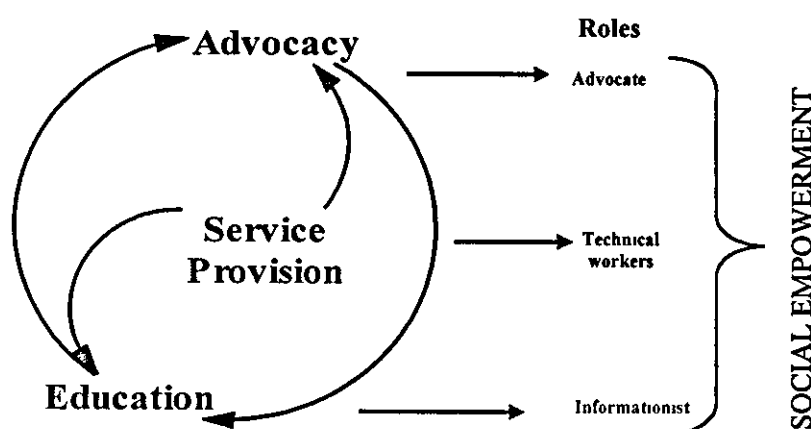
To achieve this objective, each interviewee was asked, prior to granting an interview, to provide a short profile of themselves and to also outline the development activities carried out by their respective organisations. Ten main areas of development intervention, similar to the GAPVOD classification cited in the previous chapter, emerged from the analysis of the background data. In the actual interview, which took place at a later date and time, respondents were then asked to describe and elaborate on their specific roles within the ten activity areas. When these two datasets were compared, three distinct, but also overlapping areas of intervention with varying degrees of complexity emerged. These are:

- i. Development interventions directed towards the *basic needs* of rural people through the provision of welfare services labelled as "service provision"
- ii. Development interventions which focus on *capacity building*, of rural people through training and information activities labelled as "education".

- iii. Development interventions geared towards representing the views and creating public awareness about the conditions of rural people. This was labelled as "advocacy".

The analysis also showed that for each of the above interventions, development workers assumed different roles. The interrelation between these three activities is depicted in the following diagram.

Figure 5 1 UNI-MODAL DEVELOPMENT INTERVENTION MODEL



The sections that follow provide a more detailed analysis of each of these contextual activities to lay the foundation for understanding information activities.

5 1 1 1 Interventions motivated by meeting basic needs i.e. service provision

The analysis first sought to establish the motivation for carrying out this intervention. It emerged that this type of intervention had as its basic objective improvement in the living conditions of the rural poor. It also emerged that this type of intervention is rooted in the belief that the phenomenon of poverty cannot be tackled merely from the traditional income (agriculture) approach to development but also through other forms of support and services. Three activity components were identified under *basic needs*.

- i. Agriculture and food security
- ii. Health
- iii. Water and sanitation,

i Agriculture and Food Security

Since agriculture remains the most important sector for income generation in Northern Ghana, as in many parts of rural Ghana, this sector emerged as one of the most significant areas of NGO intervention. Its objectives were geared not primarily towards food production but what in development parlance is described as "food security". Food security activities involve helping farmers to store their produce when there is a seasonal glut and selling them during lean periods. The aim is to ensure that there is supply of food all year round and also improvement in household income through the marketing of agricultural produce. The analysis unearthed a number of tasks, sub-tasks and situations associated with this intervention captured in the following table.

Table 5.1 *Activities associated with agriculture and food security*

Tasks	Sub-tasks	Situations
Organisation and Planning	<ul style="list-style-type: none">-Organising farmer groups-Assessing farmer needs-Drawing action plans-Supplying inputs e.g. seeds	Finding organisations interested in food security activities
Training	<ul style="list-style-type: none">- Advising farmers-Training e.g. application of fertilizers-Providing technical information	Liaising with MOFA
Marketing	<ul style="list-style-type: none">-Preserving grain in silo's-Monitoring food prices-Organising market for produce-Packaging food products-Carrying out evaluations.	Finding market for farm produce
Documentation	<ul style="list-style-type: none">-Monitoring production levels-Monitoring periods of food shortage- Documenting experiences-Keeping records of member projects	Information management

As evident from the above table different tasks emerged under this intervention. For example under the task "organisation and planning" we find that development

workers act as *researchers* carrying out studies which they describe as “needs assessment”. They also act as *disseminators* of innovation through the provision of technical information. Monitoring food prices year round was found to have the predictive value of planning future food security interventions. What is evident is that some of these activities overlap with the other two core area of development i.e. education and advocacy. What also emerged are situations which have implications for information/knowledge. For example, training farmers is likely to require knowledge in areas such as crop and animal diseases, soil profile and farming techniques. Furthermore, the need to find out about organisations with an interest in food security activities and also markets for selling food produce on behalf of farmers has implications for information activities, as does the business of documenting project experiences. The following statements express the nature of activities carried out by development workers under the food security program.

- We organise farmers in groups
- If there is a new package .. we send this to our farmers
- We also train them to give them the techniques
- We co-operate with the Ministry of Food and Agriculture who will do the technical training
- In food security there is credit... we support the women with revolving loan
- We are working with farmers to get prices for their crop
- If you do not monitor the prices well you will run the project into losses

ii Health

The second activity under basic need emerged as health, which had three main components, namely; curative health, preventive health and health promotion. The curative activities were found to be intended to bring health services closer to the rural communities and to cut down on the distances they have to travel to get to the nearest government health facilities for treatment. Curative activities were carried out collaboratively with specialist such as doctors and nurses from government health departments. The preventive and promotional health activities were found to focus mainly on primary health care and reproductive health education. The issues covered include HIV education and condom use, family planning, exclusive breast-feeding, child immunisation and nutrition, training of traditional birth attendants, and forming and training of Health Insurance groups. Again we find an overlap between this area of development activity and one of the other core areas namely education. What is also evident is that the target of this activity was usually the

whole community, but sometimes specific groups such as women, children, the youth, volunteers and drug managers were the target. The analysis revealed that the overall objective was to make community members more knowledgeable about health matters and thereby change entrenched cultural practices such as female genital mutilation. The tasks and sub-tasks as they emerge from the analysis are capture in the table below.

Table 5 2

Health intervention

Tasks	Sub-tasks	Situations
Preventive Health	<ul style="list-style-type: none"> -Training Traditional Birth Attendants -Organising community health insurance schemes. -Forming community health groups 	Dealing with entrenched cultural practices
Curative Health	<ul style="list-style-type: none"> -Provision of drugs -Treatment of Patients -Recruitment of nurses -Constructing Health facilities -Administering immunisation 	Identifying, and working in collaboration with doctors and nurses
Health Promotion	<ul style="list-style-type: none"> -Hygiene promotion -Promoting nutrition e.g. breastfeeding, soybean prod. -Training community health workers, e g drug managers -Education on health rights -Topical education e g trachoma, HIV, Malaria, family planning, FGM. 	Dealing with entrenched cultural practices
Documentation	<ul style="list-style-type: none"> -Gathering community health data e g. - child growth -Monitoring activities of trained groups e g. women, youth. -Keeping record of project experiences -Producing work plans -Reporting to stake holders 	Information management Writing project proposals

Three significant points emerge from the above table. The first is the specialised nature of the various interventions which require a great deal of specialised knowledge from a professional training. The second is the role taken on by development workers as information suppliers on health issues to rural communities.

We also note some interaction with government agents e.g. doctors and nurses. The statements that follow provide further insight into the nature of activities carried out.

Curative Health

- We are involved in all aspects of health, curative ..we have centres that we see patients at out-patient-department (OPD) level.
- We train drug manager to manage basic drugs and help the communities in terms of sickness. we go round to see what they are doing and collect the information and report
- We have an attached midwife from to project This midwife has been given to us by the MOH.

Preventive Health

- We have a programme in relation to malaria, diarrhoea . trachoma We are promoting face washing and environmental sanitation .. also improved infant feeding
- There are traditional birth attendant in most communities We decided to train some of them.
- We are into.. management of STIs including HIV, and discouraging harmful traditional practices e g. female genital mutilation and use of herbal concoction to induce labour

Health Promotion

- We have trained some people in the community we call the HAT team (Health and Agric Team) they organise their communities and also disseminate key information
- My duties are many I . coordinate activities through six communities . organise workshops on reproductive health issues ..

Documentation

- We also take some anthropometric data on children... we want to see if they are growing well
- Through monitoring we are able to notice certain improvements and we have to report this information to stakeholders like .. the District Assembly and the District Health Management Team
- We use vital information for writing project proposals like population information in communities ..

iii Water and Sanitation

This was the third activity identified under interventions aimed at meeting the basic needs of people in rural communities. This activity was found to have some direct relationship with health interventions. The activities carried out were twofold. The first was found to be the provision of water for household use aimed at reducing the amount of time spent travelling long distances to fetch water. The second was sanitation geared towards hygiene practices to tackle diseases such as guinea worm infestation, which is reported to be endemic in the northern region and attributed to the lack of proper sanitation facilities, and continuous dependence on dams and ponds as sources of drinking water. The various tasks, sub-tasks, and situations which emerged from the analysis on water and sanitation were as follows:

Table 5 3

Water and Sanitation Activities

Tasks	Sub-tasks	Situations
Constructing water facilities	<ul style="list-style-type: none"> - Assessing water needs, water sources, and diseases - Selecting communities - Deciding on a site for a well or bore-hole or latrine -Treatment of water facilities - Rehabilitating old wells -Constructing soak-a-ways -Setting water tariffs -Negotiating community contribution 	<ul style="list-style-type: none"> -Handling a caving in well -How to spot underground water -Blasting rocks
Documentation	<ul style="list-style-type: none"> -Gathering information on the history of water-wells - Researching impact on water -Monitoring water yields 	<ul style="list-style-type: none"> Handling data Writing reports
Training	<ul style="list-style-type: none"> -Education on env. degradation, e g. bush-fire, tree planting etc. -Training water and sanitation committees (WATSAN's) -Hygiene education on for example guinea worm 	<ul style="list-style-type: none"> Preparing training materials

Three points emerge from the above analysis. First and foremost, similar to health activities we note the highly technical nature of water construction activities which require possession of some technical knowledge and skills, e.g. constructing solar powered wells or handling a well that caves in during excavation. The second point that emerges is the interrelation between water and sanitation activities and health/environmental education. Thirdly, the value of both socio-economic and geological data for water and sanitation activities is clear as this interview extract illustrates.

“When it comes to VIP latrines (Ventilated Improved Pit Latrine) you do not just site at random.. you have to take a lot of things into consideration, because in the North we have a lot of compound houses where they have hand dug wells inside the compound and they need VIP inside the house too. So it will be very difficult to site a VIP in the house where there is a hand dug well, because in the end they will end up by drinking their own shit. (Laugh). So there are a lot of things we have to take into consideration when you are going about the water and sanitation activities”.

We learn more about the integrative and technical nature of water and sanitation activities as well as documentation activities from other respondents as follows:

- Apart from providing physical facilities for people to be able to have access to water and access to defecation facilities we also believe that hygiene practices have to be integrated or adopted to enhance or maximize the benefits of those facilities
- we try to visit the community, to find out the number of people in the community, their sources of water, prevalence of water related diseases and type of water-source they want
- We lack options in technology and to me it's one of the setbacks for those of us in the water sector ..
- ...what criteria should we use to select a community to provide them with water.. taking into consideration the geo-politics or settlement pattern . the ethnic, divide. .

5.1.1.2 Capacity Building Interventions

When we turn our attention towards the second major intervention, i.e. capacity building, the analysis found that this had one major objective, which is to develop the capabilities of members of the rural community to enable them to participate, influence and control decision making processes that affect their livelihood. Capacity building activities were also found to have links with the human centred philosophy of development which takes a holistic view of development, looking not

just at basic needs, but also addressing issues related to vulnerability, sustainability and empowerment. Two main activities were found under this intervention namely

- i. Education sponsorship and literacy
- ii. Micro Credit

i Education sponsorship and literacy promotion

It emerged from the analysis that this activity was geared towards supplementing the efforts of government at providing “education for all” through the development of a local human resource base which will serve as a foundation for sustainable development and local empowerment. Three main activities were identified. Firstly activities broadly described as *sponsorship* which focused on promoting child education and vocational training through fund raising from philanthropist. The second which can be described more as *support* activities included, the supply of textbooks, paying school fees of children and recruiting and motivating teachers to work in very remote communities. The third was more geared towards the provision of facilities e.g. school furniture, and putting up buildings. The broad tasks and sub-tasks reported were found to include the following.

Table 5.4

Education sponsorship and literacy promotion

Tasks	Sub-tasks	Situations
Sponsorship activities	<ul style="list-style-type: none"> - Vocational Training of children - Workshops for parents - Organising teachers to help with teaching of children - Communicating with sponsor 	- Deciding whether a child qualifies for sponsorship
Education promotion	<ul style="list-style-type: none"> - Identifying educational needs - Provision of textbooks - Encouraging parents to send children to school e.g. girl child. - Running functional literacy classes for children 	Dealing with different ethnic groups
Construction Activities	<ul style="list-style-type: none"> - Putting up education facilities - Rehabilitating existing schools - Supply of furniture - Houses for teachers 	Deciding in which community to set up a school
Documentation	<ul style="list-style-type: none"> - Social investigation on children - Registration of children - Writing reports to sponsors - Monitoring children's progress 	Data handling

One striking point which emerges from the above analysis is the feeling amongst development workers that their educational activities are meant to supplement those of government rather than the fact that they are in competition with government. The implication of educational activities for knowledge about government policies was also quite evident. These statements tell us more about the dimensions and issues in educational activities.

Sponsorship

- We have sponsors in Canada who they – children - communicate with.
- We link children from deprived communities to people in the UK

-... I was torn between whether the child was qualified to benefit from the project

Education Promotion

- We collaborate with the GES because we are doing the job to supplement what they are doing
- We organise teachers to help with teaching and learning in schools
- Mine is to educate parents to send their wards to school...to see the importance of education
- I have to ensure that textbooks they request are those ones that GES would accept in the schools.
- In every district we have classes...we have facilitators who teach they are volunteers,

Constructing Educational Facilities

- We construct new pavilions for the communities in which we operate or some times we rehabilitate existing school infrastructure.

Documentation

- What we do is to first take the case history... the back ground of the child, the community in which he lives, the parents and older and younger siblings
- I work with the Tamale street children project...we do social investigations on background of parents and children

ii. Micro Credit

This second capacity building activity was found to have strong links with the food security programme. Its objective was found to be that of building the financial capacity of community members through the provision of loans to community groups for farming and small-scale businesses activities. The analysis also found that micro credit activities were targeted mainly towards women based on the assumption that it can lead ultimately to self reliance which further translates into economic power and influence in decision making. It further emerged that the predominance of this activity was due to the absence and in some cases the complexity of operation of most financial institutions operating in rural areas. This was evident in areas such as methods of assessment for loans, and also collateral and repayment requirements which render them inappropriate to rural subsistence farmers. Four core tasks and several sub-task emerged under this activity as captured in the following table.

Table 5.5

Micro credit activities

Tasks	Sub-tasks	Situations
Organisation	-Mobilising various groups -Establishing credit committees -Assisting groups set up business	Sources of financial credit
Credit Management	-Screening credit applications -Assessing income/collateral -Loan Disbursement -Managing defaulting applicants	Deciding on qualification criteria Opening a bank account
Training	-Business planning -Marketing skills	Preparing teaching materials
Documentation	-Keeping loan records	Records management

Like the previous activities, what is striking about this intervention is the level of financial management knowledge required to successfully carry out this activity similar to what pertains in the formal banking, e.g. assessing income levels, credit checks, and also risk assessment. Another curious finding is the value of social capital in the form of social groups e.g. women's group which serve as a form of guarantee for loan repayment. Also evident is the role of development workers as knowledge workers via training and documentation activities. One respondent expressed what was involved in the entire process as follows:

I am in charge of loans the group would send letters to us I will make follow up with applications trying to know much about them, their business, I mean detail information about the community sometimes to the extent of doing business assessment, just to know the income and then I give recommendation to the organisation. I do the disbursement but before we disburse we organize training for them to build their capacity, some marketing skills and business management then we give them the loan.

Other activities and experiences are captured in the following statements:

- As credit manager I am suppose to be. screening credit applications
- We have a major problem with our farmers, sometimes loan recovery is a big problem
- We help them establish their business
- If you do not monitor the prices you will run the project into a loss
- ...finding out where I can get credit for the groups

5.1.1.3 Advocacy Activities

Unlike the above two interventions – “basic need” and “capacity building” – which were directed downward towards members of rural community, advocacy activity emerged as an intervention directed upwards towards policy makers i.e. governments, parliaments, and international development institutions. The analysis also found that advocacy activities had several objectives including the following

- i. Highlighting critical issues that border on the rights of the poor
- ii. Influencing national/global policy outcomes on issues that affect the poor.
- iii. Gaining access, and representing the voice of the poor in the decision making corridors of relevant institutions;
- iv. Changing power relationships,
- v. Bringing about clear improvement in the lives of the poor and vulnerable.

It further emerged that, by its very nature, advocacy activities involve confrontation, debate, argument, and other action oriented activities carried out in a collectivist fashion. Four core dimensions of this activity emerged, captured in the table below.

Table 5 6

Advocacy Activities

Tasks	Sub-tasks	Situation
Lobbying	<ul style="list-style-type: none"> - Challenging and influencing government policies e g. HIPC - Demanding transparency in the use of District Assembly funds - Campaigning for new policies - Demanding change in policies 	Advocacy skills
Publicity and promotion	<ul style="list-style-type: none"> -Writing articles/position papers -Radio / TV discussions -Press statements -Organising conferences - Representation at major fora - Promoting local governance 	Access to media houses
Building Alliances	<ul style="list-style-type: none"> - Informing communities about govt. policies and their rights. - Contributing to international pressure on governments 	Communication
Researching and Documentation	<ul style="list-style-type: none"> -Gathering data on communities - Evaluate government policies e g Poverty Reduction Strategy 	Information policy

What is evident from the above analysis is that, because advocacy activities are aimed at a change in power relations it requires not simply allies and relationship management, but more importantly verbal and written skills and the ability to conceptualise complex issues through a sound grasp of technical details. These are evident in some of the following statement.

Lobbying

- When this HIPC thing came... we came up with a number of articles with statistics challenging the approach of the government.
- We are trying to get the district assemblies to be transparent on allocations they have been given and what they use it for
- We have come out with a Ghana Poverty Reduction Strategy paper

Publicity and promotion

- Rural Media Network... the idea is to try to be the voice of the voiceless
- We gather information from the people,...come out with position papers .write articles for the Northern Advocate, hold radio discussion....

Building Alliances

- Some NGOs have formed the HIPC Watch project we monitor and evaluate the HIPC initiative
- Coalition of NGOs in the water sector in the northern region.. to influence government policies
- We do not work in isolation we work with development partners... they serve as a very powerful lobby or negotiating block to get something through to the government

Research and Documentation

- We go about interviewing people and find out about their problems and report hoping that policy makers will see them and do something about them
- I think there is an effort to let parliament come out with a bill on the free flow of information.. we hope with an Information Act public office holders will be compelled to give out information

Now that we understand something of the major interventions carried out by development workers, we move on to take a much closer look at first the norms which underpin the works roles, and also the challenges development workers had to endure.

5.1.2 Development work norms

The next level of interview data analysis explored the *work-norms* associated with the various roles carried out by development workers. The term *work-norm* is used here to refer to standards of work behaviour considered desirable, useful, acceptable, expectable and/or normal within the world of work of development workers. The aim was to identify the values which serve as a standard of reference for development workers in the course of their day to day work. Four major work norms, with varying dimensions, were identified from the coded data. These are:

- i. Community participation.
- ii. Development partnerships
- iii. Multiplicity

iv. Management practises.

5.1.2.1 Community participation

The analysis found that this work norm was strongly influenced by the participatory development philosophy which underpins current thinking in development science. Respondents used various terms to describe this work norm including "rural animation", "community mobilisation", and "software activities". Rural animation was described as an ice breaking activity aimed at fostering good relationship with local communities, and gaining the support and confidence of the traditional and local leadership to prepare the grounds for an intervention. In this respect, animation was seen as useful not only for reducing or eliminating community apathy towards externally initiated projects, but also serving as a determining factor in the success or failure of such projects. Respondents also indicated that animation provides an opportunity to learn about local cultures, and values especially in a multi-ethnic environment like Northern Ghana where conflict is rife. Another core feature of community participation was found to be the mobilisation of community members into groups. The two component activities carried out to enjoin community participation are depicted in the following table.

Table 5.7

Community participation

Components	Purpose	Target Audience
Animation	<ul style="list-style-type: none"> - Assess community needs -Selling a development ideas -Discussing community contribution -Discussing project implementation -Encouraging ownership of projects -Understanding community culture - Develop bonds with communities -Encouraging initiation of projects. 	<ul style="list-style-type: none"> -Chiefs -Opinion leaders -Community Based Teachers -Community Groups -Assembly men -School PTAs -School Management Committees
Mobilisation	<ul style="list-style-type: none"> -Forming community groups - Setting up development committees -Promoting inter-community learning e.g how to build a silo 	<ul style="list-style-type: none"> -Development committees -Local sponsorship committees -Water & sanitation committees - Farmer Groups - Dist Assembly Unit C'ttees -Women's / Youth Groups

Three important points emerged from the above analysis. Despite its positive value to development workers, we note from the analysis that participation of community members in development interventions appear to be merely nominal rather than transformative. Compounding this is the existence of what could be described as "community elitism" where influential persons such as chiefs, opinion leaders, and the assembly man become the focus of participatory activities. This is reflected in some of the following statements. (Emphasis added)

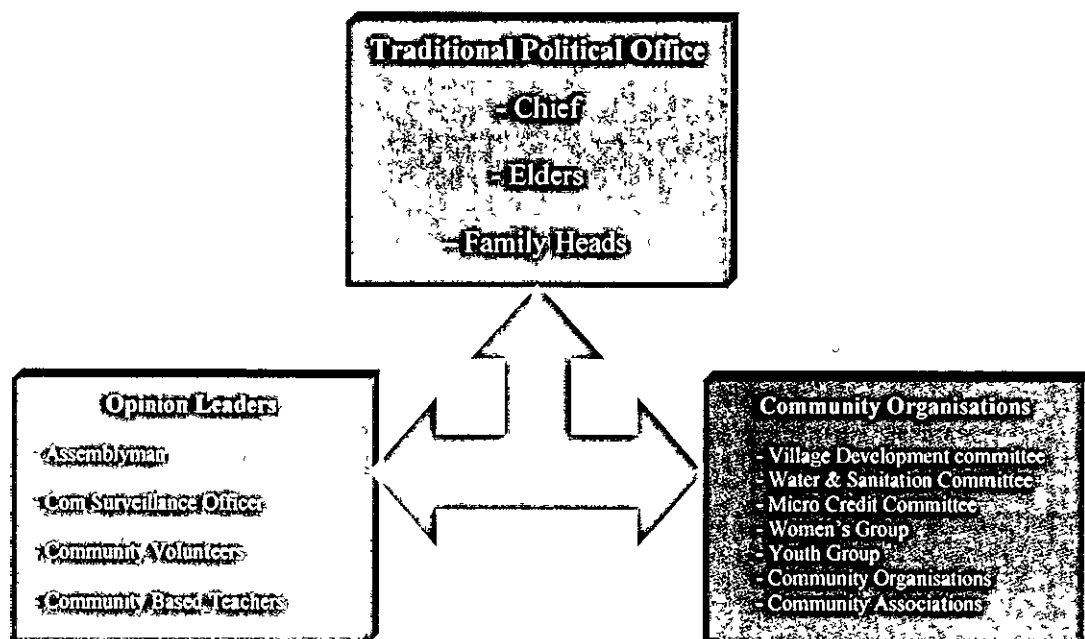
- When we enter the district for the first time we do animation...we *conscientise* them...
- We engage communities in discussions to agree on *..issues we want to work on* in the community
- We have an animation team they go out to do the assessment.. and *let them understand*
- The assemblyman in particular is an opinion leader and what ever he tells them has weight
- We are able to sit with the people, with the chiefs and elders and other opinion leaders

The third point which emerged from the analysis is the knowledge we get about the different organised groups which exist within the social strata of the community. As we shall see later, these functional groups are vital not merely for participatory activities but also for information gathering activities.

- Animating communities to form associations...what we call mutual health organisation
- We have about 100 plus women's groups in three groups in each community
- In my area I have sponsorship committees that I work with ...they mobilise the children
- We have water and sanitation committees that we work with on water issues
- We are in various developmental activities...we are also in mobilisation and animation of community for the provision of boreholes in 31 communities.

When the players involved in participatory activities are all brought together we get a picture which looks like the following.

Figure 5 2

Community Participation in Development*5 1 2.2 Development partnerships*

The norm of working through partnerships was found to involve various linkages, networks and supportive mechanisms across sub-units of the development field aimed at facilitating the effective delivery of development intervention. Many respondents expressed the view that development partnership was sought in the belief that development cannot be done in isolation but can be sustained through working relationship with similar others. Three different development partnership arrangements were identified from the analysis. Firstly, those which could be described as *local* partnerships occurring between NGOs based within the Northern region of Ghana. Secondly, those which can be described as *proximate* partnership occurring between government development agencies and local NGOs. Thirdly those which can be described as remote or *external* partnership occurring between local NGOs and international development agencies. The three types, their purpose and the groups or members involved are captured in the following table.

Table 5 8

Development partnerships

Types	Purpose	Groups / Bodies Involved
Local NGO networks and alliances	<ul style="list-style-type: none"> -To share development ideas -To share experiences - Advice for solving problems - To avoid re-invention of the development wheel -Training for the memberships -Lobby force and mouth piece -Help for proposal writing -Help for soliciting funds -Avoiding project duplications 	<ul style="list-style-type: none"> - Northern Ghana Network for Development -Water and Sanitation Network -Network of NGOs in the Agriculture sector -Network on Micro Enterprise -Reproductive Health NGOs network -Asso. of Church Dev Projects -HIV/AIDs network
Government partnerships	<ul style="list-style-type: none"> -To learn about DA dev. Plans -To fit NGO development plans into government plans -For technical/professional advice -Avoiding Duplication -Conflict Resolution 	<ul style="list-style-type: none"> -District Assembly Members -Staff of Govt Ministries and dept e.g. doctors, nurses etc -Tertiary Institutions e.g. Universities, research institutes
International development partnerships	<ul style="list-style-type: none"> Financial Sponsorship Learning/ capacity building Advice and support Global information sharing Joint advocacy and lobbying 	<ul style="list-style-type: none"> -Inter. NGOs e.g. Action Aid -Multilateral / Bilateral Orgs. e.g. World Bank; DFID -Academic research Inst e.g. John Hopkins University

A number of important factors emerge from the above analysis. First what we find is a collectivist outlook to development where all the three agents of development, namely the state, civil society and the private sector appear to work together to address development issues.

-In our work we have been involving the District Assemblies...

-We are collaborating with other departments like Ministry of Education, in the school health programmes Ministry of Health, Environmental Health Departments that's for the health side. When there is going to be training we normally get the facilitators from these departments

-We have another person from the Savannah Agricultural Research Institute, and then a senior Assistant Registrar from University of Development Studies

Secondly, what emerges from the above analysis is the existence of various local networks organised around sectoral activities, which would suggest some degree of openness between local NGOs, although as we shall see later on, competition between these local NGOs limit what is actually shared between them.

- We have good working relations with the Northern Ghana Network for Development which is an umbrella organisation of forty-five NGOs operating in the three Northern regions
- We have a network called Water and Sanitation Network in the region here...
- We have a network of NGOs in the Agric sector
- We have a network, the Child Rights Network
- Yes, I am a member of the Food Nutrition Security Network in the Northern region
- We belong to the Ghana Micro Finance Institutions
- There is the Northern network on Education
- ..and there is the Ghana HIV AIDs network that we want to be part of

Thirdly, one finds what appears to be a paternalistic relationship of dependency where local NGOs depend on external and international development partners for various development inputs e.g. finance and technical advice to execute their own development programmes. The power relationship that results from such partnerships, the conditions of accountability attached to such relationship, and the subtle dominance of western scientific knowledge that come via training and capacity building programmes all combine to influence the information activities of development workers. For example, this dependency leads to information reporting activities.

Sponsorship

- As I mentioned earlier our livelihood of survival depends on donors, when we don't have the financial support .. sometimes its very difficult for us reaching out to rural areas.
- We have sponsors, it is the Canadian cooperative organisation they are sponsoring the food security and we are working with them
- The African Development Foundation, they are our major donors based in the USA
- Especially in the Northern region our work is donor support driven
- Water systems that I am talking about were funded by CIDA the latter part by the World Bank

Reporting

- The biggest problem has been with reporting. results based, and impact based reporting
- It takes a lot to convince donors about what happens in the field. Those donors that have not been visiting us directly only rely on our reporting
- Every activity you do you have to write a report.

-Some of our donors we give them monthly reports ..then we also write quarterly reports and annual reports.

The fourth point worth drawing attention to is that most local NGOs appear to plan their development interventions within the development plans of government, a finding which would suggest a need to know about government policies.

-We work within the framework of government policy so we develop our strategic plan within the framework of the district assemblies our aim is to supplement government efforts

-We learn a lot of lesson from the Ministry of Health

5.1.2.3 Multiplicity of world views

The analysis found what could be termed the syndrome of "multiplicity" manifested in three core areas. These are multiplicity of roles, multiplicity of intervention sites and thirdly multiplicity of skills. Multiplicity of roles or multi-tasking was akin to what could be described as a *jack-of-all-trade* syndrome. When the interviews were carried out, it was hoped that one would find distinct roles carried out by NGOs in order to draw some comparisons. The analysis, however, found that work specialisation was not very much an integral part of local NGO work. What emerged was that most local NGOs engage in more than one development intervention at any time. This was evident both from the background information provided by development workers prior to being interviewed and also during the actual interview. The result of this was the absence of functional specialisation, and blurred boundaries between job descriptions. The following table shows that on average most local NGOs, participating in this interview engage in four areas of development activity. This is based on the total number of people who completed and submitted the background forms i.e. 69.

Table. 5.9 *Areas of development activity*

Activity Area	Number of respondents
Agriculture and Food Security	45
Health	36
Water and Sanitation	34
Environment	27
Women and Development	32
Advocacy	15
Micro Enterprise Development	23
Youth and Child Sponsorship	29
Disaster Relief	16
Education and Literacy	25
Others	11

Note: Respondents gave more than one area of activity.

It was not too evident from the interview responses the factors responsible for this multi-tasking. Some evidence suggested that, the very nature of development requires that this is carried out in an integrated fashion in order to achieve overall maximum impact. For example, effective health promotion in the area of guinea worm or trachoma is dependent on the provision of good water and sanitation facilities, and also effective environmental education. A second plausible explanation could be that because of the heavy dependence of local NGOs on outside sponsorship as noted earlier, NGO work has become a quasi business endeavour, such that, most local NGOs can no longer afford to put all their eggs in one basket but must expand into new areas if their organisations are to survive. The following extracts throw more light on the multi-tasking syndrome.

Multi-tasking

- ...when you start development work certain times you have to integrate some other things it comes maybe by accident.
- We are involved basically in three areas, that is, the provision of water, to the deprived community.. the provision of micro credit loans and food security.
- We are doing Food Security,...we give them hand dug wells or bore holes to reduce the incidence of diarrhoea,...in terms of their health,...we also work on rehabilitation of the environment.
- The programme involves so many inter- related project ...food security, reproduction health enterprise development ..,rural commercial women's project... and the peace and rights education programme.

A second core feature of the multiplicity syndrome was found to involve the siting of development interventions in different geographical districts and locations within the northern region. Judging from the fact that the northern region is the largest administrative region of Ghana, and also has a high incidence of ethnic groups mostly in scattered nucleated villages, the geo-politics of settlement patterns in the region dictates the need to *spread-out* with consequence for information communication as we shall see in the sections that follow.

Multi-Site-ing

- We are currently operating in seven districts
- We are involve basically in the provision of water to the . Yendi and Gushegu Karaga districts

-I am in charge of the Northern Sector, Ejura, through Techicam Kintampo and the Upper East and the Northern Region

The logical consequence of multi-tasking and multi-location was multiple-skills. The analysis below, drawn from the background data shows the educational background of development workers some of whom participated in the actual interviews.

Table 5.10 *Educational background of development workers*

Level of Education	Respondents	Percentages
Secondary /Technical school	5	7%
Teacher Training College	4	5 5%
Polytechnic	8	11%
Professional Qualifications	13	18%
University Degree	40	55 5%
Others	2	3%
	72**	100%

** Some respondents indicated having more than one qualification

It is evident that a large proportion of development workers who participated in this study come from higher education academic backgrounds, with the majority holding university degrees, and also professional and technical qualifications. Whilst some of these qualifications, especially those from the polytechnic, may be technical in nature, predominantly the rest are general academic degrees. Judging from the technical and specialist nature of interventions carried out by development workers as noted in the previous analysis, the analysis found what could be termed a culture of developing multiple-skills to manage various aspects of project delivery.

Multi-skills

- My main duties are to ensure the day to day administration that has to do with the coordination, supervision, and regulation [*Project Management skills*]
- My main duties ...are.. and budget for the project work [*Financial Management skills*].
- I send information to the people in the communities [*Knowledge dissemination skills*]
- Sometimes we administer questionnaires like needs assessment [*Researching skills*]
- When the need arises we go there and train them [*Teaching skills*]
- I document all experiences of the member projects . keep up-to-date records of all the member projects and their profiles . [*Record management skills*]

5.1.2.4 Management Structures

The fourth work norm identified from the analysis was in respect of management structures, lines of authority, and staff size. It emerged that most local NGOs appear to have flat organisational structures, short scalar chains and centralised authority embodied in individuals. This finding does not, however, apply to most international NGOs which have offices dispersed globally with more complex and multilayered organisational structure. The structure of local NGOs was evident in the titles used to describe the various posts held, the number of people who worked within teams and in some respect the number of "departments" found in each organisation.

- I have myself as a coordinator with a lady who is the training and monitoring officer working directly under me. We have recently engaged another programme officer who is responsible for Upper East project and we have the director of Northern Ghana providing management support as well as the finance and administrative officer.
- Within the organisation there is the Director and the Chief Executive, and I work as the Reproductive Health Officer. The other person in the organization...is the Enterprise Dev. Officer
- I am working with a team of five and they support me on the field... we have volunteers in five of the districts and we have permanent staff in two of the districts
- In the Water sector there are a four member team, the micro credit also a four member team
- On the sponsorship side, I have three people . on the micro enterprise, I have two people supporting me, and five community animators

One result of the small staff size was that most local NGOs tended to work within small office spaces (more will be said about this in the observation chapter). The short management hierarchies, coupled with small work teams, and physical space, all together were found to have enormous influences on the information activities of most development workers.

We now turn to examine the last contextual factor which emerged as defining and influencing the information world of development workers, namely development challenges.

5.1.3 Development environment challenges

The term "challenge" is used here to refer to the psychological and physical demands and/or conditions that must be endured in the design and implementation

of a development intervention. Based on the objectives of this study the analysis sought to investigate factors, both natural and man-made, which impact negatively on the work of development workers, and which could potentially have some effect on their information behaviour. Three environmental factors were unearthed as challenges with potential implications for information behaviour activities. These are:

- i. The Socio-cultural environment
- ii. The Physical environment
- iii. Communication environment

5 1 3 1 Socio-cultural environment

The challenges posed by the social-cultural environment showed up in areas such as traditional governance, cultural practices, religious beliefs, ethnicity, gender and moral and ethical norms. The traditional political office had the chief, his elders and opinion leaders as the key influential figures who *kept the gates* into communities. The analysis revealed that any offence caused to these influential persons can have perilous consequence for development interventions and by implication information activities. For example not adhering to traditional protocols could result in non-cooperation by a community. Beyond the office of the chief, what also emerged was various community based organisations (discussed above) which were considered important social structures for development. These groups were found to be organised along demographic, occupational, ethnic, and economic lines. The shared values of its members, and the familial bonds of trust, honesty, reciprocity, and respect for social norms, although considered valuable as a form of social capital with positive effects on development, was also reported to sometimes impact negatively on information activities thus behaving like a two edged-sword. Inter-ethnic conflict and multiplicity of languages was further reported as also impacting negatively on information activities.

-In Africa a chief is not approached directly, we have to go through the chain of command so that he himself will also be impressed

-The various communities have their culture and so if you are not very careful, you might go into a community and do something wrong which you think is right

-In the community that I operate they are predominantly Moslem and the attitude of the followers of the faith sometimes is as if you talk of western education you are talking about Christianity.

-In East Gonja barely a decade ago they were involved in a serious ethnic conflict...so any question that you ask bothering on traditional rule and ethnicity you will not get that information.

-...on HIV/AIDS there is still silence about sex issues in some of these communities it's a taboo.

When we focus on beliefs, a number of these emerged mainly of social and religious significance. A couple of these are highlighted in the following table showing their implication for information activities.

Table 5.11

Community Beliefs

BELIEFS	NATURE OF BELIEF	IMPLICATION
A married women must live with her parents after giving birth	Cultural	Gathering information on children who are on sponsorship programmes
Can't refer to genital organs with the real name in public	Social	Learn acceptable terms for interaction with communities
Women and men cannot sit together	Social	Challenge for gathering group information
HIV is a curse acquired by those who sleep with animals	Religious	Gathering information for HIV Aids education
Cannot site a Well near a shrine	Religious	Knowledge of community sacred sites.

5 1 3 2 Physical Environment

The term "rural community" would suggest specific physical features which are bound to pose physical challenges. Three main areas of physical challenge emerged from the data analysis namely; distance, road network, and transportation with far reaching implications for information communication which is considered separately below. The core issues associated with each of the challenges and their consequence is presented in the following table.

Table 5.12

Physical challenges in the rural environment

Nature of Challenge	Factors Responsible	Consequence
Distance	-Scattered settlement - Nucleated villages -Remoteness	Physical strain
Road Network	-Road is bad -Totally absent in some areas -Difficult to use in raining season	-Travel a whole day - Use risky boats to cross streams -Postpone activity
Transportation	-Inefficient transport system	-Use of motor bike -Local mummy tracks -Bicycles

The problem of distance was found to have direct links with settlement patterns in the region. Respondents reported that most communities live in scattered nucleated villages usually along ethnic lines or clans. The remoteness of these settlements required making long treks.

Distance

- Settlement is also far apart... if you want to go to Kpandai another a sub-district of East Gonja district you have to travel about 130 km through Nanumba, Lambimbila and back to Kpandai
- For instance I was supposed to do community level planning for a community . .even getting to that community was a problem ..

Compounding the problem of settlement pattern was the absence or sometimes poor road network, and also basic public services such as transportation. The major time of travel difficulty was reported to be the rainy season when parts of the region are cut off for entire seasons reached only by canoe. Ironically, these areas were referred to as *overseas*. The fallout of bad roads was a reliance on motorbikes as the major means of transport, its advantage being the ability to cope with bush paths and lanes albeit with attendant dangers such as armed robbery.

Road network

- We operate in very far places like Nanumba District, the road sometimes is very bad So the poor road network coupled with lack of transportation is a problem

- In the Northern region most of the roads are un-motorable especially in the rainy season, you will take a whole day to travel
- In "Overseas" that is West Mamprusi Fumbisi valley . there are no access road...I have to use a motorbike to cross the White Volta with a boat.

Transportation

- Transport is one of our basic problems to reach out to the communities
- I am covering the three Northern regions right now, we don't have a vehicle of our own
- We had to use a "mummy truck" to send the message ...during the next market day
- Had an unpalatable feeling of travelling in the night ... gangs can actually cross you beat you up if you are not lucky to be killed, to steal the motor bike.

* Note: (Mummy trucks are small mini trucks for carrying goods but also used for human vehicular travel in rural areas)

5 1 3 3 Communication challenges

As noted in chapter two in the literature review communication poses a major challenge in most rural communities. The analysis, however found many dimensions of the problem, not simply lack of telephone infrastructure, but also postal services, bureaucracy impediments, inefficiencies and cost with consequence for information transmission within the rural world of NGO development workers.

Table 5 13

Communication challenges

Type of Communication	Factors	Consequence
Telephone	<ul style="list-style-type: none"> -Absence of Telephone in some communities -Breakdown and unreliable -Bureaucracy of Ghana Telecom -Cost of service 	Alternative methods of communication.
Postal Services	<ul style="list-style-type: none"> -Absent in most places -Un-reliable where they exist -Lack of courier services 	Alternative methods of communication

Although some development workers reported availability of telephone facilities within their respective organisation, the analysis also showed that these telephone facilities were available mostly in few district capitals but absent in the remote centres where development interventions actually take place. Even in places where they were present, frequent breakdowns were reported by respondents. Some respondents attributed the problem to bureaucratic and moonlighting practices

within Ghana Telecom Service, the telecommunication company with responsibility for telephone services. Further compounding the problem of telephone communication was inefficient postal services, reported to be absent or limited in urban districts. A few individuals also reported that they did not have access to computers at all. The communication problem appeared to be more pervasive with local NGOs compared to International NGOs. The following statements give some idea of the level of frustration and coping strategies of respondents working in local NGOs.

Telephone Services

- Most of the people we deal with are hundred kilometres away and communication is one of the biggest problems we face.
- Most of the communities we work in don't have telephone
- I do not have any email facility with me when I am in the field I am always in the field, I stay in the field five days in a week I do not have a computer
- We have applied for a phone about a year now; we have not heard anything
- There is no way I can communicate from the field to Tamale office
- Sometimes we delay in payment (telephone) and they cut us off

Postal Services

- Because of the distance you have to send the message through people
- Gave the letter through passenger truck...did not get there in good time
- I have to give the letters through passengers truck... it was a communication problem.

5.1.4 Summary of context of rural development

This section has presented the analysis on contextual factors which were found to define and influence information activities of development workers. Four main points emerge from the above analysis by way of summary. These are:

- i. Context as a social problem
- ii. Context as divergent identities
- iii. Context as power relations
- iv. Context as inclusivity

5.1.4.1 Context as a social problem

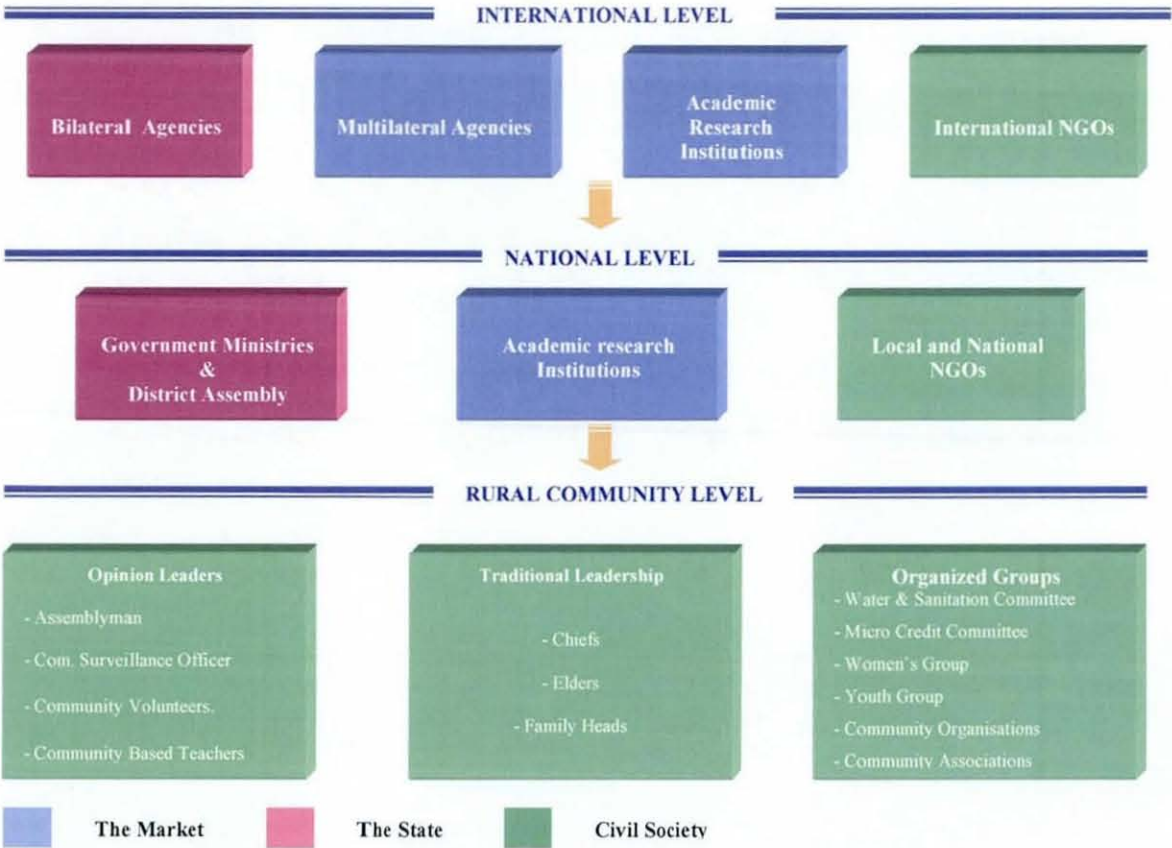
It is evident from the above that the problems tackled by development workers, which serve as the reference point for the information behaviour, are more of a

social nature i.e. poverty eradication rather than personal. This is reflected in the roles they take up as social service providers, social educators or knowledge workers, and also as social advocates. This finding is significant, because it places the contextual factors which define the information behaviour of development workers within the socio-cognitive rather than the cognitive. In relation to this point it also emerges that these problems are tackled not in isolation but rather in an integrated fashion - the uni-modal approach. The implication of this could be that need for information is more likely to be multiple and inter-connected or inter-locking rather individual and isolated.

5.1.4.2 Context as divergent identities

The second thing that comes to light from the above analysis is the number of players involved in rural development work, the divergent identities they carry which extend in many dimensions, and their physical location. Three key players emerge with whom NGO development workers engage. These are, the state; the market; and civil society organisations and groups, as illustrated in figure 5.3

Figure 5.3 *The Rural Development Players*



The identification of these three development players is very significant because it raises questions which relate to worldviews, ties and also psychological and physical distance which as we shall see in due course impact both positively and negatively on information activities. For example, the formal and informal organisation of these different players and the factors which motivate their involvement with local NGOs shape where and from whom information is acquired under different circumstances.

5.1.4.3 Context as power relations

Directly following from the above is the question of power relations. What this analysis has brought to the fore is that, despite the fact that all three different players –State, Market and Civil Society share a collective worldview of tackling the problem of poverty, they each have different motivation. The State is motivated by political power, The Market is motivated by profit, and Civil Society by social empowerment and transformation. These different pre-dispositions act not simply as boundaries, but as we shall see later, also define standards of *rightness* and *wrongness* in relation to information. For example, because the state derives its power politically, information is seen in a political light. In the same way development players from the market see information in terms of its value as a commercial commodity, whereas members of civil society see information in terms of its transformative value i.e. the social changes it brings about. An interrelation was found between these different social types, motivations, and worldview and decisions regarding what information is demanded, generated, accessed, given, valued, and used.

5.1.4.4 Context as inclusivity

The fourth and final point regarding context is the nature of social ties formed between the three main development players. Five main reasons for embracing similar

others (inclusion) emerge from the above analysis namely:

- i. *Business ties*: This type of tie was found to be oriented towards one development player acting as a sponsor of another player. For example, multi-lateral agencies sponsoring local NGOs. This dependency was found to impact on information behaviour.

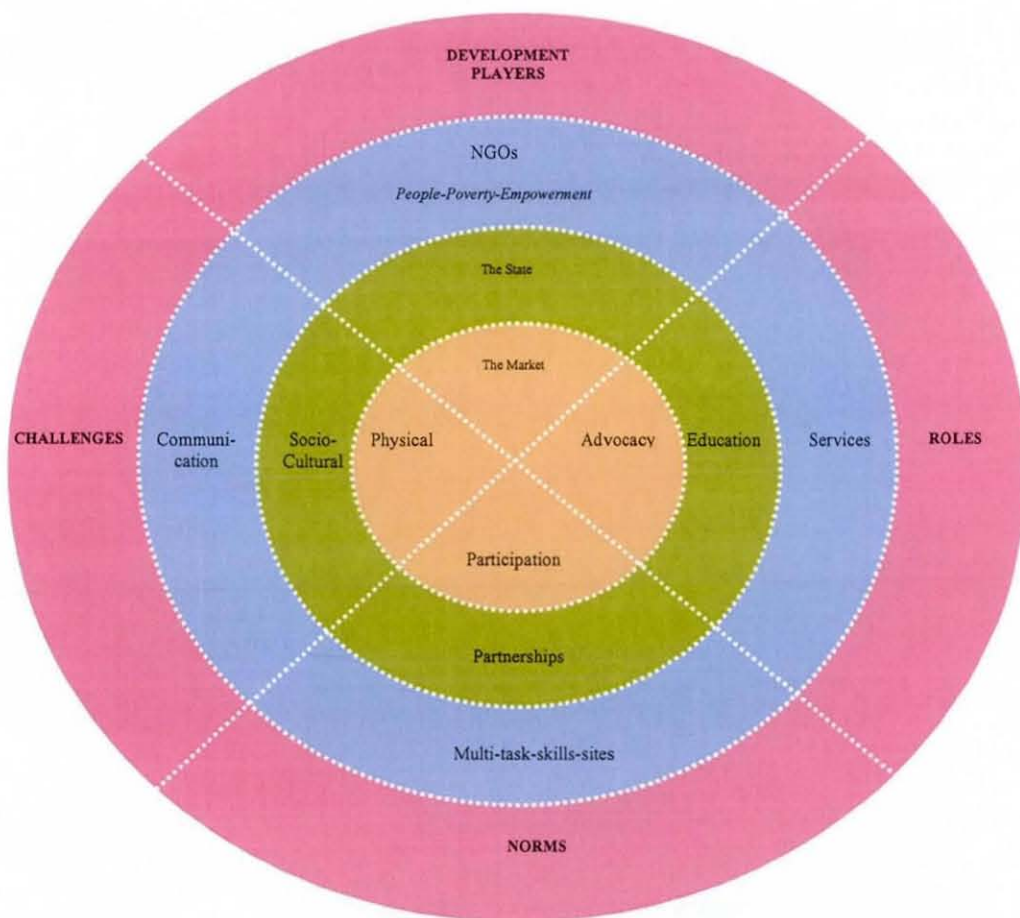
- ii. Secondly, *Institutional* ties, where formal linkages are made between players for some form of support/input from another. For example, local NGOs depend on government agencies for technical support to deliver their own projects.
- iii. Thirdly *Peer-to-peer* ties where some form of mutual agreement bind similar others together e.g. network of local NGOs in the area of water.
- iv. *Matrifocal* ties, where a big international NGO assumes the role of being the main supporter for local NGOs.
- v. Lastly *Indigenous* ties i.e. ties within communities such as community groups and associations.

These various ties were found to determine information linkages.

When all four contextual factors which define and influence NGO development intervention are put together, we get what could be described as an NGO development wheel that looks like the one in figure 5.4.

Figure 5.4

NGO Development Wheel

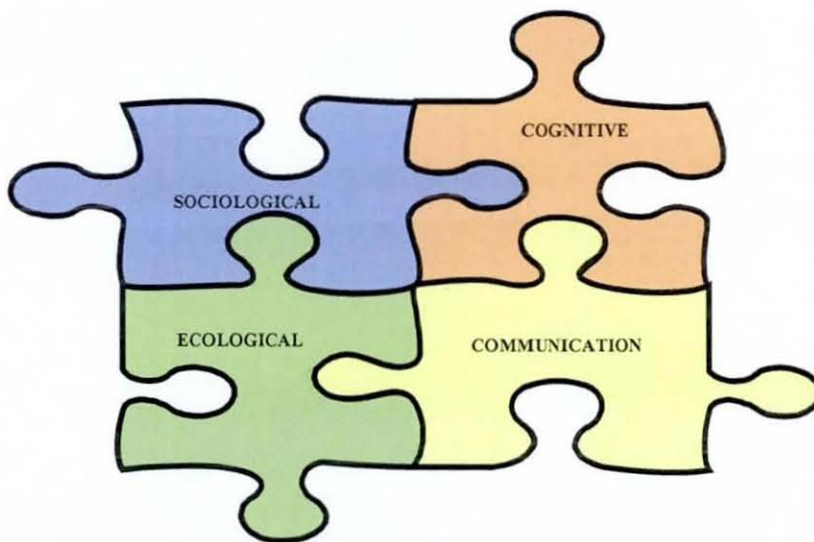


SECTION TWO
INFORMATION NEEDS OF DEVELOPMENT WORKERS

5.2 Introduction

This section presents the findings of the information needs of development workers, a secondary order need driven by the primary goals outlined in the previous section. Most development workers regard information as an intangible input essential for attaining their development goals. The analysis started by first and foremost investigating the various dimension of needs as expressed in the interview. These need were expressed in various ways by respondents, such as a problematic situation, questions engaging the mind, a communication problem, knowledge gap, or simply as some requirement for the completion of tasks. When these various dimensions were brought together four main categories emerged from the analysis of information needs which are captured in the following diagram.

Figure 5.5 *Information need of development workers*



Each of the above needs would be examined to shed more light on their properties and to also show the different forms they take. We begin with sociological information need which is used here to refer to information which relates to the social lives of rural communities.

5.2.1 Sociological Information Need

The analysis found that this type of information was considered by development workers to be critical for the design, implementation, and evaluation of various interventions. In rural development parlance this type of information is also described as *baseline data* encompassing demographic data, data on economic activities, data on health conditions, data on educational facilities, and the general environment as a whole. Two kinds of sociological information needs emerged from the analysis. These are:

- i. Soft sociological data of qualitative nature
- ii. Hard sociological data of a statistical nature

This distinction is important because it draws attention not simply to the nature of data required, but more importantly the embedded assumptions which underpin each type of data and the implication of how this is gathered and processed. The following table presents the type of data required under each typology, and also their attributes.

Table 5 14

Sociological information need

Nature of Data	Types	Perceived Attributes
Soft sociological data	Traditional Political system Ethnic diversity Traditional beliefs Social norms and attitudes Social practices Socio-economic conditions Socio-cultural groups/history Development impact Environmental landscape	Deep insight Value laden/subjective truths Narrative Feed back Analysis Interpretive Credibleness Impressionistic Predictive value
Hard sociological data	Demographic data Needs of community Crop production levels Farming seasons Food shortage months Number of livestock Food prices Income levels Bank interest rates	Rigorous Value free /objective fact Easy to collect Amenability to manipulation Degree of precision Reliability Predictive value

5.2.1.1 Soft sociological data

As evident from the above table, soft sociological data was described by respondents in terms of its descriptiveness, narrative nature, value laden and subjectivity, data which for many was regarded as not amenable to precise mathematical treatment. Respondents further reported that this type of data also possess the capacity to provide deep insight into the value system of communities, their diversity, nature of economic activities they carry out, and also their beliefs. It was also found that *soft-data* were regarded as having *diagnostic value* in terms of what can be learnt about the living conditions of the poor in areas such as their sources of water, the quality of such water, reasons why children are out of school etc. It thus provides the necessary background information/knowledge required to understand a specific situation in order to take decisions on appropriate interventions. A few statements shed more light on this.

- When you want to work with a community you have to know their history
- Information on how to enter the community, the socio-culture background of the community
- .. information like the population in the community, their health status, the water situation there, the environment, the sanitation situation .. their daily income and expenses in the house
- . . prevalent diseases in those communities, and their perceptions about causes of these diseases.
- ...information about the groups themselves. . for what purpose the group was formed
- We needed to know the hierarchical structure of administration traditionally
- I also need to know information about their children and their level of education like which school are they attending and the number children in the schools that they are attending

The expression of the above needs is not too surprising since, as noted in chapter three, the failure of many rural development interventions have, on occasion, being attributed to insufficient knowledge on the ways of life of rural communities and sometimes also on false assumptions such as the heterogeneity of rural communities.

The analysis explored further other motivations linked to the need for soft data. It was found that this type of data was also required in order to maintain social and ethnic balance in development interventions and avoid any offence which might be caused due to the disproportionate spread of development projects, especially in the northern region which has diverse ethnic groupings.

- In this area there are so many ethnic groups so you need to be careful in other not to offend any particular ethnic group
- You have to plan your activities in such a way that each of these tribes within the project area is covered ..we have two tribes the Kokomba's and Dagomba's and you have to make sure you find information about these communities before going in

Another point which emerged from further analysis of responses was that the need for soft data has direct links with the human-centred notion of development which now dominates current thinking in rural development and which recognises the need to place emphasises on improving the *quality* of life of rural people as supposed to quantitative measurement of project efficiency.

Some respondents, however, expressed concern about this type of data despite its importance. Some of the concerns expressed included, for example, method of collection, credibility due to what was perceived as the face value of this type of data, analysis, interpretation and also predictive value. This will explored in more details below.

5 2 1 2 Hard Sociological Data

When we turn our attention to what is described here as *hard* sociological data the term is used to refer to data of quantitative nature which lends itself to statistical analysis and number crunching. Unlike *soft data*, respondents indicated that this type of data was valued for its ease of collection and presentation, degree of rigor for the establishment of facts, for effective decision making and utilisation of essential resources. It was reported for example that, data on the population of a community (both human and livestock) was essential for deciding the number of boreholes that should be provided for a village or community based on a standard ratio.

- You should know the population living in that community and also is good you know the number of houses in that community...these are basic information when constructing hand-dug wells . and VIP you consider the number of people going to use the latrine
- The communities we need their population not only human population but population for both human and livestock

Hard statistical data was also reported to be beneficial as a reference point against which changes and impact on the lives of rural people can be measured, and more importantly for advocacy activities.

- baseline [data] helps you to know where you are starting from and at the end of it you know where you have gotten to, that is very important
- I can not talk about advocacy for better education when I don't have the have the latest figures . I need the latest statistics on any indicators to go and do advocacy

Another important point which emerged from the analysis was that unlike government, the data needs of development workers for most interventions was highly specific, a point made frequently by most respondents. The reason for this was found to be that, interventions of most NGOs tended to focus on discrete communities as opposed to whole population.

- You may have information about Nanumba District but that is not enough, I need to see all the communities in Nanumba district. If you take Chamba what is the population. ,
- I need to have current information about the spread of HIVAids because the figures keep on changing so we need to be abreast with that
- Before you go into the community you should know the number of people living in that community, the population of that community, and the segregation of that community.
- Education wise we need to know if they have schools, how many children are going to school
- We try to look at the interest rate within the system, what interest is the bank charging so that we also know what rate to fix [micro credit]

The above need not be construed to mean that development workers do not value aggregated data, and also that their need for statistical data is mutually exclusive. Some respondent clearly stated that aggregated data was on some occasion beneficial for some activities e.g. advocacy. The overall impression which emerged from the analysis though, was that, much value is placed on disaggregated data which is regarded as very essential for the design of small interventions.

When the overall sociological data needs of respondents are brought together five major forms of data can be identified as follows:

- i. *Feasibility data* - Valuable for understanding living conditions of the poor and for putting together project proposals.
- ii. *Demographic data* – Beneficial for project planning and design.
- iii. *Monitoring data* – Useful during period of implementation

- iv. *Impact Data* – Important for evaluation exercises and for measuring changes that have occurred.
- v. *Strategic data* – Essential for policy debates and for new social agenda setting.

5.2.2 Cognitive Needs

Need for information of a psychological nature is concern with mental gap or state of knowledge for which some learning was required to bridge the gap in order for an intervention to be carried out. The analysis started by first investigating the motives for this type of need. Several factors were identified as responsible for driving psychological needs. Key amongst them was the need to inform project planning with new knowledge and ideas and to also improve future projects and programmes. Other reasons were linked to a desire to learn about the experiences of others to improve the quality of projects, avoid risk, debate with policy makers on social justice issues, and also for accountability to donors and sponsors. The various reasons can be placed under three main categories as follows:

Table 5 15

Cognitive information need

Type of Knowledge	Purpose
Explicit Knowledge e.g. <ul style="list-style-type: none"> - Business assessment - Credit and savings management - Caring for HIV patients - Packaging of food products - Assessing e g food security - Designing projects - Gender Analysis - Monitoring systems 	To Learn To design projects/programmes To manage projects/programmes To measure impact of projects To design training programmes
Tacit Knowledge e.g. <ul style="list-style-type: none"> - Dealing with blasting of rocks - Handling caving in of wells 	To handle specific situations
Anecdotal Knowledge <ul style="list-style-type: none"> - What others have done - How others have gone about a specific program e g. credit management - How others dealt with specific problems - Failed and successful stories 	To Learn To incorporate into own plans To understand success/ failure factors To prevent reinvention of the wheel Report to donors Debate policy makers

5.2.2.1 Explicit Knowledge

The term explicit knowledge is used to refer to “know what” or “know why” knowledge i.e. knowledge on specific subjects, about facts, scientific principles, laws or theories, usually produced through academic research and in-depth studies on discrete phenomena. The analysis found that this type of knowledge fell into two main categories namely knowledge of a technical nature and also knowledge which can be described as expert knowledge. The technical knowledge needs of development workers were more of a mechanical or applied nature, connected to occupational methods, or procedures for accomplishing tasks such as constructing water reservoirs, hand dug wells or bore holes. The focus here for most development workers was to learn or memorise the technical principles of a given task. Expert knowledge on the other hand was characteristic of a specialist recognised by learned profession acting or making judgment based on cognitive competence in a specific subject domain such as health, finance or education.

The major motivation for explicit knowledge was found to have direct links to the educational background of development workers as described under *work-roles* and *work-norms*. As was noted, much of the work carried out by development workers requires a lot of technical and specialised knowledge on topics such as reproductive health, micro business development, marketing, and underground water exploration. For example, in the provision of water and sanitation facilities, respondents indicated that technical training was required to, for example, identify underground water movement using special equipments, or to examine soil texture as indication of the presence of water. In Micro Credit Management, respondents indicated that their lack of training in, for example, business assessment or risk assessment can be a major handicap.

Explicit knowledge needs were reflected in statements such as the following.

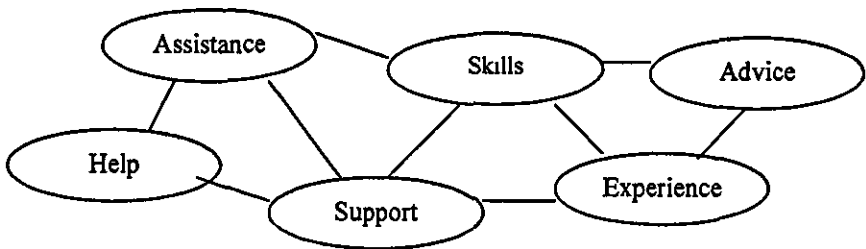
- I need information on savings and credit management . that knowledge is not there you know I did go much into business I need that knowledge
- The old old ones (we learnt from school that is the same information we are applying now
- The aspect I find difficult is when it comes to the family planning aspect, I am not an expert in it
- Even though I work for a health organisation, I am not a professional person

- We need information about the soil, soil analysis the lost of nutrients how we can analyze them
- On harvesting we need to know about, let say, the right moisture content of crops the signs of maturity we need to know information about all these things then also
- Like evaporation plans, how to determine the rate of evaporation from surface water

5 2 2 2 Tacit Knowledge

Tacit knowledge is used here to refer to knowledge which may be described as “know-how” linked to skills or the capability to do something which comes via interacting with others or through long term experience. Unlike explicit knowledge which is more objective this type of knowledge can be described more as subjective or subsidiary knowledge not ordinarily accessible to consciousness, and thus defying clear articulation. The words used by respondents to express this need were as follows.

Figure 5 6 *Tacit knowledge*



The analysis revealed that tacit knowledge needs expressed by development workers had some relation with the number of years of work experience, which emerged from the background data as follows:

Table 5.16 *Work experience of development workers*

Number of Years	Total number of Respondents	Percentage
1 - 5 years	35	51%
6 -10 years	18	26%
11 - 15 years	8	11%
16 – 20 years	4	6%
21 – 25 years	4	6%
Total	69	100

It is evident from the above table that a large proportion of development workers involved in this study are not very experienced in the field of rural development work. This limited work experience could be attributed to the fact that organised civil society participation in rural development has only been around in the last two decades, previously dominated by government development workers. Based on this fact, the claim can be made that the NGO *profession* is an emerging area of development specialisation which accounts for the low level of experience found in this study. Examples of tacit knowledge expressed by respondents include the following.

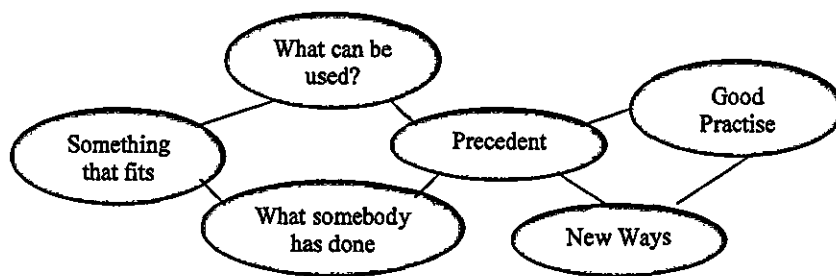
- ...if you are faced with a problem, you want to talk with somebody who has knowledge of the problem and has being through a similar experience
- ...like this business assessment how to sit down and really analyze the data to write the report because I have just started these are my headaches.
- how to draw the map the whole thing is just strenuous exercise because I am not use to it
- I will need first of all training in advocacy skills
- .. difficult part is when you dig into clay where you will be hitting the water and the sand will be collapsing, the well can cave on you

5 2 2 3 Anecdotal Knowledge

This type of psychological knowledge seeks to answer the question who-knows-what?. Anecdotal knowledge was expressed by respondents as a desire to learn about good practice, success stories or failure stories, ready-made solutions known by somebody who has had some experience of a situation or someone who can provide advice to help avert disaster or prevent a possible reinvention of the development wheel. For many respondents, this knowledge has links to social learning acquired through a mix of social skills and imitation of similar others. Phrases such as the following were used to express the need for anecdotal knowledge:

Figure 5 7

Anecdotal Knowledge



The factors which were identified as responsible for driving the need for anecdotes included fragmented development knowledge within Northern Ghana, absence of NGO-wide information policies and also the absence of a centralised and coordinated NGO information warehouse i.e. a one-stop-development-knowledge-shop. As we shall see in the chapter on information audit, the problem also has roots which go back to the absence of information management practices and knowledge sharing systems.

The following statements shed some more light on the need for anecdotal knowledge.

- once there is success somewhere we want to find out how they succeeded and if there is a problem you want to find out how it was solve
- to know what people have done on micro-credit and others things
- other organisations, what are some of their secrets of success what are some of the problems they are going through so we try to look
- For me development is not stereotyped, it's learning from the day to day experience and trying to see how you can make adjustments to respond..
- what people are doing elsewhere how they are able to get on and develop so we can also do likewise to be able to develop
- we look at...how they disburse their monies the amount of interest they place on their loans and also the grace period of the loans.. and also design to fit

5.2.3 Ecological Needs

The term "ecological need" is employed here in the sense of *human ecology*, of happenings in the proximate and external environment. This particular type of need was found to be linked to a desire to understand the broad social, economic and political context from which various policies and development frameworks originate to guide the conduct of rural development. Respondents were unanimous that information about the socio-political environment was valuable not simply for understanding events but also for setting goals in response to such occurrences and as a measure of programme impact vis-à-vis existing policies. Many respondents were emphatic that the initiation, implementation, evaluation and sustainability of development projects, indeed, the realisation of NGOs goals was tied to this particular need. The interest was in institutions and organisations whose policies

had direct consequence both positive and negative on the living conditions of the poor. Four main agencies emerged as the target of this need. They are:

- i. Government
- ii. Donors Agencies
- iii. International Development NGOs
- iv. Local NGOs

5 2 3 1 Government Policies

Participants expressed the need for information on various types of government policies to inform the planning, implementation and evaluation of development interventions. A synthesis of the variety of government policies needed revealed two main categories. The first relates to decentralised development frameworks of the various District Assemblies examples of which are captured in the following table.

Table 5. 17

District Assembly policies

Type of policy	Purpose
▪ District Assembly medium term plans	To be abreast with the policies
▪ Budget of District Assembly	To Inform people on the ground
▪ Minutes / deliberations of the district assembly	To develop our own strategic plans
▪ Funding from District Assembly	To work within framework
▪ District assembly elected members	To supplement government effort

A significant finding from the above table is the perception by respondents that their involvement in rural development was an attempt to supplement the efforts of governments. Based on this understanding, most development workers felt the need to understand and be informed about the development policies of the local district assemblies in which they operate. As we note from the table the actual strategic development plans of local NGOs is said to be also dependent on the development agendas of the District assembly. Additionally this need is also linked to a desire to inform members of the rural community about local government policies.

The second set of need for information about government policies was more sectoral focused at the level of government ministries and agencies as shown in the following table.

Table 5 18

Government Policies

Sectoral Policies	Purpose
Economic Policies <ul style="list-style-type: none"> - Policy on HIPC - Policy on Poverty Reduction Strategy 	To plan, monitor, debate and lobby To understand distribution of government resources
Educational Policies <ul style="list-style-type: none"> - Approved textbooks - Statistics of Teachers and school children 	To know which textbooks to supply to communities To assist work on street children
Water and Sanitation Policies <ul style="list-style-type: none"> - Policy on rural water - Government Utility price policies - Policy on use of explosives 	To compare rural water tariffs and work within policy Blasting during Well construction
Health Policies <ul style="list-style-type: none"> - Government Exemption policies - Government Health Insurance Policy - Exclusive Breast feeding Policy - Decentralised policies on health - MOH guidelines e g on Guinea worm 	To pass information on to community members To educate community members To resolve approaches to guinea worm patient identification
Environmental Policies <ul style="list-style-type: none"> - Burial grounds - Refuse disposal - Government Building regulations 	To determine where to site wells To provide guideline on building construction
Agricultural Policies <ul style="list-style-type: none"> - Agric policies general - Policy of use of insecticides/pesticides 	In order to work within regulation

Like the policies of the district assemblies, policies of sector ministries are required to plan development intervention, inform rural communities and also for purposes of debate. Despite the perceived notion of antagonism and competition between NGOs and government in the area of rural development, noted in the literature review, the above appears to show a desire on the part of local NGOs to work in collaboration, rather than compete with government development agencies. Some respondents also reported that their organisation rely on government funding to carry out some development interventions. This statement from a respondent succinctly sums up the expression of need for government policies.

For instance we work within the frame work of government policy, so we develop our strategic plan within the framework of the district assemblies medium term plans, so we need information on government, and district assembly plans

5 2 3 2 Donor Policies

Donor policy needs extended mainly to multilateral (market agents) and bilateral (state agents) institutions. This need was found to be linked to three main motives, partnership, financial support for project design, and support to sustain ongoing projects.

Table 5 19

Donor Policies

Type of Information Required	Purpose
<ul style="list-style-type: none"> ▪ Partners interested in a particular project ▪ Donor Agencies available for various interventions, e g. child sponsors, micro credit ▪ Donor Policies ▪ Financial Year of various donors ▪ Available funding through embassies 	<p>To fund development projects/ programmes</p> <p>To sustain projects</p> <p>For partnership</p>

Interest in donor funded policies, according to respondents was motivated by the fact that unlike governments which receive funding through taxation, local NGOs tend to rely on funding from external sources to initiate and sustain ongoing development projects. Because donor policies vary, and constantly change, respondents indicated that it was essential to be kept informed on a regular basis about such changes not simply to initiate new development projects but also for their own organisational survival. Curiously, no evidence was found to suggest that respondents needed to learn about donor policies in order to debate or critique such policies if they are deemed harmful to the poor.

-We also need information from donor agencies because we know that in the water sector donors fund most of the activities...So we need to get information from donors, what are their policies, donors policies also change, what are the policies, are they in our favour or against us we need to know all these things.

- We need information on funding agencies so that we can write proposals to them

- We need adequate information from the donor community to know who is interested in what, and for what reason, what are their expectations

- Because we depend on donor funding it is absolutely necessary to be on top of financial issues...what level of funding is available

-Our livelihood of survival depends on donors

-One difficulty is that donors at times put in place unnecessary criteria; these criteria cannot be met at the rural communities

5.2.3.3 Policies of International Development NGOs

The need for policies of international development NGOs was found to be largely motivated by the same reason as those of donor agencies accept that there was another twist; they were regarded as allies as opposed to competitors. Traditionally, most of these international NGOs have operated directly in the Northern region implementing projects directly. The evidence from the data suggests that criticisms and questions concerning project failure, attributed to inadequate understanding of the socio-cultural environment in which these foreign development agents operated, led to calls for local ownership of projects and empowerment of local NGOs. The result of this was a process of decentralisation, indigenisation, and cross-country linkages between International NGOs who now acted as *Big-Brother* to local NGOs - *Big-Brother's-Little-Brother*. Respondents reported that the physical as well as psychological distance created by this new arrangement required them to keep informed about the new policies and development agendas of their international counterparts. As we shall see from the chapter on information audit, this symbiotic relationship was found to have enormous impact not simply for communication and reporting, but also for the flow of development ideas from the north to the south.

These reactions encapsulate the importance of policies of international development NGOs to local development workers.

- I have to first of all understand ACTION AID Ghana objectives and then develop derived objects from it in relation to the communities that we are working in...there are very clear guidelines
- This is a Water AID coordinated programme; they plan it ..together with the local partners
- We work directly in partnership with Christian Children's Fund of Canada, an international NGO
- One of our partners is Village AID Project, we mostly depend on them ..even though we are in partnership.

Three important points can be made from the above analysis of the need for policies. The first point is that policy needs are influenced by different motives as follows:

- i. *Technical policies*: required for design and construction of projects
- ii *Socio-political policies*: those of government to act as a development framework, and also for passing on to rural communities.

- iii. *Economic policies*: those of donors for initiation and sustainability of development projects
- iv. *Corporate policies*: those of International NGOs working in partnership with local NGOs

Despite what may appear to be genuine development relations with local NGOs, the dependency and dominance that ensue from these relations were found to undermine independent thinking of local NGOs and also *pre-programme* their information activities.

5 2 3 4 Development Communication Needs

The last of the needs which emerged from the analysis was found to derive from the ICT challenges obtained in the rural environment outlined in the previous section. Four major motives emerged as driving this particular need. The first was the desire to keep informed about happenings in the outside world, secondly to maintain contact with other donors or development partners, thirdly to forge development relationship with other social development actors, and to stimulate public awareness and encourage social mobilisation. Respondents expressed communication need as a desire to gain access to and utilise communication technologies such as phone, fax, internet, broadcast media and to maintain social networks/ties. It further emerged from the analysis that channels of communication were required along different dimensions including the following:

- i. Vertical - horizontal communication
- ii. Linear - interactive communication
- iii. Formal - informal communication
- iv. Internal - external communication
- v. Top-down - bottom-up communication
- vi. Official - private/personal communication
- vii. Uni-directional - multi-directional communication
- viii. Short-term - Long-term communication

As we shall see in the next section, these various dimensions of communication needs, and the different characteristics associated with specific channels drive development workers to a variety of information systems depending on the context in which a need occurs.

5 2 3 5 Summary of information needs of development workers

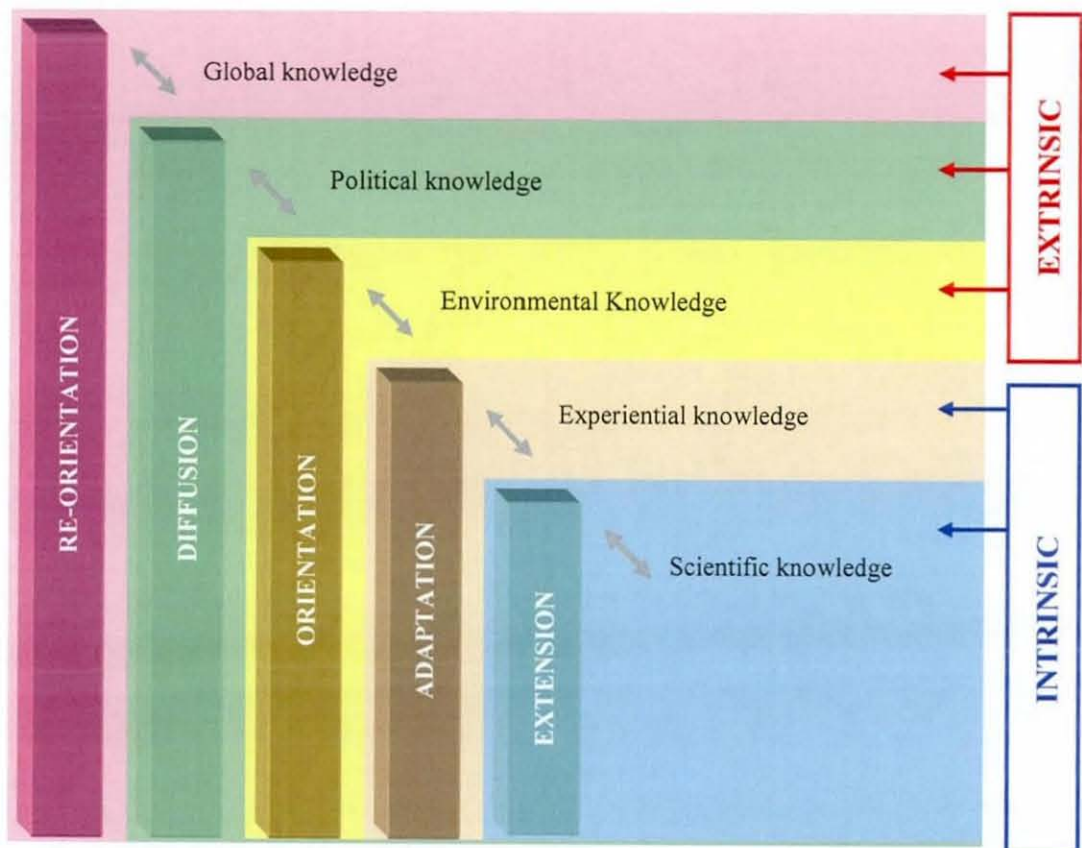
The analysis has shown that the need for information by development workers is motivated by a variety of factors. Social motives, as opposed to personal individual motives, appear to pre-dominate. The final stage of the analysis sought to cluster the different motivations into broad constructs which encapsulate these various motives in a holistic way. Five broad constructs were derived as follows:

- i. The first broad motivational construct could be termed *extension*. This is connected to the desire to extend or acquire *scientific/academic subject knowledge* to tackle various development problems. This motive has links to the anomalous state of knowledge or knowledge gap of development workers, and is also linked to their educational background. This motive can be term intrinsic motive because it is driven from within.
- ii. The second motivation for information is driven by a desire to *adapt* development ideas which come from people of *experience* or a known precedence or expert during programme implementation. This knowledge is sometimes also sought to check that one is on track i.e. uncertainty resolution. This knowledge is also intrinsic since it relates to the mind of the individual.
- iii. The third motive for information is *environmental* knowledge. It is driven by a desire to be kept informed on happenings in the socio-economic environment of the poor and also new development outside the immediate rural environment i.e. *orientation*. This knowledge is regarded as valuable both for project interventions and also for capacity building programmes. This need can be classified as extrinsic due to the fact that it is driven by factors originating from outside the mind.
- iv. The fourth motivation can be termed *diffusion*. The intention here is that information is not needed for personal consumption but is rather motivated by a desire to create awareness about government policies and programmes among members of the rural community. This has links to social empowerment of the poor and vulnerable aimed at tilting the balance of political power. This motive is also extrinsic.

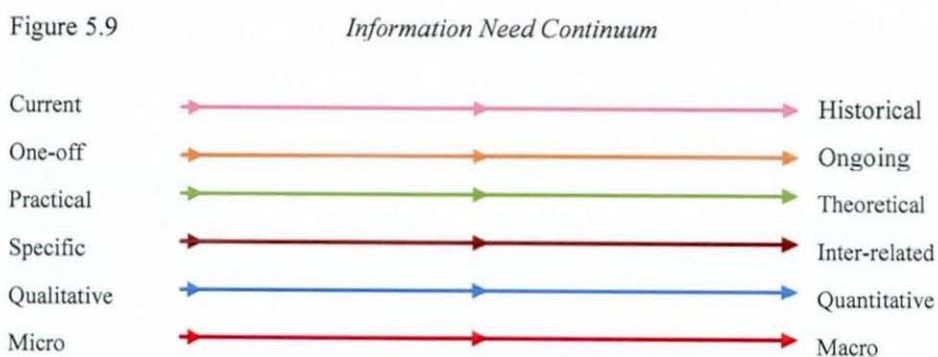
- v. The fifth and final motive is connected to advocacy and a desire to bring about social transformation within the *global* body politics. This motive can be called *re-orientation* and is also extrinsic.

When these five motives are joined together we get a framework which looks like the following.

Figure 5.8 *The five pillars of NGO motivation for information*



The second thing we learn about the information need of development workers is that they occur on a continuum with various degrees of emphasis based on a given situation. Six dimensions can be identified as follows:



For example, the evidence from this analysis shows that whilst the need for data can be highly disaggregated [micro level need] for an intervention in a small community, data is sometimes also required in highly aggregated form [macro level] for say advocacy activities. Also need for information can be specific to an intervention e.g. water and sanitation [specific] but can also be linked to several other interventions [inter-related]. Any discussion of information need must also take as its point of reference these dimensions.

SECTION THREE

INFORMATION SOURCES AND CHANNELS

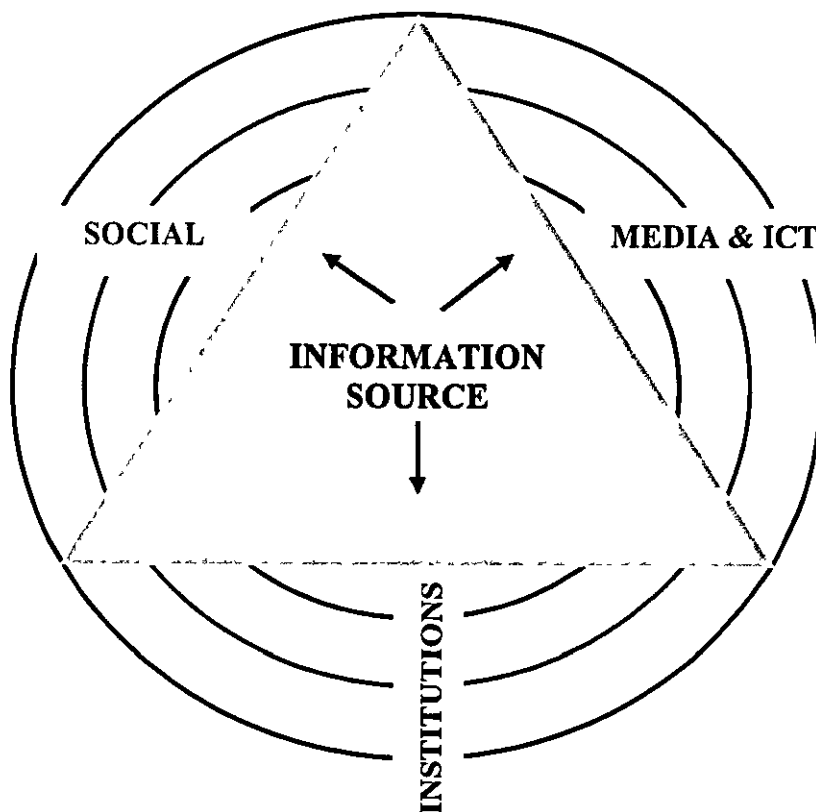
5.3. Introduction

This section presents the results of the information sources/channels reported by respondents regarded as useful, or ones which hold potential answers for the resolution of information needs identified in the previous section. The word *source* is used here to refer to something that embodies information e.g. a person or a document. A *channel* on the other hand serves as a medium or mechanism which mediates between the source of information and the recipient of information, who may or may not be separated through time and space. Example would include radio, TV and newspaper. This definition may appear a bit vague as in some instance a source can also be a channel. For example, a person can act both as a source and a channel when they pass on information they have been told by another. Notwithstanding the difficulty in drawing a clear-cut line between these two terms, this analytical distinction is important because it enables us to examine the properties/attributes of any given source or channel and to determine how this affects the flow of ideas or information into the work environment of development workers.

The interview analysis found three broad categories of sources and channels which development workers reported as useful. One big problem this categorisation creates is that it pigeon-holes sources and channels into specific classes and thus ignore other levels of abstraction such as format, status and location. As we shall see later, these other features emerge about various sources and combine in a number of ways to determine what is regarded as relevant information in any

specific context. The classification is thus meant to only provide some basis for discussing issues surrounding the various sources/channels which emerged from the analysis. It is captured as follows with the levels of abstraction shown as rings.

Figure 5 10 *Information Sources of development workers*



5.3.1 Social information sources

Information sources located within the social environment was by far the biggest category of information which emerged from this analysis. If the argument is accepted that communication acts take place in a social context or are mediated by a *people-element* then we find additional reasons for the predominance of the social as a source of information for most development workers. Being *social* would also suggest a pre-disposition towards modes of organisation or grouping (structure), relations (forms/nature of interaction), status (social position or authority), and flow (modes of transmission). Three main social sources of information emerged from the analysis which can be described as social-solution-spaces. The term *space* is used to denote a social arrangement of a temporary nature to address specific issues of interest or concern to members who share a common social objective. The three spaces are:

- i. Solidarity space
- ii. Knowledge village
- iii. Information pump stations

5 3 1 1 Solidarity Space

The term *solidarity space* is akin to the concept of *communities-of-interest* or *social-networks* which unite members together based on a shared objective. Solidarity spaces also exhibit the characteristics of homophilous relationship where pairs of interacting individuals are unified in their shared beliefs, values, status and goals. The difference between a *solidarity-space* and traditional networking is that activities organised around solidarity spaces occur not as dyadic activities, but rather on a determined *ground* periodically where members gathered for deliberation. The analysis of this source thus focussed not on the structural properties of engagement between members e.g. cliques, density of interaction, but rather on the *collective*, aimed at understanding the nature and properties of relations between the *membership* and the affect of this on information behaviour. The main motivation for development workers signing up to join solidarity spaces was found to include the following:

- i. Similarity of development activity carried out
- ii. Co-location in the same development operational area
- iii. The common-enemy-syndrome (government and other policy makers)
- iv. A sense of *we-cannot-go-it-alone*.

Three significant solidarity activities, which served as a source for the flow of ideas and information exchange emerged. These are shown in the following table.

Table 5 20

Solidarity spaces

Type of Solidarity	Function
Regional Coalitions <ul style="list-style-type: none"> - Northern Ghana Network for Development - Inter NGO consortium - Regional HIV Aids Co-ordinating Committee - The Northern Network on Education and Development 	<ul style="list-style-type: none"> - Share information on development issues - Update knowledge - Training for members - Knowledge of other NGO activity - Help with seeking of funds - Share experiences
Sector-Based Networks <ul style="list-style-type: none"> - Water & Sanitation Network - Reproductive Health NGOs network - Ghana Micro Finance Institutions - Agricultural Extension Workers Network 	<ul style="list-style-type: none"> - Share information / ideas - Help to overcome similar problems - What other people are doing - Help to solicit for funding - Documenting product experiences - Publication of Newsletter for members
Matrifocal Linkages <ul style="list-style-type: none"> - Collaboration between local and Int NGOs - Collaborations between local, national and International NGOs 	<ul style="list-style-type: none"> - Share experiences - Training - Funding - Share information / ideas

Regional coalitions were found to bring a number of NGOs together under a very broad umbrella e.g. Northern Ghana Network for development which create a sense of belonging for local NGOs and also serve as a platform for joint action. *Sectoral networks* were found to be more intervention focussed e.g. water and sanitation network or micro credit and finance network, creating a sense of purpose and thus acting as an open system. The third type of solidarity space *matrifocal-linkage* was found to be a form of connectedness between mainly a big international NGO (the economic agent), and national cum small NGOs (local agents). This relationship is dubbed matrifocal because it is akin to a kind of family or household dominated by a *mother* as the head i.e. the international NGO who acts as a financier; and the offsprings i.e. local NGOs who do as they are told by the mother.

What is immediately evident is that these different social sources occur both along vertical and horizontal lines and can also be described as follows:

- "first order solidarity" i.e. inter-NGO solidarity within the region
- "second order solidarity" i.e. inter-related solidarity between sector NGOs
- "third order solidarity" i.e. inter-dependent solidarity between local and international NGOs.

Solidarity spaces were found to be grounds for the transfer of both explicit and tacit knowledge, and also experiential, political and global knowledge.

The analysis sought to investigate the factors responsible for the degree of *openness* and *willingness* to share information, judging from the fact that the literature on NGOs in Ghana is characterised by competition, secrecy and conflict as noted in chapter two. The main factors which emerged for why *first* order solidarity space acted as information source were found to include the following:

- Participatory engagement
- Non-competitive
- Trusting atmosphere
- Lobbying strategies
- Open discussion
- Reactivity
- Story Telling
- Capacity building opportunities

A few statements to support this point are considered relevant.

- In Northern Region we have the Inter NGOs Consortium and/or the Northern Ghana Network that is a coalition of NGOs...there is that collaboration so we go to them for information
- this inter-NGO consortium that's where you get most of the information from.
- The Inter NGO consortium.. the benefits are enormous because one, when you go there you present situations something like a programme you have undertaken and then you mention the successes and the problems ..you pick a lot of things there that will actually impact on your own work, so we share ideas
- I think TIDA benefited a lot from the Northern Ghana network . it was through this network that TIDA was picked by ISODEC to implement reproductive health

The analysis explored the reasons responsible for information sharing under second- order solidarity i.e. inter-related NGOs. The following factors emerged as responsible.

- Shared purpose
- Sameness of identity
- Brian Storming
- Radius of trust
- Spirit of co-operation
- Pro-activeness
- Informality

- Friendliness

Some respondent, for example, indicated that the feeling of being recognised as a member of a group, and the quality of being the same as others acted as an influence on other members to drop the iron-gates and voluntarily share information and personal stories. According to respondents, because these stories were based on experience accompanied by the necessary emotional nuances, they become memorable. The strength of stories, told on these grounds was also reported to lie not simply in the learning they bring, but also their importance for reflection to guide future behaviour. Furthermore, some respondent indicated that because their role in one specific sector has connections to other intervention, information from sector based solidarity had a multiplicative effect. This response from one development worker illustrates the importance attached to inter-related NGO networking and solidarity.

We believe that is one area where we derive our strength from, because we have recognized the fact that we cannot do it alone. There is the need to network with others for the sake of getting information, sharing experiences and opening us up to new ideas and new ways in which things are done. .

Other respondents had this to say concerning the value of inter-related NGO networks:

- If I want information on the water sector I know there are other NGOs that work in the water sector and there is that collaboration so we go to them for information
- The Association of Church Development Projects .. as a network when we get information, all the members have access to that same information
- NGO Coalition on the Rights of the Child. ..it helps us have better understanding of child issues .. they help us to be more informed
- we have a network of NGOs, when you have a problem you can wait when you have a meeting then you table it, others will share their experiences with you
- Well we get updated on the activities with other development partners so at least we get to know where, who are doing what and what not, so we can easily get information from them
- We network with other organisations because we have other NGOs who are in the same programme but in different communities...so we network and then share our problems and we find solutions to our problems

The third and final type of solidarity inter-dependent solidarity between local and international NGOs presented yet another interesting dimension of information exchange activities. Unlike inter-related-NGO network which was characterised by

sameness/equality, the players within this space had some contrast. This shows up in their attributes, i.e. "European-international-externally located" NGOs, working with "Local-traditional-proximally located" NGOs. The interesting finding which emerged from the analysis is that, instead of these different attributes serving as a weak tie for information sharing, they were found to rather act as strong bridges for information exchange between the local NGO membership who work in partnership with the same international partner. It could be hypothesised, based on this fact, that information sharing amongst local NGOs is also a function of shared parentage, i.e. international development partner, which serve as a strong rallying force for voluntary knowledge exchange. One example found was a case where Save the Children's Fund UK, worked in collaboration with ISODEC a national NGO, and also a number of local NGOs in the area of family reproductive health. Transfer and exchange of knowledge occurred through a number of activities including the following:

- Partner review meetings
- Technical review meeting
- Training Meeting
- Quarterly/Monitoring meeting

The qualities of these meetings were found to include the following:

- Face to face
- Feed back
- Participatory
- Reflective moments
- Human interaction
- Solving common problems

The following statements lend credence to the strength of weak ties as a source of information for development workers.

- We (partners) meet at a common place where we share experience, lessons learnt on the field.
- We just don't deliberately rely on meetings to find answers but it so happens that, during such meetings we are able to get answers to some problems ...we benefit a lot from our partner review meetings and I always feel sad when I don't attend a particular partners review meeting.
- In fact, for how to manage the funds, I got these ideas during our quarterly review meeting when a partner reported success in their groundnut seed loan operation

- I said the Water Aid partners in the community have what they call Partner Round Table which as an organisation we belong to so we share and receive information in relation to health and hygiene from that network

In spite of the positive value associated with solidarity spaces on the whole, one respondent was critical about the activities of the Northern Ghana Network for Development. For him, it was a network which simply provided an area of control for the powerful over the weak. This is what he had to say about the Northern Ghana Network for Development:

We belong to the Northern Ghana Network for Development, we hardly participate in their activities. I shouldn't be saying this, but I have to say it because some people who have influence over there don't invite us for their meeting and we say fine we don't mind, we don't need you to survive.

Notwithstanding such views, the overwhelming finding from the analysis was that spaces for NGO solidarity served as grounds for information exchange. The decision to seek information from solidarity spaces is a function of the following:

- i. The extent to which it creates a *trusting* and trustworthy atmosphere
- ii. The degree of *accessibility* to and *proximity* of individuals who ordinarily would not have been accessible if they were approached at the organisational level for information
- iii. The *perception* by members of the *value* of knowledge and expertise of other members within a given network
- iv. The low level relational energy *cost* both financially and physically spent to find information of value
- v. A sense of shared *identity* and common purpose.
- vi. The perceived *quality* and *credibility* of information / knowledge acquired from solidarity grounds based on the notion that such information / knowledge is derived from personal experience.
- vii. The degree of *openness* and non-combativeness
- viii. The opportunity to develop a web of *relationships* of long term value

5.3.1.2 Knowledge Village

The term "*knowledge village*" is used here to refer to a common social ground, temporarily erected to impart knowledge, information, or a particular fact, in some particular subject in a collective learning fashion. This learning ground was found to have strong relations both to the academic background of development workers and also to the very complex nature of development practice which requires substantial commitment to learning from practice which is regular and up-to-date in order to re-validate knowledge on development issues. Learning within this space was found to take the form of workshops organised in a variety of formats. Nearly every interview participants cited this source as a highly dependable and credible place to acquire knowledge, upgrade skills, change attitudes, broaden the mind, confirm understanding, keep informed, share experiences and find help to resolve various kinds of development problems. Based on the evidence of the analysis, and also the high degree of importance attached to this learning space, it could be suggested that the information culture of development workers in the Northern region of Ghana is a *workshop culture*.

To understand the nature and purpose of this space, the analysis sought to explore four main questions in relation to the workshop culture. The first related to the question of who was responsible for organising workshops. The intention here was to gain insight about the specific people involved in the transfer of knowledge into this learning environment. The second question explored related to workshop themes, in order to learn something about the subject focus of these workshops. The third question to be examined focussed on the qualities associated with this learning space which made it an attractive place for development workers. Lastly the challenges associated with this learning environment were also explored.

i. Workshop Organisers

Five main groups of people emerged as responsible for organising workshops. The first was multi-lateral institutions, for example UNICEF. The second was bilateral institutions, e.g. DFID, DANIDA, USAID, and DED. The third group of people was government agencies e.g. The Ministry of Health, and Community Water and Sanitation agency. Academic and research institutions constituted the fourth group of organisers, mainly local academic institutions e.g. University for Development

Studies based in Tamale in the Northern region. The fifth and by far the biggest organisers were International NGOs working in partnership with local NGOs.

ii. Workshop Themes

The next level of analysis focused on the various themes which were the focus of workshops and training seminars. Four broad areas emerged as follows:

Table 5 21

Workshop Themes

Workshop Themes	Subject Focus
General Management	Human Resource Org Development Leadership Youth counselling Strategic Planning Crisis Management Time Management Managing NGOs Report Writing Conflict Management Marketing food produce
Project Management	Proposal Writing Monitoring and Evaluation Work planning and analysis Research Methods Building Partnership Fund raising Rural Animation Community Entry Skills Community Mobilisation
Sector Specific Training	Breast-feeding & Nutrition Reproductive Health HIV AIDs Savings and Credit Management Bookkeeping Entrepreneurship Development Chemical Pest Control
Governance / Human Rights	Rights Based Development Rights of the disabled Child Rights Survival and Dev Anti Witchcraft Sustainable Planning Governance Poverty Reduction Policy Planning

iii. Motivation for attendance of workshops

When we turn to the motivation for the seeming ritualistic dependence on workshops as a major source of information / knowledge, the analysis unearthed a number of factors. First of all, we learn something about the learning related information behaviour of development workers, and also the conditions under which learning occurs as well as the degree of autonomy in the learning process.

We find, for example, that learning occurs as a process of co-generation of meaning together with a facilitator in a participatory, dialogic and negotiative manner, instead of one which is individualised and self directed. This approach to learning would place the cognitive style of development workers in the domain of the *verbaliser*. Notwithstanding this, most respondents acknowledged the influence of facilitators in the process of learning, but indicated that the opportunity always existed to ask question and debate issues. The analysis also found information obtained from workshops was more structured than ready made solutions. What this suggests is that whilst learning sometimes occurs as a process of negotiation, at other times it is simply received passively for memorisation and regurgitation. Respondents reported for example that one could learn a technique for the successful recovery of unpaid loans. We also learn something about the ambiance of this space and how learning is organised. This was found to gravitate towards the informal encouraging the development of social ties with the future potential of reducing competition and conflict amongst NGOs. This shows up in the following statement.

Everybody has his interest area so after the session we enjoy interacting with each other, if you know somebody around who has the information that you need, you go to him, he is able to give you more details and so we really enjoy such session {workshops}. It is very informative and educative and also helps the partners to know each other facially, and once you know each other you develop a personal relationship with the person not only at the official level so that even outside office you still can rely on him for information

Another important factor which emerged was that, for many development workers a workshop serves as a kind of one-stop-knowledge-shop, where information goods (needs) i.e. sociological, cognitive, ecological and communication can be met simultaneously. The following statements are pointers to the importance attached to this knowledge shop.

-When you go there is not just one country coming to sit in the workshop, you will get experience from other country programmes as to how they go by their things. You look at weakness in your programme then see the strength in other countries programmes then with that one you can build upon what to do

-As far as those workshops .they have been very beneficial because they have helped me and other staff members to be able to find different strategies of implementing our development activities In actual fact when I started working in CFRHP little did I know about financial

work, but now through the financial management courses I have been undergoing...I have been able to handle the finances of CFRHP

-As for workshops I have attended series of them...good governance and sustainable development.. strategic planning...training of trainers...organisational development. administration and management resources mobilisation.. Gender.. conflict management.. and anti witchcraft allegation workshop, a lot

-I yearn for it, I cry for it, I don't joke with it (talking about workshops)

One respondent was however critical of the workshops culture as follows:

-You see most of these workshops when you go there the decisions they take, when you go out to the field is quite different. They will come with a nice programme, but the implementation of the programme is usually the problem...A lot come out during the workshop but little is implemented on the field.

This reaction appears not to be a criticism of workshops perse but would rather suggest a concern for addressing the gap between theory and practice.

5.3.1.3 Information pump-stations

The term *information pump-station* is employed here to refer to a process of consultation and interaction between development workers and local members of the community with the specific view of obtaining information from them to inform the design and implementation of development projects. This source was found to be associated with the sociological information needs of development workers as identified in the previous section. The overwhelming majority of development workers referred to the indigenous environment as the major supplier of baseline statistics data on communities. The local champions who were the target of this process of consultation are the key players identified in figure 5.2. including the following:

Individual members

- Community contacts or volunteers
- Youth Co-ordinators
- Traditional leaders e.g. chief
- Assembly man
- Community Based Teachers

Community Organisations/ Groups

- Community Groups e.g. women's group
- Development committees e.g. water committee
- Trained Groups e.g. peer educators

To develop knowledge about these individuals and groups which make them important sources of information, the analysis sought to explore the key attributes of these individuals and groups. Three key attributes emerged associated with these information sources. These are:

- i. Social position
- ii. Social grouping
- iii. Social perception and trust

i. Social position

This refers to the social place of an individual. Two people stood out, namely the chief and assemblymen. The reason for relying on them was found to be linked to the influence they exercised and also the respect they command within their respective communities. In many ways these two persons can be regarded as the "gatekeepers" of local communities and thus hold the key to development at the grassroots. It also emerged from the analysis that the emphasis placed on bottom-up development has come to require that chiefs and assemblymen (the local representative of the community at the district assembly) become active partners in development and by extension the key source of community knowledge. We thus find evidence which establishes a direct connection between development orthodoxy and information behaviour of development workers. The attributes of these individuals were given by respondents as follows.

- Native(s) of community
- Known by community
- Perceived as knowledgeable
- Command respect in community

- the assemblyman in particular is an opinion leader and whatever he tells them has weight.
- The assembly man of a community can give you the information you require

The chief in particular and other opinion leaders were also identified with indigenous knowledge which one respondent in particular cited as valuable to some development interventions.

The locals have their own way of identifying their own source of water, where you can dig and be successful. During the first phase, these were the people we used and our success rate of hitting water was over 90%. I mean they have some landmarks to identify that if you dig here

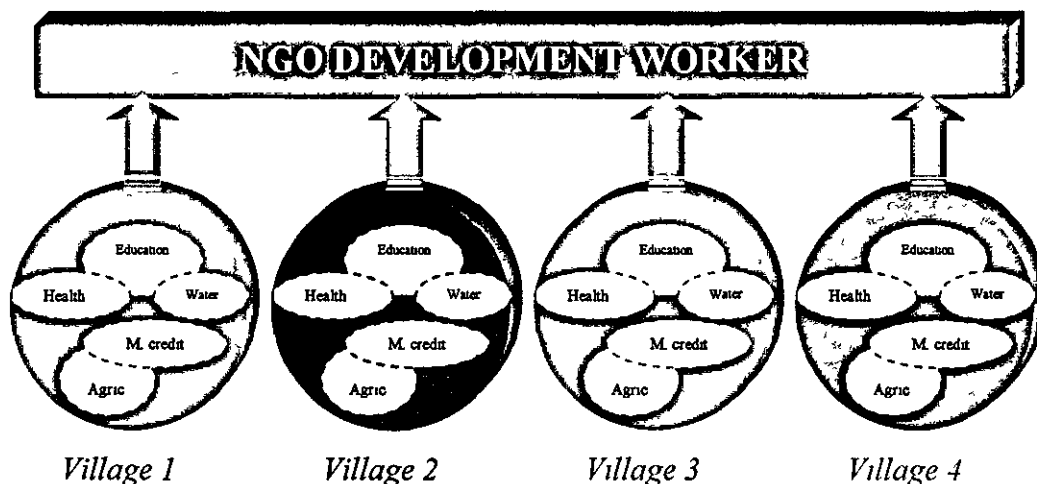
you can get water, like for example certain types of weed, or tree if found in that area then it means that the water table is very deep, you can very easily hit water. There are some other people they just put some rod, some even use sticks by their breast and they just walk across, they get some reaction if they find water under. These are unwritten but these are the truth you can find in the rural community. It's a natural gift there is nothing mystical about it

ii. Social groupings

Besides the above individuals who occupy specific social positions respondents also associated community information sources with social groupings. The leadership of various organisations and groups as identified in the previous section under development work norms also emerged as independent sources of community information. Community Based Organisations (CBOs), as they are referred too, can be distinguished from NGOs, in that, they originate and operate only within the community. Examples of these organisations include village development associations, community self-help groups, community women's association, and youth groups etc. For example, the leadership of women's group was identified with gathering information on reproductive health issues, and also the leadership of various development committees e.g. the water and sanitation, health, education were reported to serve as what could be characterised as "knowledge farms" cultivating knowledge in specific areas of development in each community which is then passed on to development workers, as shown in the following diagram.

Figure 5 11

Community Knowledge Farms



iii. Social perception and trust

Other individuals described simply as key contacts in the person of teachers, trained youth workers were also reported to act as *relayers* gathering and passing on community information to development workers. The key attributes of these individuals were reported to include the fact that they originate from their communities and thus enjoy the trust of community members. We learn from this example how individual perception rooted in social bond influenced the persons from whom development workers seek information within local communities. One development worker elaborated on the qualities associated with key community contacts as follows:

The contact person is a native of the community and, you know, because the areas are small they know each other and more or less they are relatives and then they have extended family and what not. In the community they - contact persons - know any new thing that comes into the community. Where those people are educated they get to know more. When that person goes in to ask he or she knows how to ask and it will not look like he or she needs the answer to sell out to an outsider.

Other respondents also described the importance of the various sources in the community as follows.

-Every day when we move into a community it is a leaning process we learn about traditional values, religious values, cultural values about people in the community.. we sit with the chiefs, we learn from the people...

-You know for development it does not have an end, you have to learn on and on and on So everyday when we move to a community is a learning process to us, we hear different things from different people...we learn about traditional values, religious values, cultural values about people in communities

Despite what seem like a healthy information exchange activity between NGO development workers and local communities, various challenges and difficulties were reported by respondents associated with these indigenous sources. Two significant challenges stood out, namely secrecy and credibility of information provided.

Secrecy was found to play out either as an unwillingness to give information or as deception due primarily to mistrust of the recipient. The analysis found that this act of

social boundary management and disinclination to supply information was linked to the fact that rural community members were particularly suspicious of the intentions of development workers who were unknown to them approaching them for information. These challenges were sometimes also compounded by a language problem in instances where a development worker is unable to communicate effectively in a particular local dialect.

- when we go to the communities, the language barrier, I don't know the language, that has been one of the barriers
- We have a problem of trust when you want to get information
- Any question you ask that bothers on ethnicity you will not get that information
- Getting information from our people in the communities in particular is not an easy thing... some of them give you incorrect or wrong information

Following on the heels of the problem of suspicion is credibility. The problem of credibility was found to be linked to the form in which information is supplied i.e. verbal raising questions which bother on accuracy, verifiability, and applicability. A common problem identified was the tendency for community members to either exaggerate a social condition to gain development attention, or under-report a condition to reduce the amount of financial contributions they were expected to make towards development projects as expected of them in participatory development. One respondent captures the problem succinctly as follows:

At the community level when they see the veterinary people coming to count their animals they think they are going to be levied according to the number of animals so they do not disclose the right number. Now, they also have this habit of inflating figures for us. When we go to ask them of their numbers they know that the size of the project will depend on the number of the people and livestock, so there are some communities who think that it is better to inflate the number. Thus they under-declared to the veterinary officers but most likely to inflate on our side.

Other people had this to say on the credibility problem:

-We wanted information on the group that already existed in a community in which we work to enable us take a decision as to which of the groups we should work with. Then they gave a long list of the groups and most of them were non-existence because those groups were formed to access some kind of loans.

-You visit a community and the WATSAN members (Water and Sanitation Committee members) will be giving you information. At times either it is not accurate or they

themselves are not sure of the information they are giving...they want to give you information about the diseases in the area and they themselves don't even know the exact diseases in the community.

When the factors which motivate the use of social spaces as information sources are carefully analysed they can be summed up under five core categories as follows:

- i. Degree of accessibility for example being part of and participating in networks or workshops.
- ii. Social position or status for example an international NGOs, or government agency.
- iii. Oral pedagogy i.e. the face-to-face and verbal nature of information exchange.
- iv. Social trust i.e. the degree of openness enjoyed within the various social spaces
- v. Social credibility, for example the respect accorded to community assembly man or community based teachers.

5.3.2 Institutional Information Sources

This refers to information sources found within formal organizations, which have specific office locations. Three main institutions were identified from whom development workers sought information. These are:

- i. Government and affiliated institutions
- ii. NGOs themselves
- iii. Private institutions.

Unlike the solidarity and workshop environment, the relational dynamics within the institutional environment were found to be totally different.

5.3 2 1 Government District Assemblies and other Institutions

The analysis revealed that most respondents hold the view that, because government and other para-statal institutions are generally responsible for rural development, they must necessarily be in possession of information on rural people. The key government institutions which were targets for information were identified to be firstly, the district assembly acting as the local government structure at the grassroots, secondly, government ministries and other para-statal institutions acting variously as implementing agents for government. The attributes of government

agencies as an information source and also the nature of the information sought is captured in the following table.

Table 5 22 *Sources of information within government*

Type of Institution	Attributes / Factors	What was sought
District Assembly	<ul style="list-style-type: none"> - Local Government at the grass root - Links to Communities -Knowledge on community problems -Proximity -Collaboration - Helpful 	<ul style="list-style-type: none"> -Development planning information -Community data -Funding for dev projects -Help for conflict resolution -Official documents
Ministries, Departments and Agencies	<ul style="list-style-type: none"> -Professionalism -Technical Expertise 	<ul style="list-style-type: none"> -Policy information - Technical advice -Training - Learnt lessons e g on post harvest losses

It emerged from the analysis that the district assembly, for most development workers, was a particularly helpful place for gaining access to information on development planning strategies and also information on district assembly funding. Because of their perceived knowledge on, and closeness to communities, development workers also reported relying on the district assemblies for the resolution of community development disputes. One respondent even reported that its organisation had a representative of the district assembly on its board membership to facilitate access to information. The following captures the role of the assembly as a local information provider:

We also depend largely on the district assemblies. From time to time we frequent the district assemblies to collect information about the communities that we are working in. Before we go to a community we try to have several meetings with the districts, because the districts are closer agents that we can get in touch with first, before we can go deep into the communities. Without seeing the district assemblies and then going straight into the communities we might not get the necessary information we need, so we sometimes use the district assemblies to get the everyday information.

Besides the district assemblies, other government agencies e.g. Community Water and Sanitation Agency, District Health Management Team, Ghana Education Service, National Board for Small Scale Industries etc. were also reported as reliable sources for policy information; and also technical and professional advice.

One respondent gave this response on the role of government agencies as providers of various types of information.

The rainfall pattern, that one you can get it from the Meteorological people ... if you want to know about the environment we have to go to Environmental Protection Agency then they will be able to tell you. At times if you even go to Survey Department in certain areas you get area photographs of an area where it is difficult to dig hand dug wells or boreholes

Others had to this to say about the role of government institutions as information provider.

- We frequent the district assembly to collect information about the communities
- For population data for districts where we work...we depend on the district assembly
- It depends on the nature of the problem ..documentation you go to the district assembly
- We look for counsellors from the Department of Social Welfare
- If it is a problem that has to do with planning ... then we go to the district assembly
- We go to the Ghana Water Company with technical issues because they are experienced
- We go to the District Health Management team for advice
- Ministry of Agriculture... I do get some information from there
- We approach the district assembly because such issues (chieftaincy conflict) are volatile
- Normally for funding you can go to . district assembly

It is interesting to learn that, contrary to the notion that NGOs are in fierce competition with government as noted in chapter two, the evidence from this analysis shows a high degree of dependency on government institutions when it comes to information. Three key factors emerged as driving dependency. The first was found to be *proximity* i.e. the quality of being near both in space and time which created a sense of closeness and thus facilitated information seeking from these sources. The second reason which emerged can be attributed to *collaboration*. As noted under the section on work norms, collaborative delivery of development is a central pillar of the participatory approach to development. This cooperative approach to work was found to have the additional benefit of providing a platform for information transfer activities. The third reason identified for why NGOs depended on government was linked to the technical and specialised nature of development interventions and also to the *knowledge state* of development workers as noted under multi-roles and multi-skills in the first section. Because government agencies were regarded as more experienced, and technically qualified in rural

development matters, the analysis found that most development workers relied on them as *teachers*.

Notwithstanding what seem like a perfectly harmonious, cordial, and fraternal relationship between local NGOs and government, the analysis found some disturbing evidence of the existence of various obstacles which undermined confidence in, and restrict access to government information sources. Unlike the "solidarity spaces" and "knowledge villages" where information was voluntarily shared between various development stakeholders, including government officials, to obtain information *directly* from government sources often meant coming into direct confrontation with confidentiality and non-cooperation. Where the information was obtained, respondents indicated that sometimes this was presented in an inappropriate format. The secret and non-cooperative attitude of staff from government departments was reported to take not simply the form of excuses, deception and dilly-dallying but also as unwillingness using language such as the following:

- "come another time"
- "my manager is not there"
- "I am not responsible for this"
- "I don't have an idea about this"
- "I can't trace the information"

This behaviour was attributed directly to the oaths of secrecy and the absence of a effective legal framework that promote and provide access to government information. Other indirect factors for why government sources were inhospitable were reported to be what was perceived as a politicisation of the public services and hence the dangers of displeasing superiors. This conspired to make public servants extremely cautious in matters relating to information. Information management practices within government were also cited as an additional factor.

- There is a lot of information in the government sector not captured because the culture doesn't encourage capturing
- It is difficult dealing with this government functionaries...they are not willing to give out information
- .. he feels when you get the information you will use it against him

-They said the report was a classified document

-Sometimes the attitude of people from who you are looking for the information, they keep delaying keeping the information without releasing information to you, so at the end of it all you end up doing your work without the information...

The problem of format of presentation was found to have links to baseline data obtained from government sources in terms of the degree of granularity. As noted under information needs, because NGO intervention, especially those linked to the provision of social services and education, was focused on very small communities, a preference exist for highly disaggregated data on communities. Two respondents shared this experience which helps to explain the problem.

-I remember, last year we needed disaggregated population figures in the communities we work with and that was so difficult, even till now. The difficulty was that it is not just there... even if they are, sometimes you don't have that disaggregated information. You cannot take the population statistics and see that in Chamba community where I am working the population is so much ...then you can make plans based on that...

This is what others had to say.

- Recently we wanted to know about soybean production levels in the whole country, we were at a meeting and there was no data there, information that was available was as far back as twelve years old. We had to adjourn and ask people to go and do studies...we wanted figures to report to parliament on what's happening

-Data, hard data is actually very difficult unless you go down to study yourself.

To deal with these numerous challenges, development workers reported adopting a number of strategies including the following:

- i. Throwing in the towel
- ii. Gathering the data themselves
- iii. Using old information
- iv. Taking decisions without the relevant information

These factors raise questions about ethical issues in information behaviour studies, something hardly addressed in information behaviour studies.

5.3.2.2 Sources located within NGOs

Apart from congregating at different social grounds which provided opportunity for informal information sharing, it also emerged that development workers sometimes

seek information from each other at the organisational level. Three main sources were identified namely:

- a) Internal organisational sources
- b) Other local NGO sources
- c) External NGO sources

A summary is provided of the attributes of each of these sources and also the nature of information which was sought.

Table 5 23

NGO information sources

Type of NGO	Attributes / qualities	What was sought
Internal NGO sources	Colleague Being experienced Technical competence Being a boss Have the institutional memory	Advice Guidance Help
Local NGO sources	Similarity of activities Sameness of dev problems Perceived experience	Advice Ideas Success stories Training opportunities Information materials.
External NGO sources	Partner Same area of activity	Development information Ideas Lessons Training information Advice IEC materials

i. Internal NGO information resources

This information sources had two dimensions to it, the first is a *people* perspective, and the second a *product* perspective. The *people* perspective was focused on interactions with work colleagues e.g. directors, managers, supervisors, team leaders and officers which engender information exchange and learning. Five main factors were identified as responsible for information exchange activities amongst fellow colleagues; these are staff size, organisational structure, management styles and team work. As noted in section one under management structure, because most local NGOs tend to have shorter hierarchies, and also work in small groups this was

found to create what could be described as a barrier free information flow environment. One impression which emerged from talking about management practices was that it was a one-man styled business. Respondents described their leaders as highly motivated and technically experienced people who carried the institutional memory of the organisation along with them.

Inclination to seek advice from bosses was also found to have links to the inexperienced backgrounds of many development workers who regarded their *bosses* as more experienced. Another important factor which emerged as responsible for peer-to-peer information seeking activities was linked to working in groups as opposed to individualised work schedules. Bearing in mind that staff turnover in most local NGOs is low, office spaces small, the constant interaction with other colleagues over a period of time was also reported to facilitate internal information sharing activities. Another internal activity which emerged as encouraging information seeking from cohorts was a culture of holding *meetings* to either plan development interventions, monitor progress or to evaluate the impact of an intervention. The face-to-face interaction that ensues at such meetings, the reflective moments they provided, and the trust reposed in the judgment of fellow colleagues was reported to also provide opportunity for consultation on critical issues. The value placed on peers as information source was captured by one respondent as follow:

If you are faced with a problem, you want to talk with somebody who has knowledge of the problem and who has been through a similar experience or who has enough information so we look at somebody who can make a contribution within my peers who are in the organisation.... I would even talk to my staff, even subordinate because they come from different backgrounds and they will bring different experiences and even within the organisation we have somebody for food security, somebody for gender and HIV related activities, somebody for education, somebody for capacity building, so if there should be any problem they help us to find answers to it

A couple of respondents made reference to their own knowledge as a source of information.

One source... is my own experience, I draw from that a lot because I have done all kinds of different things over different periods and even now I am engaged in all kinds of different things so my first source of information is always my own experience

When we turn to the second internal information source, i.e. *products* a number of information resources held within the organisation were reported including reports, manuals, newsletters, and newspapers. Their types, characteristics and function are presented in the table below.

Table 5 24

Organisational information products

Type of Material	Characteristics	Function
- Activity report	- Factual i.e. what was done	-For reference
- Evaluation Report	- Concise, talks about present	-For assessing impact
- Workshop reports	- Can be re-read forever	-For understanding problems
- Government reports	- Gives a practical feeling	-For designing training
- Research Reports	- Comes from the ground	programs
- Partner reports	- Very elaborate	-For getting ones work known,
- Newspapers	- Detailed and well organised	-Produced for partners/donors
- Posters	- Tangibility	-Info. on development issues
- Pamphlets	- Easy to share with other	-Training advertisement
		-Information on funding

Three critical points can be made about this list of materials. The first relates to what could be described as a *culture of information generation*. This culture was found to be driven by working for various sponsors which required periodic production of reports for accountability. We thus see a direct link between partnership and sponsorship programmes on information behaviour of development workers. As we shall see from the chapter on information audit, this has enormous implication for information management within the local NGO environment. The second point relates to the *reference value* of information products where reports were valued for the benefit they brought when assessing the impact of an intervention. Thirdly we learn something about the preferred format of information for development workers in the following statement by one respondent.

If a book on development comes from Oxford University I will not buy it but if it is from development practitioners in Tanzania on development I will buy it because it's more real.

Reading of newspapers was found to be associated with looking out for training advertisements, and also funding. We learn more about information products from the following statements.

-Reports I will say is more reliable, the person has put down the facts

- Report is one source of documentation that can store a lot of information forever
- Reports come down from the ground
- Reports are short, brief, concise, they talk about the present what is happening
- [Reports] are more authentic because whoever has written it has got his signature on it
- Reports are elaborate, they are written as soon as the work is completed
- At the moment we deal with reports more than any other in getting our work known
- In the field of development people prefer professional network journals to academic

The vast amounts of internal information products reported by respondents also brought to the fore information management challenges within the work environment of development workers. The analysis uncovered challenges which relate to the following:

- the lack of records management capacity,
- negative attitude towards information products,
- manual record keeping,
- fragmentation and co-ordination
- absence of institutions acting as information clearing houses.

One respondent expressed the problem as follows:

Another factor has to do with the fact that information is scattered across so many places and not organised, which means that one has to spend a lot of time finding the information . at the district and unit level, information is still dispersed, there is very little effort to bring it together, so that somebody who needs it can have. It is very difficult to get it because of time, the distance, the amount of effort, resources to put it into collection of information.

Others had this to say about the documentation problem:

- We have difficulty documenting our experiences in a manner that is user friendly
- People don't simply have the time to pause and then reflect in order to capture information that is useful
- Record keeping is so manual sometimes you cannot track the information
- Part of it is for people to be trained in records keeping
- Some times some valuable information is treated as if it is not valuable
- Most of them take a lot of dust and rest on the shelf
- All the information is in the head of one individual, the person travels or leaves the job then a vacuum is created.

ii. Local NGO Sources

The analysis revealed that the use of other local NGOs as sources of information was associated with similarity in area of operation and also personal contacts with known individuals. The strategy of using known individuals to acquire information at the organisational would suggest that, despite the persistence of competition, suspicion, and secrecy between NGOs, common identity and inter personal relationship can foster access to information at the organisational level.

- There are other NGOs that work in the water sector, there is collaboration so we go to them for information
- One lady working with Management Aid for a long time on micro credit .. she has lot of experience, we consult her
- We try to look at people who have done it then ask them for their views or suggestions
- We consult with other organisations that have been in that field and have some experience
- We learn from both angles . from other stakeholders like NGOs...who are in the work that we do.
- Interaction with people... that is the only way you keep yourself informed
- I also look for people who have expertise in the area.. meeting with colleagues who are in this area so that we share together...

The above positive impression was, however, countered by other respondents who insisted that the culture of secrecy linked to fierce competition, and dependence on donor funding created disinclination towards information sharing, and instead led to, as one respondent termed it, "information stealing".

- They think that if they reveal that information you steal it
- We do not have the culture of sharing information
- We are in a world where you have to send a brother or sister to lunch, drinking bar, you will be charting and going round till that information comes out
- There is a sort of greed in sharing information
- We have a problem of trust when you want to get information

iii. International NGOs

When we turn our attention to international NGOs the analysis shows that the main information gathered from this source was on *funding* and also *baseline data* which they seem to have the capacity for gathering. The following statements serve to buttress this point.

- There are people out there interested in the work that we do, we call them allies, so if there are problem we want to consult such partners
- We try to use other sources, like for surveys . UNICEF
- One of our partners is Village Aid, so we mostly depend on our partners
- We consult people, our donors...when they come to monitor our work they have technical people and when you face any problem they give you advice.
- We have a review committee meeting at Save the Children every quarter...I look at it as a kind of opportunity to learn new things.
- We go to our funders Christian Children's fund of Canada...and discuss issues. If it demands that they send it to the headquarters in Toronto they send it there

iv. Private Sector Organisations

These were mainly consultancies and research institutions associated with professionalism and technical competence. Because of their profit motive, consultants were reported to be readily accessible for advice, and resolution of technical development problems. In the words of one respondent "*they come and open our minds*". Four key areas emerged where consultants played an active role. These were running of training workshops, baseline-data studies, monitoring and evaluation activities, and development of work plans.

- When we are in need of information . we also have consultants, we use the services of these consultants then our problems are solved
- If it's a difficulty you are encountering, the best person is the consultant
- We also had a retreat recently where all the project officers were around with a consultant to help us to plan for the coming year
- Participatory Development Associate a consultancy for peace it gives a lot of information, socio economic and political background about Ghana
- Consultants usually in fact they are more knowledgeable, fact they are well versed in that field so we bring them and they come and open our minds towards these problems,

It would appear from this statement that there is great potential for developing NGO/consultant relationships to better serve information needs.

5.3.3 ICT and Media Information Sources

Sources located within the technological and media domain emerged as the third source regarded as useful for obtaining information by development workers. The ICT sources comprised the internet, and use of communication tools such as email

and the telephone for information transmission and exchange. The media sources were mainly passive sources e g radio and television.

Table 5 25

ICT and media information sources

Type of Media	Function
Internet	<ul style="list-style-type: none"> -Communicating with / reporting to donors -Browsing for information e g AIDS, micro credit, sponsorship, training opportunities
Telephone	<ul style="list-style-type: none"> -Contacting Partners for advice (The most frequently mentioned) -Learning more about workshops -Communication with other offices
Broadcast Media	<ul style="list-style-type: none"> - Passive learning - Passive information gathering e g. on funding - Lobbying - For publicity

i. Internet

Although the communication infrastructure in this region is poor, the Internet emerged as one of the sources used by development workers to find information. Of those who reported using this source, a significant number of people indicated that they did not have access to the facility within their offices, whilst others indicated having access in their offices. A very interesting finding in relation to the internet is that most development workers reported relying on what was termed *communication centres*. It was found that these are private, small local business centres are similar to the cyber cafes found in developed countries. Communication centres were reported to provide a range of services, including photocopying, fax services, telephone services and also internet access with varying service cost. Some respondents reported that their organisations had arrangement with some of these local communication centres for receiving and passing on of messages. Use of the internet at communication centres was found to be associated with two major activities. Firstly communicating with sponsors via email; and secondly browsing for information on various topics, including looking for sponsors, training programmes and development issues e.g. HIV/AIDs. The following provide some idea about the use, and value place on the internet as an information resource:

- We are always in touch with our mother organisation in the UK..
- We send email, reports to our donors in London and Accra mostly
- Like I said we sometimes access information on the relationship between the World Bank and the Government just to inform ourselves
- Most of the things we do we access information from the Internet
- I went to the Internet and got material from Uganda and Bangladesh
- We access information on topics like AIDS, and reproductive health.

Such use did not however come without challenges, a number of which were reported covering issues related to cost, service efficiency, access due to overcrowding and also skills in searching and browsing, turning the internet into a “frustrating information systems”.

- That is another area in which we need training Recently we had an expatriate who took us through the basics of computer, we are in the process of learning But as at now we don't know how to access the internet. I don't know and my boss doesn't know
- I had training on how to access funds on the internet but because it is not available in the district the skill is not practised
- The cost of using the internet is very high over here I wanted to send information to the head office and they were charging 1000 cedis
- Presently I do not have or use the internet.

11. Telephone

Unlike the internet, the telephone emerged as the most valuable and widely available communication tool. Most respondents participating in this study reported the availability of the facility in their offices. However, the analysis found that telephones were available mainly within the regional capital and in some few cases district capitals, but not in the actual communities where development intervention took place The analysis also found that some development workers had personal mobile phones. The problem with this communication device was that coverage was limited to Tamale the regional capital and did not extend to the remote villages. Workshops were reported to be good grounds for the exchange of phone numbers in the absence of NGO wide telephone directory. Clearly, *NGO-wide-yellow-pages* would be beneficial to development workers.

- The phone is helpful for making contact with partners
- We normally contact our donors through the telephones
- Phone is almost more or less face-to-face .it makes everything clearer
- Sometimes we use our mobile phones when the need arises

- We are now using a wheel phone
- The phone ... is the only way to communicate because of distance
- After workshop you give out your number .. when there is information someone may call you

iii. Broadcast Media

This refers mainly to television and radio stations which were regarded as particularly appealing for their capacity to facilitate passive learning using voice, text and images. Because TV and Radio provide information of a current nature, this was also seen by respondents as providing additional incentives for updating knowledge on issues originating from the outside world. Furthermore it was reported that media sources were valuable for information diffusion activities to communities, for advocacy activities and for keeping an eye on sponsorship and training announcements. One respondent noted that:

In Ghana we now have a vibrant media landscape, both the electronic and print media they are offering a lot of issues for discussion... we derive a lot of information from them.

Others commented about this medium in the following way:

- Helps to know what is generally happening in the world
- I was watching CNN on issues in Asia
- Information came on the air... that they wanted bids
- I was relaxing watching television the issue of street children came up
- There was an item on reproductive health it helped me in my activities
- I heard on the radio that Action Aid in Zabala were assisting farmers to store onions
- I use to watch this programme produced by the Centre for Scientific and Industrial Research.. they come out with new techniques in producing some crop varieties

Three major challenges were reported linked specifically to the TV the first of which was ownership and control. Because television stations were nationally owned, with limited private sector involvement, development workers reported that they were at the mercy of government programme producers which limit the amount of development stuff that is churn out. The second problem reported related to spread of TV services. Like the mobile phones, some respondents reported that TV reception was totally unavailable in certain parts of the Northern region. The third challenge was more to do with time due to the nature of development work

which required that most development workers spent time in the bush leaving little time for relaxation to watch TV programmes.

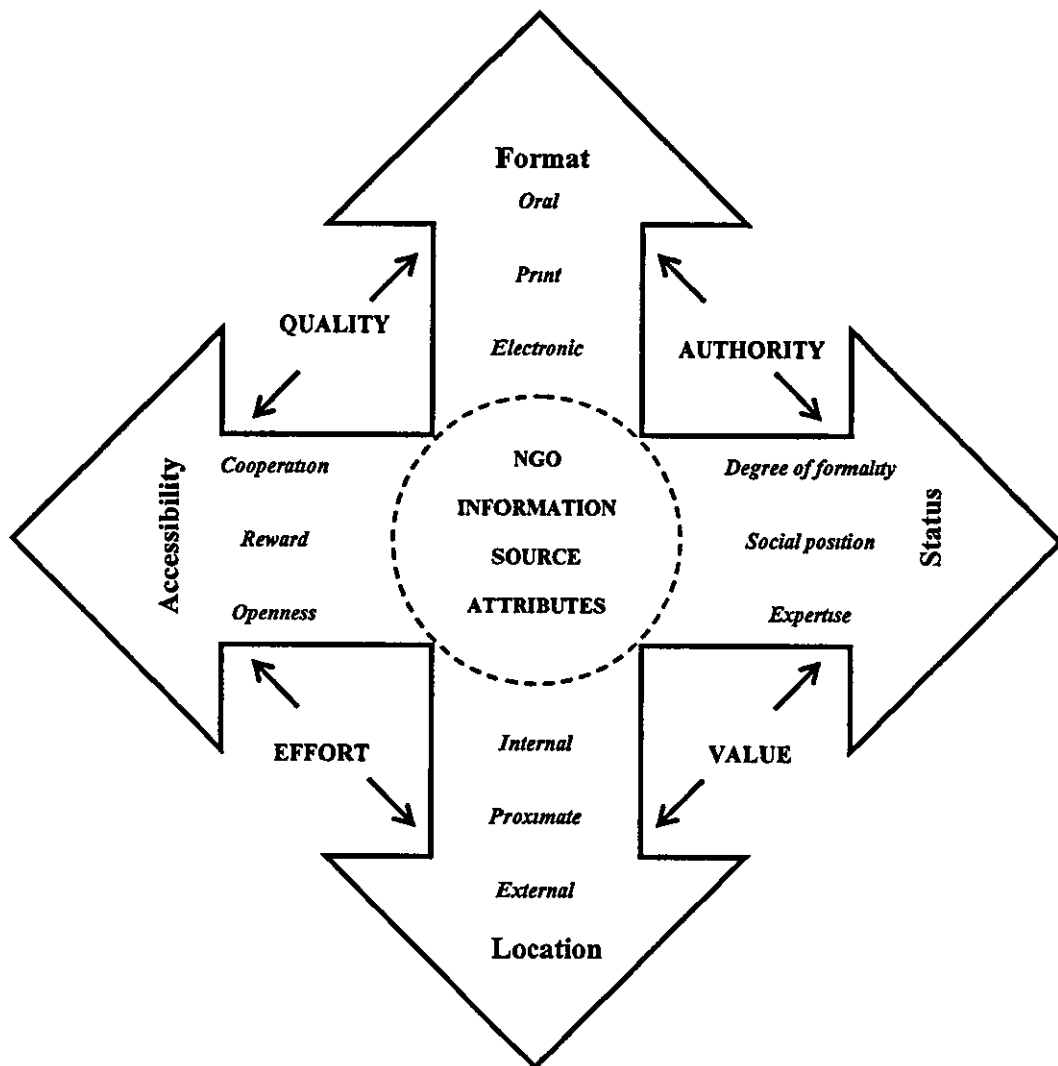
You come to work at 8 00 o'clock and close at 7 00 o'clock in the evening by the time you get home it is late you are so exhausted you cannot even watch television, and sometimes you get the information from the tele So this is the major problem we face, lack of time to socialize through which we can pick vital information for the development of our organization

We learn from this statement that the information behaviour of development workers is also a function of work / time pressure.

5.3.4 Summary of Information Sources

We have seen from this section that there are various information sources and channels used by development workers. It is evident from the analysis that the selection of any given source or channel is influenced by three important factors, namely the nature of a given problem, the situation, and the specific attributes of a source or channel. The attributes which emerged include, amongst others, the status of the source, degree of accessibility, proximity and appropriateness of presentation. The quality of a given source, its authority, the value placed on it and amount of effort required to use it were additional attributes that emerged. Despite the important role community libraries are supposed to play in rural development, very little evidence was found to support the fact that development workers relied on or used libraries as a source of information in their development interventions. When the various information sources attributes are pulled together we get a picture which looks like the following.

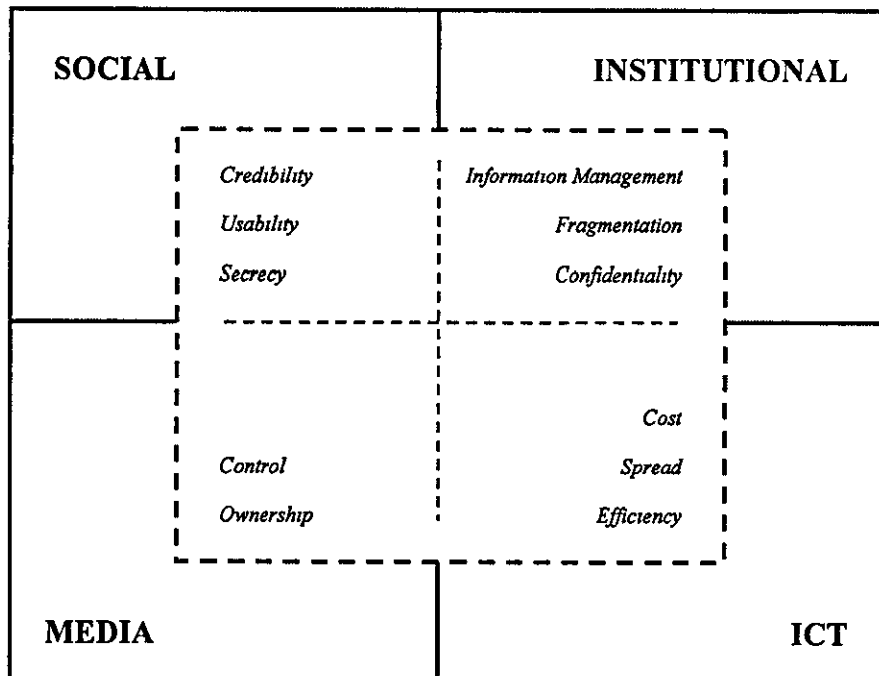
Figure 5 12 *NGO Information Source Attributes*



As evident from the diagram, the various attributes combine in many ways to determine their selection. For example the selection of a source was determined by the value placed on it which was assessed in terms of the expert status of the source e.g. knowledgeable managers and also the location of the source i.e. within the organisation. Similarly, the quality of a source is measured in terms of format e.g. electronic – internet and accessibility factors e.g. cost of using the internet.

The second important point which emerges about sources is the challenges associated with their use as captured in the following diagram.

Figure 5 13

Information Challenges

We learn for example that questions of credibility are raised about information obtained through social contact e.g. orality and usability. Also, institutional sources were found to be associated with many challenges including fragmentation, management problems both within governments and local NGOs, and also absence of specific information institutions serving the information needs of development workers. Media sources were characterised by control and ownership whilst ICT challenges were mainly connected to limited spread and efficiency. For some respondents the solution to these challenges lies in paying attention to the following:

Improved Communication

- The government must do something to be improve the road network within the communities to be able to let us reach out to the people
- To put telephone there. (in communities)

Research and Documentation

- findings, if it could be made easier by way of publication some of us may pick
- For donors to sink money into these surveys, surveys are very important

Information Clearing House.

- I think we should have a data bank, maybe a place where all research that have been done in a particular locality will be stored at a centre so that if any body needs any information he goes out there and pick them...it will save time and money.
- If we can get some organisation that is involved in providing relevant information on specific topics and can share with organisations like us.
- I think there should be something like a library or a place that one can access information freely whatever programme an NGO is handling it should be made open to other NGO's,

Improved Government Information Institutions

- The National Development Planning Commission, that is a very important outfit. I just understand that its only recently they are trying to build a documentation centre where they can store a whole lot of information that will be acceptable to people engaged in development.
- Indeed it must be said of all government ministries and departments that they should step up their information storage systems.

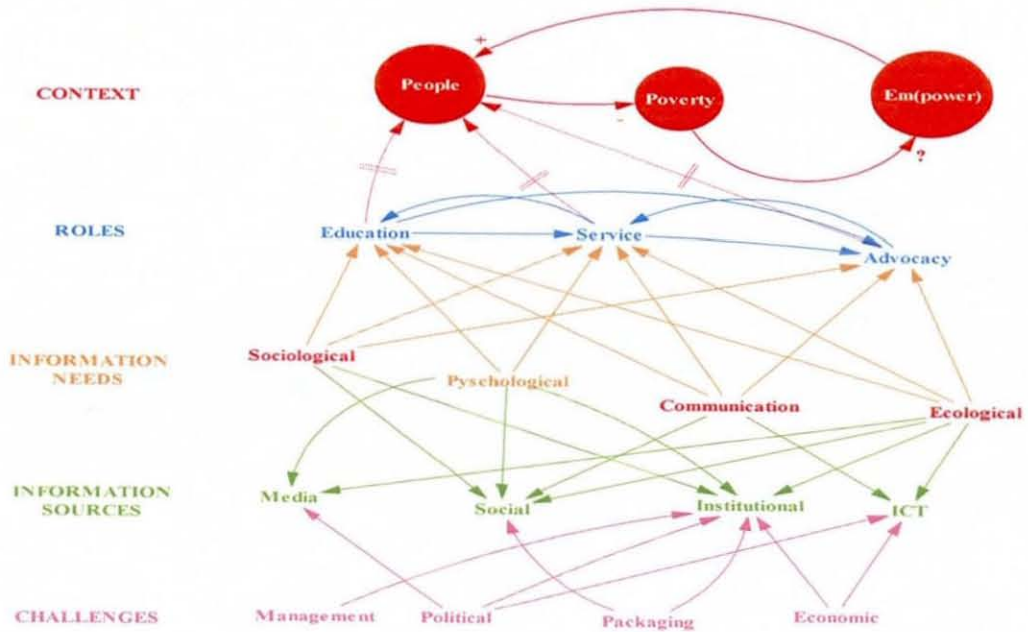
Develop a Sharing and Exchange Culture.

- Intensify information sharing. We know we are all partners, any little information that I have I try to share it with the other partners . . that we will be able to bridge the gap
- I think there should be an education to let people know that we are not competing we are all development workers so whatever information you have please give it up at the end of the day it is not going to said that this organisation has done this....

When all the variables of the micro data analysis are brought together, the inter-relation between them can be represented diagrammatically as follows.

Figure 5.14

The inter-relation between context, information needs, information sources and challenges



MACRO LEVEL ANALYSIS

5.4. Information Behaviour Patterns

This section will attempt to describe in more broad terms the different types of information behaviour that emerged from the micro level analysis. Each of the behavioural manifestations will be presented under three main headings as follows:

- i. *Nature of the behaviour*: This will describe the characteristics of the behaviour showing, its dimensions or expression. Where applicable it would also describe the variations in method for obtaining information at the time when the behaviour is manifested.
- ii. *Logical Factors*: This would outline the reasons, or factors which were found to influence or drive the manifestation of the identified behaviour.
- iii. *Consequence*: This will discuss the actions which follow or result from a given behaviour or that which can be deduced or inferred from a given the behaviour.

Eight different information behaviour manifestations were found when all the findings from the interview analysis were brought together.

5.4.1 Information seeking behaviour

- i. *Nature of behaviour:* This behaviour relates to the strategies employed by development workers to discover information of relevance to satisfy a given need. Social sources e.g. workshops, networks, social contacts predominate as more open sources for information seeking.
- ii. *Logical factors:* The above behaviour could be attributed to two factors. First, because NGOs are mainly concerned with addressing problems of a socio-political nature rather than personal problems, logic dictates that they rely on social channels or spaces to gather information which would be deemed to have social legitimacy and thus more likely to bring about the kind of social transformation NGOs desire. The second reason is that information institution appears to be tied up with various bureaucracies and regulations which make them less attractive as sources of information.
- iii. *Consequence:* The effect of relying on social sources is that much of what is gathered requires greater effort to capture, process and document.

5.4.2 Information gathering behaviour.

- i. *Nature of the behaviour:* Information gathering was found to be a routine activity of most development workers. It basically involved gathering baseline or demographic data on communities, done through various surveys, needs assessment or monitoring systems. The motivating factor for this behaviour is gaining knowledge on communities to inform interventions.
- ii. *Logical Factors:* Two main reasons emerged as driving this behaviour. The first is the influence of current development thinking which emphasises stakeholder consultation and participation using participatory rural methods described in both chapter two and three. The second relates to the absence of institutions directly serving the data needs of non-governmental organisations and/or institutions capable of packaging data in a manner suitable to the operational needs of development workers.

- iii. *Consequence:* The effect of the information gathering behaviour is the generation of various information products with consequence both for storage and also for information management. Judging from the fact that most local NGOs operate from a small office base, the ramifications of this behaviour are not difficult to envisage.

5.4.3 Information Sharing Behaviour

- i. *Nature of Behaviour:* This refers to the exchange of information between development workers. The act of sharing was found to occur both vertically and horizontally, internally and externally, and also informally and formally.
- ii. *Logical Factors:* Three common factors were found to promote information sharing. The first relates to shared identity driven by similarity of development activities which led to the creation of natural ties or linkages which engender information exchange e.g. network of NGOs in the water sector. The second logical factor relates to partnership or collaboration activities e.g. between NGOs and government, or local NGOs and international NGOs. The transient *families* that result from such partnership create a sense of belonging which promote information exchange towards shared objective. The third logical factor found to encourage information sharing, was the gathering on neutral grounds e.g. workshops. Neutral information grounds was found to create a sense of equality and respect between stakeholders which lead to information encountering and also social learning. The relationships which develop from such contact were found to be valuable for future information exchange activities.
- iii. *Consequence.* The temporary and transitory nature of such gatherings, the effort required for organising these activities, the question of status, e.g. expert, donors or beneficiaries, and anecdotalism has implication for the value placed on the information.

5.4.4 Information reporting culture

- i. *Nature of behaviour:* This involves the production of various types of report for other development stakeholders.

- ii. *Logical factors:* The culture or ritual of information reporting was found to have direct links with the dependency of local NGOs on external donors or sponsors to finance projects activities. The demand for accountability that result from such relations was found to drive the production of various types of reports as presented under table 5.24.
- iii. *Consequence:* The main consequence that emerged was information production, piling, and records management challenges. The problem of communicating or sending information to partners geographically removed in an environment where ICT facilities were limited, also raises concerns. In many respect this behaviour reflects how power relations inform information behaviour.

5.4.5 Information communication behaviour

- i. *Nature of behaviour:* This behaviour involves the act of transmission or conveyance of information by some means, electronic or human to a recipient. Two communication behaviour activities emerged; those directed towards external partners and those directed towards communities. Communication with external partners was via mainly private “communication centres”. Communication with community members depended mainly on local private mummy trucks, motorbikes or known individuals.
- ii. *Logical Factors:* Limited availability of information technology infrastructure, postal services and transportation services.
- iii. *Consequence:* The role of private “communication centres” and also “mummy trucks” in information communication activities may appear to require some further attention in studies of NGO information activities.

5.4.6 Information Monitoring Behaviour

- i. *Nature of Behaviour:* This behaviour refers to environmental scanning activities which come via passive or selective attention.
- ii. *Logical Factors:* This information behaviour was found to have direct links with the role assumed by development workers as suppliers of information to rural communities. Monitoring activities were also found

to have direct links with looking out for training opportunities to address anomalous state of knowledge, and also for possible funding for organisational survival.

- iii. *Consequence:* The limited media spread, the control exercised over TV by government, and the performance of internet services impact negatively on this behaviour. The solution is monitoring via workshops and partnership meetings.

5.4.7 Information fortressing behaviour

- i. *Nature of Behaviour:* This refers to information hoarding activities, disinclination to share information and lack of skills to manage what could be described as "*information mountains*" that is piles of information.
- ii. *Logical Factors:* This behaviour was found to have direct links with competition between local NGOs which appeared to have become quasi-businesses. Also driving this behaviour is the dependence on foreign financial flow instead of local fund. Thirdly, limited office spaces create problems of storage. At the governmental level the absence of official laws for promoting access to public information, entrenched bureaucratic practise and negative attitude were found to promote this behaviour. At the community level, this was related to trust of NGOs who were not previously known.
- iii. *Consequence:* Information management problems.

5.4.8 Information coping behaviour.

- i. *Nature of Behaviour:* This refers to the tactics employed by development workers to deal with the challenges surrounding information access.
- ii. *Logical factors:* Secrecy, laws of confidentiality and suspicion due to identity issues.
- iii. *Consequence:* Three main types of individual information behaviour patterns emerged as a result of the above. Those who can be described as "*Spin Doctors*" resorted to either relying on old information, making guesses or simply finding ways to *steal* information.

- We went round and somehow got the information, so that is it

- We went behind them and contacted the beneficiaries
- Whether we are stealing information from them or not we are for one thing
- I just made some guesses
- We just had to use an estimate of an area that we were familiar with

The second group of individuals could be described as *Diplomats* or *Clingers* who were more determined to negotiate their way through persuasion or generate for themselves the information required.

- I visited the community for us to sit and talk
- The team had to visit the community to compile the information
- Information available was as far back as twelve years...we set out to study ourselves
- I am still chasing it

The third groups of people could be describes as *Dumpers* or *White-flaggers* who were more inclined to throw in the towel when they consider the stress, risk and physical effort required to find a given information.

- Access to phone in the communities . I had to simply postpone the programme.
- We could not go through the big stream... we had to stay back
- Up till now we have not been able to get the information on the baseline

5.5 Conclusion

This chapter has presented the findings of the interviews. A number of contextual factors which give rise to information need have been identified. These include the roles and task carried out by development workers, their work norms and also the environmental challenges obtained in the Northern region of Ghana. Secondly the actual information needs of development workers, namely sociological, psychological, ecological and communication related have been outlined. To satisfy these needs the analysis found three significant sources located within the social, institutional and media environment which are used by development workers. The challenges surrounding these various sources of information have also been highlighted. The next chapter puts these issues into context by focusing on the information behaviour as it emerged from the field observation.

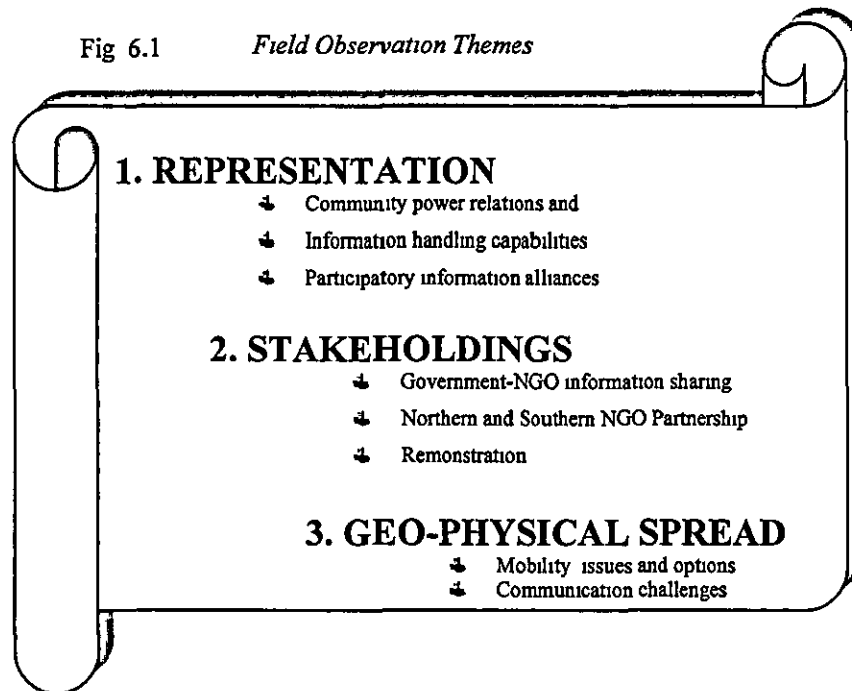
CHAPTER SIX

FIELD OBSERVATION: DATA ANALYSIS AND PRESENTATION

6.0 Introduction

This chapter presents the findings of the field observation, which, as noted in chapter four, was carried out with staff of New Energy, a local NGO. Three main themes are highlighted here which were found to impact on the information activities of development workers in the Northern region. The issues which emerged from these three themes confirm some of the findings of the interview chapter, but provide further insight into other factors which combine in a complex way to impact both positively and negatively on the information activities of development workers. The three themes and sub-themes identified are as follows:

Fig 6.1 *Field Observation Themes*



6.1 Representation

The term *representation* is employed here to refer to the capacity of persons to hold themselves as legitimate mouthpieces to represent the view of others. In relation to this analysis, the term refers specifically to community members who speak for, or mediate between, community members and development workers on matters which relate to information. The field work took us to a number of communities to carry out various tasks which include, amongst others, monitoring on-going projects in water

and sanitation, and also collecting baseline data from communities. Three significant factors emerged from analysis of the field data under the act of *representation*, connected to how consultation activities are carried out between development workers and community members and how this process impacts on information activities. These are:

- i. Community power relations
- ii. Information handling capabilities
- iii. Participatory information alliances.

6.1.1 Community power relations

The field observation confirmed the interview finding that interaction between NGOs and community members in terms of information gathering is permeated with power relations which manifests itself in two main ways namely:

- i. Social positions
- ii. Spaces and voices

6.1.1.1 Social positions

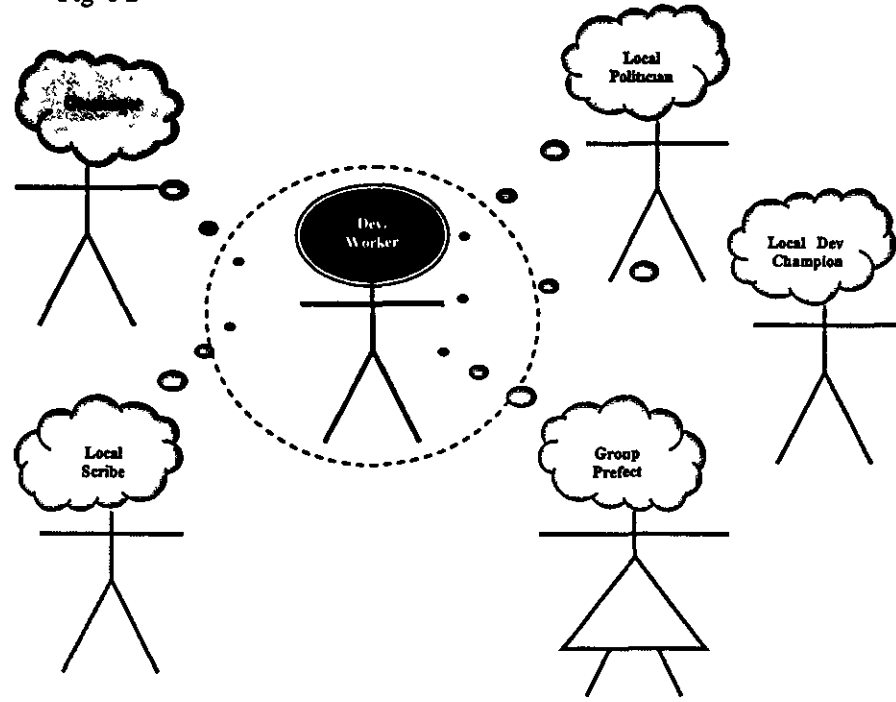
The analysis found that the process of interacting and holding deliberations with community members is constituted in ways that create specific positions which were then taken up by specific individuals or persons as these extracts from the observation sheets show:

- Spoke to the Kpanadana who is a member of the Chief's Council.
- Meeting with Chiefs and Chairman of Town Development committees in the three communities for discussion on construction process.
- The purpose of meeting Chiefs, opinion leaders and town development committee members was to let them know why the provision of the facilities and to also let them know the stake holders involved, their roles and the responsibilities.
- The women's leader (the Magazia) also helped in mobilising the women for work to be done
- Community secretary also helped in the sensitisation of the women to construct the woodstoves.

As is evident from the above, during our field trips we interacted mainly with community *leaders* as opposed to entire community *members*. Whilst this may seem logical, in view of the fact that direct participation by all members of the community may be too time consuming, what this approach to engagement with community

members brought to the fore, was the role played by various local power brokers in development information activities. The key brokers who emerged, and whose local citizenship gave them the right to speak on behalf of community members, could be described as follows.

Fig 6 2 *Community Power Brokers*



Each of the above configurations of positions was also found to be linked to specific roles as follows:

Table. 6.1 *Community Social Positions*

Role	Social Position or Status
Gatekeepers	- The Chief and his elders who oversee the Traditional Political system
Local Politician	- The Assemblyman who represents the community at the District Assembly.
Local Development Champion	- Chairpersons of village development committees - Chairpersons of other development committees e g. chairman, guinea worm eradication committee.
Group Prefects	- Leadership of youth group - Leadership of women's group.
Local Scribes	- Community teachers - Community surveillance officers - Community volunteers - Agriculture extension officers - Junior secondary school graduates

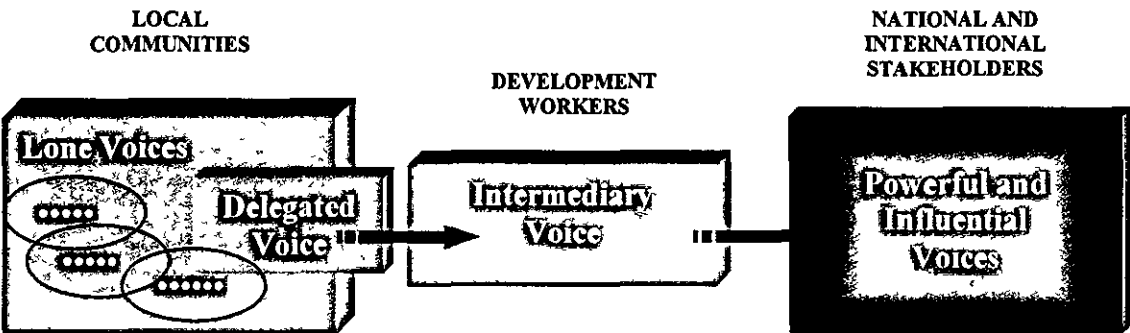
The overall sense which emerged from our field visits was that community members seem to endorse and also value these roles/positions taken by the above individuals. On our part, it was important for us to possess the necessary knowledge about the gamut of cultural norms, protocols and ways of speaking when interacting with any of these key individuals. For example, in many of the villages we visited we first of all had to call on the Chief, whose permission was required to *open the gates* for us to enter the community. It emerged that interacting with the Chief always followed a set of procedures. The full extent of these procedures emerged during a trip to Yendi when we paid a courtesy call on the Bole-Lana (the person expected to be enskinned as a chief). We were first required to first take off our shoes before being ushered into the Chief's court. Once in the court we had to sit on the floor and break Kola before proceedings began. It was later explained to me that in Dagon tradition it was considered disrespectful to appear before a chief wearing shoes or sitting on a chair. The point which this finding serves to emphasise is that any analysis of participatory information events must take as its starting point an analysis of the extent of knowledge required about local cultures of leadership and governance, as a necessary condition for gaining access to actual development information.

6.1.1.2 Spaces and voices

The second significant issue which emerged from the analysis in connection with *representation* relates to how local deliberative spaces were constituted, who was admitted into this space, and which particular voices could be heard within these spaces, findings which raise questions that border on power relations. In many of the communities we visited, including Kamonayili where we animated community members towards the construction of a new hand dug well; Datoyili where we visited Guinea worm patients; and Kunayili, where training was provided for a women's group on woodstove constructions; the deliberative spaces were created at the instant of our visit rather than ones to which we were invited to participate in. From the information activity point of view, the dichotomy between *created* and *invited* spaces is significant since it determines who assumes a position of power during deliberative events. For example in many of the discussions we held, the development workers appeared to assume a position of patronage and tele-guided i.e. controlled discussions to elicit specific pieces of information from community members.

Closely related to the issue of *space* is the issue of *voice*. It emerged from our visit that deliberative events are also discursively constituted to permit particular voices to enter these spaces. In many of the communities we visited, discussion on an actual development issue was carried out mainly with the local development champions and also the local scribes. On just one occasion we also interacted with a women's group and its leader, the *Magazia*. It was observed that despite the collective presence of some community members at the grounds where deliberations took place there was only instances of key individual participation where the collective views and ideas of the community were presented through spokespersons.

Fig. 6 3 *Community Development worker interaction*



What emerges from this observation is the fact that what participants were constituted to be, i.e. lone-voice (observer) or delegated voice (spokesperson), determines the person from whom development workers acquired information in communities, and the value they place on such information. This practice of *inclusion* and *exclusion* was clearly found to impact on the information activities of development workers. For example, one development worker commented that despite the fact that women in local communities knew more about health problems, in many cases they do not participate in deliberative encounters to express their opinion on such topics.

6.1.2 Information handling capabilities

Our trip to various communities drew attention to the information handling capabilities of community members. Baseline data collection was a key component of the activities we engaged in, in the communities we visited. We collected three types of data, namely; demographic data, for example the population of a community (male, female and children), prevalent diseases, number of compound houses etc;

secondly data on community development needs, for example present sources of water, places of defecation, refuse disposal etc, and lastly environmental data, for example geological formation of the community, and drainage patterns etc.

As is evident from the above examples, the data collected were both qualitative and quantitative in nature, required for different purposes. For example, it emerged that the population of a community was essential for determining the ratio of people to hand dug wells or boreholes. It was reported that, a population between 150 – 200, including animals, requires one high yielding well throughout a year.

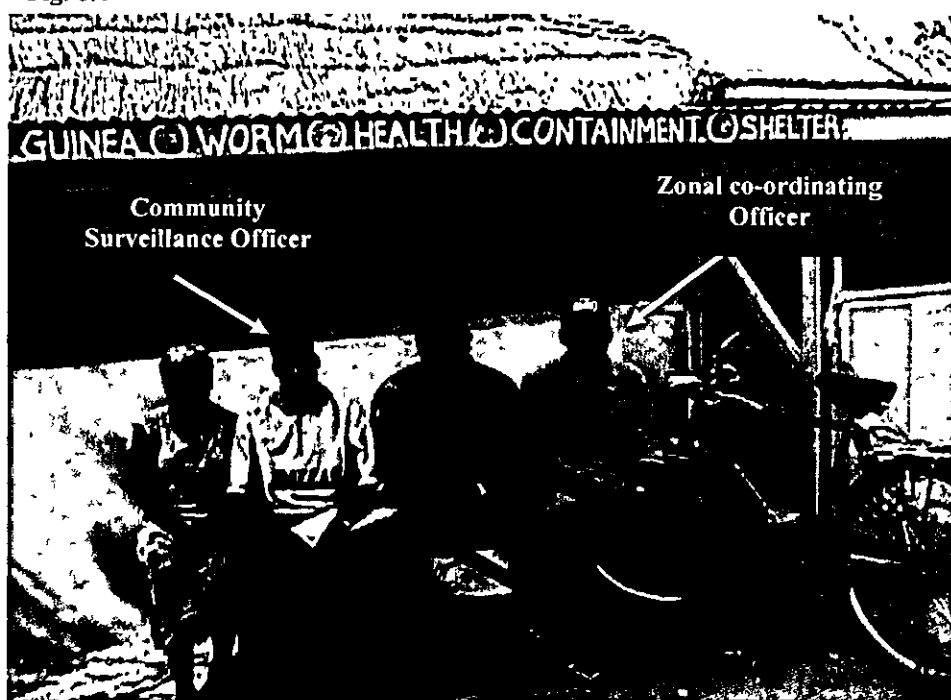
In most of the villages we visited, the data were handed over to us by the delegated spokespersons as noted earlier on. For example, in the village of Kabgangu, the *community development officer* gave the population of the village as 498, made up of 72 houses, whilst in Tidanpayili the *village development chairman* provided us with the population statistics of the community as 62 men, 93 women and 150 children, making a total of 305 people. From an information processing point of view, the small size of the data meant that its authenticity could easily be checked. One other important point which emerged was that, community data gathering was usually at the request of development workers – *reactive* - rather than something community members gathered on their own volition i.e. *proactive*.

In most of the communities we visited, the community scribes were the ones responsible for processing and managing the data. For example in Datoyili, we met someone described as a *community surveillance officer* who kept what was referred too as a Community Based Register of events (CBS booklet). Upon examination of the CBS booklet, we found basic information about the community including, for example, predominant ethnic groups, religious groups, Chief's name, opinion leaders, population, number of houses, water sources, schools, nearest health facilities, distance to health facilities, and number of latrines. The register was also used to record health events in the community such as cerebral-spinal meningitis, polio, guinea worm, measles, neonatal tetanus, births, deaths, (i.e. infant, pregnancy-related, and others). The register further contains a birth analysis sheet providing information about parents, sex, and dates of birth. A similar officer was encountered in the village of Gushegu, who kept this register in a metal trunk kept under his bed. The CBS

programme was reported to be a joint programme between the Ministry of Health and local communities, which also benefited development workers in terms of the information they obtained for their own development intervention.

Fig. 6.4

Community key informants



The zonal co-ordinating officer of the MOH (Kobina Fushem in hat) in the village of Datoyih in the Tamale peri-urban area who keeps a register of community events. His jurisdiction covers nine villages each of which has community surveillance workers one of whom is in the picture

Various other individuals and sources of information were encountered during our field trips. Their different statuses were recorded by the development workers on their field data sheets as follows:

Individuals

- *Teachers* assisted by giving information on the number of children in the school.
- The *Chiefs* and his *elders* gave the historical background of the community.
- A Baptist pastor was identified at Kangbangu as a *focal person* who helped in the drawing of the community map as well as action plans for the community.
- We contacted area co-ordinator and community *surveillance worker* for guinea worm information.
- Contacted the *chairman* for the development of the community to.. discuss time that would be suitable for data collection exercise

Organised groups

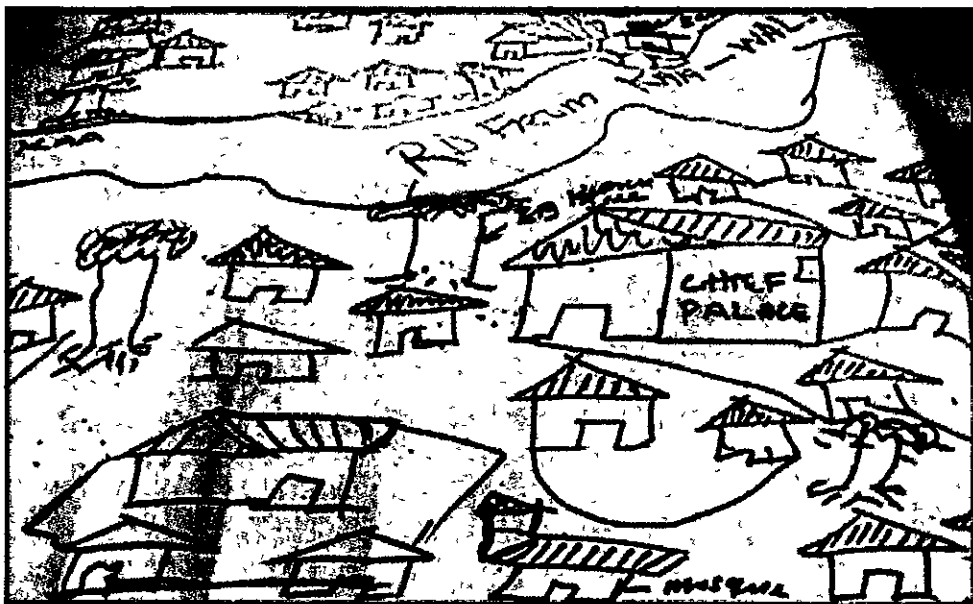
- Discussion with water and sanitation committee at Tishegu
- Held discussions on progress of work with the chairman of the community development association and the chief of the community.

One interesting observation was that, despite the repeated mention of the assembly man (see table 6.1) in the interview analysis as an important source of community information, no such person was encountered in all the communities we visited. Two explanations were provided. Firstly, it was explained that in most places of the Northern region due to ethnic conflict unit level elections for the selection of assembly members have not been held. The second reason given was that they were involved in other community matters outside the community at the time of our visit.

The most intriguing finding, related to the information handling capabilities of development workers was in the areas of information processing skills. In some of the villages we visited, data were handed over to us in the form of community maps drawn by the community members themselves, accompanied with figures, a copy of which is shown in figure 6.5 below.

Fig. 6 5

Community drawn local maps



We learn a lot about this community from the above map. Besides important features and key landmarks, the presence of the mosque tells us something about the religious

orientation of the community members, and the local ecology e.g. trees. The direction of the road also give some hint about surrounding villages whilst, from the spread of the houses, we learn something about town planning. The number of compound houses when multiplied over the average size of a household could also given some rough idea of the population size of the community. It is interesting to learn that despite not possessing any formal training in cartography, community members are able to apply what could be described as indigenous-cartographic skills to produce a development map of their village.

What is evident from the above analysis is that, community members possess information handling capabilities in three main areas namely:

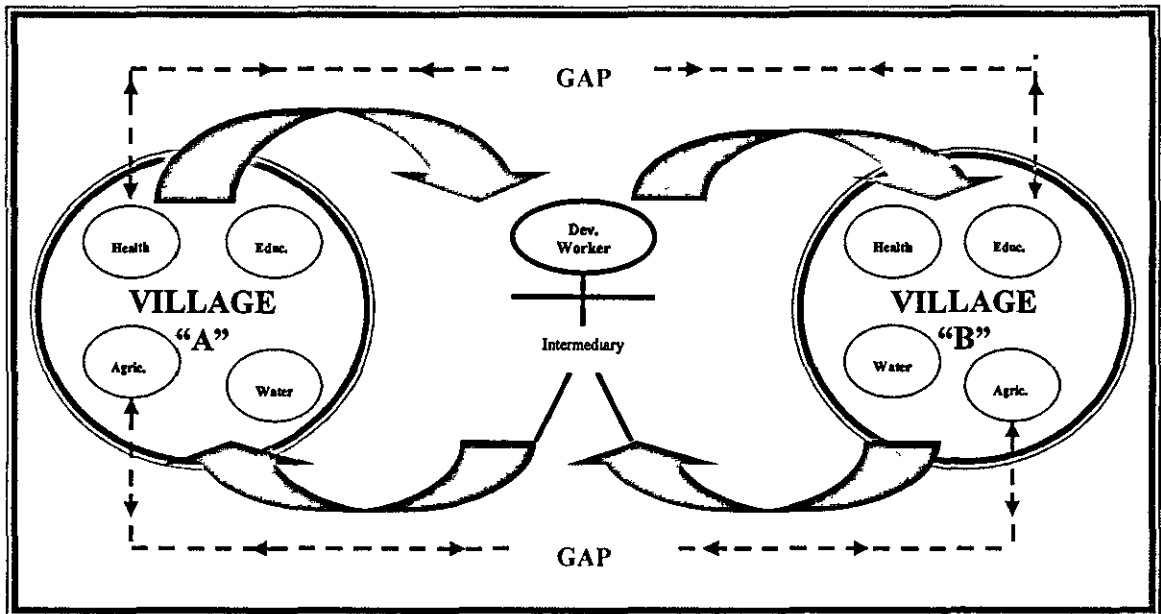
- i. Data gathering skills,
- ii. Data processing skills, and
- iii. Data management skills

Evidently, these skills deserve some prominence in terms of how they inform and/or limit the information activities of development workers, and also how they help community members develop knowledge about themselves for critical evaluation of their living conditions. Beyond development workers and community members, such knowledge is useful for promoting institutional learning to support community development interventions.

6.1.3 Participatory information alliances

The third major finding which emerged under *representation* relates to participatory information alliances. Despite the existence of various domains of power among both individuals and groups in the many villages we visited, no evidence was found during our entire field visits which would suggest development information linkages between similar individuals or groups in other communities. The seeming absence of *intelligence sharing* between communities was found to limit the development of inter-community information alliances and *spaces of radical possibilities*, to use a development terminology. What emerged from the observation data analysis was that inter-community knowledge transfer seems to occur through development workers who took on the role of knowledge-intermediaries between the various domains of community association as depicted in the following diagram.

Fig. 6 6



(Note The dotted line shows that there is no evidence of direct flow of information between communities hence a GAP)

Two points can be made regarding the above diagram. The first relates to the lack of knowledge-synergy necessary to enable community members develop a common language to engage with upper development structures, including NGOs, from a position of power, and to also hold these structures to account. Secondly, it could be said that community information activities occur as a *confined practice* as suppose to *spatial practice*. The consequence of this attitude of territorialism is that development information remains fragmented and management is done in a piecemeal fashion.

6.2. Stakeholdings

In the previous chapter a number of collaborative activities were reported between NGOs and other development players, which were found to also facilitate information exchange activities. The evidence which emerged from the field observation throws more light on the interview finding from three main angles. The first is the nature of collaboration between local NGOs and government agencies. The second looks at how collaboration, especially with foreign development partners, leads not merely to knowledge transfer but also triggers a search for information when a gap is identified. The third relates to how movements of contestation serve as

a catalyst for information sharing between common stakeholders. Each of these strands will be explored in the analysis that follows.

6.2.1 Government-NGO information sharing

As noted in the interview chapter, information flow between local NGOs and other development stakeholders sometimes occur through meetings. The field observation led us to one of such meetings between government officials (Doctors and Nurses) from the Ghana Health Services under the District Health Management team, a national capacity building NGO – ISODEC and a number of local NGOs including the following:

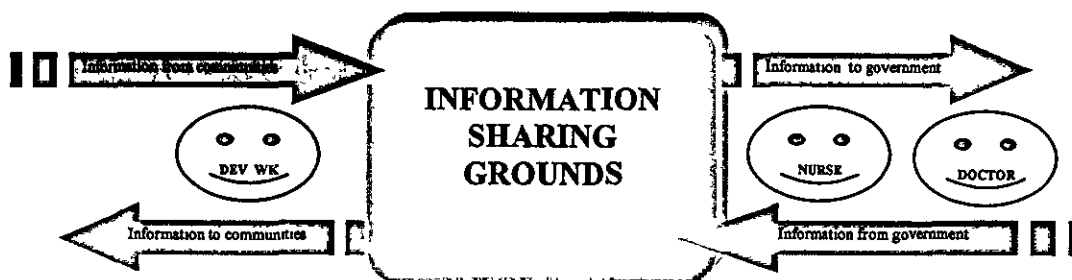
- Catholic Family Reproductive Health Programme (CFRHP)
- The People's Nnoboa and Rural Development Association (PENORUDAS)
- Partners in Participatory Development (PAPADEV)
- Tuma Kavi
- Bimoba Literacy Farmers Co-operative Union (BILFACU)
- Tiyumtaba Integrated Development Association (TIDA)
- Rural Women's Association (RUWA)
- Youth Action on Reproductive Order (YARO)
- Zuuri Organic Vegetable Farmers Association (ZOVFA)

The partner review meeting discussed various issues and challenges facing the reproductive health programme sponsored by Save the Children Fund, UK. The meeting also provided the opportunity to discuss the sort of information materials required from government sources by local NGOs in order to carry out their activities on reproductive health. Local NGOs shared their experiences in the field with government officials and expressed the need to learn more about Government Health Service Protocols. The meeting also addressed issues related to use of Iodated salt, fumigated bed-nets and female condom. Suggestions were put forward on how baseline data gathering could be designed more effectively and the important role a trained sociologist could play in anti-witchcraft programmes.

A number of points emerge from the interaction which were found to encourage the free exchange of information at this forum. The first relates to the location where the meeting was held which was a local guest house which served as a neutral ground. Second was the face to face nature of exchanges which created what

appeared to be a trusting and non-confrontational environment. The third factor related to the fact that each of the players involved in this meeting (government and NGOs) had the same outlook and aspiration i.e. improvement of reproductive health practices amongst rural folks. Furthermore, the meeting also provided the opportunity for informal leads to other sources of information, e.g. Ghana Aids Commission. The overall sense which emerged from taking part in this meeting was that all the actors involved (government and NGOs) could be described as *information-profit-seekers* in the sense that there was some expectation about the likelihood of being rewarded with new information from other development stakeholders.

Figure 6.7 *Development worker government information exchange*



For the doctors and nurses involved in this meeting, they benefited from information about happenings in the field e.g. use of female condom, practises of traditional birth attendants, challenges facing the use of fumigated bed-nets and community beliefs on witchcraft practices and its effect on reproductive health education. The local NGOs learnt more about government health protocols, obtained advice on baseline data design and were also promised health educational materials. It could be argued on the evidence of this that information sharing between local NGOs and government is a function of the reward or gain that accrues to both as shown on the following table.

Table 6.2

Motivation for information exchange

<div> <div>NGO 1 \ NGO 2</div> </div>	Cooperation	Non- Cooperation
Cooperation	Gain ¹ ; Gain ²	Lose ¹ ; Gain ²
Non-cooperation	Gain ¹ ; Lose ²	Lose ¹ ; Lose ²

6.2.2 Northern and Southern NGO Partnership

Another form of stakeholder engagement was found between a group of local NGOs (described here as southern NGOs) and international development NGOs (described here as northern NGOs). From the point of view of this research, we learn something about:

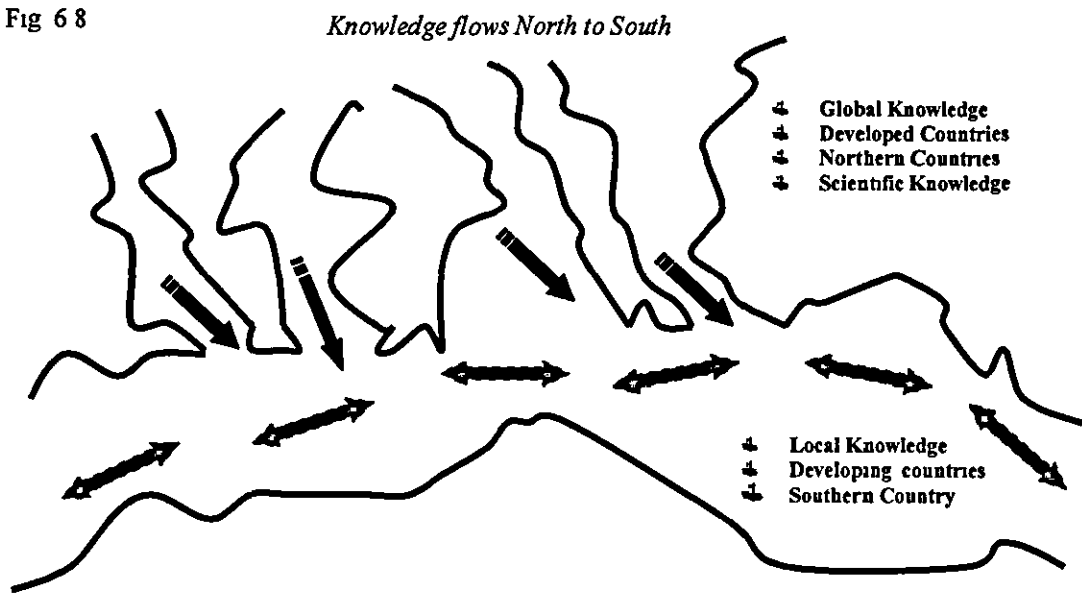
- i. Agenda setting and knowledge transfer
- ii. Impact of linkages and de-linkages on information activities

6.2.2.1 Agenda setting and knowledge transfer

The occasion which brought to the fore the issue of agenda setting and its impact on knowledge transfer was a gender workshop organised by Save the Children's Fund (SCF) using one of its overseas staff as facilitator. The objective of the workshop was basically to impress upon local NGOs to factor gender activities as a *big-idea* in their reproductive health programmes. To achieve this objective, the facilitator, amongst other things, got participants to partake in various group activities aimed at finding answers to a list of pre-prepared questions. The sense which emerged from this capacity building session was one of social positioning i.e. an *expert* from a knowledge economy who reframes what counts as local development knowledge and *learner's* i.e. local development practitioners who simply *absorbed* the new ideas. Whilst not discounting the value of gender issues in development, which is a key corner stone of current development thinking, the point being made is how western driven development agendas influence local thought and, in some ways, potentially undermine confidence in indigenous ideas, resulting in a situation where local development workers simply parrot the discourses of *knowledge experts* and their preferred development solutions to reproduce the knowledge status quo. It

needs to be added though that transfer of knowledge and technology was not simply from western industrialised countries but also appears to flow from other developing countries. During one of our field trips, we came across the construction of a type of pit-latrine called *un-lined Mozambique pit latrine*, a technology which was reported to have been developed originally from Mozambique and introduced by an international development partner. The flow of development knowledge from northern developed countries to their southern counterparts can be represented metaphorically as a knowledge river flowing from up stream to down stream.

Fig 6 8



The conclusion that could also be drawn is that the information and knowledge seeking activities of development workers is a function of a struggle between *big ideas* i.e. ideas from knowledge economies and *small ideas* i.e. local development knowledge.

6 2 2.2 Impact of linkages and de-linkages on information activities

Partnerships such as those described above, whilst valuable for knowledge transfer, were also found to generate a fresh need for information when a decision is made to bring them to an end. The field observation un-earthed how patterns of funding, and clientelism influenced the information seeking activities of development workers. It emerged at a meeting dubbed "Sustainability Planning Meeting", which preceded the above capacity workshop, that a decision had been taken by Save the Children's

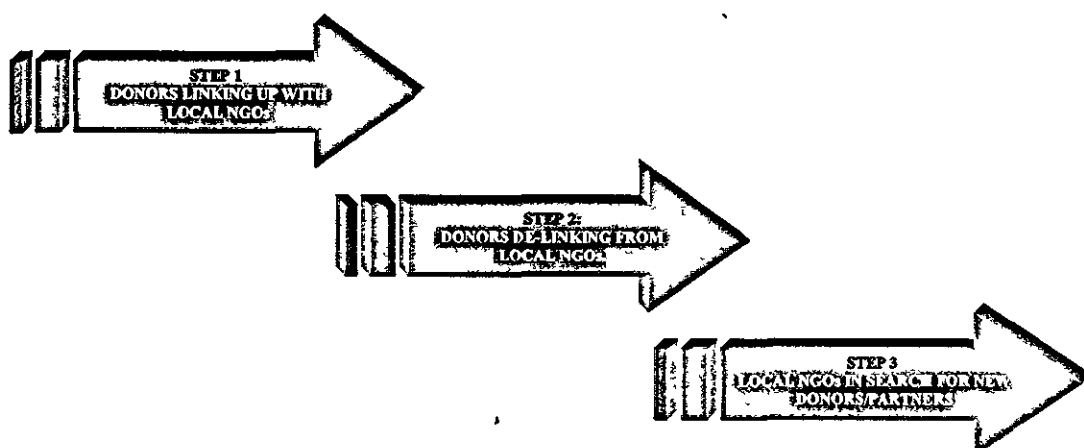
Fund (SCF) UK, to end its activities in Ghana as of June 2004. The purpose of the meeting was to thus discuss strategies for continuation of reproductive health interventions beyond aid from SCF. What came to light from this meeting was how the funding of local NGOs from either market sources, such as the World Bank, or International NGOs sources, such as SCF, followed patterns which left local NGOs always in search of information about the funding policies of global development partners. The major issues which emerged include the following:

- i. The short term nature of funding
- ii. The focus of funding activities on specific development problems e.g. malaria
- iii. The size of funds which was reported to be sometimes small or over a specific period of time only such as in the SCF case
- iv. Funding mostly tied to projects as opposed to policy based interventions

Other factors which combined to create the need for information on the funding/policies of donors amongst local NGOs were found to include the perpetual subsistence on foreign sources of funding by local NGOs, the lack of fund raising capacity of local NGOs, the operational size of local NGOs which sometimes made it difficult for them to make *direct* contact with outside donors, the lack of strategic orientation on the part of local NGOs and lastly the absence of a NGO-wide directory on sources of national and international funding. The other thing which emerged from this sustainability meeting was that the power to choose local partners (linkage) and to withdraw (de-linkage) seem to rest more with donors than the recipient. The process followed a three stage strategy as follows:

Fig 6 9

Donor linkage and de-linkages



Step three was reported to raise specific questions as follows:

- i. Where to find sources of information on funding?
- ii. Who specifically can be contacted?
- iii. How can they be contacted?
- iv. For how long are they prepared to be engaged on a given project?

Based the above evidence, a conclusion could be drawn that the information seeking activities of development workers is a function of patterns of funding and also the particular subject positions taken i.e. client/recipient working for a donor.

6.2.3. Remonstrations

This is basically the act of protestation against or contestation of, government policies by same interest groups within the NGO sector through arguing strongly against a given course of government action. Our field observation took us to a meeting of the network of NGOs in the water and sanitation sector in the Northern Region, called WASNET. Membership of this network was predominantly made up of local NGOs and a few international NGOs e.g. Ghana Danish Community Programme.

The reason which occasioned the coming together through an act of solidarity by NGOs in the water sector was a decision by government to privatise the water sector in the country. WASNET took the view that this was a threat to their own existence and, more importantly, the livelihood of the poor. To them, such a policy was bound to make water unaffordable to rural communities, and they thus sought to act as compassionate voices on the matter on behalf of their rural folks whose welfare was the *raison d'être* of their involvement in development interventions. The meeting devised strategies to mount a public campaign to challenge the policy. What was very fascinating during the meeting was how this perceived government threat suddenly opened up a space for information sharing (*competitive co-operation*) to help formulate strategies, which is a clear case of knowledge sharing motivated by fear and survival. This behaviour is akin to some stories in old testament Biblical times when communities rallying together to fight the *common enemy* by sharing intelligence.

Activities aimed at sharing information and views on government policies were also evident in the publication of a local newspaper "*The Northern Advocate*", managed jointly by NGOs in the Northern region. Some of the headlines featured in the various editions of the paper included the following:

- HIPC Gains: Is the Northern Ghana Ready?
- Sustainable environmental development in Northern Ghana
- ACTION AID Chereponi development programme. Fighting Poverty Together.
- Water Supply in Tamale: The Problems

6.3 Geo-Physical Patterns of Settlement

The third and final significant issue which emerged from the field observation relates to the geo-physical location of communities and its implication for mobility and communication, an issue which also surfaced from the interview chapter. Whilst the question of physical challenges may seem obvious in any rural environment, its significance is emphasised here because all too often, studies in human information behaviour have tended to focus on *cognitive* and *social* factors of behaviour with little attention paid to the impact of physical environmental factors. Two issues are considered under the geo-physical; mobility and communication.

6.3.1 Mobility issues and options

The analysis found that too many of the communities in which development workers operate lie beyond the reach of effective road transportation networks with serious consequence for information seeking activities on the part of development workers. In the same way that information flow through technology and social systems can be enhanced or inhibited by several factors, we found evidence from our field visits which suggest that linkages of road network also impact both positively and negatively on the flow of new development ideas. Poor road infrastructure coupled with limited and inefficient transportation options, tied to spatial settlement patterns, were found to combine in a complex way to impose physical strain on information seeking activities. To illustrate the point, a typical field visit to four communities, namely Kabgangu, Kunguri, Yapalsi and Yizegu on the 4th January 2003 in a truck was a total of 116km, which works out to an average of about 30kms between these communities. A picture of the road network we travelled on is captured below in figure 6.10.



The road network to the village of Tando in the West Mamprusi district.

One most memorable experience relating to the mobility factor was a journey we made to a village called Tando, in the West Mamprusi District (*also referred to as Overseas*) to site a hand dug well being jointly constructed by New Energy(the local NGO), The Community water and Sanitation Agency (CWSA) and the local District Assembly. Our four-wheel drive vehicle took off at 10.00am travelling through tarred, semi-tarred, un-tarred, dusty bush path with tree stumps, dry riverbeds, and on occasion rocky path arriving in the village of Tando at 5.00pm, a total distance of 317kms which took 7 hours the same length of time it takes to fly from Accra-Ghana to Heathrow in the UK. Investigations carried out with the Deputy Regional Director of Feeder roads for Northern region on 10th February 2003 revealed the following in terms of the road network situation:

1. Total length of paved (tarred) roads in the region mostly in the District capitals 23.80kms
2. Total length of Engineered Roads in the region i.e. roads that have drains, culverts, gravelling or reshaping done to it, 3772.53kms
3. Total length of Non-Engineered Roads i.e. farm tracks, bush paths or lanes 2125.17kms.
4. Total length of unpaved (un-tarred) roads 5874.62km (i.e. sum of engineered and non-engineered roads)

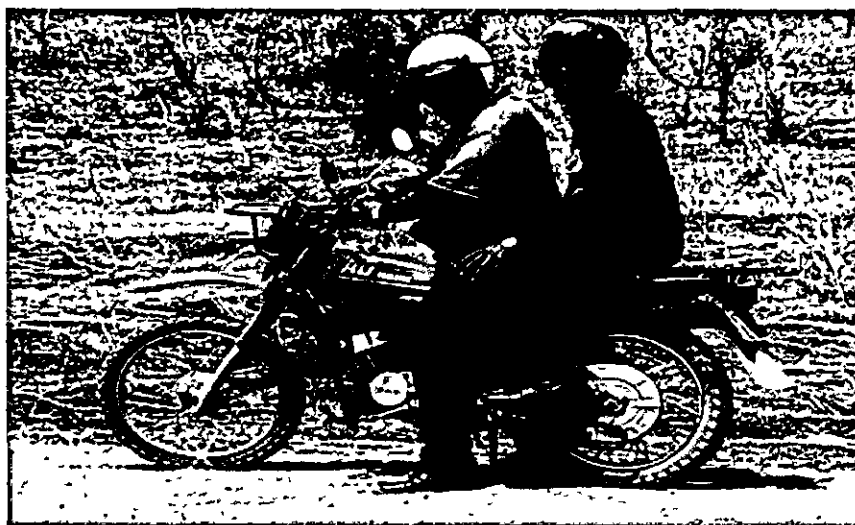
What is evident is that un-tarred lanes constitute over 90% of roads in the Northern region.

Due to the conditions of the roads, the major means of transportation for most development workers was the motorbike which appeared to cope better with the road terrain but was reported to be ineffective during raining season. The biggest challenge for the use of motorbike as a means of travelling was reported to be the risk associated with possible armed robbery. This story by one development worker with whom I worked in Gushegu Karaga illustrates this point.

Means of transport such as a motorbike is a problem A motor bike was allocated to me officially for work but was taken from me at gun point on the 12th of April on one of my usual rounds to supervise a project at a village call Nakogu about 9kms away from Gushegu.

It was not too clear how widespread this incident is within the Northern region; however, the point remains that personal risk is a deeply embedded factor in the information activities of development workers.

Fig. 6.11 *The most reliable means of transport for rural development workers*



Other means of mobility available to development workers to travel to the various scattered but nucleated village settlements were found to include the private transport system and, in extreme cases, the use of canoes especially during the rainy season.

Fig 6 12

Sometimes it has to be by boat



Fig 6.13

The rural transport service used by development workers



The above findings would suggest that any understanding of the information behaviour of development workers would have to also consider questions related to the travel demands of development workers, their mobility needs, the diversity of modal options available to them, and affordability. Such investigation would have to also consider how mobility impacts either positively or negatively in the flow and circulation of development information. At a much higher level there may also be a need to probe the practical and policy implications of investment on diverse means of transportation to communities and how this impacts on information activities of development workers.

6.3.2 Communication challenges

Some of the communication challenges recounted in the interview chapter also re-emerged in the field observation. Two important findings are highlighted, the first relates to communicating *with* key informants in the communities, and the second relates to communication *from* the field.

The absence of information and communication technologies, as well as poor postal services meant that it was impossible to alert community members of an impending visit. The strategy was to simply turn up in the hope that surely somebody would be found. This was the case when we visited the villages of Voggu-Botingli, Diggu, and Kpaligum in the Tolon Kumbungu district. On some occasions, it was not too clear who the key informant in the community was. This problem was noted by some of the development workers as follows:

- The co-ordinator and the surveillance worker were not there at the time we arrived. It would have been useful for the co-ordinator and surveillance worker to have prior information about our visit to the containment shelter before we visited.
- Did not have a direct contact person in the village. There was the need to know who could be contacted in the community.

One development worker was of the view that for such challenges "*Radio announcements on FM would have been useful*".

The major question which this problem raised was the question of a directory of key community informant for Northern Ghana, which obviously was unavailable. Considering that the communities we visited were diverse and scattered in different districts, the lack of information on the identities of community informants also raises concern not simply about gathering information from poor people but also checking on poor information (*quality*) should a need arise.

The problem of communicating from the field also emerged as a key issue. The problem seems to be more pervasive with local NGOs than it was with international NGOs. One international NGO i.e. World Vision International, for example, had Motorola radio communication devices installed on their vehicles which allowed their field staff to communicate with their regional office and vice versa. Availability of such a communication facility for the local NGO - *New Energy* - would have averted a frustrating experience when a planned visit I made to Gushegu Karaga District had to be postponed for a day due to the Moslem Ramadan festival. Without any means of contacting the field staff about the change of schedule, the journey was made a day later only to find that there was no one waiting to meet me. A mobile phone or paging service would have made a whole difference. In a later chat with the

Northern Regional Director of Ghana Telecom, it emerged that the total number of telephone lines in the Northern region is 5374 which were mostly concentrated in the regional capital, Tamale. Clearly then, the problem was not simply one of *unavailability*, as emerged from the interview chapter but rather of *distribution* and *coverage* across the region. This relates not only to landlines, but also to mobile telephony.

6.4 Conclusion

This chapter has confirmed some of the findings of the interview chapter as they relate to the information needs of development workers e.g. baseline data; information sources of development workers, e.g. community informants, workshops, government officials and also other NGOs; and information challenges, e.g. information communication. The evidence suggests that to acquire information, development workers behaved in one of four different ways. These are:

- i. *Reach down*: This occurs when for example development workers reach down to communities for specific pieces of development data.
- ii. *Reach in*: This is influenced by financial dependence on foreign donors which reproduces knowledge dependency that occurred via programmes such as capacity building.
- iii. *Reach out*: This is influence by a desire to work closely with government agencies in mutually beneficial ways in the form of information rewards
- iv. *Reach around*: This was found to be motivated by fear or survival which creates solidarity which leads to information sharing between similar others.

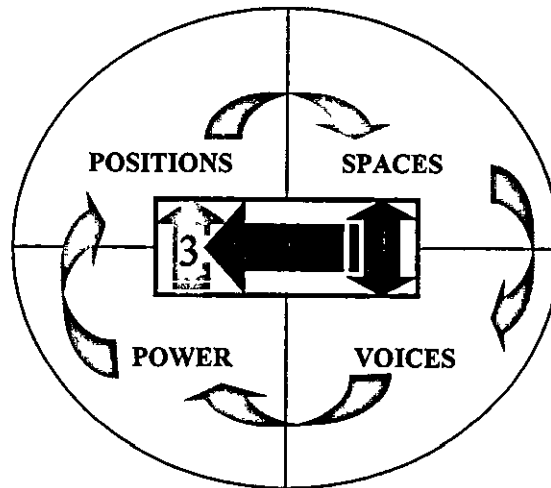
The choice of which behaviour to exhibit was found to be influenced by four main factors, namely:

- i. Social Positions
- ii. Social Spaces
- iii. Represented Voices and
- iv. Power relations

Social *position* is determine by the role an individual assumes namely a gatekeeper, a local champion, a local politician, a scribe, an expert, a facilitator, a client, a donor,

or a recipient. These positions so constructed lead to the creation of *social spaces* for deliberation where the positions are lived out as *voices*. The voices could be characterised variously as lone voices, delegated voices, compassionate voices, intermediary voices, expert voices, and voices of State agents. Through interaction and specific practices between the various voices, these social spaces become infused with *power* which reinforces the various positions as depicted in the following diagram.

Fig 6.14 *A model of social power positions on information behaviour*



What is perhaps required is system which brings the different voices together to engage with each other within deliberative spaces (step 1) which should gradually impact on existing power structures (step 2) and which hopefully should reshape or re-configure existing social positions (step 3). The next chapter would further explore interaction between these variables.

CHAPTER SEVEN

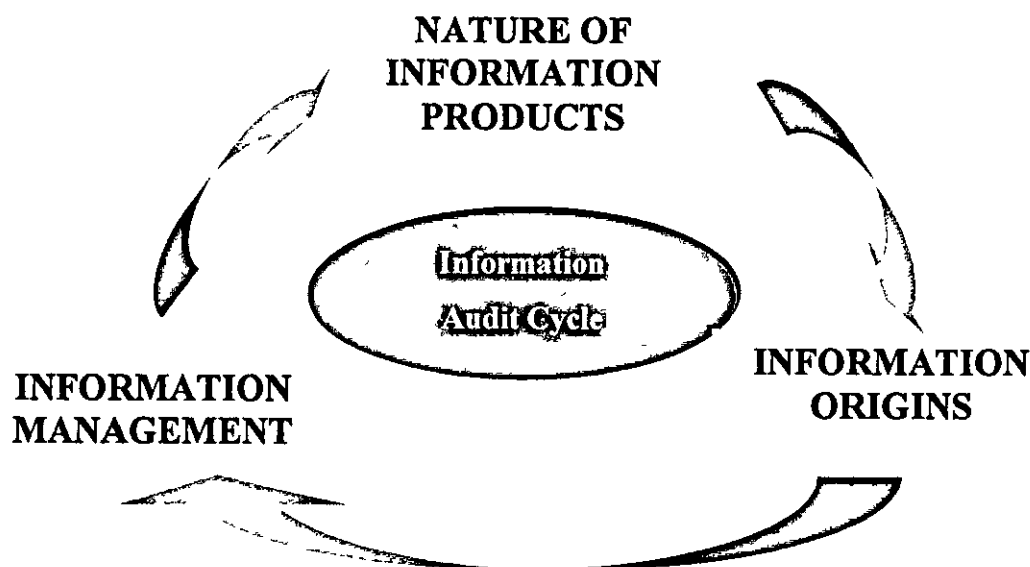
INFORMATION AUDIT: DATA ANALYSIS AND PRESENTATION

7.0 Introduction.

This chapter presents the finding of the information audit, the third instrument of data collection for this study. As noted in the research methods chapter, this was carried out in the offices of “Integrated Social Development Centre (ISODEC)”, a national capacity building NGO. Unlike the interview and observation chapters which focused mainly on “information as a process”, this chapter focuses on “information as a product”. The chapter is divided into three main sections. The first section describes the characteristics of the information products found in this audit. The second section analyses the origins of the information products i.e. sources of flow. The third section focuses on issues related to the management of the information products.

Figure 7.1

The information audit cycle



The findings are presented in the form of tables, matrixes and figures depending on what best convey the import of the analysis in each section. Where necessary, quotations from the contents of documents, and / or pictures taken during the audit have been used to give a better feel of the analysis.

7.1. Information Products

The analysis began by first of all examining the characteristics of the information products found. This dwelled on two main aspects. The first relates to the nature of the information products and the second to their format or the containers in which they were held.

7.1.1. Nature and characteristics of information products

In order to determine the nature and characteristics of the information products, the analysis focused on the context and/or processes that created the information products and also examined their underlining purpose(s). The objective was to classify each information product into a generic group of resource entity. This process resulted in the classification of the information products into five main generic groups as follows:

- i. Operational or functional information products
- ii. Management information products
- iii. Socio-cultural information products
- iv. Relational information products
- v. Protestational information products

7.1.1.1 Operational or functional information products

This class of information products were found to be the basis upon which specific development interventions are carried out. Operational information products fell into those relevant to project management e.g. monitoring information; those relevant to knowledge and learning e.g. manuals and handbooks; and those relevant to keeping informed about developments in the global environment e.g. discussion papers. Some of the titles found for each of this sub-group of information products were as follows:

Project management

- ISODEC Reproductive Health Project Northern Ghana Systems for Monitoring and Evaluation of projects (June 1997)
- Social monitoring of the programme components of the family reproductive Health Programme of selected Districts in the middle and Southern zones
- Towards a framework for social monitoring in the FRHP
- Situation analysis for adolescent reproductive health programme in Africa A UNFPA, CEDPA, JHU/PCS project. Adolescent Reproductive Health Needs, Ghana country assessment

- Request for proposal from CIDA for the provision of services in Ghana relating to farmer responsive mechanisms in extension and research

Learning

- The essentials of contraceptive technology. a handbook for clinic staff
- The HIV/AIDS question and answer book
- Essential Aids information resources
- Net Grain a new method for preventing malaria deaths
- An introduction to Advocacy Training guide
- New approaches to literacy learning. a guide for teacher educators

Global environmental awareness

- A World Bank policy study: financing health service in developing countries, an agenda for reform
- Worsening the woes the role of donors in education
- Citizens and Governance Civil Society in the new millennium
- Women in a Global Economy. Challenge and opportunity in the current Asian economic crises
- 50 years of UNESCO (A pictorial newsletter of UNESCO's achievement since 1946)
- The potential of using sustainable Livelihood approaches in poverty reduction strategy papers A discussion paper for DFID

7.1 1.2 Management information products

The information products found to relate to management were of two main types. Firstly, information products of a financial management type and secondly those of a legal type which outline obligations / commitments regarding partnership arrangements.

Financial information products

- A completion of first Quarter 2002 Financial Reports of 8 partner NGO's
- Youth action on reproductive order (YARO) management and administration manual August 2002
- Second quarter 2002 financing reports from 7 Local NGOs
- Rural help integrated Annual report for 1998
- Youth Action on Reproductive Order (YARO) Financial Manual (2002)

Legal information products

- ISODEC reproductive health project. A contractual agreement with partner organisations (TIDA)
- ISODEC reproductive health project A contractual agreement with partner organisations (Zuuri Organic Vegetable Farmers Association") ZOVFA
- ISODEC reproductive health project A contractual agreement with partner organisations (Rural health integrated)

7 1 1 3 Socio-cultural information products

We learn something about community beliefs, practices and perceptions from information products which allude to these in various ways. Two prominent practices that emerged from the analysis of the documents relate to female genital

mutilation and education of the girl child. In view of the fact that some communities of the northern region of Ghana practice early betrothal of young girls, materials of this kind throw more light on such issues. Examples found include the following:

- Cutting the rose, female genital mutilation the practice and its prevention
- Female genital mutilation and the risk of HIV
- Situation of Girl Child Education in the Tamale Municipality
- The practice of female circumcision in the upper east region of Ghana A survey report

7 1 1 4 Relational information products

Information products which point to various types of development relations fell into two groups. The first relates to activity based networks e.g. health and also broad umbrella networks e.g. the Northern Ghana Network for Development. The second type of relational information product found pointed mainly to dealings with other development stakeholders at the local, national and international level.

Networking

- Report on the joint launching of the Northern Ghana Network for development and the Ghana National Human Development Report November 1997
- The constitution and byelaws of the northern Ghana network for development
- Ghana National Coalition on the rights of the child
- Ghana National Education campaign coalition/ ISODEC Inventory of literature on Education in Ghana (1990-1999)

Development partners

- Save the Children Fund (SCF) family Reproductive Health Programme Financial Management and Accounting Review Workshop May 7, 1999
- Tree AID West Africa Increasing community involvement in Tree-Based Projects (2001)
- Making a difference in the reproductive health situation of resources poor Northern Ghana a review report of the SCF UK

7 1.1 5 Protestational information products

Materials found under this category had a strong bearing on human rights and advocacy activities carried out by development workers. They are labelled here as protestational materials because in many ways they also reflect an expression of dissent to some government policies. What is interesting about the protestational materials is that they also reflect interest in issues of an international nature.

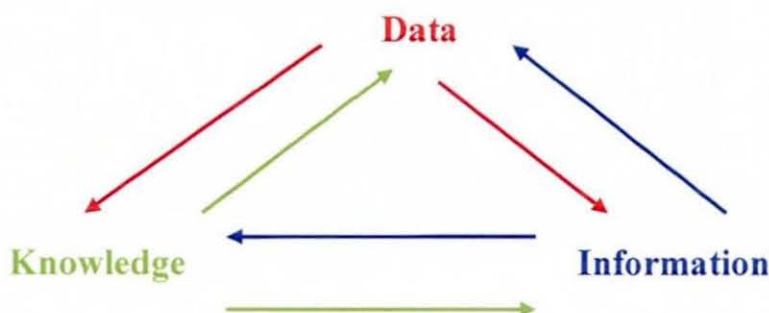
- Ghana HIPC watch project. A summary of regional educational workshop report
- Report on conference on Social and Economic Rights under the theme "Human rights begins with breakfast"

- Report on workshop: strengthening Civil Society Consultations on Ghana Poverty Reduction Strategy/ Education on the HIPC initiatives held in Tamale. Oct. 2001
- Assessing National budgetary Commitments in support of the plan of action on the rights of the Child National report on the follow-up to the world summit for children
- Grounding our advocacy in an analytical development perspective

7.1.1.6 A value chain perspective of the information products

To further aggregate the various information products found in the audit, the next level of analysis sought to pull together the various information products described above in terms of their increasing value i.e. *data* to *information* and then to *knowledge*.

Figure 7.2 A value chain perspective of information products



i. Data oriented information Products

The term *data* is used here to describe information products of a statistical nature or ones which can be described as a structured collection of quantitative facts which have the properties of precision, predictability, risk measurement and objectivity. The term data is also to be understood in terms of its qualitative nature and which is therefore value laden, subjective, and based on opinions e.g. development needs. Some examples which emerge from the analysis were as follows:

- Ghana: demographic and health survey 1993
- Rural communities in Ghana: Report of a national rural community survey carried out as part of the third round of the Ghana Living standards survey 1991/92
- Community based development programme district level household baseline survey. Savelugun Nanton District. Summary of preliminary results February, 2000
- Community based development programme: district level household baseline survey. Tolon-Kumbungu (Sept. 1999)

It may be appropriate to give a flavour of the content of some of these products. For example the title "*Community based development programme: district level household baseline survey. Tolon-Kumbungu (Sept. 1999)*" provides demographic

characteristics of various households within the Tolon-Kumbungu district, education in the district, water and sanitation conditions, household food security, management of land and environment, characteristics of mothers with children under 18years, malaria in children under 5years, prevalence and treatment of diarrhoea, breastfeeding and complementary feeding, immunization, and nutritional status of children under 5years. The document also provides aggregated data on key sectors including education, water and sanitation, agriculture, health, as well as the environment

ii. Products of an Informational nature

When we turn our attention to purely *information* products, these fell mainly under those that come in the form of guidelines or policies both of government and also of international development agencies. The term policy is to be understood to refer to officially formulated plans of action or frameworks, which provide insight into approaches, stratagem, intentions, and positions of stakeholders in relation to development. Examples of these are:

- Mainstreaming the poverty reduction agenda: an analysis of institutional mechanisms to support pro-poor policymaking and implementation in six African countries
- Ghana Poverty Reduction Strategy 2002-2004: An agenda for growth and prosperity. Analysis and policy statement
- Ghana financial sector review: Bringing savers and investors together
- Poverty reduction strategies: what have we learned so far?

For example the title "*Ghana Poverty Reduction Strategy 2002-2004: An agenda for growth and prosperity. Analysis and policy statement*" provides an outline of government policy framework since the mid 1990's, previous poverty related plans, the dimensions of poverty in Ghana, as well as strategies for long term growth and poverty reduction. This policy document also provides information on macro economy production and employment, human resource development, programmes for the vulnerable, governance, and other key issues such as public policy management.

iii. Knowledge oriented information products

Knowledge related products found in this audit were those of the formal, explicit and codified type which could be applied in relatively predictable and replicable ways; and those of the implicit type linked to experience, and ways of doing

something which has been learned within particular social, geographical or organisational contexts. Knowledge products also include resource entities in specific subject domains which describe processes, approaches, practices; case stories or ongoing developments and happenings on the global front. Examples of this are as follows:

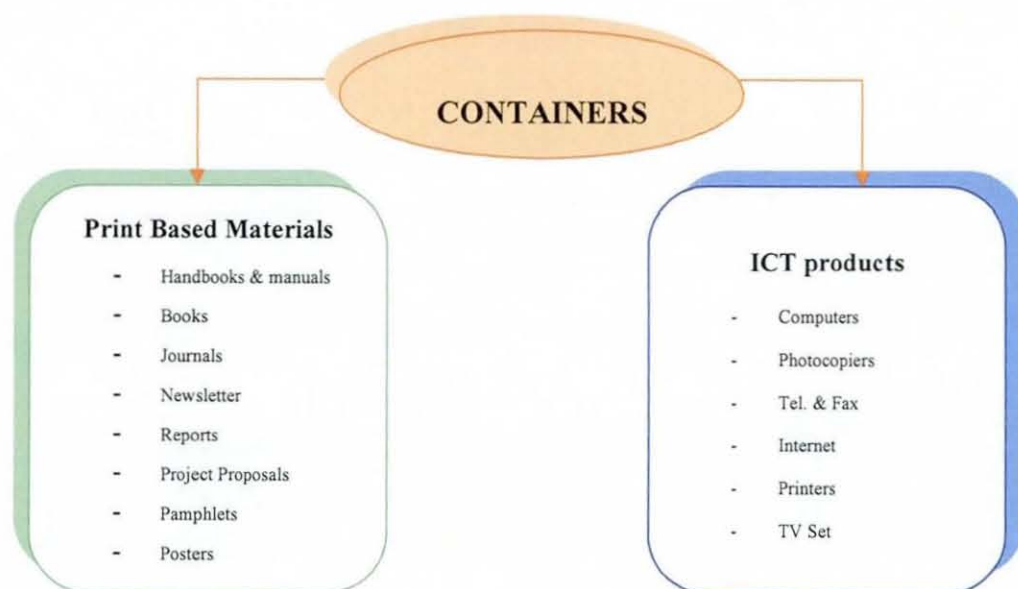
- The potential of using sustainable Livelihood approaches in poverty reduction strategy papers. A discussion paper for DFID
- Women in a Global Economy: Challenge and opportunity in the current Asian economic crises
- Rural Youth self-employment and reproductive health program designing process: An experience in participatory approach to program development
- The essentials of contraceptive technology: a handbook for clinic staff
- Net Grain: a new method for preventing malaria deaths
- New approaches to literacy learning: a guide for teacher educators

For example *"The essentials of contraceptive technology: a handbook for clinic staff"* provides guidance to people concerned with improving family planning standards and practices and also provides advice to clients on reproductive health issues.

7.1.2 Information containers or format

The next level of analysis focused on the formats or containers in which information products were held. The audit found two main containers namely those in print format, and those which were information and communication technology based. Each of these categories had a number of products falling under them as depicted under figure 7.3 below.

Figure 7.3 *Information containers*



7.1 2 1 Print Based Materials.

The term print-based material is employed here to refer to materials held in paper format and which thus provide information mainly in textual format. This could be divided further into two main types namely those which have been formally published, and those which are of the grey literature type i.e. semi-published. To ascertain the volume of material which fell under each type, the analysis carried out a simply counting exercise. The number of documents found in each category is captured in Table 7.1 below.

Table 7.1 *Types of Information Products*

Type of material	No. of Documents	Percentage
<i>Published</i>		
Handbooks and Manuals	30	13%
Journals	21	9%
Books	14	6%
Newsletters	11	5%
Total for Published	76	33%
<i>Semi-Published</i>		
Reports	116	51%
Project Proposals	15	7%
Pamphlets	17	7%
Posters	4	2%
Total for Semi-Published	152	67%
Total Published + Semi-published	229	100%

A look at the published materials show that the bulk of these materials are handbooks or manuals, followed by journals, books and then newsletters. Roughly they form about a third of the total materials found in this audit. In view of the academic background of development workers as noted in the interview chapters, and judging from the value of these products for technical and specialised problem resolution, the value to development workers of these products become apparent.

When we turn our attention to the semi published materials we note from the table that this forms the bulk of materials found in the audit i.e. two-thirds in total. Of this total, reports come high on the list of products constituting about 50% of the total information products examined. The titles of the reports give some indication about the drivers that lead to their production. We find, for example, "annual reports",

“quarterly reports”, “workshop reports”, “financial reports”, and “review meeting reports”. The high volume of reports found would also confirm the “information production culture” identified in the interview chapter. Judging from the high volume of reports found, it may not be out of place to suggest that if information overload of any kind exist in the work environment of development workers this could be attributed, to a certain degree, to local generation activities. Another point worth making about the project reports is that most of them were written in simple language and presented in simple format which would suggest specific preferences for information packaging, not an *Oxford University* type of publication as noted by one development worker in the interview chapter.

7 1 2 2 ICT Products

The term ICT is used here to refer to information products which depend on some form of technological capability for storage and communication. In this audit a variety of ICT products was found which included computers, printers, photocopiers, fax, telephones, internet service and audiovisual materials. Access could not be gained to the actual documents held on some of these machines due mainly to practical problems of accessibility and also confidentiality. Table 7.2 however presents the category of ICT products found in this audit and their specifications.

Table 7 2

ICT Products

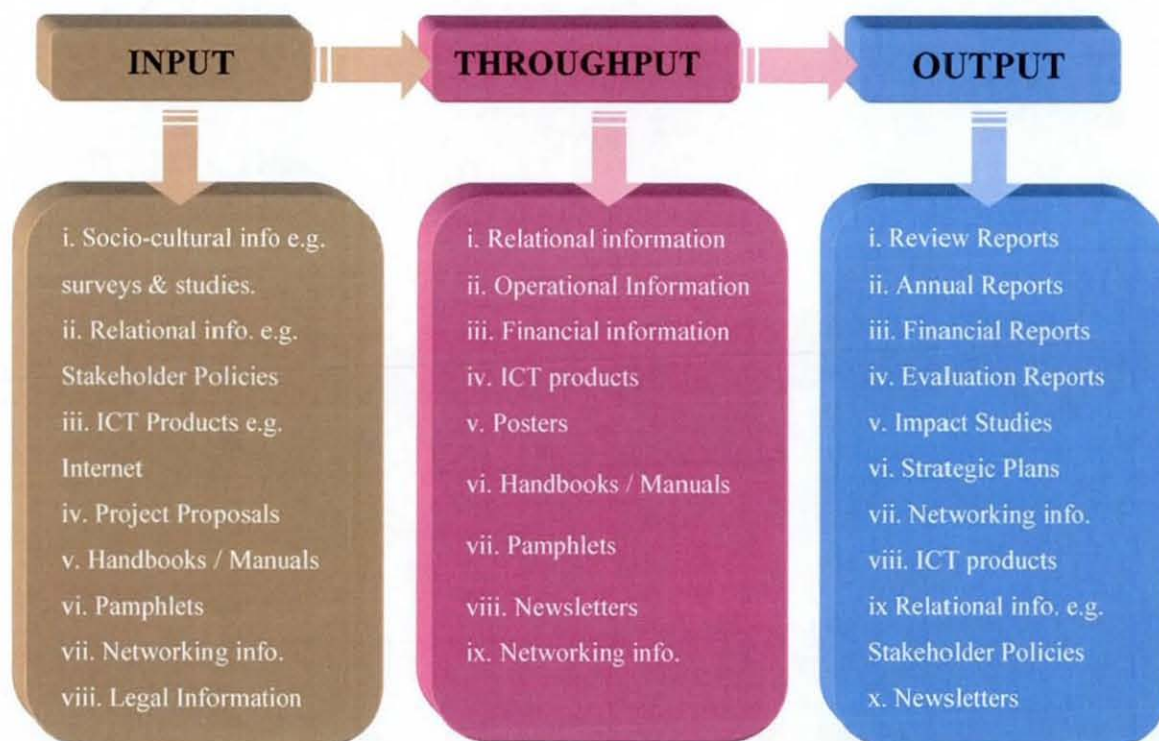
Type of Equipment / service	No. Available	Make / Specifications
Telephones	5	Gold star & Panasonic
Fax	1	Canon Fax B150
Photocopier	1	Canon GP 160
Computers/Internet	5 (PCs and one laptop)	-Pentium II processor, 128 MB RAM, Windows 98' 6GB hard-disc -Pentium III, 19 GB hard disc, 128 MB RAM, windows '98 -Internet Service Compaq Presario, Window's '98, 76 MB RAM, 3 GB hard disc -Pentium III, Windows 98' 128MB, 19GB hard disc -Toshiba Laptop, Intel Celeron processor 64MB RAM, Windows ME, 5 58 GB
Printers	2	-HP Deskjet 1120C -HP Laser jet 1200 Series
Television	1	Panasonic
Databases	None	
Videos	5	

It is interesting to note that despite the perception that ICT infrastructure is poorly developed in this region, (as discussed in the interview chapter) one finds the use and application of these tools, some with relatively good specifications, for instance, Pentium III, 19 GB hard disc; 128 MB RAM, windows '98. The availability of these technological tools may perhaps also explain the presence of a high volume of reports found in this audit. Another interesting finding was the availability of Internet services, fax machines, television set, and telephones. The impression one gets from the above is one of a local NGOs which is part of the global information society. But as we shall see later, some of the information technology gadgets found were not actually functional.

To get an overall picture of the nature and characteristics of the information products, the various pieces of information products are further clustered into their functional value as follows:

Figure 7.4.

The functional value of information products



It is important to point out that some of the information products fall into more than one category, for example policies, handbooks and also manuals which may be constantly referred to during the life of a project. The next section focused on the actual sources or origins from which the above information products came into the work environment of ISODEC.

SECTION TWO

7.2. Information Origins / Sources

After establishing the nature of information materials found, the next stage of the data analysis was to investigate the source(s) from which the various pieces of information originate. The normative assumption which underpinned this level of analysis was that the authority of a source of any piece of information is a measure of its value.

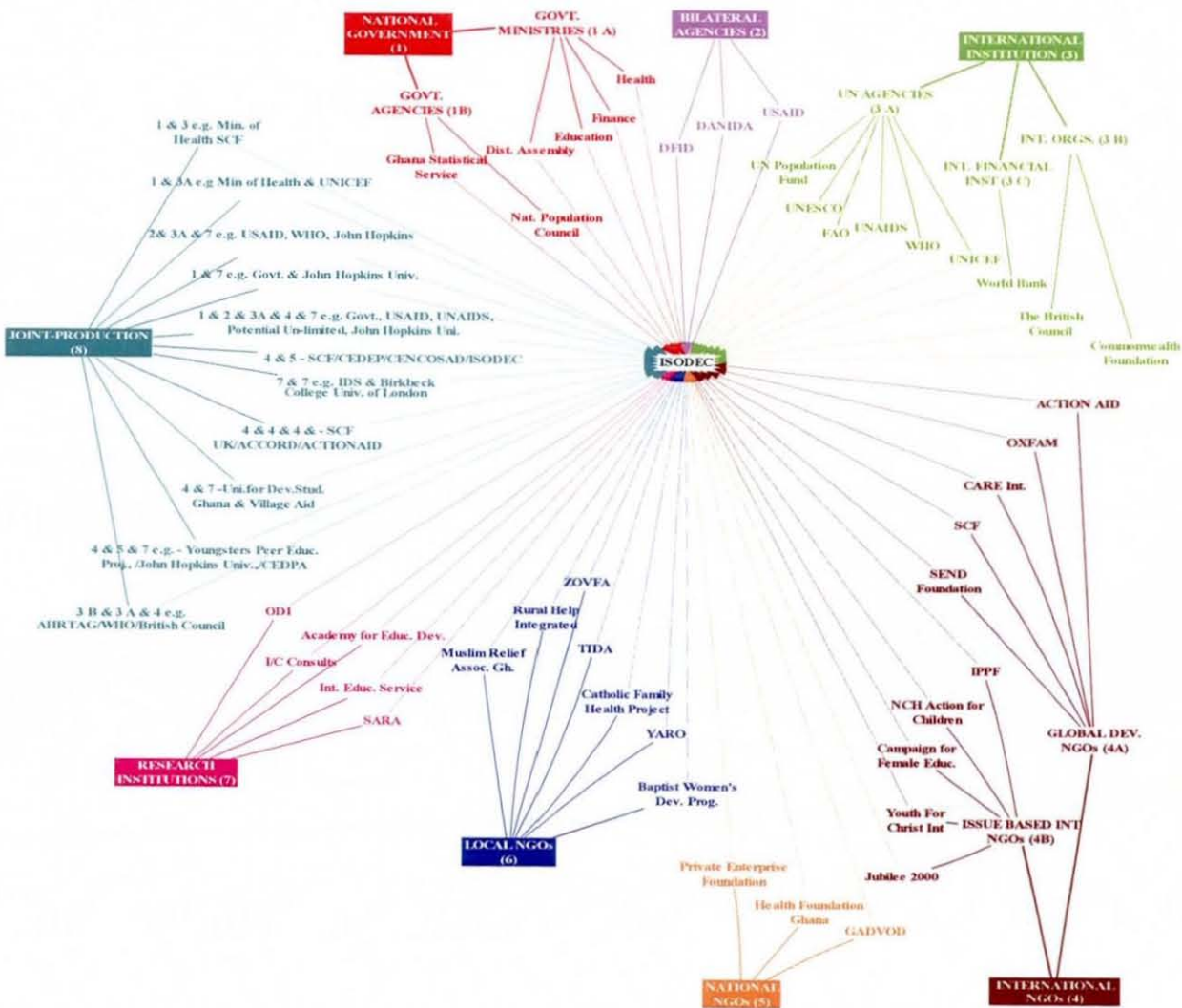
The word "origin" / "sources" is employed here in reference to the place(s), author(s), or creator(s) of the various pieces of information products found in this audit. A related term would be "information flow" which would presuppose a

spatial separation between the sources of the information product and their recipient. Emphasising the term *flow* of information further alerts us to systems of exchange, supply, and sharing.

The analysis found a variety of sources with different identities from which information flow into ISODEC. These sources were also found to be located in different geographical regions. This is captured in figure 7.5 below.

Figure 7.5

Information flow into ISODEC



Three main points emerge from the analysis in relation to the sources from which information flow into ISODEC. These are:

- The *identity* of the sources or authors

- ii. *Patterns* of information flow
- iii. *Drivers* for information flow

7.2.1. The *social identity* of information authors

As is evident from figure 7.5 above, different but well defined and identifiable groups with socially visible boundaries emerged as the sources of information flow to ISODEC. In order to classify these various sources based on some common comparison or differentiation, the analysis focused on their mode of organization, locus of power and aspiration. Focusing on these three components was regarded as an appropriate method for determining the nature of the *identity* of each information author. The term *identity* is to be understood in this context in reference to the quality of sameness in substance, composition, nature, or properties of a given source. Five broad categories of sources linked to specific identities emerged from the analysis. The first three could be termed *primary identities*. These include the flowing sources:

- i. Sources located within government. Examples are local government administration such as the district assembly, government ministries, and also international government agencies such as the DFID and USAID.
- ii. The second are sources located within the market. These sources derive their powers mainly from the forces of demand and supply aimed at generating profit. They can also be regarded as *private institutions*.
- iii. The third primary identity refers to sources located within civil society. These sources derive their powers from social mobilisation, and are organised along group membership or some form of social affiliation. They usually act as *collective action group* with the hope of bringing about social transformation and empowerment.

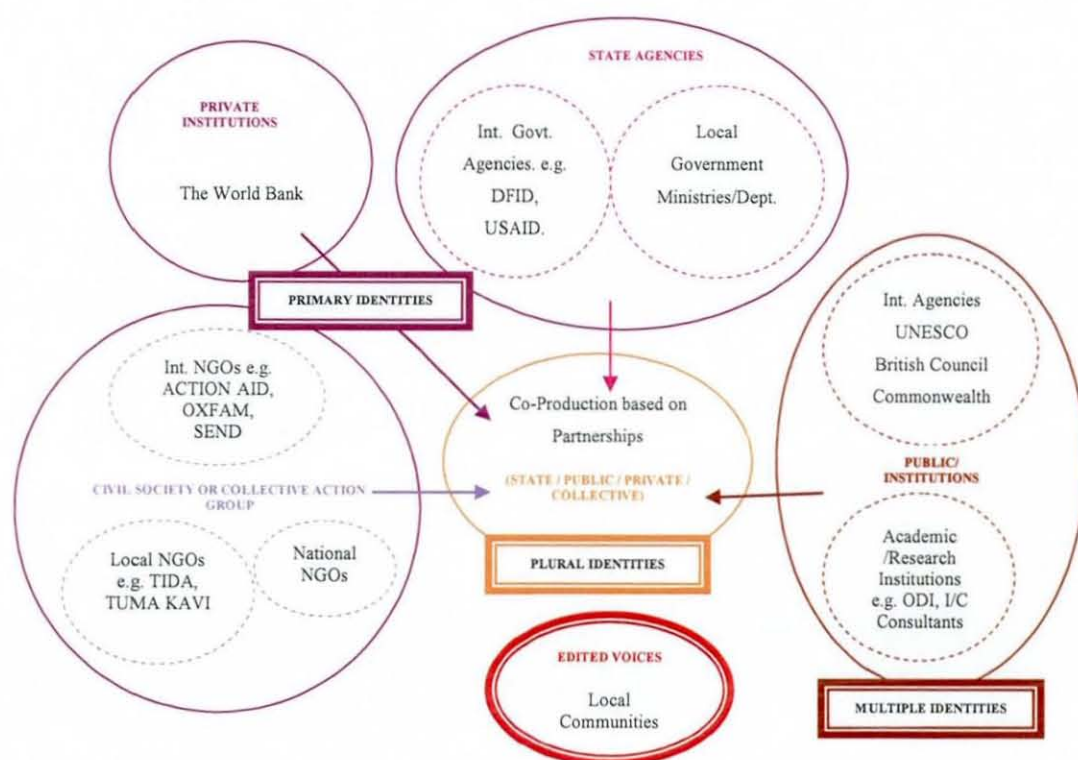
Besides the primary identity, the second level of identity found as sources of information products to ISODEC could be described as *multiple identity* groups. The identity of members of this group overlaps between two primary identities. They include organisations which act mainly as cultural agencies of their government, or non-departmental public bodies, or bodies constitutive of representatives of various governments and those devoted to academic research or

consultancies. Examples of these are UNESCO, The British Council, The Commonwealth Foundation and the Overseas Development Institute.

The third level of identity could be described as *plural identities* where groups from the primary categories, based on some common understanding of known problems, and in pursuit of common solutions co-produce or author information products through various forms of partnerships. The breakdown of the identities of each of these sources is captured in figure 7.6 below.

Figure 7.6

Identity of information producers



7.2.1.1 The case of edited voices and identities

A very disturbing finding, in the analysis of the sources of information was the absence of products which specifically listed the names of community information contacts. In the both the interview and observation chapters, it emerged that local communities were the key suppliers of socio-economic data and also a source of knowledge about local cultures and practices. It also emerged that various and specific individuals in the local communities acted as legitimate sources of local power and authority representing communities and supplying information /

knowledge on their behalf. Despite this significant role played by local communities in the production of development knowledge, documents found in the audit did not specifically acknowledge these sources or individuals by name. The closest one came to finding any form of identification of local communities was references made to the districts where data was gathered e.g. "*Community based development programme district level household baseline survey. Savelugun Nanton District. Summary of preliminary results February, 2000*". This seeming lack of visibility of local contacts raise questions not simply about transparency regarding the sources from which information flow from communities, but also questions which relate to patterns of inclusion and exclusion in knowledge production activities. What is evident here are two groups of information suppliers. Those who could be described as a *core and visible* information suppliers, versus *peripheral and invisible* information suppliers.

7.2.2 Patterns of information flow

The next level of analysis focused on the configurations or patterns of information flows from the various organisations, bodies or institutions identified above. To achieve this objective, the various information products as described under table 7.1 and figure 7.4 were mapped unto the identity of the authors presented in figure 7.6. The picture which resulted is presented under table 7.3 below.

Table 7.3

Patterns of information flow

Table 7.3

		THROUGHPUT							
		INPUT						OUTPUT	
	Nature of Info. Source of Info.	Data/ Survey/ Studies	Policies	Journals / newsletters etc	Hd Bks Booklet Manuals	Reports Proposals	Workshop	Global Knowledge	%
STATE	Int. Governments	x	1	xxx		x		x	3
	National Govt.	xxxxx xxxx	xxxxx xxxxx xxx	2	x		xx		11
MARKET	Int. Financial Inst.	xx	xxx		x	xx		xxxxx xx	6
	National Private Institutions					x			0
CIVIL SOCIETY	International NGOs	xxxx	3	xxxxx x	xxxxx xx	xxxxx xxxx	xxxxx xx	xxxxx	18
	Local NGOs	xxxx	xxxxx	xx	xxxx	xxxxx xxxxx xxxxx xxxxx xxxxx xxx	xxxxx	5	25
PUBLIC INSTITUTIONS	Global Bodies	x	x	xxxxx xxxx	xxxxx xxxxx	x		xxxxx xxx	13
	Int. Academic research. Inst.			6	xxxxx x	xxxx	x	xxxxx	7
	National academic institutions	xxxxx x			xx	xxxxx	xxxx		7
PLURAL	Co-produced	xxxx		xxx	xxxxx xxxxx	7	x		9

International Sources 47%; National / Local Sources 43%; Co-produced Sources; 9%.

The picture which emerges from table 7.3 could be described simply as a convoluted construction of assorted sources of information flow. Six broad patterns of information flow behaviour can be described from the above table as follows.

7 2 2 1 Fragmented data gathering syndrome

A careful look at *No. 1* on the above table shows that almost all the agents involved in, or who have an interest in rural development are involved in some activities linked to the gathering and supply of baseline data. Government agencies are in the lead in this regard. This may seem logical since they have the overall responsibility for the development of the country. The interesting point about data from this source is that it is aggregated at a district level, something which would confirm the complaint made by some development workers in the interview chapter. For example "*Community based development programme: district level household baseline survey. Tolon-Kumbungu (Sept. 1999)*". Also, judging from the number of organisations involved, which are likely to be motivated by different reasons for engaging in data gathering from various communities, questions can be raised regarding the various formats in which the information would be expected to be presented. For example, whilst data found from government sources such as those cited above covered broad perspectives, those of NGOs were issue specific, for example "*Situation of Girl Child Education in the Tamale Municipality*".

7 2 2 2 A case of openness in the midst of secrecy

Notwithstanding the impression which emerged from the interview chapter regarding oaths of secrecy and confidential laws which seemingly inhibit the flow of information from government sources, evidence from *No. 2* on table 7.3 shows that information materials from government sources somehow find their way into the offices of local NGOs. On the whole, the majority of policy documents found in this audit were found to emanate from government ministries and agencies. Policy documents found from these sources included budget proposals, health protocols, poverty reduction strategies, national population policies etc. For example "*Ghana poverty reduction strategy: poverty reduction policy framework (July 2001)*". Clearly when it comes to *input* information government agencies were found to be a major source of supply. A high possibility exist that this comes via their

participation in workshops since two documents were found which confirmed the participation of government departments in some workshops.

7.2.2.3 "General Merchant" and host selection

The phenomenon of *General Merchant* is used here to refer to sources involved in the supply of all three types of information products namely "input", "through-put" and "output" products. This phenomenon was found to be linked mainly to international NGOs as shown by No. 3 on table 7.3. As can be seen from the above table, international NGOs were the only group members who were involved in the supply of the seven different types of information, from baseline data to happenings on the global front. Considering that the policies of most international NGOs today emphasise decentralised and indigenisation through partnership with local NGOs, rather than direct involvement with grassroots, this finding does not come as a surprise. Information supply to a local *host*, in this case ISODEC, which works in partnership with SCF and other local NGOs may be necessary to ensure the successful implementation of development projects and to also develop the capacity of local counterparts.

7.2.2.4 Event Chroniclers

It emerges under table 7.1 that a large proportion of information products found in this audit were mainly reports on various activities. Analysis of information flow patterns under table 7.3 reveals that local NGOs were the predominant group involved in chronicling daily development events and compiling them into various reports as shown under No. 4. *Activity reports*, as these were referred to in the interview chapter, covered various development events and also interactions with local community members. For example a *progress report* from the co-ordinator of the "Baptist Women Development Programme Kaleo", outlines activities throughout the year which include donkey traction and carting services, revolving loan scheme and also a high purchase grinding mill scheme. What this chronicling activity confirms is the role played by local NGO development workers as knowledge intermediaries between rural communities and the rest of the development world, a finding which also surfaced from the observation chapter.

7 2 2 5 Knowledge Broadcasters

The practise of *broadcasting* happenings occurring in the outside world to local NGOs such as ISODEC is captured under No. 5 on table 7.3. It emerged from the interview chapter under figure 5.6 that one key motivation for information seeking by local NGOs is the desire to follow happenings in the big wide world. The analysis found that besides international NGOs, institutions such as the World Bank, United Nations and International Academic Research Institutes were the main suppliers of information products about events occurring on the global front. Judging from the international operations of these agencies, and also their links to various government and development players, it does not come as a surprise that they are at the forefront of global knowledge promotion. A good example of this is the World Bank discussion paper on "*Health reform in Africa: lessons from Sierra Leone*" which highlights experiences from Sierra Leone in the health sector. Also the World Health Organisation document on "*Safe motherhood: women's groups, NGOs and safe motherhood*" describes the experiences of various women's organisation in some developing countries in the fight against maternal mortality and morbidity. It would not seem out of place to conclude that, when it comes to the promotion of global knowledge, agencies with multiple identities which fall between the state and the market are the key drivers.

7 2 2 6 Expert knowledge agents

Following on the heels of the general knowledge suppliers, are suppliers of information products of a more specialised type as shown under table 7.3 under No. 6. Some of the information products found in this area relate to baseline studies in specific areas, and also evaluation and impact assessment studies. The authors of these documents describe themselves variously as experts, facilitators and also as consultants. One interesting finding is the involvement of local educational institutions in this regard. For example the information product "*Ghana Literacy and functional skills project: beneficiary impact assessment 1997*" was carried out by a local consultant supported by a team of researchers. Also the title "*A survey of female drop-outs from school: a study conducted on behalf of the Catholic Education Unit of the Archdiocese of Tamale*" was done by a lecturer based in the Tamale Secondary School. Besides the production of baseline data type information, these experts were also found to be involved as facilitators at

workshops. Judging from the specialised nature of some workshops topics, this finding is not too surprising. For example the workshop report *"Micro-finance and poverty alleviation in Northern Ghana: pointers to development of sustainable financial services"*. This clearly is a specialised area which falls into the domain of such knowledge experts.

7 2 2 7 Soft publishers

Although the interview chapter found little value for books amongst development workers, surprisingly the information audit found a reasonable volume of technical handbooks, manuals, booklets and small pamphlets as shown under No. 7. The following titles serve to support this finding.

- The essentials of contraceptive technology' a handbook for clinic staff Prepared by Population Information Programme of John Hopkins University, WHO and USAID
- Communication for child survival. A manual prepared by The Academy for Educational Development with University of Pennsylvania
- The caring community: coping with AIDS in urban Uganda A small pamphlet produced by ACTION AID, Africa Medical and Research Foundation (Kenya) and Catholic Fund for Overseas Development (CAFOD)
- Journey of Hope A practical life skills tool for making positive life choices in time of the HIV/AIDS pandemic. A user guide jointly produced by Government of Ghana, John Hopkins University, Potential Unlimited, USAID and UNAIDS

Two important point needs to be made about the above titles. Firstly, it is clear that what are being referred too here are not the hard, academic, or abstract type textbooks, but rather books which are practical, easy to read and of the reference type which can easily be regurgitated. Secondly, the analysis shows that most of the books are produced through inter-agency cooperation between, government agents, International NGOs, bilateral organisation, multilateral organisations, and academic research institutions. More will be said about such inter-agency collaboration later.

From the above analysis of information flow patterns, we can draw the following conclusions.

- That the sources of information are either collocated or dispersed locationally.

- That information flow is uni-directional flowing either top-down or bottom-up
- That in terms of identity and values, the sources from which information flow into ISODEC have shared identity and values or dissimilar identity and values.

7.2.3 The drivers for information flow

The next level of analysis examined the key drivers responsible for the flow or supply of information to ISODEC. This level of analysis was a bit difficult since there was no definite indication in any of the documents stating categorically what motivated their production. Secondly, it was not too clear whether the information materials were solicited or unsolicited or acquired reactively or proactively. To resolve this dilemma the analysis dwelt on the titles of the information products and in some cases the actual contents to ascertain the key drivers for their production and flow. The assumption here was that we can learn about the factors that gave rise to the supply of an information material through the activities or context which gave rise to their production. Four main drivers were found to motivate the production of the information products, namely:

- i. Inter-agency collaborative authoring
- ii. Individual / social learning
- iii. Accountability
- iv. Communities of interest

7.2.3.1 Inter-agency collaborative authoring

As evident from the previous analysis, one main factor found to drive the flow of information to ISODEC relates to co-production activities. A significant volume of information products found in ISODEC were co-produced through various forms of inter-agency collaboration. Three distinct forms of collaboration for production of information materials emerged from the analysis as follows.

Figure 7.8.

Collaborative information production

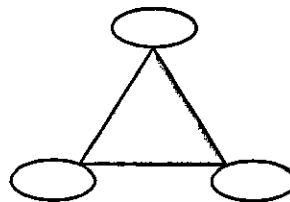
PEER-TO-PEER
AUTHORSHIP



COMPETITIVE
COOPERATION
AUTHORSHIP



MULTIPLE
STAKEHOLDERS
AUTHORSHIP



Examples of *peer to peer* authorship found from the analysis can be gleaned from the following.

- The Caring community: coping with AIDS in Urban Uganda Prepared by ACTION AID and Catholic Fund for Overseas Development.
- Mainstreaming the poverty reduction agenda: An analysis of institutional mechanisms to support pro-poor policy making and implementation in six African countries. Produced by IDS Sussex and Birbeck College London
- Directory of non-governmental Organisations in Ghana prepared by Ghana Association of Private Voluntary Organisations and ISODEC

Examples of products found to be co-authored by development players considered as *competitive-co-operators* are as follows:

- Ministry of Health Transport management handbook 1995, prepared by ministry of health Ghana, and Save the Children's Fund UK.
- Capacity Building for participatory planning in Bolgatanga District Assembly. Prepared by Bolgatanga District Assembly and ISODEC

Examples of *multiple stakeholder* authorships found include the following:

- An introduction to Advocacy: Training Guide prepared by Support for Analysis and research in Africa (SARA) and Academy for Educational Development (AED)
- Family Planning in the Volta region of Ghana prepared by Ministry of Health, Liverpool School of Tropical Medicine and Centre for the Development of People Ghana
- Women in the global economy: challenges and opportunity in the current Asian economic crisis. Prepared by UN Development Fund for women and CIDA.

Despite what may seem to be a competing legitimate interest of the various stakeholders involved in rural development, the evidence from this level of analysis has confirmed that development stakeholders sometimes resort to collaborative

work practices based on *specific interest* (e.g. family planning) to solve complex development problems, resulting in the joining of development ideas and the production of innovative information products. The positive side of these “collaborative authoring schemes” is their capacity to connect different constituent organisations that bring with them complimentary skills from different knowledge domains and expertise, across the globe and based on a trusting relationship for the construction of development knowledge. The point being made here is that complementarity of experience, values, skills and knowledge can be a great asset in information production activities. These co-authoring schemes, however, appear to be *product oriented collaboration* as apposed to *process oriented collaborative* information sharing. The key question this raises is with regard to joint ownership of knowledge products with various implications for information policy.

7.2 3 2 *Individual versus social learning*

The burning desire to acquire new knowledge, develop skills, and establish a common understanding emerged strongly as another key driver for information flow. Three types of learning related activities were found to drive information flow. The first relates to learning aimed at intellectual development and the desire to improve project management competence. This was found to have links to various workshop reports which confirm the point made about “workshop culture” in the interview chapter. Examples of this include the following:

- The HIV/AIDS question and answer book
- ISODEC Training programme Report on micro finance management workshop for ISODEC's partners Dec 15-16 1999
- Save the children Fund (SCF) family Reproductive Health Programme Financial Management and Accounting Review Workshop May 7, 1999.
- Report on a two-day facilitators (Training Of Trainers) workshop on Ghana HIPC watch project organised by SEND foundation
- The northern Ghana Reproductive Health Network Workshop Report held in Tamale from 2nd – 27th March 1998

The second type of learning related information production were found to have links to a desire to understand community beliefs and social practices through baseline studies and project monitoring activities as evident from the following titles:

- Young Women's sexual health project. needs assessments report (1995)
- The practice of female circumcision in the upper east region of Ghana A survey report
- Infant, child and maternal mortality study in Ghana
- Social monitoring of the programme components of the family reproductive Health Programme of selected Districts in the middle and Southern zones

The third type of learning related information production had links to keeping an eye on new developments, debates, and discussions on the global development front.

- The potential of using sustainable livelihood approaches in poverty reduction strategy papers A discussion paper for DFID
- Women in a Global Economy Challenge and opportunity in the current Asian economic crises
- Discussions papers on HIV/AIDS care and support Integrating HIV/AIDS prevention, care and support. a rationale
- Trends in Health status, services and finance. The transition in Central & Eastern Europe vol. 1
- Citizen initiatives on primary education in India – primary education in India -A status report vol 1 1997

When these three different learning motivated factors which lead to the production and flow of information are brought together they could be classified as follows.

Table 7. 4

Dimensions of development learning

Development Learning	Formal	Informal
i. Approach to learning	Instruction / Facilitations	Monitoring / Scanning
ii. Motive for learning	Intellectual Development	Understanding and orientation
iii Pedagogical approach	Active and participatory	Passive attention
iv. Learning objective	Technical / specialised skills	Socio-political awareness
v Learning outcome	Personal development	Social learning

7 2 3.3 Accountability driven flows

Funding activities mainly from development partners located in northern countries were also found to be responsible for the production and flow of information, as evident from the following titles.

- A completion of first Quarter 2002 Financial Reports of 8 partner NGO's
- Youth action on reproductive order (YARO) management and administration manual August 2002
- Second quarter 2002 financing reports from 7 Local NGOs
- A Quarterly report on FRHP July – September 2001
- ISODEC reproductive health project A contractual agreement with partner organisations (Zuuri organic vegetable farmers association") ZOIFA

A large volume of the information products found were quarterly reports prepared for Save the Children's fund which work in partnership with ISODEC and a number of other local NGOs. As is also evident from the above, financial reports and contractual legal document formed a major part of the information products.

7.2 3.4 Communities of interest

The fourth and final driver which emerged from the analysis as driving the production of information were found to have links to the common interest shared by the various authors located within government, civil society and the market i.e. the desire to bring about development. Although each of these players had different motives as to why they took interest in rural development, this common rallying factor was found to serve as an underlining motive for various acts of information exchange and sharing in an apparent atmosphere of openness and trust.

- Report on workshop strengthening Civil Society Consultations on Ghana Poverty Reduction Strategy/ Education on the HIPC initiatives held in Tamale. Oct 2001
- Assessing National budgetary Commitments in support of the plan of action on the rights of the Child National report on the follow-up to the world summit for children
- Citizens and Governance Civil Society in the new millennium
- Grounding our advocacy in an analytical development perspective

7.2.4 Summary of section

What this section has demonstrated is the variety of sources from which information products flow into the work environment of local NGOs. It is not too clear whether the information products found in this audit flow directly or whether they go through series of chaining processes with several intermediaries before they land in the offices of ISODEC. Notwithstanding this, on the whole we get from the above analysis is a picture of a flow structure that can be recognised both in terms of its differentiated elements as well as levels of origination. One key finding which surfaced from the analysis related to duplication, overload and management which are the focus of the next section.

SECTION THREE

MANAGEMENT OF THE INFORMATION "RESOURCES".

7.3 Introduction

The term *resource* is employed here to describe the information products found in this audit in view of their value and capacity to be used over and over again. To assess the management situation of these resources, three important issues were explored in the analysis as follows:

- Where the information resources found in this audit were located or stored. This level of analysis also examined the ICT systems available.
- How the information products were organised. This looked at what tools were available for systematically ordering or arranging the information products in a manner that made them accessible.
- How accessible the information products were. This focused on issues relating to the utility of the resources in terms of their traceability and ease of gaining access to them. It also covered issues relating to person(s) who have the appropriate skills and responsibility for looking after and controlling access to these resources.

7.4.1 Information storage and location

The location and storage of the information product was determined by the physical point where they were housed and where they were retrieved for auditing. ISODEC is located on a small compound block with four offices and also a small store room. Two discoveries were made with regards to the location of the information products.

7 4 1 1 Distributed information islands.

Information materials in ISODEC were found not to be centrally located but rather scattered in various offices as follows.

- i. The office of the Director
- ii. The office of the Deputy Director,
- iii. The office of programme officer in charge of family reproductive health.
- iv. The store room which interestingly was signed as "library".

What also emerged was that the location of the various resource entities was related to the functions and job description of each of the above officers and which also acted as inlet points for information flow into the organisation. Thus the bulk of the information products on *health* were found in the offices of the Programme Co-ordinator for family reproductive health. Those on *education* were found in the office of the Deputy Director who had responsibility for educational programmes. The office of the Director had a mixture of *policy documents* and some multiple copies of materials found in the offices of the two other officers. This style of information housing could best be described as "*knowledge islands*" or "*knowledge fortresses*". It could also be inferred from the location of these information products that they correspond not simply to functional activities or roles as noted above, but also an indication of the hierarchies of power and authority of the holders as evident from their respective job titles e.g. Director, Programme Co-ordinator. The "*library*" turned out to be what could best be described as an "*information refuse dump*". It had piles of materials of various kinds ranging from paper products, equipments, and un-used pieces of furniture.

7 4 1 2 Closet storage systems

When it comes to the places where information products were actually held the analysis found that information products were kept in the following places.

- i. On shelves in the various offices. Approximately 50% of the information products were stored this way.
- ii. In cupboards. About 20% of the materials were kept this way
- iii. The third storage device was wooden pamphlet filing boxes. Close to 20% of materials were stored in this way.
- iv. Stored on the floor. The rest of the materials were piled on the floor in the offices of the programme co-ordinator.

Because of the state of materials in the *library* access could not be gained to them.

When we turn our attention to ICT products the following table captures the location of the various ICT systems found and the conditions they were found in.

Table 7.5

ICT products found

Type of Equipment / service	Location	State or condition
Telephones	-FRH Programme Office -Assist Directors Off -Accounts Officer -On Secretary's table -Director office	All above offices and officers share just a single line, which is linked to a PABX. Hence when someone is on it then the others can't have access. The telephone had no IDD and was only meant for making National and local calls.
Fax	Directors office	The fax has a dedicated line which it shares with the Internet. Hence when one is in use the other can not be used. At the time of carrying out this Audit the telephone line had been disconnected by the telephone company (Ghana Telecom) supposedly for non payment of bills. Hence both Internet and Fax were not available for use.
Photocopier	Admin Office	Restriction on use due to cost of toner and paper. For the period of the audit any time I needed to make a photocopy I had to provide my own paper.
Computers	- For general secretarial duties - For Finance and Admin - Located in the FRHP office -Used by Assist Director	These are all stand alone. There is no network configuration.
Internet	Directors Office	At the time of the Audit the internet services to ISODEC had been disconnected by Africa Online the service provider supposedly for non-payment of bills.
Printers	- Shared Printer between Admin and Accounts Office - For FRHP Office	The Assistant director had no printer. Always had to have his work saved on a diskette and brought to the Admin Office for printing.
Television	Admin Office	Used for reproductive health education programmes. Receives National broadcast Service from GTV.
Databases		Non
Videos	Programme Officers office	Language was both English and Twi

Notwithstanding the fact the ICT facilities were available for use, their condition and location said a lot about them. As shown on the above table, the location of the Internet in the Director's office portends to a direct or indirect control to access and use. For example, it may not be possible for other staff to use the Internet when the director is receiving visitors. From a more psychological point of view, it is highly unlikely that staff can confidently browse the net, or send emails in a relaxed manner in the offices of their Director. An interesting finding about the Internet, was that, at the time of the audit, the service had been suspended by the service provider presumably for non-payment of bills. Also the PC, to which the Internet was connected, was found to have only 76MB RAM which seriously limits the

amount of information that could be accessed and processed at any particular time. Furthermore, the Internet was found to share the same line with a fax machine, which restricts the use of both pieces of equipment at any point in time. The fax machine at the time of the audit was broken down. Another point which emerged was the absence of any form of local area network which greatly undermined internal information sharing and also limited the possibility of external information communication, exchange and sharing. In a region where supply of electricity is sometimes erratic, the presence of these ICTs systems, whilst greatly encouraging, on the evidence of these findings seem to be simply image management tools.

7.4.2 Information classification and organisation

When we turn our attention to the organisation and presentation of the information materials, one could only describe what was found as a disorganised pile or as Information Mountains, buried in a wind of dust. Pictures such as the one below provide evidence of the state of organisation in which these materials were found.

Figure 7 9

State of information products



In one of the meeting discussed in the observation chapter, some participants expressed challenges regarding documentation, and attributed the problem to the following causes.

- Weak documentation of lessons learnt in FRHP due to paying little attention to process (ISODEC)
- Incapable of documenting our activities successfully due to absence of computer and accessories (TIDA)
- Poor documentation (ZOVFA)

Whilst development workers attribute the problems of poor documentation to the above factors, we know from the large volume of information materials found in this audit that documentation practices exist. What was found to be lacking in relation to information organisation were the following factors:

- i. *Competence*: Lack of competence or personal ability for classifying, organising, and handling information products.
- ii. *Information attitudes*: Seemingly low importance placed on the value of information in terms of how it helps avoid repeated errors and improve the quality of development projects. Judging from the fact that local NGOs operate in a complex and constantly changing environment with a high degree of unpredictability and uncertainty compounded by short term contracts based on inter-agency partnerships, this finding is significant.
- iii. *Classification systems*: The absence of knowledge classification systems or some kind of ordering system for organising information.
- iv. *Archives*: The absence of a well structured organisational archive where information of lasting relevance, capable of meeting organisational goals, stored to develop organisational learning and institutional memory.
- v. *Information Policies*: Responsibility for the management of information resources and absence of organisational information policies which address questions related to what information to accept, from which organisation, when they were to be accepted, what to use, what to reuse and what to discard.

7.4.3 Information Accessibility

If the manner of organisation of information products found in this audit is any thing to go by, it is evident that traceability and ease of use was bound to be a problem. The analysis noted the absence of resource locators such as catalogues or crude indexes that serve as a pointer to the existence of specific resources. The absence of a system for information location created problems not simply for physical accessibility but also psychological. Because of the *island management mentality* based on haphazard control of resources, accessibility was further compounded by how to tell who owns what and how to find them.

7.5. Conclusion

This chapter has presented the findings of the information audit. Five important issues emerged from the analysis. First, it is evident that information of different shades of value flow into the offices of ISODEC which include the following:

- i. Information of *operational value* for example baseline data, and policies.
- ii. Information that has *relational value* with key stakeholders. For example financial documents which create accountability and transparency.
- iii. Information of *strategic value* and which has direct links to the achievement of organizational goals. For example impact assessment studies and evaluation exercises.
- iv. Information valuable for *risk avoidance*, where lack of attention can cause serious disruptions in future planning activities and put the achievement of existing commitments at serious risk, for example key lessons learnt and failure stories.

In summary, these value laden information products can be said to help the organisation to look “backwards” i.e. where they have come from; to look “inwards” i.e. what they have achieved; and to look “forward” i.e. where they are heading.

The second conclusion which can be drawn relates to the high volume of reports found in this audit which confirms both the interview and observation findings of the existence of what could be described as a *ritualistic information production culture*. The content of the information products also implicitly confirm the various need for information similar the what emerged from the interview chapter.

Thirdly the evidence shows that the flow of information into ISODEC is a function of various inter-agency collaboration with stakeholders who either share the same values as ISODEC or have different values, for example, government agencies, and international financial institutions.

Fourthly, and sadly, this audit did not find any evidence of the existence of an information management policy which provides guidance on information capturing,

information processing, information classification, storage, filtering, distribution, and sharing. Such a policy could also address questions linked to who is using what information in the organisation, for what purpose is the information being used, the value placed on it, issues of control and access, management styles (centralised versus hierarchical), organisational learning and systems which alert the organisation to key opportunities for information exchange.

The fifth finding relates to what appears to be the suppression or silencing the voices of local communities who, as was evident from the two data chapters, play a significant role in knowledge production activities.

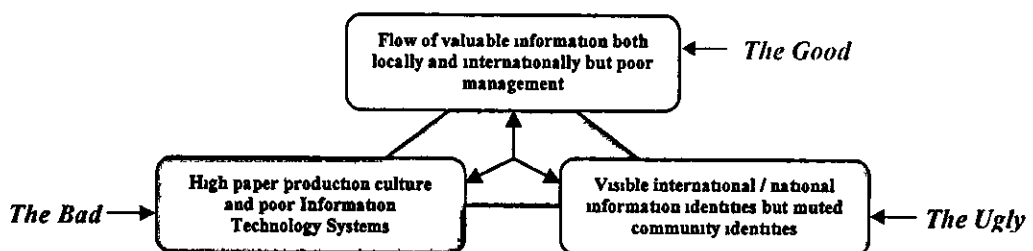
When these various findings are brought together, what emerges could be described as a tale of three information worlds:

- The good, i.e. flow of highly valuable information products unidirectionally;
- The bad i.e. high dependence on paper products and poor ICT systems,
- The ugly i.e. lack of information management practices and lack of acknowledge and visibility of community information sources

This is depicted in figure 7.10 below.

Figure 7. 10

The tale of three information worlds



When these factors are combined with the findings from the interview and observation chapters, they raise several issues regarding current understanding and thinking in human information behaviour research. These issues are the subject of the next chapter of this thesis.

CHAPTER EIGHT

DISCUSSION OF RESEARCH FINDINGS

8.0. Introduction

This study began with the aim of investigating the information behaviour of NGO development workers in the Northern region of Ghana as exemplars of members of civil society. The study was motivated by the fact that although this segment of civil society plays an important role in the socio-economic development of Ghana, it was difficult to find studies focussing on them, aimed at developing a structured, systematic and holistic understanding of its information seeking activities as compared to say academics, students, lawyers, health professionals, journalists, scientists etc. It was argued that where such studies exist, the pre-occupation has been to focus on the organisational environment in which NGO information systems are implemented, with little attention paid to the wider socio-cultural context in which they operate. The claim was further made that within information behaviour studies very little has been reported or is known from a "developing country" context since the launch of the international conference on Information Seeking in Context (ISIC) in 1996. This lack of understanding, it was argued, has left a huge gap which required attention. It was proposed that better knowledge of the information behaviour of rural development workers could better inform the design and provision of services more suited to their information behaviour and consequently lead to more effective delivery of rural development in Northern Ghana.

The study had two sets of objectives and was also guided by Wilson's general model of human information behaviour. This chapter discusses the findings of this study as presented in chapters five, six and seven in the light of available literature on human information behaviour studies. The chapter is divided into four main sections linked to the core themes and objectives of the study. Thus, the first part of the chapter addresses the contextual issues which were identified as motivating the information behaviour of rural development workers. The next section focuses on issues relating to information needs and the various forms these take in the world of work of NGO development workers. The third section is devoted to discussions related to strategies employed by NGO development workers to acquire information

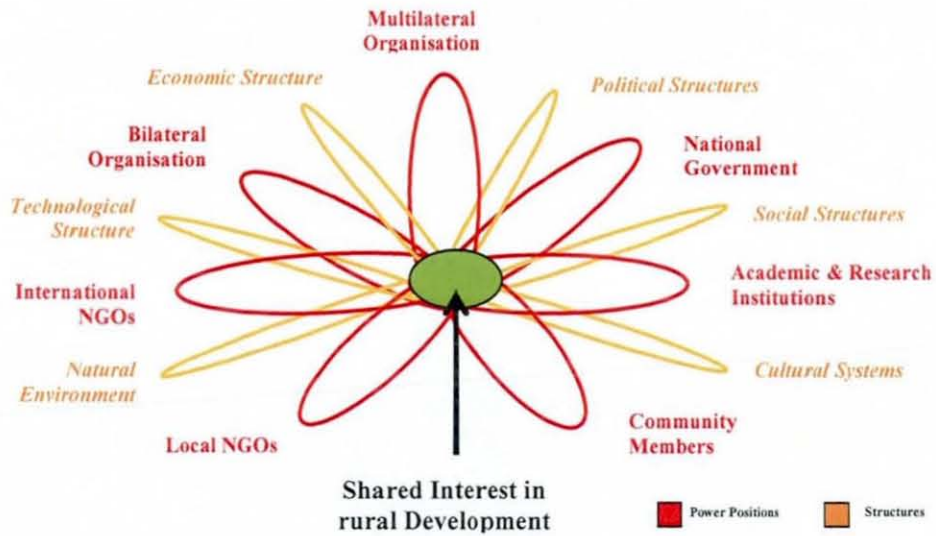
for various development interventions. The final section examines issues of information use as pertains in the NGO work environment. The theoretical and practical implication of these discussions, both for information behaviour studies and also local NGO development intervention, will be explored.

SECTION ONE: THE ISSUE OF CONTEXT

8.1 Context and development worker information behaviour.

Two significant contextual factors have emerged from this study as impacting both positively but also negatively on the information behaviour of development workers. The first relates to the impact of various "structures" on the information behaviour of development workers and the second to "power positions" within the development work environment. The term *structure* is to be understood as implying elements or systems interrelated at various levels, and whose interrelation is regarded as significant. This bears close connection to *power positions* which is employed here to refer to influence, authority, coercion, force and manipulation. It is also to be understood both as *power-over* and *power-to* which create relations of command and obedience. In many ways these two factors help us to understand or explain why the need for certain kinds of information arise amongst local NGOs, why specific strategies are employed in seeking for information, why preference is given to specific information sources vis-à-vis specific tasks or situations, and why specific information practices prevail in the world of work of local NGO development workers in the Northern region of Ghana. When the two are brought together we get a web of intersection as shown below.

Figure 8.1 *The Intersections Of Power Positions / Structures On NGO Information Behaviour*



8.1.1 Structural determinism as a key influence on NGO information behaviour

The evidence from this study shows that although development workers in the Northern region of Ghana operate with some relative degree of autonomy, they act within structurally determined limits linked to the global aid architecture, the political bureaucracy of government, the technologically impoverished environment, the socio-cultural life-world of rural communities, as well as the geo-physical environment where development interventions are located. In human information behaviour, research studies or critical essays which address the question of “context” have tended to place emphasise on variables such as “place”, “time”, “goals”, “task”, “situations”, “processes”, “organisations”, “access”, “cognition”, “problem”, “roles”, “individuals interacting with an information system” “a work environment” or “everyday living conditions”. As noted in the chapter three this way of conceptualising *context* is true of Sonnenwald (1999), Chang & Lee (2001), Chatman (2000), Spink et al. (1999), Savolainen (1995), Saracevic (1996), Belkin (1982), Ingwersen (1996), Bystrom & Jarvelin (1995), Algon (1997), Berrel, Wright and Hoa (1999), and many others which is impossible to list here. Many of these studies have been concerned with relatively well understood audiences and have been concerned with studying information from the point of view of information objects, how people construct questions and find answers to these questions and also how people interact with potential sources with the view to gain

access to the consciousness of individual minds and to mimic those regularities of thought (Hjorland and Albrechtsen 1995).

One can understand the reasons for placing emphasis on the above contextual variables since the drivers for much of this research have been motivated by the *cognitive viewpoint* which has dominated information behaviour studies since the 1970's. This viewpoint emphasises and places interest in how *individuals with specific states of knowledge* interact with information retrieval systems. "Uncertainty" is an important concept and "situational relevance" is held in high esteem. Although the cognitive viewpoint has undergone some changes aimed at emphasising and incorporating socio-organisational factors such as the influence of norms and work task, methodologically this approach still gives primacy to the individual searcher's perception of his or her work task and situated context (Talja, Touminen and Savolainen 2004). The socio-organisational factors emphasised is that of the user and not the socio-cultural context of the information system of which users are a part.

Whilst there is evidence from this study to support the relevance of the cognitive approach to the information behaviour of development workers, evidenced for example from sections 5.1.0 to 5.14, it is however argued that this way of characterising the notion of *context* reduces the concept to a rather micro-mental level, and fails to engage with wider macro issues which are of equal significance in impacting upon human information behaviour. Indeed, it is difficult to find studies which specifically highlight the significance of *structures* as important in information behaviour research. The findings of this study have clearly demonstrated the fact that the world of rural development of which development workers are a part is characterised by structural determinism which imposes a unique form of development expressed in the language of "donors", "sponsors", "partnership", "accountability", "community participation", "empowerment", "poverty eradication" and "social transformation". These various forms of institutionally defined, and enduring patterns of development intervention, between local development workers and other development stakeholders, as a feature of rural development were found in this study to define, shape and also pre-determine the information boundaries of development workers. It is important at this juncture to

draw some analytical distinction between these structures drawing on the work of Lukes (1977) in order to demonstrate both their nature and effect on the information behaviour of development workers as it emerged from this study.

8.1.1.1 External versus internal structures

The external structures found in this study as pre-limiting the information behaviour of development workers are found in partnership arrangements. This is reflected in the global aid superstructure which allocates financial resources for rural development governed by various procedural rules which produce and re-produce development intervention (see for example figure 3.2, and 5.1.2.2 of this study). This finding confirms a similar observation made by Fowler (2000 p. viii) who noted that “structural features of the international Aid system limit Non-Governmental Development Organisation’s capacity for self improvement. Under existing *rules* most recipients of aid are relatively *powerless* and are kept that way. The distorted language of “partnership” is a current example of how rhetoric masks major disparities...and *blocks* the necessary ownership of and commitment to change” [emphasis added]. Central to the idea of an external structure is also the choice between developmentally established alternatives, which are thought of as part of the development order and which lead to the production of various forms of information suitable to the needs of development financiers. This is more globalised and ideological in the form of what human centred development imposes upon development workers (see for example 5.1.2.1).

When we turn to *Internal structures*, these are obtained in the legal, political, and bureaucratic environment within which development workers operate and seek access to public information (see for example the latter part of 5.3.2.1). Secondly, they are found in the geo-physical terrain and settlement patterns in the rural environment which impose physical constraints leading to what was characterised as “dumpers”, “white-flag-wavers” and “spin doctors” (see for example 5.4.8). Also what can be described as “Information Crawling Technologies” was found to either inhibit or limit effective communication of information (see for example 5.1.3.3), as is socio-cultural structures which specify social positions and undermine the participation of similar others, e.g women, in the social production of information (see for example figure 6.3). Internal structures can also be understood to refer to

values. The findings of this study show that NGO development workers favour a bottom-up as opposed to a top-down approach to development, they value participatory as opposed to centralised development planning, their interest lies more in qualitative improvement in the lives of rural people as opposed to quantitative measurement of projects, and they desire to empower rural community members instead of simply seeing them as beneficiaries of social services. This method of working showed up in various activities such as community animation and sensitisation, community mobilisation, consultation with community groups and leaders, and also in the use of key informants in community data gathering (see for example 5.3.1.3). This approach to development was found in this study to greatly dictate how information and knowledge activities are generally approached by development workers in their day to day work. It corroborates findings from other studies about the influence of norms on information behaviour (Chatman 2000, Bystrom 1999).

8.1.1.2 Structures constraining upon "means" and structures constraining upon "ends"

The next analytical distinction between the structures found in this study can be characterised as those which negatively constrain the *means* to information. This refers to an *absence*, e.g. the lack of ICTs, poor roads, absence of information policies, and lack of knowledge of information sources which set limits to, and prevent a desired form of information behaviour from being carried out. (see for example 6.3.1 and 6.3.2). The structures which constrain upon *ends* refer to those that limit the range of information objectives which development workers can pursue, for example, information production activities, submission of reports to donors, and poor information management practices (see the information audit chapter).

8.1.1.3 "Rational" constraints and "permissible" constraints

Rational constraints refer to constraints which set limits to the information options development workers can pursue, informed by relevant and sufficient reasons why they should not act in certain ways in view of the cost to them consequent of acting in such a manner. This refers specifically to the question of risk due, for example, to armed robbers, ethnic conflict areas, or flooded regions cut off from parts of the

northern region during specific times of the year. Under these conditions, whilst development workers retain the power and freedom to act, they are constrained by the high price it would take to achieve their information objectives (see for example 5.1.3.1 and 5.1.3.2).

Permissible constraints on the other hand do not operate through the act of reasoning, but rather limit the capacity or freedom of development workers by precluding the possibilities available to them. Elements of the internal/external and means/ends structures could be placed under this category. In many ways these structures set the boundaries between constraints upon action (*opportunities available*) and constraints upon thought (*ability to choose*). What distinguishes the *rational* from the *permissible* relates to behaviour which is “voluntarily” based on rational choice and those which are “pre-given” and which operate upon and through development workers.

The effect of these structures on information activities of development workers can be summed up in the term *limited information possibilities*, where the information behaviour of development workers must be aligned not simply to the hegemonic expectations and normative standards of the domain of development of which they are a part, but also to structures operating within the actual rural environment. The notion of *limited information possibilities* linked to structural constraints shares a lot of similarity with Chatman’s (2000) “Theory of Normative Behaviour”, and “Theory of Life in the Round”. Within development science this finding shares some similarity with a call made by Sanderson & Kindon (2004) for *opening up the possibility of knowledge*.

One could argue perhaps that these various structures do not necessarily limit or pre-determine the information choices of development workers but rather provide conditions for the effective exercise and selection of their choices. The point needs to be made however, that to the extent that any explanation of a given outcome of information behaviour of development workers is constituted by, influenced upon, and pre-given by the above structures, the claim being made here is that development workers are to a large extent powerless to act otherwise against the

established development norms and also within the constraints of the socio-political and geo-physical environment in which they operate.

8.1.2 Information behaviour and power relations

The second contextual factor which emerged from this study and is closely related to structural determinism refers to the influence of *power positions* such as those exercised to establish and terminate development relations, those employed to set development agendas (see for example 6.2.2.1 and figure 6.9), and also those used to constitute spaces for participatory information interaction (see for example 6.1.1). As evident from analysis of data in the interview, observation and audit chapters, the language of development is characterised by "*collaboration*" which is strongly favoured by all stakeholders involved in rural development namely bilateral and multilateral agencies, government ministries, and also civil society institutions. Each of these stakeholders have different identities and also derive the basis of their power and reasons for participation in rural development from different motives. Those who are associated with the *market*, e.g. multilateral organisations such as the World Bank, derive the basis of their power from their control over the means of production i.e. capital; those within government institutions derive their motives from political power which come via political election; and those located within civil society could be said to derive their motive and power from collective action.

Certain words and phrases used in the various narratives quoted in the interview chapter reflect the existence of various power positions which create grounds for the exercise of various forms of influence and control over local development workers derived from binary positions. Some of these words include "donors/sponsors" versus "development agents"; "government" versus "non-government"; "international NGOs" versus a "local NGO"; a "development worker" versus a "community contact"; and "community leader" versus "community members". These hierarchical relationships and their corresponding economic, political and social power bases were found in this study to define the information activities of development workers in many ways. For example, working as "a contractor" or an "agent" for a donor who set conditionalities was found in many ways to pre-determine and specify what information was needed by the

development workers, how such information was collected, what value was ascribed to it, who else got to know about it, in what format it was presented, and who ultimately owned and controlled the information (see for example 5.1.2.2, 5.1.2.3, 5.3.1.2 i, 6.1.1.1, figure 7.6., and table 7.3). This study found that development workers have relatively low value for local indigenous knowledge and personal ideas, for example compared to the need for western scientific knowledge imparted at workshops. Also, the study found that being a "non-government development worker" as opposed to a "government development worker" was a critical determinant for gaining access to "public information". At the community level it was also found that the socio-cultural norms that bind local communities and also the social structure of these communities generally required that development workers consult specific individuals in the community for information e.g. opinion leaders. Clearly, any appreciation of the information life world of rural development workers must be understood from an analysis of the wider nexus of political, economic, and social power relations, as well as the hierarchical positions of power, which produced and reproduced development worker information activities.

Within information behaviour studies, how information behaviour is conditioned by power positions within the wider socio-political and economic environment appears to be one which is dimly understood. Based on organising development work around monitoring and evaluation, sponsors succeed in prescribing the information activities of development workers through accountability requirements which lead to the routine production of various types of reports within explicitly stated *guidelines* or procedural rules (this is a control measure). The psychological reward of satisfying the expectations of donors and to a larger extent ensuring security of employment by painstakingly following guidelines and procedural rules, undoubtedly impacts both positively and negatively on the information behaviour of development workers. Positively, it creates in development workers a sense of self esteem as competent producers of development knowledge which they are willing to share with (dis)similar development stakeholders. Negatively, the unintended, but contradictory consequence of these positions is how it devalues or short-circuits the capabilities of development workers to develop and deploy new and independent development ideas which reinforces a system of knowledge

dependency (more will be said about this in Section Three under 'sources'). The significance of historically contingent relations provides a new line of thinking for information behaviour research for understanding, for example, why individuals or groups with different identities may be overtly or covertly willing to share or withhold information. For example, the willingness or inclination of local NGOs to share information with international NGOs (*same identity*) is different from the reason(s) why they share information with government departments or ministries (*different identity*) (see for example 5.23 and 6.2.1).

A significant finding of this study which also demonstrates the important role played by power positions in relation to information behaviour shows up in relationships with community members. The observation chapter demonstrated how power dynamics both foster information sharing between development workers and local communities but at the same time create social distance which impede access to spaces of information generation for specific members of the community, e.g. women. When these power dynamics are compared to information retrieval systems it could be argued that the *password* required to log on to social information spaces is a legitimate social status. The information audit noted how the information identity of local community contacts is obliterated from reports, a point which serves to confirm the view that development workers are less inclined to promote the information identity of community members but more eager to keep them on the periphery to achieve a political objective of subjugation.

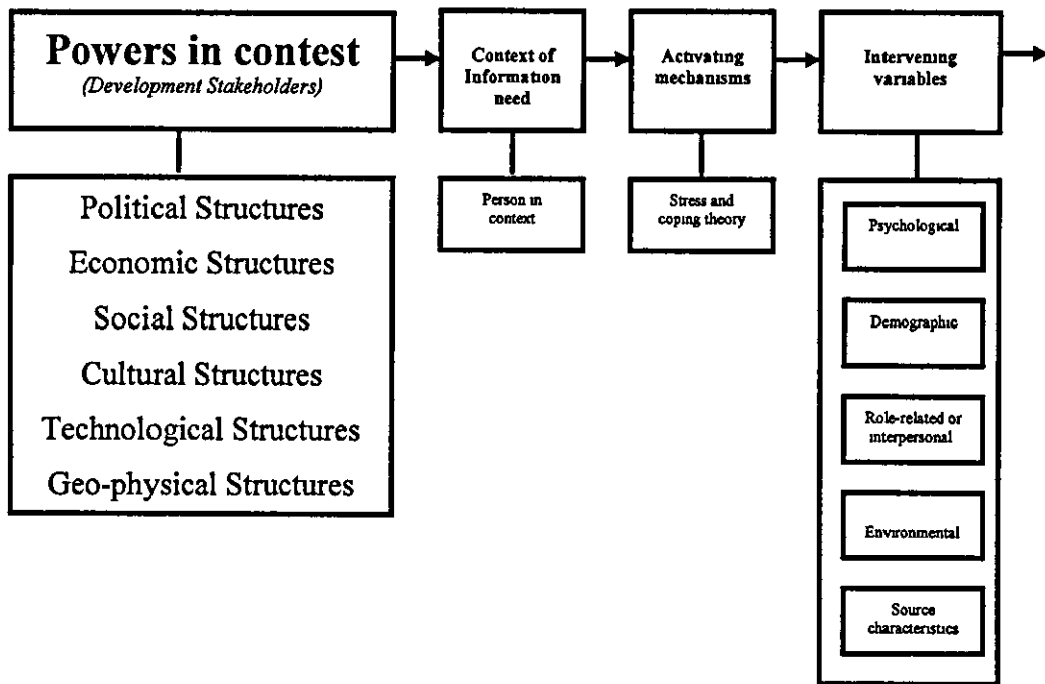
What this study has further demonstrated is the fact that power positions operate to include or exclude, support or suppress, centralise or marginalise, create legitimate-powerful individuals or peripheral-powerless subjects and promote or devalue rival forms of knowledge. What this calls for is the need to advance information behaviour studies in a direction that pays closer and systematic attention to information behaviour which is understood to be enabled and constrained by their embeddedness in power games as well as identity formation. Due attention needs to be paid to an examination of the interrelations between the objective structural coordinates of power and the way it shapes and is shaped by information behaviour. Without further exploring how the logic of seeking for information is constructed

from this point of view, information behaviour studies risk idealising or adopting a commonsense and functionalist view of information.

8.1.3 Implication for information behaviour models.

It is clear from the above discussions that the notion of *context* as it is presently conceptualised within information behaviour studies is restricted and fails to illuminate our understating of wider issues, i.e. structures and power relations which are of significance for understanding human information behaviour. In Wilson's model, which was employed to guide this study, Wilson acknowledges that the *context* which drive people to seek information may be the individual him(her)self, or the role demands of their jobs or the environment (including the political, economic and technological) within which the individual operates. Wilson's also acknowledges that these same contextual factors could impede the search for information. In his model, for reasons which Wilson attributes to the difficulty of positioning the above variables, he chose to put these variable together which he labelled as *intervening variables*. By choosing to position them at this point, his model fails to illuminate our understanding of the factors that, first and foremost, give rise to the information behaviour of individuals before they even encounter these variables as barriers. This study has shown that the global, national and community environments are the most important determinants of the information behaviour of development workers. The findings further show that the place a person occupies, i.e. his interest defined by his position within a socio-political and economic structure and his or her sources of power, and ideological factors, e.g. participatory development, all work together significantly to determine the *person in context*. It is argued that before the individual is placed in the context of needing information, it is important to step back and examine the socio-political and economic order which operate to drive the quest for information. If this is accepted, then there would be a need to differentiate between this all important phase and the intervening variables which subsequently operate in the form of barriers. This would add another column to Wilson's model as follows.

Figure 8 2

A Modified Version of Wilson's model

The above discussions also has implication for Ellis's (1993) elaboration of the different behaviour dimensions involve in information seeking. For Ellis, information seeking occurs in stages which he outlines as including *starting*, *chaining*, *browsing*, *differentiating*, *monitoring*, *extracting*, *verifying* and *ending*. The finding of this study suggest that, for development workers, one additional process can be added to Ellis' elaboration, namely *accounting* i.e. reporting to donors. This is significant because it raises questions about *accountable information behaviour* and also engages with how individuals involved in information activities evaluate and reflect upon their activities at a later stage which then serves to guide future information behaviour.

SECTION TWO:

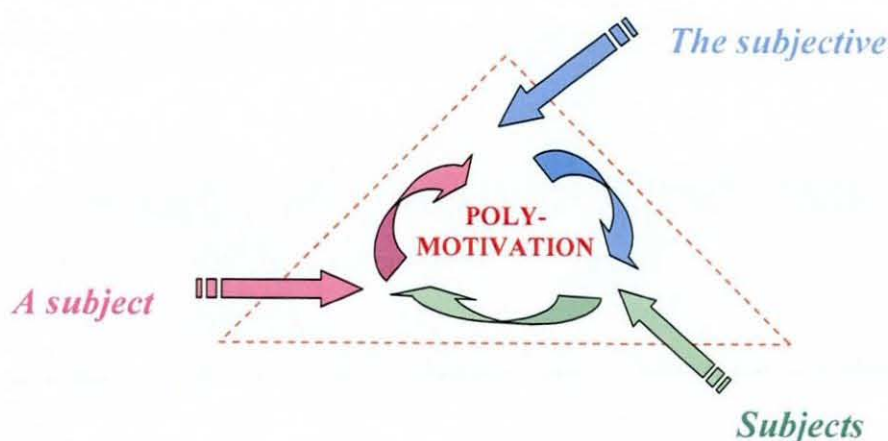
8.2 Information Needs of Rural Development Workers

This study has found that the factors which motivate the information needs of development workers are not simply those of individual cognitive state, associated with a problematic situation during task performance aimed at achieving personal goals. The studys' finding's suggest that the information needs of development workers are derived both from cognitive motives intertwined with socio-political motives. Within information science, the cognitive perspective has dominated

information studies. This has been attributed to a change in emphasis from system centred studies to more user-centred studies, tied to the design of effective information retrieval systems which in the early 1980s led to a focus on the cognitive state and styles of users (Wilson 1994, p. 30). This focus on users, over the years, has led to various ways of conceptualising information need such as “Anomalous State of Knowledge” (Belkin 1984), “Conceptual Incongruity” (Ford, 1980), “Sense Making” (Dervin, 1983) “questions” (Wilson 1996) and “seeking answers” (Taylor 1986). Whilst the findings of this study support these various ways of conceptualising “information need” (see for example sections 5.2.2, 5.3.1.2, and 6.3.2.), this study found evidence which suggest that information need cannot only be understood from an individual, internal and mental level only, but also from motives of a collective social nature mutually inter-connected with the cognitive. The term *poly-motivation* may be an appropriate way of characterising the information need of development workers. Poly-motivation can be understood as a set of motives of a concurrent nature driven by the complex and inter-related nature of development problems. In this study poly-motivation was found to occur on three broad levels as follows.

Figure 8.3

Information Need as Poly-Motivated



What follows is an explanation of each of these three dimensions of inter-connected information needs which is prefaced with a statement that encapsulate what the need is all about.

8.2.1 What they don't know we don't know; gaining understanding of subjects

This motive was found to be inspired by *extrinsic-social* factors i.e. factors which are extraneous, aimed at acquainting, becoming familiar with or gaining some impression of the living conditions of members of the local community. This motive is similar to those which underpin many social-anthropology studies. Because their activities focus on poverty eradication, knowledge of the living conditions of the poor was found to be crucial for the planning of development interventions (Rubin 1995, pp. 48 & 50; Meyer 1999, pp.119-139; Powel 1999, pp. 34-40, Edwards 1994, pp.117-124; and Camble 1994). However, whilst these writers mention the importance of community knowledge to development work, very little emphasis is placed on the different levels at which it is required in relation to the nature of tasks, or the degree of granularity, or form in which the data are needed, or the degree of complexity (see figure 5.4 under roles and norms). For example, unlike governments, which are required to provide development everywhere and therefore tend to favour data which reflect macro conditions, this study found that the *pro-poor orientation* of NGO development workers and also their highly micro level interest in specific areas and/or groups, drive them to look for disaggregated data in relation to their role as social service providers. However, when the focus shifts to their advocacy roles they tend to require aggregated data. This finding confirms similar observations made by Algon (1997) about the effect of task assignment on information behaviour; those of Fabritius (1999) on how situational factors affect information behaviour, and the distinction made by Chang and Lee (2001) concerning micro/ macro level needs.

Extrinsic social motives for seeking information are also true of studies which focus on everyday living such as those of Spink et al. (1999) on African American Households, Meyer (2003) on information use in rural communities, Aina (1985) on farmers in rural communities in Nigeria, and Sturges and Chimseu (1996) on the information chain in villages in Malawi. These studies, however, focused on a small aspect of the social and cultural live-world of their target communities and failed to engage with all the broader issues related to the social life of their communities. This study found that the extrinsic social motives of development workers for seeking information are more holistic and extended to issues such as demographic

profile, religious beliefs, cultural beliefs, ethnicity, language, conflict, social structure, social groups, social positions, chieftancy, indigenous knowledge, farming, diseases, education, economic activities, marketing of produce, geological environment, children, women, the youth, settlement patterns, communication patterns, and key informants etc (see for example table 5.14). Knowledge of all these variables are considered to be important to the process of social development and community empowerment. For example, it was found in this study that most development workers come from ethnic backgrounds completely different from the ones in which they operate. The ethnically diverse, conflict prone, multi lingual and culturally sensitive environment of the Northern region required them to develop a sociological understanding of communities if they were to enjoy the trust of their respective communities. The point being made is that failing to attend simultaneously to motives of an extrinsic-social nature alongside the purely mental, risks limiting the knowledge one gains about the true motives for seeking information in the rural development context.

8.2.2 What we know we don't know; developing knowledge in a subject area.

Unlike the above motive, this motive was found to be *intrinsic-personal* similar to what Morrow (2001) describes variously as "internal-private knowledge" or "embrained knowledge". This need was found to be linked to personal intellectual development in subject areas of a scientific / technical nature in order to develop the necessary skills and competence to cope with various tasks, and situations. Unlike other professions such as law, medicine, accountancy, engineer etc which require practitioners to undergo professional specialist training to qualify for practising, in rural development it appears that what is simply required is a reasonable level of education and a commitment to the cause of the poor. This lack of specialisation (see for example tables 5.15/16) due to general social science background (Wallis 1989, p. 80) coupled with the lack of experience was found to drive the need for learning of a formal kind. This also confirms Porter's (2003, p.139) observation that "the background of NGO staff in Ghana in many cases appears to almost inevitably affect their ability to operate in their commonly assigned roles".

Another significant reason found to drive subject-based information need is what was described as jack-of all-trade-syndrome (see for example 5.1.2.3) prompted by what Edwards and Hulme (2000) and Clark (1991) have described as calls for scaling-up i.e. demands by donors for professionalism. This study found that although development workers are initially employed for specific duties they eventually find themselves being assigned jobs quite different from their backgrounds as one interviewee explained.

I want you to know that even though I work for a health organization, I am not a professional person, I first started as an agricultural worker.

The dynamic nature of the subject of rural development on topics such as HIV-AIDs was also found to motivate the need to constantly update subject knowledge.

Examples also pertain within learning related information behaviour research which share some similarity with the above finding. These include those of Hepworth (2003) regarding psychological motives e.g. knowledge state, Ford (2004)) on *field-dependent* information seeking, Ray and Day (1998) on students' attitudes to electronic information in relation to learning and Solomon (1998) on electronic information resources and the educational process. Most of these studies take as their point of reference formal academic learning, as supposed to workplace learning. They also place emphasis not necessarily on the actual subject knowledge or content which individuals learn about, e.g. credit and savings management, but rather behavioural factors. For example Ford's (2004) model on learning related information behaviour is essentially behaviourist, emphasising the mental processes of *searching* and *relevance judgement*. By using the term "moment of interaction with an information system" Hepworth (2004) also appears to be focusing on behavioural processes.

It is unclear the extent to which these various academic and IT driven models can be applied in a work place learning environment and more specifically in a non-IT environment such as Northern Ghana. Unlike academic learning which involves propositional knowledge, is de-contextualised, encourages elegant solutions and is also individualistic, work place learning is often contextualised, and in the main aimed at the resolution of ill-defined problems (Kirby et al. 2003). There is

therefore a marked difference between the academic knowledge emphasised by some of the above writers and the kind of knowledge sought by development workers. The difference lies in what can be described as experiential or case related (Awad and Ghaziri 2004, p. 51 – 52) knowledge. For example in the absence of available technology how does one handle a caving-in-well during excavation? This difference between formal / academic versus informal / work related information need requires models that can strike the needed balance between the two types of learning related information behaviour.

8.2.3 What we don't know we don't know; developing awareness of the subjective world

The third motive found to drive the information need of development workers falls under what can be described as *extrinsic-political / economic*. This motive was linked to developing awareness of happenings on the local and international scene where policies and development agendas are set and believed to have a potentially positive or negative impact on the livelihood of the poor. The motivation to monitor trends in the external environment was found to have links to advocacy and social empowerment activities (see for example 5.1.1.3 and 6.2.3). Studies which identify similar motives for information seeking are those on auditors by Wai-yi (1998), on senior executives by Keane (1998), on security analysts by Kuhlthau (1996), on professionals by Leckie, Pettigrew and Sylvain (1996) and on Chief Executives by Choo (1994). An interesting point about all the above authors is that their studies are centred on businesses or business related professions which are largely profit driven. Information sought is therefore of a commercial proprietary nature to help aid business decision making, improve business performance and explore new market avenues. A major difference between the environmental monitoring motives of business organisations and those of non-governmental organisations is to be found in the concept of *private* versus *public* information. Unlike private information which is commoditised, tradable through some form of price mechanism, can be personally owned and therefore tends to be excludable, public information which is the focus of development workers' needs has exactly opposite attributes. This study found that notwithstanding reported antagonism between government and NGOs in Ghana (Atingdui et al. 1998), Gary 1996) most development workers view their development activities as complementing those of

government and therefore placed high premium on public information. Indeed, some development workers even acted as implementing agents for their respective district assemblies.

Another major difference between the motives for seeking environmental information between private organisations and those of civil society organisations was found to be driven by a desire to challenge and debate public policies (see for example section 6.2.3); to change public policies to favour the poor (see for example Table 5.6); to channel information on public policies to members of the rural community (see for example table 5.2); to champion the rights of the poor (again see table 5.2.) and finally for organisational security and survival due to dependency on foreign donors whose policies change constantly (see for example Table 5.19 under donor policies).

This distinction between “public” and “private” information is significant because it helps to draw attention not simply to the nature of information needed but also the function it serves. It is difficult to find studies in information behaviour which pay attention to this distinction between public and private information seeking.

8.2.4 Implications for Information Behaviour Studies

What this discussion confirms is that development workers engage in information seeking activities not necessarily to gratify their individual mental needs i.e. anomalous state of knowledge, but to contribute towards the resolution of social needs. The information needs of development workers thus only make sense within the social context of social development. The interlinkage between the *cognitive* and the *socio-political* thus serves to locate the information seeking motives development workers within the *socio-cognitive* world-view. To understand the information needs of development workers from a socio-cognitive perspective would imply that any analysis of the basis for information seeking by NGOs workers must examine it both from the mental cognitive perspective as well as factors external to the individual embedded within the wider social domain which motivates, shapes and directs the behaviour. Indeed, it is argued that one leads to the other. The assumption that an individual's information need arises as a result of

purely anomalous state of knowledge ignores the broader social goals which constitute information activities and which determines in the individual what is desired or sought as information. Looked at from this angle, information behaviour ceases to be merely an "intention" aimed at sense making but also "attention" to social problems. Rather than focusing on "personal problem-solving" our attention shifts to "social problem-sorting". From a methodological point of view, the emphasis moves away from *methodological individualism* or solipsism where self is seen as the only reality to *methodological collectivism* or holism where the organic or unified whole becomes the subject of interest. Between these two approaches, the pertinent question is what is accorded primacy, the cognitive or the socio-cognitive? Whilst historical forms of thought in the Western world emphasise the centrality and sovereignty of the individual as the centre of awareness (Talja 1997 p. 69), this research has shown that accounts of the information behaviour of NGOs in northern Ghana can be re-interpreted in a way that is illustrative of the elements of both the *individual* and the *social*. It is argued that the atomised, disembodied and mentalistic orientation of the cognitive viewpoint psychologises information seeking and fails to pay attention to how the psychological and social mutually constitute each other. By isolating individual cognition from their environment, the cognitive viewpoint fails to acknowledge that human cognition is in many ways an adaptation to the environment and is therefore socially conditioned (Talja 1997). This viewpoint opens a door for constituting both the "individual" and "social information structures" as research objects rather than simply focusing on information artefacts and the cognitive contents of individual minds.

The socio-cognitive approach to understanding human information needs shares some similarity and is closely related to contemporary approaches found in the work of Hjørland (1995a), Hjørland and Albrechtsen (1995), who use the terms domain analytical approach, and that of Talja (1997) who uses the term discourse analytic viewpoint (linguistic philosophical theory) to emphasise the importance of pulling together the cognitive and the social. It also accords with calls made by Belkin in the early 1990s for a need to study large scale social knowledge structures in order to understand how and why people seek information.

Hjorland (1995a) has, for example, argued that the best way to understand information in information science is to study knowledge-domains as thought or discourse communities which are part of society. Drawn from activity theory, domain analysis emphasizes that internal activities cannot be understood if they are analyzed separately from external activities, because the two transform each other. Internalization, it is argued, is the transformation of external activities into internal ones which require examination of broader social systems and the effect on psychological mental activities. Hjorland and Albrechtsen (1995) have also criticised the mentalistic approaches which assume that by studying users' behaviour or thinking, information science can discover some hidden laws, principles, or regularities which can be used for designing a system. For them, users' knowledge about information sources and searches is often defective and they thus argue for investigations into information need to take a more holistic approach incorporating knowledge about cultures in which information systems function. The point of departure between Hjorland and Albrechtsen (1995) views and the view of this study is that whilst Hjorland and Albrechtsen's (1995) tie their argument to the potential value this might have for the design of information retrieval systems, this study sees the socio-cognitive view as applicable to the design of "information locales" (more will be said about this in the next section).

It needs to be emphasised that the suggestion of adopting a socio-cognitive perspective for understanding human information need as an alternative to the purely cognitive is not intended to advocate abandoning the cognitive motives of information need. Indeed the cognitive viewpoint has been successful in finding solutions to numerous questions central to information science research. The argument being advanced here is that there is a great deal of overlap between cognitive constructivism and the socio-cognitive viewpoint and thus both are important for understanding human information need. Taking a socio-cognitive approach means that information need becomes a goal of what changes need to be brought about in the wider society rather than an individual goal of what a person wants to personally achieve.

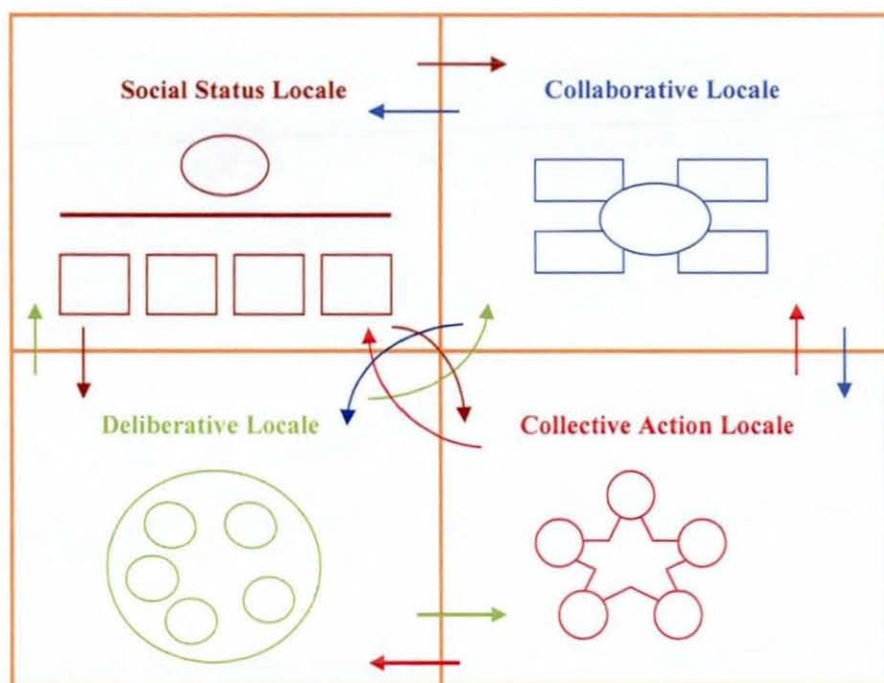
SECTION THREE

8.3 Information Seeking

This section discusses the study's findings in relation to the approaches employed by development workers to acquire information. Particular attention is paid to factors which motivate selection of specific information *sources* in relation to specific information needs. This study found that when all the information sources used by development workers were carefully examined, the conclusions that can be drawn are that NGO development workers in the Northern region of Ghana rely predominantly on social sources of information in a collectivist and dialogic manner as opposed to seeking information in an individualistic monologic manner. Unlike other forms of social information seeking which is characterised by dyadic, interpersonal and networking relations, the findings of this study show that the information seeking behaviour of development workers occur within what could be characterised as *information locales* or *venues*. The term *information-locale* is used here to refer to a place considered with reference to some particular event or circumstance connected to it or one which is chosen for a particular purpose, in other words there is a social action around which the events are established to achieve a purpose. The notion of *information locale* is underpinned by the principle "to know is to be capable of participating" (Gherardi, Nicolini and Odella 1998, p. 274) or "knowing is an act of participation in a complex social learning system" (Wenger 2000, p. 226). This way of seeking information also shares the view that knowing is an act of maintaining relations amongst people as part of an activity where knowledge is produced and reproduced as part of the said activity (Lave and Wenger 1991, p. 51). The core attributes of *information-locale* include, amongst others, its temporality, occasionality, short-termism, informality, variability, flexibility and boundlessness. Members who participate in *information-locals* were also found to switch from one locale to another depending on their needs and motives for participation in a specific locale. "*Locale switching information behavior*" in pursuit of specific pieces of information or knowledge also bears some semblance to the notion of "information-related multitasking behaviour" put forward by Spink and Park (2005). The difference, though, is that Spink and Park tie their notion to information retrieval systems. Information locales were also found to occur at different levels in mutually supportive or re-enforcing ways. Four

specific “*information locales*” emerged from analysis of all three instruments of data collection where information was acquired as shown in the following diagram.

Figure 8.4 DEVELOPMENT INFORMATION LOCALES



It is important at this juncture to explore the attributes of each of these information locales, supported by evidence from the data analysis, to show how they compare with other sources of information within human information behavior and related studies.

8.3.1 The Social Status Locale

This locale pertains to information seeking from members of the local community, especially in the form of baseline data of both quantitative and qualitative nature (see for example 5.3.1.3). Social status locale is also akin to information seeking within the organizational environment where individual development workers make demands for specific pieces of information or ideas from their fellow colleagues to resolve specific problems. (See for example 5.3.2.2 a). It is described here as “social status” because it is characterized by the social position an individual enjoys

amongst his peers. This is true, for example, when development workers seek information from sources within a community on specific issues. The use of community members as sources of information for specific information needs, as found in this study, confirms similar observation made by Gyapong et al. (1998), Aryee (1998) Meyer (2002) and Chambers (1985). Social status locale involves a *two-way* interaction and dialog between development workers, acting as boundary objects for other development stakeholders, and community members who are spoken for by specific individuals. As noted under section 6.1.0 – 6.1.2, this locale also provides opportunity for information supply to members of the local community. Dependence on local community members as “*quasi village statistical officers*” has been attributed by some writers to the absence of effective and efficient information institutions (Eele 1994 p. 110 -116).

This study, however, found additional reasons linked to the granularity of data needed, which necessitated gathering data directly from communities. This factor is hardly acknowledged by development information commentators. Another significant reason for why community members are used as data gatherers was found to be linked to the participatory development ideology where information is seen as legitimate if gathered directly from community sources. One issue which arises from the nature of data gathered from community sources is the distinction made by Buckland (1991, p. 351) between “information as a thing” and “information as a process”. The findings of this study show that information gathered from community sources start off as *information as a process* and eventually end up as *information as a thing* in varied formats (see for example figure 6.5 and table 7.1), which raise questions about standardization in the collection process. In view of the processual nature of information seeking, the status of an information provider becomes crucial and the particular voices allowed to speak provides legitimacy to the information received. Information provided by community members is eventually presented in some format which has some implication for the information recording skills of local community members. Empirical studies are therefore required to further understand questions such as the following:

- To what extent do the information gathering/handling skills of local community members match the demands of different NGOs and different donors?
- What variation of formats exist for data collection amongst local NGOs and what implication does this have for information processing?
- Who has final ownership for data gathered from community sources?
- What are the implications of the knowledge production roles of community members for community empowerment and for negotiating their participation in development projects?

Participatory development methodology needs to examine the extent to which inter-community information networks could be harnessed to serve the needs of the entire development community. There is clearly the need for grassroots to increase the density of contact between the various community information power brokers. Attention also needs to be focussed on how information alliances can help community members to secure greater levels of voice. These questions are important judging from the fact that one major finding of this study is that the identities of community informants disappear once they fulfil their role as information suppliers (see for example 7.2.1.1). Other related questions, such as the use of local mummy trucks as "informal postal service" or "indigenous courier services" for transmitting information, are also worth exploring.

Information seeking from community sources was found to be associated with the highest level of risk (see for example 6.3.1 latter part). Discussion of risk in information behaviour has often been associated with product performance, affordability, the hazardous nature of a product and issues of personal convenience. This is true of Wilson's (1996) explication of the term. This study found that risk in the world of NGO development workers is understood to refer to personal or physical risk to life. This would suggest that discussions about risk must go beyond product qualities to one which places emphasis on human centred risk. If this is accepted, then a new way of looking at risk/reward in Wilson' model would be to measure it also from the point of view of personal safety and wellbeing.

When we turn our attention to the organisational environment as another example of the social status locale, this study found that *expert status* is a significant factor which drives information seeking from similar others within the organisation. A significant majority of respondents in this study reported relying on senior colleagues for ideas to resolve specific project problems (see for example table 5.23). The attraction to fellow colleagues was found in this study to be linked to what was perceived as their experience. This is also true of sources described variously as consultants or experts (see for example 5.3.2.2. iv). Various documents were also found in the information audit produced by consultancies and academic research institutions acting as *experts*.

Within information behaviour studies, "expert information systems" are usually linked to information retrieval systems that support decision making in a timely manner. The corollary based on the findings of this study is what can be characterised as "social expert information status" where individuals with in-depth knowledge or experience of specific development problems bring a slice of their knowledge to bear on a specific problem in a timely manner. Unlike expert systems built around information retrieval devices, knowledge sharing based on social expert status is derived from an information-bond and from the demonstration of specific competence someone is supposed to possess. Outside information behaviour research, the significance of expert status as a social source of information has recently caught the attention of some writers. For example Thomas-Hunt, Ogden and Neale (2003, p. 466) have pointed to how socially connected groups share unique information when the expert status of specific members is made public. Similar observation has been made by Porter (2002) and Clark (1991) linked to strong personalities and leadership / management style of local NGOs. Judging from the fact that majority of development workers are recruited from the civil service where the approval of superiors is an essential part of working relationships, these may be additional reasons why local development workers rely on their *bosses* as source of information. *The boss syndrome* may also resonate with African values where high respect is naturally accorded to people in authority. One respondent described his relation with his supervisor as follows:

My supervisor .he is like a father and a parent in the workplace that I work .

The point being made is that there is a need for effort to be redirected towards exploring the degree of influence "social expert status" plays in information sharing within the NGO community.

8.3.2. Collaborative Locale

The second information locale is dubbed collaborative locale because it portrays another pattern of information acquisition which was incidental to a mutual, but formal agreement between two *different* development stakeholders forged in a working relationship. This study found that local NGOs act as contractors for government agencies, international NGOs and also other multilateral and bilateral development agencies (see for example 5.1.2.2), working ties which naturally lead to information sharing of different sorts. This finding shares some similarity with Rogers' (1995) *homophilous* and *heterophilous* relationship, and Fukuyama (2001) notion of *positive* and *negative externalities*. This study found that the degree to which groups are alike or share the same identity and attributes in occupation, i.e. homophilous or in-group, increases the frequency with which they share information (see for example table 7.3 No. 3). Put another way, same identity produces a positive externality due to a higher radius of trust amongst members. For example, local NGOs share with international NGOs the attributes of voluntarism, bottom up development, and the use of social pressure to bring about change which contrasts with governments' top-down, bureaucratic, and state control approach to development (Uphoof 1995). Shared belief and mutual understandings thus increased the level of contact between local NGOs and their international counterpart which led to information sharing. This is true for example in the relations between Save the Children's Fund, ISODEC and a number of local NGOs (See for example 5.3.2.2 ii & iii, 6.2.2 and also Figure 7.6 Table 7.3 No. 3). The converse was also found to be true i.e. the degree to which group's members are dissimilar, that is herterophilous in their identity and shared values, create the occasion where in-group members treat out-groups members with suspicion and hostility that is they impose negative externalities due to high radius of distrust, i.e. state secrecy and confidentiality (see for example 5.3.2.1 the latter part). The exception to this last observation was found to be when some *reward* was at stake which served to encourage socially dissimilar groups to collaborate and share information (see for example figure 6.2). One interesting point this finding raises is

“the strength of weak ties” in information sharing as put forward by Granovetter (1973), where distant or weaker acquaintances, e.g. government, can serve as useful sources of information.

Despite its positive value to information sharing, this study found some negative consequences associated with the collaborative locale where relations between local NGOs and their foreign counterparts led to what can be described as knowledge dependence syndrome, and “lack of confidence in local ideas” (Porter 2002 pp. 139), and lack of value for indigenous knowledge. The lack of interest or confidence in “grass-root” ideas as opposed to “grand-root” ideas (see for example 5.3.2.2 iii, Table 5.21) was found to have some links to what Ebrahim (2002) has described as “information struggles”, and also the poor management of development information products (more will be said about this in section four).

Another negative consequence found about collaborative locale relates to the challenges posed to development workers of gaining access to government information resulting in information *chasing behaviour* (see latter part of 5.3.2.1), the use of old data and occasions where development workers simply made guesses (see for example 5.4.8 iii). What this raises are questions which relate information ethics. Within information behaviour studies, very little attention has been given to “ethical information behaviour”. Wilson’s model, for example, only describes information behaviour from an effort orientation i.e. active, passive and ongoing. This study has found other dimensions which can be incorporated into his model, ethical information behaviour.

8.3.3 Deliberative Locale

This locale can be characterised as a one-stop-information-shopping-centre. The deliberative information locale was found in this study to be the only locale which provides opportunity for acquiring information to satisfy all three levels of polymotivation. This study also found that this is the only locale where all the “warlords” of rural development including multilateral agencies, bilateral agencies, government ministries and departments, international NGOs, local NGOs, academicians, and private consultants/experts come together, and where individuals acting as agents of different institutions open up to freely share information without

the normal fear and suspicion which characterise information seeking at other levels of contact e.g. the organisational level. Unlike all the other locales, a core feature of deliberative locale is the diversity of development identities exhibited and the desire to learn about best practice.

Learning related information behaviour is often conceptualised as a cognitive process in information behaviour research, involving the selective transmission of codified and sometimes abstract knowledge from the context of an information retrieval or library systems to the sites of their application. This is true, for example, of Ford (2004). This study found that within an information dry-land environment such as Northern Ghana where ICT infrastructure is limited and library systems rare, learning related information seeking occurs as a collaborative-seeking phenomenon within wider development relations. Instead of formal learning linked to the use of information retrieval systems, what obtains in this environment is social practice theory of knowing similar to what Pettigrew (1999) calls “information grounds”, and Talja (1997) characterises as “knowledge formation”. Whilst *deliberative locale* shares some similarity with Pettigrew’s and Talja’s ideas, it also has attributes quite distinct from them. For example unlike Pettigrew’s (1999) “*information ground*” which occurred in a fixed location, i.e. a community clinic, and involved interaction and information sharing only between patients and nurses, the deliberative locale emphasizes collaborative information seeking amongst different groups with single or multiple identities. Similarly, whilst Talja (1997) emphasizes the linguistic construction of knowledge focusing on “concrete subject areas” inside a field, deliberative locale on the other hand was found to place emphasis on the formulation of “information relationships” which are seen as crucial for information acquisition. Information acquisition thus becomes an interactional process of sense-making which people do together with others. Information seeking thus becomes a social production process of transforming the knowledge structures of individuals through participation. In other words it is a “generative social practice” (Lave and Wenger (1991, p. 35). The findings of this study indicate that this locale provides opportunity for legitimate participation by all development stake-holders in the production process to be applied in different context whilst maintaining their unique identities and positions. For example,

development workers participate within this deliberative locale to apply their knowledge to the design of various development interventions, whereas government agents participate in this locale to help them inform policy formulation. Conceiving of information seeking as a deliberative activity helps to focus our attention on the ways in which locales are constituted and how information sharing occurs within them. This calls for extending the conventional approaches to learning related information seeking i.e. formal, retrieval oriented, and problem focused emphasis, to embrace a more integrative and social view of learning related information seeking which emphasises how meaning is negotiated in a participatory manner.

Some of the common information behaviour found within the deliberative information locale also include *seeking* and *verifying* behaviour, [this comes through asking questions at workshops] *monitoring* and *scanning* behaviour [this comes from learning about happenings in the external world at various meetings] *accidental encountering* behaviour [learning something unexpected through the participatory nature of the learning process], information *extracting* behaviour [for example interaction during coffee breaks at workshops and seminars where one can pick other people's idea on issues of specific interest]. When linked to Wilson's (1996) model, deliberative locale is the best source for all three dimensions of information behaviour namely *active*, *ongoing* and *passive* information behaviour.

8.3.4 Collective Action Locale

The study found that credible threat construed as inimical to the welfare of the poor plays an important role in information acquisition. This study found two types of threat which motivate information sharing between members of NGO subgroups, e.g. water and sanitation NGOs. The first relates to threats posed by government policies (see for example 5.1.1.3) and the second to risk-avoidance (see for example table 5.20 under sector-based networks).

Despite reports in the development literature of competition between NGOs, stealing project ideas (Porter 2003) and knowledge fortresses (Barnard 2003), this study found that when local NGOs with a shared interest feel threatened by the decisions and activities of government, they immediately gain structural cohesion

and a sense of community which lead to knowledge sharing to ward off the government threat. This in-group, peer-to-peer, or flat-web information sharing is akin to Wengers' (2000) concept of "communities of practice". But unlike Wenger who assumes the existence of harmonious, consensual and hegemonic cooperation aimed at improving practice, collective action information locale was found not to be motivated necessarily by a desire to improve practice but could rather be characterised as "communities of resistance" following Velden' (2004) use of the term. The notion of *communities of resistance* and how they promote information sharing is not an area which has engaged the attention of information behaviour researchers. The assumption is often made that information sharing occurs in a non-conflictual, and hegemonic environment between groups who share similar interest. Whilst this is true in many respects, there is evidence from this study to confirm advancing studies in information behaviour in a direction that pays attention to how conflict between stakeholders who share the same interest - rural development- can impact positively on information sharing amongst subgroup members.

Besides threats, the collective action locale was also found to be associated with information seeking aimed at reducing risk or to avoid making mistakes (see some of the quotes under 5.3.1.1). This is based on the assumption that NGOs which carry out same activities e.g. micro credit interventions are likely to experience similar problems. The information sought was thus oriented towards case stories and personal experiences of dealing with problematic situations e.g. non-payment of micro credit loans. What this would suggest is that there is a need to revitalise the notion of information sharing amongst members of the same community to understand how the desire to avoid mistakes or reduce risk enables or constrains information seeking.

8.3.5 Implications for Theory and Practice

The evidence available from this study clearly shows that information seeking is synonymous to the process of being socialised i.e. individuals acquire information through social interaction by becoming participants within various information locales. As they participate, they diffuse, reproduce and transform their own knowledge structures. Traditionally within information science, discussions about

information sources have tended to focus attention on source characteristics and features of artefacts emphasising barriers such as "access", "cost", "effective contact with channel" "ease of use", and "technical quality" etc whilst devoting only tangential attention to the generative practice of information seeking (Ford 1973, Vickery & Vickery 1987, Kaye 1995, Paisely 1968). Whilst these facts cannot be held in dispute, the findings of this study suggest that development workers overcome all these problems by constituting and participating in various locales which respond to different information needs. These locales are both permanent and transient, created and re-created, located and re-located, short-term and long term, face-to-face and across time and space. Amongst NGOs in Northern Ghana, information seeking is thus implicitly embedded within, or as part of, particular activities such as collaboration, collective action, or deliberations. Individual knowledge is thus a product of interaction between internalised knowledge and participation in the external activities where the two reciprocally constitute each other.

It would be misleading to suggest that this finding is novel. However, information locales present a new perspective in information behaviour research in view of the fact that it places emphasis on the co-creation of the sources of information. This requires theoretical and empirical studies to further understand the relations between a given need for information and the co-creation of a locale suited to that need. From a methodological standpoint, this would require placing emphasis on collectivism as opposed to constructivism and re-orienting the unit of study from individual knowledge producing structures to the broader structures and occasions through which information seeking practices occur. How the units of empirical analysis are carved is a question that has to be resolved bearing in mind that within the NGO world environment tasks are performed across several organisational boundaries. A word of caution! Information locales are not to be understood as necessarily unified, consensual and harmonious. As has been alluded to in various sections of this chapter, there exist conflicts, competing interest and power games between the various development stakeholders. Notwithstanding this, there is also a shared practice of the co-creation of information.

SECTION FOUR

8.4 Information Use

Information use is an area which is under-researched within information behaviour research (Wilson 1996, p. 30). Amongst the few writers who have broached the topic are Wilson (1996) Tuominen and Savolainen (1997) and Applegate (1993). Although these writers address the concept of information use, some have invariably gravitated towards the factors that promote the use of information influenced by the Shannonian metaphor of information transfer whilst others have focused on user satisfaction, and measurement of use linked to citation analysis and document supply. By making assumptions which separate the *creator* of a piece of information from the *user* or *consumer* they fail to leave enough room for alternative ways of understanding the subject of information use.

The findings of this study demonstrate that information use can also be understood from the point of view of usefulness or value and also projective use. To take one example of the limitations placed by current ways of conceptualisation information use, Wilson, for example, bases his explanation on the concept of *information use* on the social diffusion theories of Rogers (1983) and Rogers and Shoemaker (1972) which place emphasis on the factors that affect the acceptance or rejection of a social innovation. These include, amongst others, the characteristics of the innovation, role of opinion leaders and change agents, characteristics of adopters, communication culture and the vigorousness with which an innovative idea is marketed. Wilson goes on to argue that diffusion, and hence information use, is dependent on the mechanism for information transfer and thus points to the importance of processing, presentation and format of information. The importance of time and timing and the trust reposed in the source of information are also emphasised by him. These facts are not held in dispute, the main problem is about Wilson's choice of example. By making assumptions which separates the user of a piece of information from its source, which are viewed as connected by some transfer mechanism, Wilson's explication of information use is more akin to the principles of communication theory. The word "transfer" would also suggest that the information in question is created and owned by the source that passes it on to the "consumer". The whole notion of information use linked to an independent

creator raises serious questions and has led to various criticism. As a field of research, innovation diffusion has been criticised not least by its key pioneer Everett Rogers specifically when applied to the development context (Powell 2003, p. 161). Some of the criticisms have included bias in favour of innovation rather than a balanced consideration of what the innovation might or might not offer, failure to understand the social context of the innovation, and a tendency to conceive of innovation as a linear imposition of the innovators' agenda rather than a process of dialogue. This approach for understanding information use also creates the impression that information use is not motivated by expressed need. It needs to be pointed out that these criticisms do not in themselves discredit the innovation transfer metaphor which has been useful in the study of specific questions of how ideas move and spread around. The contention being made is that this way of explaining information use limits our understanding of the phenomenon which is characterised as something external to the user, a one-off happening, and a product simply of immediate value. It may be that Wilson's explication of "information use" also implied conditions for possible re-use, if this is the case then it is not stated categorically. Wilson is not alone in making the above assumption. These assumptions are also evident in Applegate's (1993) explication of the term which focuses on information product performance and issues of precision and recall, relevance etc.

The findings of this study in respect of information use draw attention to the dimensions of information use and also questions of usefulness. The attention to *usefulness* or *value* shares some similarity with what Dervin (1983) has called "helps" or "hurts" and Taylor (1986 and 1991) has characterised as "projective use". What follows is a short explanation of the dimensions found in this study and their implication for social development intervention.

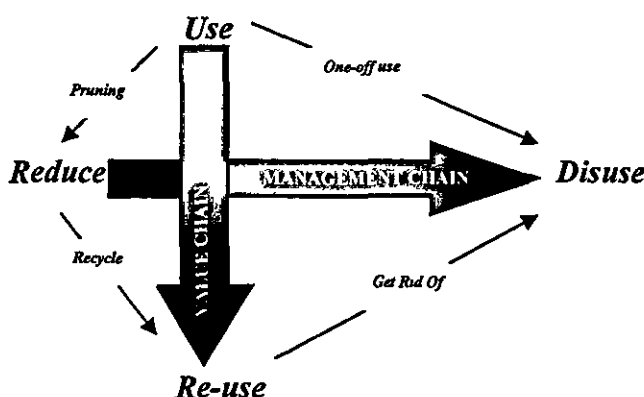
8.4.1 Use, Reduce, Re-use and Dis-use

Whilst the above writers focus mainly on information use, the finding of this study has unearthed other dimensions on the question of information use namely "use", "re-reduce", "re-use" and "dis-use" (see section 7.1.1, figure 7.3 & 7.4, tables 5.1-5.5.). What this draws attention to is the characteristics of information which can be used and re-used without its value diminishing, and also the importance of

information management. The interaction between the two is captured in figure 8.5 below.

Figure 8.5

Dimensions of information use



The finding of this research has shown that, because much of the information available is co-created, development workers can be regarded both as producers and consumers of their own information. Secondly, and related to the above, is the idea that information is not only useful only in the short-term, but has a value which extends beyond the life of a development project. One could therefore talk about *immediate-operational* use of information versus *future – projective* use of information. This distinction is significant because it draws attention to the information attitudes and management skills of development workers towards these future ends. A significant finding of this research relates to what could be termed “information piling and hoarding behaviour” (see information audit chapter) where the need to satisfy donors leads to the production of a whole variety of information products, in a variety of formats, for a variety of purposes. This behaviour raises three fundamental issues that need to be addressed in any study of development worker information behaviour in relation to information use:

- Information economics
- Information management policies
- Information management systems

8.4.2 A case for information economics

First, there is the need to critically address the question of information economics. The term *information economics* is used here to refer to the cost of information

production in relations to its direct benefit and future value and the risk to development interventions of not managing such information. Estimation of the value of information would need to consider whether the information in question is of value just once or will have a continuing value to the organization and the wider NGOs community. The finding of this study has shown that various value measures can be attached to the information products found in this study. Using the dimension of information value put forward by Buke and Hutton (1988) and Orna (1999), information products found in this study can be categorised as follows:

- i. *Operational value*: This refers to information resource entities that aid project decision-making, effective service delivery and time saving. In the audit the various baseline data and policy information found would fall under this value category.
- ii. *Cognitive value*: This refers to risk avoidance and uncertainty reduction. Most of the materials listed in the audit under subject knowledge, and developments on the international scene could be classified under this.
- iii. *Effectiveness value*: This refers to information products that help to measure achievement of project objectives and effective utilising of limited resources. The numerous monthly, quarterly and annual reports as well as financial documents can be included under this category.
- iv. *Competitive value*: This refers to a measure of the advantage an NGO has over other NGOs for example its organisational memory and know-how. The various documented success and failure stories could be classified under this category.
- v. *Relationship Value*: This refers to exchange value in terms of sharing with others and getting something in return. This is evident from the materials on networks and linkages across sector specific areas.

Of crucial importance, if the question of information value is to be addressed, is the need for a change in "information attitude" within the NGO community in Northern Ghana and to tackle the *lack of informacy* as Powell (2003, p.89) chooses to call it. This would involve first developing some appreciation of the value of information products held, skills for assessing their quality, and competence for organizing information about them. This study has noted how development ideas and experiences are harvested by local NGOs for their sponsors, which are subsequently processed by the *donors* before being returned to the local rural development in the

form of development handbooks (see for example Figure 7.3 & 7.4). It is suggested that such knowledge re-cycling practices need to be indigenised.

8.4.3 Moving from “information policing” to information policies

The evidence from the information audit suggests that most local NGOs lack internal information policies. The absence of organisational and NGO-wide information policies may not be too surprising judging from the fact that much of the information gathered by development workers is motivated by the desire to please external donors hence there is no incentive to worry about them once this objective is fulfilled. There is an urgent need to put in place both organisational and NGO-wide information policies which would address questions such as the following:

- Who generates what information?
- What kinds of information are of strategic or operational importance to NGOs?
- Who has responsibility for how information is processed and organised?
- Who and what factors should determine access to such information?
- What mechanism has to be in place to point to where information is located?
- How is information to be shared or exchanged with others?
- What should be the life cycle of any piece of information?

Such a policy should embrace both *information as a thing* and also *information as a process*. The former should attend to issues of creation, distribution and redistribution linked to retrieval systems, whilst the latter would address issues related to the societal mechanisms that promote or prohibit information sharing. An effective NGO information policy should, for example, help set standards for acceptable format for baseline data collection to fit the requirement of various development stakeholders. Beyond this, it should also address the question of how spaces are constituted to promote openness, dialogue and willingness to listen. Characterising information policies in this way would serve to emphasise it as a dynamic process, an interplay between various stakeholders, groups, vested interests and power structures (Feather and Sturges 2002, pp. 280 – 281). The significance of such a policy would lie in how it helps NGO development workers make political, economic and social choices in order to realise their overall objective of bringing about social transformation. In view of the fact that literature

in the voluntary sector is either ephemeral or grey and does not appear in regular bibliographies (Tait 1998, p. 187), addressing questions surrounding information policies would further serve the publicising objectives of many local NGOs.

8.4.2 Moving from "information mounting" to information management.

Within the NGO community, much emphasis is placed on lessons learnt. This study has also shown that local development workers place importance on self improvement and efficacy. Beyond this, they are also interested in publicising their work to prospective donors. This combination of factors requires putting in place an effective information management system. Sadly, most local NGOs were found not to have libraries attributed partly to limited office space and to the lack of information management skills as discussed earlier on. This combination of factors is creating conditions where valuable information products in the form of reports simply await white ants or paper shredders to clean them up (Chambers 1985). This has implications both for human resources development and also for information warehouses. Tackling the problem of information management must further extend to the wider interest of the local development community to set up information depositories where public information could be made available to all members of the NGO community. The absence of a legal and regulatory environment which defines what information is to be captured, processed, stored and shared with other NGOs needs to be urgently addressed. The voluntaristic values of NGOs could impact positively in this direction to promote information sharing. The term "liberal depository" as opposed to "legal depository" would be a useful way for looking at the concept of local NGO "information warehouses" judging from the limited office space available to most local NGOs. Future plans should also explore local area networks, the role of local cyber cafes and communication centres to facilitate the sharing and exchange of development knowledge between local NGOs and other development stakeholders.

8.5 Conclusion

This chapter has discussed the findings of this study. It has outlined the various dimensions of information behaviour manifested by rural development workers in the Northern region of Ghana and the factors that drive or motivate such behaviour. It has been argued that the concept of *information* in the world of work of local

NGOs in Northern Ghana is one of a *generative social practice*. Within information behaviour studies, there are studies which look at information behaviour from an information processing point of view linked to interactive technologies, those which focus on libraries and those which look at information behaviour from a social perspective. This study falls into the latter part. The contention of this study is that the focus on the cognitive viewpoint and on individuals whilst ignoring the significance and influence of wider institutional structures on information behaviour fails to completely illuminate our understanding of human information behaviour. It has been argued that by excluding knowledge of the world in which people live; the socio-cultural values which define their identity; and the power and other structures which pre-define the possibilities of information behaviour and simply restricting itself to studying the minds of isolated and abstracted subjects, the cognitive view point has ignored reality.

It has been shown that the world of work of NGOs favour collaborative working, evident in phrases such as participatory development, partnership and collective action. This approach to work makes a socio-cognitive perspective a more useful alternative to the dominant cognitive perspective in information behaviour research. The socio-cognitive view emphasises the practical, collaborative, generative and embedded nature of information seeking. This way of seeking is a lived-in experience, embodied within information locales and also embedded within the socio-historical practice of rural development. The information behaviour of development workers can thus be understood as a web of possibilities which, on one hand, is characterised by existing locales for information seeking and, on the other hand, by *impediments* and constraints. Unlike information objects or documents, information locales are co-constituted in different settings to co-create information through acts of negotiation. Information locales are and can be an informative phenomena. If these replicable locales can be a source of information then it is not unreasonable to regard the players or setting used to re-enact these locales as analogous to the objects and documents that are usually regarded as information sources in the cognitive paradigm. The question to ask is, in what sense does it matter whether the answer to an inquiry derives from records stored in a database or from re-enacting a locale as and when needed in a different place? To acknowledge *information locales* together with *information artefacts* as information

species is to adopt a broader view of information behaviour than that which is currently common. Following this contention there would seem no adequate grounds for restricting the concept of information in this sense.

There is the need to pay more sustained attention to the study of macro information relations instead of simply focusing on the micro. Information behaviour research needs to investigate shared social systems of information production and reproduction and also political, economic and physical structures and how these two co-constitute the practice of collaborative information seeking. The next chapter outlines the major conclusions that can be drawn from this study.

CHAPTER NINE

CONCLUSIONS AND IMPLICATIONS

9.0 Introduction

This final chapter presents the major conclusions that can be drawn from this study and their implication for the design of an information service suited to the needs of NGO development workers in the Northern region of Ghana. The chapter will also outline some of the limitations of this study and areas for future research. The study began with a two-fold objective as follows:

Objective One: To identify and analyse the information requirements of NGO development workers and to assess the extent to which the socio-economic environment in which they operate influences their information activities.

Objective Two: To establish whether the information behaviour of development workers has implications for information services designed to meet their needs. If so, what are these?

These two set of objective were operationalised into eight research questions. What follows are the major conclusions that can be drawn for each of these eight questions.

9.1 Conclusion One: What are the information needs of development workers?

This study concludes that local NGO development workers in the Northern region of Ghana have need for three kinds of information which are mutually connected and reciprocally reinforce each other, characterised in this study as poly-motivation. The first need relates to knowledge or disaggregated data about the living conditions of members of the community who are the target of development activities. The second is information of a scientific / technical nature in different subject domains e.g. health or success and failure case stories. Thirdly, development workers have need for information on public policies (legal and economic) both local and international which is believed to have potentially positive or negative impact on the livelihood of the poor. Closely linked to this is the need for information on happenings in the wider world of development. This study also

concludes that the information need of development workers cannot be understood only from an individual, internal and mental level but concurrently from a social perspective i.e attention to social issues.

9.2 Conclusion Two: What factors motivate these needs?

The study concludes that the need for disaggregated data on community members is motivated by the human centred nature of development orthodoxy, the bottom-up approach to development and the focus on development interventions at the micro level of concentration of poverty e.g. small communities or villages. Secondly, the need for technical and subject oriented knowledge has links to the academic background of development workers, the desire to develop the necessary skills and competence to cope with various tasks/situations and the quest for good practice in order to improve the effectiveness of project delivery and avoid a re-invention of the development wheel. The need for information about "*public policies*" of government was found to be motivated by the fact that most development workers view their development interventions as complementing those of government rather than competing with them, and hence desire to plan their development interventions within the broad frame of government policies. Knowledge of government policies is also seen as essential for advocacy activities on behalf of the poor. The need for policies of international development agencies was found to be motivated by the language of development partnerships and also financial dependency.

9.3. Conclusion Three: What is the status and function of information in development projects and programmes?

This study concludes that disaggregated data on communities has a high status both for the design of development interventions and also for protestation activities. Western scientific and academic knowledge has a high status for the development of personal competence and self efficacy. Financial or economic information has a high status for the initiation, implementation and sustainability of local development projects. The findings of this study indicate that individual ideas and/or local indigenous knowledge have very low status amongst development workers. No evidence was found to suggest that this type of knowledge was valued. On the other hand information from sources considered as having social expert

status is considered valuable. Furthermore *information as a process* is accorded high status as compared to *information as a thing*.

9.4 Conclusion Four: What are their sources of information and what factors influence the selection of these sources?

The study concludes that information seeking amongst local development NGOs occur within what could be described as *information locales* which are co-constituted and co-created by the various development stakeholders. Four main such locales were found in this study namely "social-status locale", "collaborative locale", "deliberative locale", and the "collective action locale". The maxim "*to seek is to participate*" is a perfect description of the information seeking behaviour of development workers. The findings suggest that three significant factors shape the selection or choice of an information source. First the sources to which development workers turn to for information are to a large extent pre-determined by the socio-economic and political structures which define and shape development agendas expressed in the jargon of participatory development and partnership. Secondly selection or choice of an information source is influenced by the absence of effective and reliable information institutions. Related to the above, selection of information source is influenced by a preference for face to face interaction by development workers. Lastly, source selection is influenced by the lack of highly disaggregated data.

9.5 Conclusion Five: What factors impede the information seeking efforts of development workers?

The study concludes that the absence of communication facilities and the settlement pattern of most rural communities in nucleated villages are the two most significant factors that pose challenges to information seeking from community sources. Within the organisational environment, this study indicates that the absence of effective information management systems or practices is a big impediment to the information seeking efforts of development workers. Closely linked to the above is the fact that information resources within the local NGO environment remain fragmented and un-coordinated due partly to the fact that NGOs operate as autonomous organisations rather than as consortiums or as cooperatives. In terms of information from government sources, the findings suggest that the absence of

public information policies, the ineffectiveness of government information institutions, and a working culture within government that promotes secrecy and aloofness greatly frustrate information acquisition. This is further complicated by the lack of disaggregated information from government sources. In terms of information within the international development environment, this study concludes that the flow of information from this environment is greatly limited by the poor performance of what can be described as "information crawling technologies".

9.6 Conclusion Six: What specific factors need to be considered in the provision of an information service designed to meet the information needs of NGO development workers?

This study concludes that five major factors are of considerable importance in any attempt to design and establish an information service targeting the needs of development workers.

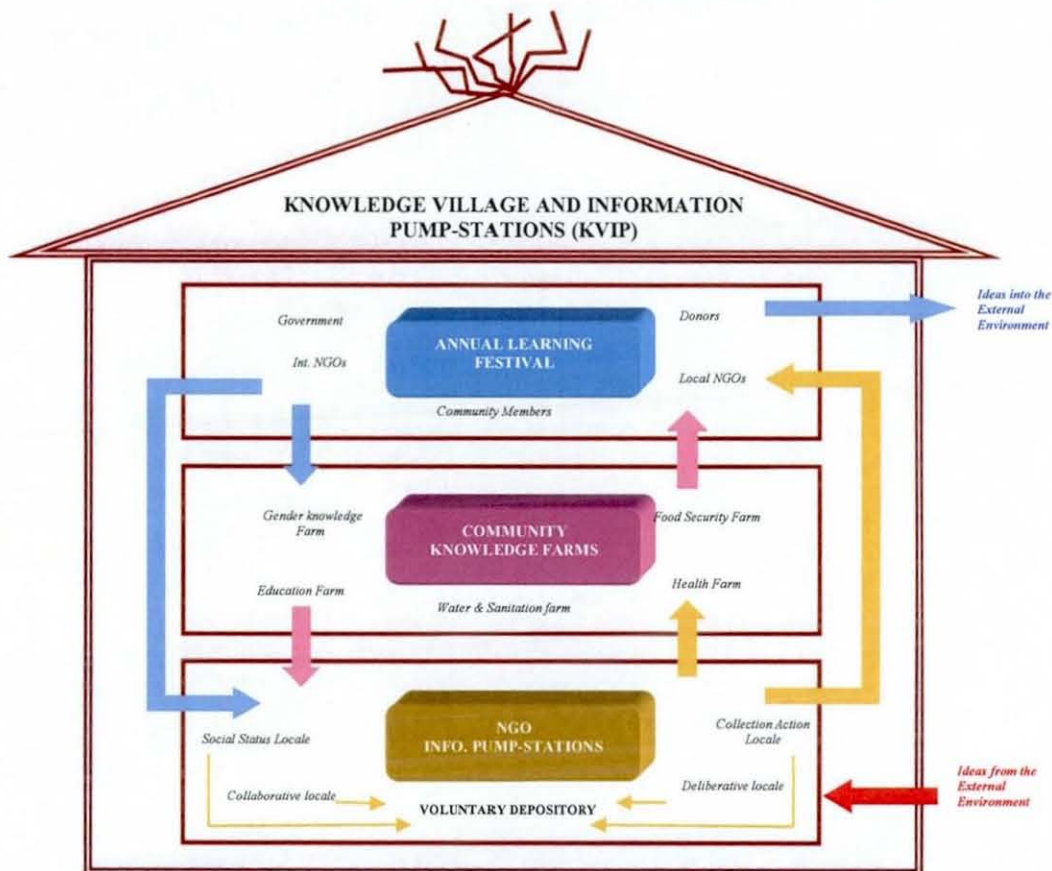
- i. Empower Community Informants:* Firstly, such a system must consider formalising the informal role played by local community members/groups in development knowledge production and make community members co-owners of rural development knowledge. To date, participation in rural development projects by local communities has been limited primarily to financial contribution or labour contribution. Very little attention is paid to community participation on the basis of knowledge contribution. Such a service must also develop the information gathering and processing skills of community members.
- ii. Standardisation:* Such a service needs to develop standards for data collection and processing, taking into consideration the differences in information system amongst development stakeholders.
- iii. Information Policies:* Such a service needs to encourage formulation of NGO-wide information policies to serve as a guiding principle to any course of action in respect of information.
- iv. Training:* Such a service needs to develop the dynamic capabilities of NGO staff to enable them to manage the various information resource entities available within their organisations.

- v. *Information Attitudes:* There is the need for re-orientation towards the development of positive information attitudes amongst local development workers to make them more appreciative of the value of information products within their respective organisations.

9.7 What form should such an information service take?

It is recommended that, on the evidence of this study, such a service should be an integrative service. It is suggested that the local NGO community stand to benefit from putting in place what may be called “Knowledge Villages and Information Pump-stations” (KVIP). KVIP could serve as a useful framework which integrates, re-orders, and re-layers all the information locales and knowledge domains found in this study. The significance of KVIP lies in the fact that it would integrate both the social and physical information products found in this study. The metaphorical “pump” i.e. “people”, “places” and “locations” and “events” act as the medium through which information is shared amongst members of the conceptual village as represented in the following figure.

Figure 9.1 *Knowledge Village and Information Pump-station (KVIP)*



A little explanation is in order. At the bottom of KVIP are the various information locales found in this study which serve as pump-stations for information from NGOs. A *voluntary-depository* or knowledge warehouse is introduced as part of this level of KVIP where copies of projects reports, and critical success factors can be deposited for the benefit of all. Such reports can be acquired from NGO-members through a policy of "voluntary-deposit", drawing on the spirit of voluntarism which is a core attribute of NGOs. At the centre of KVIP are community informants who act as sources of information on various community subjects e.g. health, education, water etc (see for example figure 5.10). This is intended to make them more visible and for their voices to be heard i.e. What Chambers (1989) calls reversal of ideologies. At the top of KVIP is a proposal for an annual event characterised as *learning festival* intended to bring all the development stakeholders together annually for the social exchange of information. Festivals are an integral part of African socio-cultural life and are therefore bound to resonate with the majority of development stakeholders. For international development agents, such an occasion would provide the opportunity to interact with the centres of poverty and learn at first hand about development problems.

9.8. Conclusion Eight: Who should have responsibility for the management of this service?

The role of the Northern Ghana Network for Development (NGND), if strengthened, could play a pivotal role in co-ordinating the activities of NGO and also promote and sustain activities within KVIP. Furthermore, the offices of NGND could serve as the nucleus for setting up a "local knowledge warehouse" suggested by a number of development workers in the interview (see latter part of 5.3.4). NGND could also serve as the pivot for collating, comparing, analysing and documenting NGO experiences in such a way that it could benefit advocacy activities. Staff members of NGND could also be trained to provide information management support for local NGOs. How realistic this would be depends on the willingness of member NGOs and the effectiveness of NGND in providing the necessary leadership and unifying umbrella for the local NGO community. A lot also depends on the necessary financial support and training to build the information management and knowledge sharing capacities of staff who would have responsibility for managing the KVIP.

9.9 Limitations of this study

This study was designed as an exploratory study to develop insight into the information behaviour of development workers working within the space of non-governmental organisations. The term non-governmental organisation is a term of uncertain nature. In development parlance, the term is understood to refer to organisations working to address the concerns of the poor and vulnerable. This has resulted in a situation where many organisations fall under this characterisation. In this study, the proliferation of NGO activities and the widespread and overlapping nature of their operations posed problems in terms of deciding between NGOs. This was further compounded by the absence of a register of local NGOs from which to select study participants. It is therefore possible that not all types of NGOs operating in the Northern region were covered in this study. The size of the region, which is administratively the biggest region in Ghana, coupled with settlement patterns and poor road infrastructure was also a major limitation on the number of communities visited. Closely connected to the above is the absence of effective means of communication and transportation.

From a methodological standpoint, it became obvious during the field trip that participants were not familiar with the research topic "information behaviour". This may have limited the contributions they made. For example, the critical incident technique which relied on memory and recall was found to be difficult for some of the interviewees. A focus group discussion could have helped to explore some of the issues in a more in-depth manner. Finally, the lack of understanding of the local language and culture means that the nuances or subtle difference in meaning, opinion and attitude of respondents may have been missed. Notwithstanding these limitations, this research has made significant findings which throw fresh light on human information behaviour research.

9.10 Further Research

Throughout the analysis and discussions several areas of possible research have been suggested. In more specific terms, further research is required in the following areas;

- The notion of “pre-determined information behaviour” linked to socio-economic structures needs to be further examined to see the extent to which they impact either positively or negatively on development work behaviour.
- A testing of the KVIP framework is required in order to validate and possibly refine its applicability.
- From a methodological point of view, further studies are required to establish the suitability of information auditing as a method for the study of human information behaviour.
- Studies need to be also carried out which investigate possible differences in behaviour between the different types of NGOs, for example water and sanitation NGOs and NGOs focusing on health.
- The concept of *information locales* needs to be further studied to understand in more detail the attributes of each locale and the interface between the four different locales and how this helps in the design of social spaces of interaction. For example, there is the need for effort to be redirected towards exploring the degree to which “social expert status” inhibits or enables different voices within a specific locale.
- Further studies are needed to throw light on the information gathering, processing and management skills of informants within local communities.
- The idea of a “voluntary-depository” as opposed to a “legal depository” is one that also needs further research to assess the extent to which this is possible and practically feasible.

9.11 Conclusion

This research set out to study the information behaviour of development workers. The conclusions of this study show that several factors, which were previously dimly understood or accorded little attention in human information behaviour research such as the influence of socio-political structures, the co-generative nature of information seeking and the impact of the physical environment, provide fresh insight into information behaviour research. A case has also been made for a socio-cognitive perspective to be brought to bear on information behaviour studies paying attention to people centred, participatory driven, bottom-up motivated and empowerment focused information behaviour research. The claim is not being made

that this perspective is necessarily better than existing approaches. What is being suggested is for an approach to be adopted which is reflective of the behaviour of a segment of society, for our purpose NGO development workers as exemplars of civil society organisation.

REFERENCES AND BIBLIOGRAPHY

- Adimorah, E. O.**, 1994. *Seminar on Information Provision to rural Communities in Africa*. IFLA project report No. 3. Gaborone, Botswana, 22-25 June.
- Adu Boahen, A.**, 2000. *Ghana: Evolution and change in the Nineteenth and Twentieth Centuries*. Accra : Sankofa Educational Publishers Ltd.
- Agyeman-Duah, B.**, 2002. Overview of Decentralisation in Ghana. *Ghana local Government Information Digest*. Accra: Ministry of Local Government and rural Development, 15(2), April -June.
- Aina, L. O.**, 1995. Information needs and information –seeking involvement of farmers in six rural communities in Nigeria. *IAALD Quarterly Bulletin* XXX(2).
- Alemna, A.**, 1989. Information and Economic Recovery in Ghana. *Information Development*, 5(4), 206-209.
- Alemna, A.**, 1995. Community Libraries: an alternative to public Libraries in Africa. *Library Review*, 44 (7), 40-44
- Alemna, A.**, 1997. A review of Library provision in Ghana. *Library Review*, 46(1), 34-44.
- Alemna, A. A.**, 1998. An Overview of the Library and Information Research Scene in West Africa. *African Journal of Library, Archives and Information Science*, 8(1), 1-12.
- Alemna, A. A.**, 2000. *Libraries information and society*. Accra: Ghana University Press.
- Allen D., & Wilson T.D.**, 2003. Information Overload: context and causes. *The New Review of Library and Information Behaviour Research: Studies of information seeking in context*. Volume 4, 31 - 44

- Algon, J.,** 1997. Classification of Tasks, steps and information related behaviours of individuals on project teams. *In Information seeking in context.* Vakkari P., Savolainen R., Dervin B., (Eds) London:Taylor Graham, 205-221.
- Anderson T. D.,** 2000. Doing relevance research: an ethnographic exploration of relevance assessment. *The New Review of Library and Information Behaviour Research: Studies of information seeking in context.* Volume1, 201-218.
- Anheier, H. K., & Salamon L. M.,** 1998. *The non-profit sector in the developing world: a comparative analysis.* Manchester: Manchester University Press.
- Applegate R.,** 1993. Models of user satisfaction: understanding false positives. *RQ.* Summer, 525 -539.
- Arunachalam, S.,** 1999. Information and Knowledge in the age of electronic communication; a developing country perspective. *Journal of Information Science,* 25 (6), 465-476.
- Aryee, B. E.,** 1998. Consultative Process in community development in Northern Ghana. *Community Development Journal,* 33(4), 301-313.
- Ayee, J.R.A.,** 1994. An anatomy of public policy implementation: the case of decentralization policies in Ghana / Aldershot : Avebury.
- Asamoah-Hassan, H. R.,** 1997. Information for the Rural Person in Ghana; Strategies for dissemination. *Information Development,* 13(3), 122-127.
- Asenso-Okere, K.,** 2001. *Wealth Accumulation Utilization and Retention.* Accra: Ghana Universities Press.
- Ashley, C. & Maxwell, S.,** 2001. Rethinking Rural Development. *Development Policy Review,* 19 (4), 395-425.

Atingdui, L. et al. 1998. The Non-profit Sector in Ghana analysis. In *The non-profit sector in the developing world: A comparative analysis*. Anheier, H.K., Salamon, L.M, Manchester: Manchester University Press, 158-197.

ATLAS.ti 1997. *Visual Qualitative Data Analysis, Management, model building: Short User's Manual*. Thomas Muhr. Scientific Software Development. Berlin.

Awad, E.M., & Ghaziri, H.M., 2003. *Knowledge Management*. New Jersey: Pearson Education International.

Barnard, G., 2003. Knowledge sharing in development agencies: knowledge fortress or knowledge pool? Paper prepared for the EADI/IMWG conference, Dublin, September 2003.

Bates, M. J., 2002. Towards an Integrated Model of Information Seeking and Searching. *The New Review of Information Behaviour Research: Studies of information seeking in context*. Volume 3, 1-15.

Belkin, N.J. et al., 1982. ASK for Information Retrieval Part 1: Background and Theory. *Journal of Documentation*, 38 (2), 61-71.

Belkin, N.J., 1990. The cognitive viewpoint in information science. *Journal of Information Science*. Volume 16, 11-15.

Benning, R. B., 1990. *A History of Education in Northern Ghana 1907-1976*. Accra: Ghana Universities Press.

Berrel, M., Wright P., and Hoa T.T., 1999. The influence of culture on managerial behaviour. *Journal of Management Development*, 18 (7), 578 – 589.

Billis, D. and Harris, M., 1996. *Voluntary Agencies: Challenges of Organisation and Management*. London: Macmillan

Biney, A., 1995. NGOs to pull out of Ghana. *The Ghanaian Chronicle*. 22 May 1995.

Botchie, G., 1986. Planning and implementation of development plans in Ghana: An appraisal. In *Rural Development in Ghana*. Brown C K. (Ed) Accra: Ghana University Press.

Botchway, K., 2001. Paradox of empowerment: reflections on a case study from Northern Ghana. *World Development*, 29(1), 135-153.

Brett, E.A., 2003. Participation and Accountability in Development Management. *The Journal of Development Studies*, 40 (2), 1-29.

Broadbent, K. P., 1990. Information needs for rural Development. *Information Development*, 6 (1).

Brohman, J., 1996. *Popular Development: Rethinking the theory and practice of development*. Oxford: Blackwells Publishers.

Brown, C. K., 1986. Urban Bias and Rural Development in Ghana. In *Rural Development in Ghana*. By Brown C.K. (Eds) Accra: Ghana Universities Press.

Bryman, A., 1988. *Quantity and Quality in Social Research*. London: Unwin Hyman.

Bryman, A., 2001. *Social Research Methods*. Oxford: Oxford University Press.

Buckland, M.K., 1991. Information as a thing. *Journal of American Society for Information Science*. 42 (5), 351-360.

Burgess, R. G., 1984. *In the field: An introduction to field research*. London: George Allen & Unwin.

Burk, C. and Hutton, F., 1988. *InfoMap: A complete guide to discovering corporate information resources.* New Jersey: Prentice Hall.

Bystrom, K., 1999. Information seekers in context: an analysis of the 'doer' in INSU studies. In *Exploring the context of Information Behaviour.* Wilson T D., and Allen D. K. (Eds) London : Taylor Graham.

Bystrom, K., and Jarvelin K., 1995. Task complexity affects information seeking and use. *Information Processing and Management* 31 (2), 191-213.

Camble, E., 1994. The Information Environment of Rural Development Workers in Borno State Nigeria. *West Africa. African Journal of Library, Archives and Information Science.* 4(2), 99-106.

Case, D. A., 2002. *Looking for Information: A survey of research on information seeking, needs and behaviour.* London: Academic Press.

Centre for Democracy and Development. 1999. *Popular Attitudes to Democracy and Markets in Ghana.* Accra, Ghana.

Cernea, M. M., 1987. Sociological Knowledge for Development Projects. In *Putting People First: Sociological variables in rural development* by Cernea M.M. (Ed) Oxford: Oxford University Press 1987.

Chambers, R., 1989. *The State and Rural Development: Ideologies and an Agenda for the 1990s.* Discussion Paper. Brighton: Institute of Development Studies at the University of Sussex.

Chambers, R., 1985. Shortcut methods of gathering social information for rural development projects In *Putting people first: sociological variables in rural development.* Cernea M. (Ed) Oxford: Oxford University Press.

Chambers, R., 1983. *Rural Development: Putting the last first.* Harlow- Essex: Longman Scientific & Technical.

Chang, S. L., and Lee Y., 2001. Conceptualizing context and its relationship to the information behaviour research. *The New Review of Library and Information Behaviour Research: Studies of information seeking in context.* Volume 2, 29-46.

Chatman, E. A., 2000. Framing social life in theory and research In *The New Review of Information Behaviour Research.* Volume 1, 3-17.

Chetley, A., and Vincent R., 2003. Learning to share learning: an exploration of methods to improve and share learning *A report prepared for the UK Commission for Health Improvement* March. 2003.

Choo, C. W., 1994. Perception and use of information sources by Chief Executives in Environmental Scanning. *LISR.* 16, 23 -40.

Clark, J., 1991. *Democratizing Development.* London: Earthscan Publications Ltd. Constitution of the Republic of Ghana. Accra: Assembly Press.

Cooke B., and Kothari U., (Eds). 2001. *Participation the new tyranny?* London: Zed Books

Cosway, N., and Anankum, S., 1996. Traditional leadership and community management in Northern Ghana. In *Indigenous Organisations and Development.* By Blunt P & Warren D.M. (Eds) London: Intermediate Technology.

Creswell, J.W., 1998. *Qualitative inquiry and research design: Choosing among five traditions.* London: Sage Publications.

Creswell, J. W., 1994. *Research design: qualitative and quantitative approaches.* London: Sage Publications, c1994

Crotty, M., 1998. *The foundations of social research: meaning and perspective in the research process.* London: Sage.

Dakubu, K., 1988. *Language map of Ghana.* Kegan Paul Int .

Davies, S., 1994. NGOs in the Age of Information. In *Knowledge is power: the use and abuse of information in development. IDS Bulletin* 25(2), p. 1-13.

Davies, K. E., and Roberts M.K., 1985. Relationships in the real world: The descriptive psychology approach to personal relationship. In *The social construction of the person*. Gergen K. T and Davies K. E. (Eds) New York: Springer-verlag.

Dekutsey, W. A., 1993. Ghana: a case study in publishing development. *LOGOS* 4(2), 66- 72.

Denzin, N., and Lincoln Y., 2000. *The discipline and Practice of qualitative research. In Handbook of Qualitative Research*. London: Sage Publications.

Dervin, B., 1983. An overview of Sense-Making Research: Concepts, methods and Results to Date. *International Communications Association Annual Meeting*. Dallas, Texas. USA.

Dervin, B., 1997. Giving Context a bad name: methodological tools for taming the unruly beast. In *Information seeking in context*. Vakkari P., Savolainen R., Dervin B., (Eds) London: Taylor Graham.

Dervin, B., and Nilan, M., 1986. Information Needs and Uses. *Annual Review of Information Science and Tecnology*. Volume 21, 3-33.

Dickson, B. K., 1969. *A historical Geography of Ghana* London: Cambridge University Press.

Ebrahim, A., 2002. Information Struggles: The role of Information in the Reproduction of NGO_Funder Relationships. *Non-profit and Voluntary Sector Quarterly*, 31(1), 84-114.

Economic Commission For Africa. 1999. *Developing National Information and Communications Infrastructure Policies, Plans and Strategies: the 'why' and 'how'.* Meeting of the Committee on Development Information Addis Ababa, Ethiopia July 1999.

Edwards, M., 1994. NGOs in the Age of Information. In *Knowledge is power: the use and abuse of information in development.* *IDS Bulletin* 25(2), 117-124.

Edwards, M., and Hulme D., 1995. *NGOs: Performance and Accountability.* London: Earthscan.

Edwards, M., and Hulme, D., (Eds). 1992. *Making a difference: NGOs and Development in a changing world.* London: Earthscan.

Edwards, M., and Hulme D., 2000. Scaling up NGO impact on development: learning from experience. In *Development, NGOs and Civil Society.* Eade D. (Ed) Oxford: Oxfam.

Eele, G., 1994. The changing role of Government Statistical Agencies. In *knowledge is power: the use and abuses of information in development.* *IDS Bulletin.* 25(2), 110-116.

Ellis, D., 1989. A behavioural approach to information retrieval system design. *Journal of Documentation,* 45(3), 171-212.

Ellis, D., Cox D., Hall K. A., 1993. A comparison of the information seeking patterns of researches in the physical and social sciences. *Journal of Documentation* 49 (4), 356 -369.

Ellis, F., Biggs S., 2001. Evolving Themes in Rural Development 1950s-2000s. *Development Policy Review,* 19 (4), 437-448.

- Erdelez, S.,** 1997. Information Encountering: A conceptual framework for accidental information discovery. In *Information seeking in context*. Vakkari P., Savolainen R., Dervin B., (Eds) London: Taylor Graham.
- Escobar, A.,** 1995. *Encountering Development: The making and unmaking of the third world*. New Jersey: Princeton University Press.
- Esteve, G.,** 1992. *Development. In the Development dictionary: a guide to knowledge as power*. London: Zed Books Ltd.
- Evans, E.J.A.,** *A tropical library service: the study of Ghana's libraries*. Deutsch, 1964.
- Fabritius, H.,** 1999. Triangulation as a multi- perspective strategy in a qualitative study of information seeking behaviour of Journalist. In *Exploring the contexts of information Behaviour*. Wilson T.D., Allen D.K. (Eds). London: Taylor Graham.
- Feather, J.,** 2004. *The information society: a study of continuity and change*. 4ed. London: Facet.
- Feather, J., and Sturges P.,** (Eds). 2002. *International encyclopaedia of information and library science*. London: Taylor and Francis.
- Flanagan, J.C.,** 1954. The Critical Incident Technique. *Psychological Bulletin*. 51(4), 327-358.
- Ford, G.,** 1973. Progress in Documentation: Research in user Behaviour in University Libraries. *Journal of Documentation*, 29 (1), 85-106.
- Ford, N.,** 1980. Relating information needs to learner characteristics in higher education. *The Journal of Documentation* volume, 36 (2), 99-114.
- Ford, N.,** 2004. Towards a model of learning for educational informatics. *Journal of Documentation*. 60 (2), 183-225.

Foster, M., and Zormelo D., 2002. *How, when and Why does poverty get budget priority? Poverty Reduction Strategy and Public Expenditure in Ghana.* Working paper 164. London: Overseas Development Institute.

Fowler, A., 1988. Non-Governmental Organisations in Africa: Achieving Comparative Advantage in Relief and Micro-Development. *IDS Discussion Paper.*

Fowler, A., 1992. Institutional Development & NGOs in Africa: Policy Perspectives for European Development Agencies Oxford: INTRAC.

Fowler, A., 1997. *Striking a balance: A guide to enhancing the effectiveness of NGOs in International Development.* London: Earthscan Publications.

Fowler A., 2000. *Civil Society, NGDOs and Social Development: Changing the rules of the Game.* Geneva: United Nations Research Institute of Social Development. Occasional Paper 1.

Fukuyama F., 2001. Social capital, civil society and development. *Third World Quarterly.* 22(1), 7-20.

Gadzekpo A., 1998. *Is there a place for the state media in constitutional democracy?* Accra: Institute of Economic Affairs.

Gary I., 1996. Confrontation, co-operation or co-optation: NGOs and the Ghanaian State during structural adjustment. *Review of African Political Economy*, No. 68, 149-168.

Gergen K. J., and Davis K. E., (Eds) 1985. *The social construction of the person.* New York : Springer.

Gergen. K. J., 1999. *An invitation to social construction.* London : Sage.

Gergen K. J., 1985. Social construction inquiry: context and implications. In *The social construction of the person*. Gergen K. T and Davies K. E. (Eds) New York: Springer-verlag.

Ghana Association of Private Voluntary Organisation in Development
<http://www.gapvod.kabissa.org/aboutus.html>

Ghana Home Page. www.ghanaweb.com/GhanaHomePage/Communication/

Government of Ghana. 2003. *Ghana Poverty Reduction Strategy., 2003-2005. An agenda for growth and prosperity* volume. 1. Analysis and Policy Statement. February 2003.

Ghana Statistical Service. 2000. *Ghana Living Standards Survey Report of the Fourth Round (GLSS 4).*

Ghana Statistical Service. 2002. *2000 Population and Housing Census: Summary report of final results.* March 2002.

Gherardi, S., Nicolini, D., and Odella, F., 1998. Towards a social understanding of how people learn in organisations: the notion of situated curriculum. *Management Learning*, 29(3), 273-297.

Giddens, A., 2001. *Sociology*. 4ed. Cambridge: Polity Press.

Glazier, D., and Powell, R.R., 1992. *Qualitative Research in Information management*. Englewood: Libraries Unlimited Inc.

Gomm, R., Hammersley, M., Foster, P., (Eds). 2000. *Case study method: key issues, key texts*. London: Sage Pub.

Gorman, G.E., and Clayton P., 1997. *Qualitative Research for the Information Professional: a practical handbook*. London: Library Association Pub.

- Gorman, G.E., and Clayton, P., 2005.** *Qualitative research for the information Professional: a practical handbook*. 2ed. London: Facet Publishing.
- Government of Ghana. 2001.** *National Poverty Reduction Programme*. 2001.
- Government of Ghana. 2003.** *The Ghana ICT for Accelerated Development*. (ICT4AD) Policy June 2003.
- Government of Ghana. 1962.** *State Secrets Act*, Act 101. Accra: Ghana Publishing Corporation.
- Granovetter M.S., 1973.** The strength of weak ties . *American Journal of Sociology* volume 78, 1360-1380.
- Green, A., 1990.** What do we mean by user needs? *British Journal of Academic Librarianship*, Volume 5, 65-78.
- Gyapong, J.O. et al., 1998.** The potential of peripheral health workers and community key informants in the rapid assessment of community burden of disease: the example of lymphatic filariasis. *Tropical Medicine and International Health*. 3(7), 522- 529.
- Gyimah-Baodi, et al., 2000.** *Civil Society Organisations and Ghanaian Democratization*. Accra: Centre for Democracy and Development. No.6.
- Gyimah-Boadi, E., 2001.** *Governance, Institutions and Values in National Development*. Accra: ISSER
- Hearn, J., 2000.** *Foreign Political Aid, Democratization, and Civil Society in Ghana in the 1990s*. Accra: Centre for Democracy and Development Ghana. No. 6. September.

Heeks, R., 2002. *Failure, Success and Improvisation of Information Systems Projects in Developing Countries*. Manchester: Institute for Development Policy and Management

Heinstrom, J., 2003. Five personality dimensions and their influence on information behaviour. *Information Research*, 9 (1), 1-23.

Hepworth, M., 2003. *Framework for Understanding human information needs*. Unpublished PhD dissertation. University of Sheffield.

Hepworth, M., 2004. A framework for understanding user requirement for an information service: Defining the needs of informal carers. *Journal of American Society for Information Science and Technology*, 55(8), 695-708.

Hersberger, J., 2001. Everyday information needs and information sources of homeless parents. *The New Review of Library and Information Behaviour Research: Studies of information seeking in context*. Volume 2, 119 – 134.

Hjorland, B., 2000. Information Seeking Behaviour: what should a general Theory look like. *The New Review of Information Behaviour Research*. Volume 1.

Hjorland, B., 2002. Epistemology and the socio-cognitive perspective in information science. *Journal of the America Society for Information Science and technology*, 53 (4), 257-270.

Hjorland, B., and Albrechtsen, H., 1995. Towards a New Horizon in Information Science : Domain- Analysis. *Journal of the America Society for Information Science*, 46 (6), 400 -425.

Hjorland, B., Domain analysis in information science: eleven approaches, traditional as well as innovative. *Journal of Documentation*, 58 (4), 422-462.

House, E.R., 1994. Integrating the Quantitative and Qualitative In *The Qualitative and Quantitative Debate: New perspective*. Reichardt C. (Ed.) San Francisco.

Howard, R., 1979. *Colonialism and Underdevelopment in Ghana*. London: Croom Helm Ltd.

Howell, J., and Pearce, J., 2001. *Civil Society and Development: A critical Exploration*. London: Lynne Rienner Publishers Inc.

Howes, M., and Chambers, R., 1980. Indigenous Technical Knowledge: Analysis, implications and issues. In *Indigenous Knowledge System and Development* Brokensha, et al (eds) Washington: University Press of America.

Hulme, D., and Edwards, M., 1997. *NGOs, States and donors: an overview*. In *NGOs, States and donors: Too close for comfort?* Hulme D. and Edwards M. (Eds) London: Macmillan Press.

IDRC. 2003. *Information and Communication Technologies for Development in Africa*, Volume One: Opportunities and Challenges for Community Development.

Overseas Development Institute. 1996. The Impact of NGO Development Projects. *ODI Briefing Paper 2*. May 1996.

Ingwersen, P., 1996. Cognitive perspectives of information retrieval interaction: elements of a cognitive IR theory. *Journal of Documentation*, 52 (1), 3-50.

The Institute of Statistical, Social and Economic Research. 2000. *State of the Ghanaian Economy 1999*. Legon-Accra: ISSER.

The Institute of Statistical, Social and Economic Research. 2001. *The State of Ghanaian Economy in 2000*. Legon-Accra: ISSER.

Institute of Economic Affairs. 2000. *The State of Governance in Ghana 1999*. Accra

International Fund for Agricultural Development. 2001. *Rural Poverty Report 2001: The challenge of Ending Rural Poverty*. Oxford University Press 2001.

International Institute for Environment and Development. 2003. *Participatory Learning and Action* http://www.iied.org/NR/agbioliv/pla_notes/index.html

International Telecommunication Union. 2003. *Africa, ICT Indicators.* http://www.itu.int/ITU-D/ict/statistics/at_glance/af_ictindicators.html

ISODEC. 1995. *A documentation of the members of Northern Ghana Network for Development.* ISODEC Publications.

Jacob, E. K., and Shaw, D., 1998. Socio-cognitive perspectives on representation. *Annual Review of Information Science and Technology*, Volume 33, 131-185.

Jones-Quartey, K.A.B., 1975. *History, politics, and early press in Ghana: the fictions and the facts.* The Author.

Kaye, D., 1995. The nature of Information. *Library Review*, 44 (8), 37-48.

Kaye, D., 1995. Sources of information, formal and informal. *Library management*, 16 (5), 16-19.

Keane, D., 1999. The information behaviour of senior executives. In *Exploring the contexts of information behaviour.* Wilson D. (Ed) London: Taylor Graham.

Killick, T., and Abugre C., 2001. *Poverty- reducing institutional change and PRSP processes: The Ghana case.* London: Overseas Development Institute. July 2001.

Kimble, D., 1963. *A Political History of Ghana: The rise of Gold Coast Nationalism 1850 -1928.* London: Oxford University Press.

Kirby, J.R., 2003. Approaches to learning at work and workplace climate. *International Journal of Training and Development* 7(1), 31- 52.

Kote-Nikoi, N., 2001. *Poverty Reduction in Ghana: Prospects and challenges.* Accra: Institute of Economic Affairs- Ghana.

Kotei, S.I.A., 1981. *The Book in Africa.* Paris: UNESCO. 1981.

Kudiabor, C.D. K., 1986. Policy Objectives and strategies for integrated rural development in Ghana. In *Rural Development in Ghana.* Brown C.K. (Ed). Accra: Ghana University Press.

Kularatne, E. D., 1997. T. Information Needs and Information Provision in Developing Countries. *Information Development*, 13(3), 117-121.

Kuhlthau, C., 1996. The Influence of uncertainty on the information seeking behaviour of a Securities Analyst. In *Information Seeking in Context: proceedings of an international conference on research in information needs, seeking and use in different contexts.* Vakkari P., Savolainen R., Dervin B., (Eds) London: Taylor Graham. pp. 268-274.

Kuhlthau, C., 1991. Inside the search Process: Information seeking from the user's perspective. *Journal of the American Society for Information Science*, 42(5), 361-371.

Kulhthau C., 2001. Seeking meaning: a process approach to library and information services. Cited by Chang S. L. and Lee Y. Conceptualizing context and its relationship to the information behaviour in dissertation research process. *The new Review of Information Behaviour Research.* Volume 2, 29-46.

Kumado, K., 2000. *The state of the law relating to access to Information in Ghana.* Information for Accountability workshop Accra Ghana August 2000.

Kvale, S., 1996. *Interviews: An introduction to qualitative research interviewing.* London: Sage Publications.

Kyei, P., 1999. *Decentralisation and poverty alleviation in rural Ghana*. PhD Thesis, Department of Geography, University of Durham.

Lave, J., and Wenger, E., 1991. *Situated Learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.

Leach, A., 2001. The best thing is communicating verbally: NGOs information provision in rural KwaZulu-Natal and some observations relating to library and information services In *Knowledge, information and development: an African perspective*. South Africa: School of Human and Social Studies.

Leckie, G. J. et al., 1996. Modelling the information seeking of professionals: A general model derived from research on engineers, health care professionals and lawyers. *Library Quarterly*, 66 (2), 161-193.

Leinbach, T.R., 2000. Mobility in development context: changing perspectives, new interpretations, and the real issues. *Journal of Transport Geography*, Volume 8, 1-9.

Lewis, D., and Madon, S., 2004. Information systems and nongovernmental Development Organisations: Advocacy, Organisational Learning and Accountability. *The Information Society*, 20 (2), 117-126.

Lewis, P., 2000. *Democracy and Economic Reform in Africa*. Centre for Democracy and Development: Briefing Paper. 1 (4), 1.

Lighfoot, C., 1995. Using Indigenous Knowledge systems in the design of on-farm experiments – A Philippine case. In *The cultural Dimension of Development: Indigenous Knowledge Systems*. Brokensha, et al (eds). London: Intermediate Technology Publications Ltd.

Limberg, L., 2000. Phenomenography: a relational approach to research on Information needs, seeking and use. In *The New Review of Information Behaviour Research*. Volume 1, 51-67.

Lincoln, Y., and Denzin N., 2000. The discipline and practice of qualitative research In *Handbook of qualitative research* 2ed. London: Sage Publication.

Lincoln, Y., and Guba E. G., 2000. The only generalisation in: there is no generalisation. In *Case study method: key issues, key texts*. Gomm R., Hammersley, M. Foster P. (Eds). London: Sage Pub.

Line, M., 1974. Draft Definitions: Information and library needs, wants, demands and uses. *Aslib Proceedings*. Volume 26, 87.

Lukes, S., 1977. *Essays in social theory*. London: Macmillan Press.

Lund, S., 1990. Efficiency or empowerment? A meta-theoretical analysis of the concept of participation In *The language of development studies*. Arnfred S. & Weis Bentzon A. (Eds) Copenhagen: New Social Science Monographs.

Mackenzie, M.L., 2003. An exploratory study investigating the information behaviour of line managers within a business environment. *The New Review of Library and Information Behaviour Research*, Volume 4, 63-78.

Madon, S., 1999. International NGOs: networking, information flows and learning. *Journal of strategic information systems*. 8 (3), 251-261.

Marsden, D., and Oakley P., (eds) 1990. *Evaluation Social Development Projects*. Oxford: Oxfam.

Martinussen, J., 1997. *Society, State and Market: A guide to the competing theories of Development*. London: Zed Books Ltd.

Martyn, J., 1974. Information Needs and Uses. *ARIST*, Volume 19.

Mawdsley, E. et al., 2002. *Knowledge, Power and Development Agendas: NGOs North and South*. Oxford: INTRAC.

McAnany, E. G., 1980. The role of information in communication with the rural poor: some reflections In *Communications in the Rural Third World: The role of information in Development*. McAnany E. G (Ed) New York: Praeger Publishers.

Mchombu, K., 2004. *Sharing Knowledge for Community Development and Transformation: A handbook*. Canada:Oxfam.

Mchombu, K., 2001. Information and Development Symposium. *Information and Development*, 17(3), September.

Mchombu, K., 1994. *Seminar on Information Provision to rural Communities in Africa*. IFLA project report No. 3. Gaborone, Botswana.

Menou, J., (Ed). 1993. *Measuring the impact of Information on Development*. Ottawa : IDRC.

Mensah, J. V., 1997. Getting the People to Participate: Community Animation in Ghana. *D+C* 4/97, 20-21.

Menzel, H., 1966. Information Needs and Uses in Science and Technology. *ARIST* Volume1, 41-69.

Meyer, H.W.J., 2003. Information use in rural development. *New Review of Information Behaviour Research*. Volume 4, 109-125.

Meyer, C., 1999. *The Economic and Politics of NGOs in Latin America*. Westport: Praeger.

Miles, M. B., and Huberman, A., 1994. *Qualitative Data Analysis: an expanded source book*. London: Sage.

Miwa, M., 2003. Situatedness in user's evaluation of information and information services. *The New Review of Library and Information Behaviour Research: Studies of information Seeking in Context*. Volume 4, 207-224.

Morris, J., and Copestake J., 1993. *Qualitative rural development: A review.* London: ODI 1993.

Morrow, N.M., 2001. Knowledge Management: An introduction. *In Annual review of Information Science and Technology.* Volume 35, 381- 422.

Morse, J. M., and Richards, L., *Readme First: for user's guide to qualitative methods.* London: Sage.

Mosse, D., 2001. People's Knowledge, Participation and Patronage: Operations and representations in Rural Development In *Participation: The new tyranny.* London:Zed Books Ltd.

Nancy, P., Nyce, T., and Nyce, J. M., 2001. Context as category: opportunities for ethnographic analysis in library and information sciences research. *The New Review of Library and Information Behaviour Research,* Volume 2, 105-118.

Nicholas, D., 2000. *Assessing information needs: tools, techniques and concepts for the internet age.* London: ASLIB.

Nicholas, D. et al., 2003. Health information and health benefits: a case study of digital interactive television information users. *The New Review of Library and Information Behaviour Research: Studies of Information Seeking in Context.* Volume 4, 177-194.

Nogueira, R.M., 1987. Life cycle and learning in grassroots development organizations. *World Development.* Supplement 15 (1), 169-177.

Oakley, P. et al., 1991. *Projects with people: the practice of participation in rural development.* Geneva: International Labour Organisation.

Oppenheim, C., 1994. Are National Information Plans Useful? *ALEXANDRIA* 6(2), 133 - 143.

Orna, E., 1999. *Practical Information Policies*. Aldershot: Gower.

Osei, I., 1997. Bridging the Information Gap in Rural Ghana: The role of Community Libraries. In *International Seminar on Sustainable Rural Development in Sub-Saharan Africa*, 1997, 222-225.

Paisley, W. J., 1968. Information Needs and Uses. *ARIST*, Volume 3.

Palmer, J., 1991. Scientists and Information: I. Using cluster analysis to identify information style. *Journal of Documentation*, 47(2), 105-129.

Patton, M. Q., *Qualitative research and evaluation methods*. London: Sage Publications. 2002.

Pearce, J., 2000. Development, NGOs and civil society: the debate and its future. In *Development, NGOs and Civil Society*. Eade D. (Ed) Oxfam.

Pettigrew, et al., 2001. Conceptual frameworks in information behaviour *ARIST* Volume 35, 43-78.

Pettigrew, K.E., 1999. Waiting for chiropody: contextual results from an ethnographic study of the information behaviour among attendees at community clinics. *Information Processing and Management*. 35(6), 801-817.

Porter, G., 2003. NGOs and poverty reduction in a globalising world: perspectives fro Ghana. *Progress in Development Studies*, 3 (2), 131-145.

Powell, M., 2003. *Information management for development Organisations*. 2ed. Oxford: Oxfam GB.

Powell, M., 1999. *Information Management for Development Organisations*. Oxford: Oxfam.

Pradervand, P., 1980. "Knowledge is Power", *International Development Review*, 22(1), 55-57.

Price, T. L., 1995. Using Indigenous Knowledge systems in the design of on-farm experiments – A Phillippine case. In *The cultural Dimension of Development: Indigenous Knowledge Systems*. Brokensha, et al (eds). London: Intermediate Technology Publications Ltd.

Ray, K., and Day, J., 1998. Student attitudes towards electronic information resources. *Information research* 4(2). Available at: <http://informationr.net/ir/4-2/paper54.html>.

Ritchie, J., and Lewis, J., 2003. *Qualitative research practice*. London: Sage.

Rogers, E., 1995. *Diffusion of Innovations*. New York: The Free Press.

Rogers, E.M., and Shoemaker F., 1972. *Communication of Innovations*. New York: The Free Press.

Rosenberg, D., 1993. Rural Community Resource Centres: a sustainable option for Africa? *Information Development*, 9(1/2), March/June.

Rothchild, D., (Eds). 1991. *Ghana: the political economy of recovery* London : Rienner.

Rubin, F., 1995. *A Basic Guide to Evaluation for Development Workers*. Oxford: Oxfam.

Sanderson, E., and Kinson, S., 2004. Progress in participatory development: opening up the possibility of knowledge through progressive participation. *Progress in Development Studies*. 4(2), 114-126.

Sapsed, J., and Salter, A., 2004. Postcards from the edge: Local communities, global programmes and boundary objects. *Organisation Studies* 25 (9), 1515-1534.

Sapsford, R., and Jupp, V., 1996. *Data collection and analysis* London: Sage Publications.

Saracevic, T., 1996. Modelling interaction in information retrieval: a review and proposal. *Proceedings of the 59th ASIS Annual Meeting* 33.

Savolainen, R., 1995. Everyday life information seeking: approaches information seeking in the context of "way of life". *LISR* 17, 259-294.

Saxon-Harrold, S.K.E., 1998. Information Audit at Charities Aid Foundation. In *Information Management in the voluntary Sector*. Grimwood-Jones D. & Simmons S. (eds) London: ASLIB.

Schwandt, T.A., 2000. Three epistemological stances for qualification for qualitative inquiry : interpretivism, hermeneutics and social constructionism. In *Handbook of qualitative research*. Denzin N.K and Lincon Y.S. (Eds) 2ed. London: Sage Publication.

Sharp, J., *Key hypotheses in supporting communities of practice*. <http://www.tfriend.com/hypotheses.html> 11 March 1997. [accessed 21/03/2003].

Silverman, D., 2000. *Doing Qualitative Research: A practical Handbook*. London : Sage Publications.

Silverman, D., 2001. Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction. London: Sage Publication. pp. 25-41, 219-255.

Silverman, D., 2005. *Doing Qualitative research*. 2ed. London: Sage Publication. pp. 147 – 170

Silverman, D., 1997. Validity and Credibility in Qualitative Research: The Logics of Qualitative Research In Contexts and Methods in Qualitative research. Miller G. & Dingwell R. (eds) London: Sage publications.

Skule, S., 2004. Learning conditions at work: a framework to understand and assess informal learning in the work place. *International Journal of Training and Development* 8:1. pp. 8 – 20.

Skuse, A., 2001. Information Communication Technologies, poverty and Empowerment Social Development Publications No 3. DFID July.

Smith, D., 1997. & Vaughan, S., The outdoors as an environment for learning and change management. *Industrial and Commercial Training*. 29 (1), 26-30.

Soderberg, B., Jensen, M., Sintim-Misa, M. A., 2003. *Investment Opportunities in Western Africa, ICT and Internet Sectors*. Final report – Ghana produced for International Finance Corporation. October 2003.

Solomon, D. D., 1981. Characteristics of local organisations and service agencies conducive to development. In *Extension education and rural development: experiences in strategies for planned change* vol. 2. Crouch B.R and Chamala S. (eds) Chichester: John Wiley and sons.

Solomon, P., 1999. Information mosaics: patterns of action that structure. In *Exploring the contexts of information Behaviour*. Wilson T.D., Allen D.K. (Eds) London: Taylor Graham.

Sonnenwald, D.H., 1999. Evolving perspectives of human information behaviours contexts, situations, social networks and information horizons. In *Exploring the contexts of information Behaviour*. Wilson T.D., Allen D.K. (Eds) London : Taylor Graham.

Spink, A. et al., 1999. Everyday life information-seeking by low-income African American households: Wynnewood Healthy Neighbourhood Project. In *Exploring the context of information Behaviour*. Wilson T. (Ed) London: Taylor Graham.

Spink, A., and Park M., 2005. Information and non-information multitasking interplay. *Journal of documentation*. 61(4), 548-554.

Stake, R., 2000. Case Studies. In *Handbook of qualitative research* 2ed. Denzin N.K. and Lincoln Y.S (Eds) London: Sage Publication.

Stake, R., 2000. The Case study method in Social Inquiry. In *Case study method: key issues, key texts*. Gomm R., Hammersley, M. Foster P. (Eds). London: Sage Pub.

Stilwell, C., 2001. Community resource centres: a turn of the century update In *Knowledge, Information and Development: an African perspective*. Stilwell C. Leach A. Burton S. (eds) South Africa : University of Natal 2001.

Storck, J., and Hill P.A., 2000. Knowledge diffusion through "strategic communities". In *Knowledge and Communities* by Lesser E. L., Fontune M. A., Shisher J. A. (Eds) Boston: Butterworth-Heinemann.

Stauss, J., and Corbin, J., 1998. *Basic of qualitative research: techniques and procedures for developing grounded theory*. London : Sage publication Inc

Sturges, P., and Chimesu, G., 1996. The Chain of Information Provision in the Villages of Malawi: A Rapid Rural Appraisal. *International Information and Library Review*, 28 (2),135-156.

Sturges, P., 2001. Gatekeepers and other intermediaries. *Aslib Proceedings*, 53(2), 62-67.

Sturges, P., 1999. Social Intelligence for developing countries: the role of Grey Literature. *Collection Building*, 18(3),114-125.

Sturges, P., and Wallis S., 1999. Performance measurement and project Evaluation for African Rural Information Services. *Information Development*, 15(4), December.

Sturges P., and Neil R., 1998. *The Quiet Struggle: Information and Libraries for the people of Africa.* (2ed). London: Mansell Publishing Ltd.

Tait, F., 1998. Acquiring and Organising Materials. In *Information Management in the Voluntary Sector.* London: ASLIB.

Talja, S., 1997. Constituting "information" and "user" as research objects: A theory of knowledge formations as an alternative to the information man-theory. In *Information Seeking in Context: proceedings of an international conference on research in information needs, seeking and use in different contexts.* Vakkari P., Savolainen R., Dervin B., (Eds). London: Taylor Graham.

Talja, S., Tuominen, K., and Savolainen, R., 2005. "Isms" in information science: constructivism, collectivism and constructionism. *Journal of Documentation.* 61(1), 79 -101.

Taylor, R.S., 1986. *The value added processes in information systems.* New Jersey: Ablex Pub. Corp.

Taylor, R.S., 1991. Information Use Environments. In *Progress in Communication Science.* Dervin B. (Eds). Volume 10, 217-225.

Taylor, R.S., 1993. Question-negotiation and information seeking in libraries. *College and Research Libraries,* Volume 29, 178 – 194.

Thapisa, A.P.N, 2000. The impact of globalisation on Africa. *Library Management,* 21 (4), 170-177.

Thomas-Hunt M. C., Ogden T. Y., and Neale M. A., 2003. Who's really sharing? Effects of social and expert status on knowledge exchange within groups. *Management Science,* 49 (4), 464-477.

Thomas-Slayter B. P., 1994. Structural Change, Power Politics and community Organisations in Africa: challenges the patterns, puzzles and paradoxes. *World Development*, 22(10), 1479-1490.

Tiamiyu M. A., 1989. Sub-Saharan Africa and the Paperless Society: A comment and a counterpoint. *Journal of the American Society for Information Science*, 40 (5), 325-328.

Tuominen, K., and Savolainen, R., 1996. A social constructionist approach to the study of information use as discursive action In *Information Seeking in Context: proceedings of an international conference on research in information needs, seeking and use in different contexts* Vakkari P., Savolainen R., Dervin B., (Eds) London: Taylor Graham.

Turner, J., and Kwakye, E., 1996. Transport and survival strategies in a developing economy: case evidence from Accra, Ghana. *Journal of Transport Geography*, 4 (3), 161-168.

Uhegbu, A. N., 2001. Deterrents to information service for community development. *Library Review*, 50(5), 237-242.

UNDP. 2003. *Report of the Ad-hoc Expert Group meeting on ICT for rural poverty reduction: Developing National ICT policies*. Bangkok, 28 -29 January. <<http://www.unescap.org/rural/ictegm2003/report.pdf>>

UNDP. 1997. *Ghana Human Development Report*. Accra: Worldwide Press Ltd.

UNESCO. 1997. *Rural Information Provision in Developing Countries-Measuring Performance and Impact*. Paris.

UNESCO Institute of Statistics. *Radio and television receivers: total and number per 1,000 inhabitants* <www.uis.unesco.org> [accessed 13/01/2005]

United Nations Development Programme. 2001. *Human Development report*.
<<http://hdr.undp.org/reports/global/2001/en>>

United Nations Development Programme. *Human Development Report 1990*.
<<http://hdr.undp.org/reports/global/1990/en>>

United Nations. General Assembly. 2000. *Resolutions adopted by the General Assembly: UN millennium declaration*. A/RES/55/2. September 2000.

Uphoff, N., 1995 Grassroots Organisations and NGOs in rural Development: Opportunities with Diminishing States and expanding markets. In *State, Market and Civil Organisations: New theories, new practices and their implications for rural development*. Janvry A. et al (eds) London: Macmillan Press Ltd.

Urquhart, et al., 2003. Critical incident technique and explicitation interviewing in studies of information behaviour. *Library and information Science research*, 25 (1), 63-88.

Vakkari, P et al., 1996. *International Conference on Research in Information Needs, Seeking and Use in Different contexts*. London: Taylor Graham. 1996

Velden, M. V. D., 2004. From communities of practice to communities of resistance: civil society and cognitive justice. *Development*, 47 (1), 73-81.

Vickery, B., and Vickery A., 1987. *Information Science in Theory and Practice*. Bowker-Saur.

Wai-yi, B. C., 1998. An information seeking and using process model in the workplace: a constructivist approach. *Asian Libraries*, 7 (2), 375-390.

Wallace, T., 2002. The role of non-governmental organisations in African development: Critical issues. In *Renewing development in sub-saharan Africa: policy, performance and prospects*. Belshaw D and Livingstone I. (eds) London: Routledge.

Wallis, M., 1989. *Bureaucracy: Its role in third world Development*. London: Macmillan Publishers.

Wang, P., Methodologies and Methods for user behavioural research. *Annual Review of Information science and Technology*. Volume 34, 53- 99.

Warburton, H., and Martin, A., 1999. *Local Peoples Knowledge in Natural Resources Research*. DFID and the Natural Resource Institute of the University of Greenwich 1999.

Wenger, E., Communities of practice and social learning systems. *Organisation*, 7 (2), 225- 246.

Wenger, E., McDermott, R., and Synder, W., 2002. *Cultivating communities of practice: a guide to managing knowledge*. Boston: Harvard Business School.

Werner, D., 1998. Community-based Healthcare: Learning from one another as friends and as equals. *INASP Newsletter*, November 1998.

Westbrook, L., 1993. User Needs: A Synthesis and Analysis of Current Theories for the Practitioner. *RQ*, 32(4), 541-549.

Westbrook, L., 1994. Qualitative research methods: a review of major stages, data analysis techniques, and quality controls. *Library and Information Science Research*, 16, 241-154.

White, S.C., 1996. Depoliticising development: the uses and abuses of participation. *Development in Practice*, 6 (1), 6-15.

Wikgren, M., Everyday health information exchange and citation behaviour in internet discussions groups. *The New Review of Library and Information Behaviour Research: Studies of Information Seeking in Context*. Volume 4.

Wilson, T. D., 1981. On user studies and information needs. *Journal of Documentation*. 37 (1), 3-15.

Wilson, T., 1994. Information Needs and Uses: Fifty years of progress In *Fifty years of information Progress: A J Journal of Documentation Review*. Vickery B. (Eds) London: ASLIB.

Wilson, T., 1996. Information behaviour: an inter-disciplinary perspective. In *Information Seeking in Context: proceedings of an international conference on research in information needs, seeking and use in different contexts*. Vakkari P., Savolainen R., Dervin B., (Eds). London: Taylor Graham.

Wilson, T. D., 1999. Models of Information Behaviour Research. *Journal of Documentation*, 55(3), 249-270.

Wilson, T.D., 2000. Human Information Behaviour. *Information Science Research*, 3 (2), 49-55.

Wilson, T., and Walsh, C., 1996. *Information Behaviour an inter-disciplinary perspective: A review of the literature*. British Library Research and Innovation Centre.

World Bank. 1990. *World Development Report 1990: Poverty*. Washington

World Bank. 1999. *World Development Report: Knowledge for Development*. 1998/99. <<http://www.worldbank.org/hipc>>.

World Bank. 2000. *World Development Report 2000/1: Attacking Poverty*.

World Bank. 2002. *Human Development report*.

World Bank. 2002. *World Development Report*.

Yin, R. K., 1989. Case study research: design and methods. London :Sage

Yin R. K., 1994. *Case study research: design and methods.* 2nd ed. London: Sage.

Yin R. K., 2003. *Case study research: design and methods.* London: Sage.

APPENDICES

Appendix 1. Letter of Introduction

Dear Development Worker,

Invitation to participate in a research interview.

I am a Ghanaian PhD student of Loughborough University (UK) researching under the supervision of Professor Paul Sturges. The purpose of my research is to get a better understanding of the way Rural Development Workers find and use information. The intension is that this will provide a good basis for developing suitable information services to serve Development Workers' needs.

I should be very grateful if you could participate in an interview to talk about your work. This will last approximately thirty minutes to one hour. Please indicate your willingness to participate in this exercise by completing the attached form and signing the declaration under the bottom half of this letter.

Thank you.

Yours sincerely,

Samuel Kotei Nikoi

(Research Student)

Declaration:

I wish to be interviewed. I understand that any information I provide will remain confidential.

Name.....

Organisation.....

Position.....

Signed:.....Date.....

Tel.....

No.....Email.....

Preferred Date of Interview.....

Preferred Time of Interview.....am/pm.

Appendix 2. Background Data questionnaire.

1. For how long have you been working in the rural development sector?

- | | | | |
|--------------------|--------------------------|------------------|--------------------------|
| i. 1 month – 5 yrs | <input type="checkbox"/> | ii. 5 – 10yrs | <input type="checkbox"/> |
| iii. 11 – 15 yrs | <input type="checkbox"/> | iv. 15 – 20yrs | <input type="checkbox"/> |
| v. 21 – 25yrs | <input type="checkbox"/> | vi. 26 – 30yrs | <input type="checkbox"/> |
| vii. 31-35yrs | <input type="checkbox"/> | viii. 36 –40 yrs | <input type="checkbox"/> |

2. What is your gender?

- | | |
|--------|--------------------------|
| Male | <input type="checkbox"/> |
| Female | <input type="checkbox"/> |

3. What is your level of Education?

- | | |
|-------------------------------------|--------------------------|
| i. Secondary and Technical School | <input type="checkbox"/> |
| ii. Teacher Training College | <input type="checkbox"/> |
| iii. Polytechnic | <input type="checkbox"/> |
| iv. Professional Qualification | <input type="checkbox"/> |
| v. University degree | <input type="checkbox"/> |
| vi. Other (<i>Please specify</i>) | <input type="checkbox"/> |

5. Which of these categories does your organisation fall under?

- | | |
|---|--------------------------|
| i. Community Based Org. (CBO) | <input type="checkbox"/> |
| ii. National NGO | <input type="checkbox"/> |
| iii. International NGO | <input type="checkbox"/> |
| iv. Other (<i>Please specify</i>) | |

6. What is/are the main area(s) of activity for the organisation you work for?

(Please tick as many as apply)

- | | |
|--|--------------------------|
| i. Agriculture and Food Security | <input type="checkbox"/> |
| ii. Health and Population | <input type="checkbox"/> |
| iii. Water and Sanitation | <input type="checkbox"/> |
| iv. The Environment | <input type="checkbox"/> |
| v. Women in Development | <input type="checkbox"/> |
| vi. Advocacy and Media Relations | <input type="checkbox"/> |
| vii. Small Scale Enterprise Development | <input type="checkbox"/> |
| viii. Youth and Culture | <input type="checkbox"/> |
| ix. Disaster Relief | <input type="checkbox"/> |
| x. Child Survival and Development | <input type="checkbox"/> |
| xi. Education and Literacy | <input type="checkbox"/> |
| xii. Others (<i>Please specify</i>)..... | |

7. In which Districts of the Northern Region does your NGO operate? (*Please specify*)

Appendix 3. Interview Schedule.

A: Job Description.

1. What are your **duties** in this post?
2. Which aspects of your job do you find **difficult** and which ones do you find less difficult. **WHY?**
3. Do you work with a **team**? If so, tell me about the **members** of your team.

B: Information Needs of your job.

1. Looking at your duties:
 - a. What **types** or **categories** of information do you require for your each of your duties e.g. *baseline data, government regulations*
 - b. **When** do you require the information e.g. *at planning stage*.
2. Can you recall a **situation** when you were faced with a major problem or difficulty in your job?
 - a) What was the **nature** of the problem?
 - b) **Whom** or **where** did you turn to for **help**? **WHY?**

C: Information Gathering Activities

1. Where do you generally **go to**, or where do you **look** for answers to questions or problems you encounter in your duties? **PROMPT CARD** **Why?**
2. In what form do you **prefer** to receive information for your work?
PROMPT CARD **WHY?**
3. Can you recall an instance when you were engaged in an **everyday activity** e.g. watching **TV**, listening to the **radio**, **shopping** when a piece of information relevant to your work caught your attention? **If yes**, please tell me about this.
4. How do you keep yourself informed on an **on-going** basis in your area of work?

D: Barriers To Information

1. What **difficulties** do you often experience finding information for your work.
2. Can you recall any instance when you **could not** gain access to information you needed for your work. What were the reason(s). **PROMPT CARD**
3. What did you **do**? **WHY?**

4. What do you think can be done to **prevent** this problem from occurring?
5. Do you have access to the **Internet** or other **electronic resources** e.g. CD-ROMs?
6. If yes, how **useful** are these for the duties you perform. *e g. for sending emails, finding information, etc.*
7. How reliable are the **phone** and/or **fax** in your work?

E: Uses of Information.

1. Casting your mind back to your duties what specific **use(s)** do you put information in your **PROMPT CARD**
2. Can you think of any instance(s) when a particular type of information you obtained was **not useful** or **helpful**? What were the reason(s)? . **PROMPT CARD**

F: Networking Activities

1. Do you belong to any professional and/or social **network(s)** locally or internationally?
2. If yes, what **benefits** do you draw from these networking activities for your job?

G: Conferences and Training

1. What **conferences**, and/or **training** workshops have you attended in the last year or so?
2. How did you **hear** about these programmes?
3. In what ways do you find participation in these conferences / training **useful** to your work?

H: Conclusion.

Is there any thing you want to share with me **generally** or **personally** regarding your experiences at finding and/or using information in your work?

Appendix 4. Information Audit Sheet

1. Type of Doc. e.g. report, training manual
2. Title and Purpose
3. Prepared by
4. Recipient(s)
5. Summary of contents
6. Where and how stored
7. Comments

Appendix 5. Field Observation Log Sheet

Date:.....Name of

Staff:.....

Daily Task or Duties	Information required, what needs to be known, or what is known.
Task No 1.	
Task No 2.	
Task No 3.	
Task No 4.	
Task No 5.	

Sources and Channels Used
Task No 1.
Task No 2.
Task No 3.
Task No 4.
Task No 5.
Problems that were encountered
What would have been useful
Comments

Appendix 6: Prompt cards

PROMPT CARD : INFORMATION SOURCES

THE PRINT MEDIA

CONSULTANTS

FRIENDS AND COLLEAGUES

MEETINGS

RADIO PROGRAMMES

CONFERENCES

**LIBRARY & INFORMATION
CENTRES**

**TELEVISION
PROGRAMMES**

**INDIGENOUS KNOWLEDGE
SOURCES**

TRAINING WORKSHOPS

OUTSIDE ORGANISATIONS

OTHERS

PROMPT CARD: PREFERRED FORMAT(S)

VIDEOS

FILES

PHONE INTERACTION

REPORTS

**FACE TO FACE
COMMUNICATION**

JOURNALS

BOOKS

**ELECTRONIC FORMAT
e.g. CD-ROM**

NEWSLETTERS

POSTERS

OTHERS

PROMPT CARD: USES OF INFORMATION

TAKING DECISIONS

**WRITING PROJECT
PROPOSAL(S)**

SOLVING PROBLEM(S)

FOR TRAINING

MEETINGS

WRITING REPORT(S)

**SPEAKING AT
CONFERNCES**

**UNDERSTANDING A
SITUATION**

WRITING A PAPER

KEEPING UP-TO-DATE

OTHERS

PROMPT CARD: UNHELPFUL INFORMATION

**WAS DIFFICULT TO
UNDERSTAND**

**DID NOT ARRIVE IN
TIME**

**COULD NOT *TRUST* THE
SOURCE**

WRONG FORMAT

**WAS TOO MUCH TO
HANDLE**

**WAS OF POOR
QUALITY**

WAS IN-SUFFICIENT

OTHERS

PROMPT CARD: INFORMATION BARRIERS

DISTANCE

COST

**SECRECY *OR*
CONFIDENTIALITY**

**NOT EASY TO
UNDERSTAND AND USE**

**POOR POSTAL
SERVICES**

**POOR ROAD
NETWORK**

Appendix 7. Information Audit Resource List

Development Resource List

i. General subject knowledge

- Poverty reduction strategies: what have we learned so far? Draft Sept. 2000
- Poverty reduction institutional change and PRSP processes: The Ghana case
- Environment and sustainable development
- Ghana HIPC watch project: A summary of regional educational workshop report
- Engendering the Ghana Poverty Reduction: Synthesis of proceedings at meetings and workshops held to mainstream gender into the GPRS in Nov. 2001
- Baptist Women Development Programme Kaleo. Progress Report for October – December 1998
- Institutional capacity building programme. ILNGOs and CDGs in Northern Ghana. An operational framework paper
- Report on a two-day facilitators (Training Of Trainers) workshop on Ghana HIPC watch project organised by SEND foundation
- Communication for child survival
- Community participation strategy for upper west region
- Tree AID West Africa: Increasing community involvement in Tree-Based Projects (2001)
- Ghana financial sector review: Bringing savers and investors together
- Directory of Non-Governmental Organisations in Ghana 1999

ii. Policy Frameworks

- Ghana Poverty Reduction Strategy 2002-2004: An agenda for growth and prosperity Analysis and policy statement
- The 2002 budget statement of the New Patriotic Government
- Government of Ghana: National population policy (revised edition 1994)
- Poverty reduction strategy paper (PRSP)
- Ghana National Development Report – 1997 (Draft)
- Ghana poverty reduction strategy. poverty reduction policy framework (July 2001)
- Statement by the National Population Council of a press conference (July 1999)

iii. Baseline Studies

- 1984 population census of Ghana. demographic and economic characteristics – Northern Region
- Community based development programme district level household baseline survey Savelugun Nanton District. Summary of preliminary results February, 2000
- Community based development programme: district level household baseline survey Tolon-Kumbungu (Sept 1999)
- Community based development programme district level household baseline survey. Bawku East District. Summary of preliminary results, March 2000
- Rural communities in Ghana: Report of a national rural community survey carried out as part of the third round of the Ghana Living standards survey 1991/92

iv. Global Developments and Issues

- Mainstreaming the poverty reduction agenda: an analysis of institutional mechanisms to support pro-poor policymaking and implementation in six African countries

- Chains around Africa. the slavery of debt in the world's most impoverished continent 1998
- Rural Poverty and socio-economic marginalism in Ghana: A paper presented at the 10th European Congress for rural sociology Spain. 5-10th April 1979
- 1998 SPA status report on poverty in SSA: Gender, growth and poverty reduction in sub-Saharan African
- Debt relief: still failing poor
- Taking action for poverty reduction in sub-Saharan African; A report of an African Region Task force
- The potential of using sustainable Livelihood approaches in poverty reduction strategy papers. A discussion paper for DFID
- Women in a Global Economy: Challenge and opportunity in the current Asian economic crises
- Violence against women: A briefing document on international issues and response

Health Resource List

i. General subject knowledge

- ISODEC Family Reproductive Health Programme quarterly report on reproductive Health issues particular prevent to women, the disadvantaged and under served communities in Northern Ghana
- The essentials of contraceptive technology: a handbook for clinic staff
- The HIV/AIDS question and answer book
- Essential Aids Information resources
- Female genital mutilation and the risk of HIV
- Rural Youth self-employment and reproductive health program designing process. An experience in participatory approach to program development
- Regional Health Administration Northern Region Annual Report, 1995
- Opening windows to a bright world: a better future for girls and boys orphaned through AIDS
- ISODEC Reproductive Health Project Northern Ghana Systems for Monitoring and Evaluation of projects (June 1997)
- Factors influencing community participation in health related activities
- Net Grain. a new method for preventing malaria deaths
- Investing in youth testing community based approaches for improving adolescent sexual and reproductive Health
- Listening to young voices, facilitating participatory. Appraisals on reproductive Health with Adolescent
- Making pregnancy safer. A health sector strategy for reducing maternal and perinatal morbidity and mortality
- HIV and safe motherhood
- Report on the constraints on social mobilization for primary health core (PHC) activities in the Western Region of Ghana
- Social monitoring of the programme components of the family reproductive Health Programme of selected Districts in the middle and Southern zones

- Discussions papers on HIV/AIDS care and support: Integrating HIV/AIDS prevention, care and support: a rationale
- Rural help integrated "annual report for 1997 – providing clinic and community based reproductive health services to the under-served.
- Family reproductive Health Programme (FRHP), Ghana monitoring and evaluation workshop. December 1999.
- Screening and syndromic approaches to identify gonorrhoea and chlamydial infection among women
- Cutting the rose; female genital mutilation: the practice and its prevention
- Family reproducing Health Programme. syndrome management of sexually transmitted Disease II February 2000.

ii. Policies and Frameworks

- A world bank policy study: financing health service in developing countries; an agenda for reform
- Towards a framework for social monitoring in the FRHP
- Draft government of Ghana adolescent reproductive health policy (Nov. 1996)
- National Reproductive Health and family planning Service Policy and standards
- FRHP: The framework in HIV/AIDS education and youth development in the FHRP
- Gender and HIV/AIDS: guidelines from integrating a gender focus into NGO work on HIV/AIDS
- Family reproductive Health Programme Framework document save she children's find they 1997
- National Reproductive Health Service protocols January 1999
- Family reproductive Health Programme' Health Programme' a framework of options for the future (2002 – 2002)
- Republic of Ghana: national reproductive health service policy and standards summaries
- A world bank policy study: financing health service in developing countries; an agenda for return

iii. Baseline Studies

- A baseline study of primary health care concept and related socio- economic factors in Jirapa-Lambusie District, upper west region of Ghana, using qualitative and participatory research methods
- Young Women's sexual health project: needs assessments report (1995)
- The practice of female circumcision in the upper east region of Ghana A survey report
- Making a difference in the reproductive health situation of resources poor Northern Ghana. a review report of the SCF UK
- Situation analysis for adolescent reproductive health programme in Africa A UNFPA, CEDPA, JHU/PCS project. Adolescent Reproductive Health Needs, Ghana country assessment
- Infant, child and maternal mortality study in Ghana
- Baseline survey of FRHP community based Programmes, save the children baseline survey final report October 2000

- Policies affecting fertility and contraceptive use: An assessment of twelve sub-Saharan countries
- Ghana: demographic and health survey 1993

International Developments and Issues

- Trends in Health status, services and finance: The transition in Central & Eastern Europe vol 1
- Women 2000: A global profile of women's reproductive lives
- The impact of female schooling on fertility and contraceptive use: a study of 14 sub-Saharan countries
- AIDS Prevention in the Matere and the communities A training strategy for traditional healers in Zimbabwe based on a 4-day workshop. Written as a guide for facilitators conducting AIDS education workshops.
- AHRTAG Directory: Insect ices treated nets for malaria control: a directory of suppliers of insecticides and mosquitoes fro sub-Saharan Africa
- SAFCO: AIDS IN WEST & CENTRAL AFRICA (A quarterly bulletin of the UNAIDS inter country team for West & Central Africa)
- Save the children overseas department working papers. the social consequences of HIV/AIDS in Uganda
- Health reform in Africa **Lessons from Sierra Leone**
- Setting priorities for research, analysis and information dissemination for safe motherhood and reproductive health in Africa. (Sept 1995)
- The caring community: coping with AIDS in urban Uganda
- NETWORK: Family Health International vol. 18 no. 1 1997
- West Africa Resources for child and family Health. A collaborative project to increases access to information for health and community workers in English speaking West Africa promoting child health and family reproductive health

Education Resource Materials

General subject knowledge

- New approaches to literacy learning: a guide for teacher educators
- Appraisal report: Republic of Ghana Vocational skills and informed sector support project march 1995
- National Functional Literacy Programme: Non formal educational division
- Education for all: Information kit (EFA)
- Aid and education, the squandered opportunity Education now break the cycle of poverty
- Educational Development Programme for the Ghanaian Muslim Community 1998-2000 Technical and Financial Proposal
- Republic of Ghana Primary school development Project. May 1993
- Inclusion in education: The participation of disabled learners

Policy Frameworks

- National Education Policies and Programmes: Country case studies and research 1989-1999.

Baseline Studies

- Evaluation of the Girl-Child Education Project (Feb 4-24, 2001) ISODEC – Ghana
- Ghana literacy and functional skills project: Beneficiary impact assessment (1997)
- Private enterprise foundation: report on National forum on funding of tertiary education 1997
- Thematic Studies: Community partnership in Education, Dimensions, variations and duplications.
- Achieving Education for All: Demographic Challenges
- A survey on female drop-out from school: A study connected on behalf of the Catholic Educational Unit of the Archdiocese of Tamale
- Situation of Girl Child Education in the Tamale Municipality
- World Bank Technical paper/ Africa Technical Department series: Girls and schools in sub-Saharan Africa: From analysis section

International Developments and Issues

- Worsening the woes: the role of donors in education
- Citizen initiatives on primary education in India – primary education in India -A status report vol. 1 1997
- 50 years of UNESCO (A pictorial newsletter of UNESCO's achievement since 1946)
- The Dakar framework for action: Education for all; meeting our collective commitments Dakar 26-28 2000

Micro Credit resources materials

i. General subject knowledge

- Formal and informal finance for small enterprise in Ghana August 1992
- Micro-finance related developments in Northern Ghana: a contributions to the discussion between BILANCE and ISODEC April 1998
- ISODEC Training programme Report on micro finance management workshop for ISODEC's partners Dec 15-16 1999.

ii. Baseline Studies

- Micro-finance and poverty alleviation in Northern Ghana Pointers to development of sustainable financial services

Making the poor credit-worthy: A case study of the study integrated rural development program in India

Agriculture and food Security resources materials

i. General subject knowledge

- A gender dis-aggregated database on Human resources in Agriculture. data requirement and availability
- Request for proposal from CIDA for the provision of services in Ghana relating to farmer responsive mechanisms in extension and research

Advocacy and Human Right resource materials

i. General subject knowledge

- An introduction to Advocacy Training guide
- Report on Conference on social and Economic Rights under the theme "Human rights begins with breakfast"
- The right to know: Human rights and access to reproductive health information
- Decentralised cooperation programme enhancing capacity advocate for change (Sept. 2000)
- Report on workshop: strengthening Civil Society Consultations on Ghana Poverty Reduction Strategy/ Education on the HIPC initiatives held in Tamale Oct 2001
- Assessing National budgetary Commitments in support of the plan of action on the rights of the Child National report on the follow-up to the world summit for children
- A first call on resources, Ghana's financial commitment to children's rights trough the 1990's
- The right to choose: reproductive rights and reproductive health
- Northern Ghana Peace: A quarterly newsletter of the northern Ghana Peace Project

ii. Policy Frameworks

- New population policies: advancing women's health and rights
- Grounding our advocacy in an analytical development perspective

iii. International Developments and Issues

- Developments: Civil society, changing the face of development
- Development: Reproductive Health and Rights putting Cairo art action
- Citizens and Governance Civil Society in the new millennium

Networking and Partnership resources materials

i. General subject knowledge

- Report on the joint launching of the Northern Ghana Network for development and the Ghana National Human Development Report November 1997
- An institutional capacity building programme for local NGOs in Northern Ghana: Report of the first Annual General meeting of the Northern Ghana Network for Development
- Ghana National Coalition on the rights of the child
- Ghana National Education campaign coalition/ ISODEC. Inventory of literature on Education in Ghana (1990-1999)
- The northern Ghana Reproductive Health Network Workshop Report held in Tamale from 2nd – 27th March 1998
- ISODEC workshop for reproductive health network programmes in northern Ghana : working with groups in a changing environment
- ISODEC workshop for network of reproductive health programs in northern Ghana gender orientation for community improvement

ii. Policy Frameworks

- The constitution and byelaws of the northern Ghana network for development
- ISODEC reproductive health project: A contractual agreement with partner organisations (TIDA)

- ISODEC reproductive health project: A contractual agreement with partner organisations (Zuuri organic vegetable farmers association") ZOVFA
- ISODEC reproductive health project: A contractual agreement with partner organisations (Rural health integrated)
- ISODEC reproductive health project. A contractual agreement with partner organisations (Catholic Family Health Project)

Management and Administration resources materials

i. General subject knowledge

- A completion of first Quarter 2002 Financial Reports of 8 partner NGO's
- Youth action on reproductive order (YARO) management and administration manual August 2002.
- Second quarter 2002 financing reports from 7 Local NGOs
- Ghanaian NGO Organisational capacity assessment: a manual methodology and assessment tool for the Ghanaian context
- Rural help integrated. Annual report for 1998
- Save the children Fund (SCF) family Reproductive Health Programme: Financial Management and Accounting Review Workshop May 7, 1999.
- Youth Action on Reproductive Order (YARO) Financial Manual (2002)

ii. Baseline Studies

- Report on organisational needs assessment of ISODEC New partners 2002.

iii. International Developments and Issues

- Organisation Development Training In Africa.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100