



10th WEDC Conference

Water and sanitation in Asia and the Pacific : Singapore : 1984

Manpower Development for Urban and Semi Urban Water Supplies in Indonesia

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INTRODUCTION

This Paper is presented in two parts.

Part A is presented by the Head of Training Section of the Sub-directorate for Development (SDD) and gives an overview of the present water supply and training situation in Indonesia.

Part B is presented by the expatriate consultant, who has been working in SDD since 1981, initially as training consultant in the Netherlands-supported Manpower Development Programme, later as manpower development adviser. This Part discusses progress in a number of key human resource development (HRD) activities and includes suggestions for HRD programmes elsewhere.

PART A

BACKGROUND TO INDONESIA

The so-called archipelago of Indonesia extends over a distance of approximately 6,400 km. It comprises some 14,000 islands, making up a total land area of more than 2 million km².

The population in 1980 was assessed at 147 million, 32 million of these living in urban environments. This is predicted to grow to around 182 million by 1990, when it is expected there will be 75 million in urban and semi-urban situations (ref.1).

Travel between regions is not easy. There is a good network of air services but this method of travel becomes expensive if used regularly, a factor which has to be borne in mind when considering a strategy for human resources development.

For administrative purposes Indonesia is divided and sub-divided into 27 Provinces, 247 Kabupaten (Regions) and approximately 3,400 Kecamatan (Districts). Each has its own level of local government. In addition there are some 70 cities (Kota Madya and Kota Administratif) which possess their own administrative identity.

PRESENT WATER SUPPLY SITUATION

During the years of the Dutch administration many small water supply schemes were constructed, particularly on the main islands of Java and Sumatra. But during the years of the 2nd World War, and the subsequent struggle for Independence, the country suffered severe economic problems. Construction of new water supplies came to a standstill and it was not possible to give existing systems more than scant attention. In 1969, however, things changed. President Suharto created the 'New Order' of Government. The economic position stabilised and the first of a series of 5-year Development Plans (Repelita) was created. By mid-1970's momentum in water supply was picking up. By the late 1970's Indonesia had developed a large measure of self reliance in terms of technical know-how for design and construction of water supply schemes.

At present there are 245 'water enterprises'. These are based either in a Kota Madya, Kota Administratif, or the mother-town of a Kabupaten (Ibu Kota Kabupaten). The latter also have responsibility for water systems in the mother-towns of their respective Kecamatan (Ibu Kota Kecamatan). Thus these 245 enterprises together represent about 310 separate water supply systems, comprising over 900,000 house connections and 7,000 public hydrants, and serving an estimated 12 million consumers. The present workforce is about 14,500.

Many of these systems are at present very small, having capacities of 20 l/s or less and a staff of only 5-15 persons. The three major cities (Jakarta, Surabaya and Medan) together account for 32% of the total house connections and 28% of the staff.

INSTITUTIONAL ARRANGEMENTS FOR WATER SUPPLY

The national organisation of water supply in a country such as Indonesia is not easy. The need for rapid regional development, steered and funded by Central Government in Jakarta, must be tempered with the need for a certain amount of regional autonomy. These two factors have led to the following arrangements for water supply :

1. Planning and construction of urban and semi-urban water supplies is largely the responsibility of the Ministry of Public Works, and is implemented through its Directorate of Sanitary Engineering (DSE).

On completion, a new water system may continue to be supported financially and otherwise by DSE for 2 years or so, until it is strong enough to 'stand on its own feet'. During this infancy stage the enterprise is known as Badan Pengelolah Air Minum (BPAM).

2. At the end of the infancy stage the status of the enterprise is changed by regional decree to a Perusahaan Daerah Air Minum (PDAM). As such the enterprise has its own legal and managerial identity and can incur and discharge financial obligations. Its activities are overseen by a 'Supervisory Board', representing local government and commercial interests, and it is accountable to the Head of the Local Administration. It then comes indirectly under the jurisdiction of the Ministry of Home Affairs. Of the present 14,500 workforce in water supply, more than 75% are employed in PDAM's.
3. Rural water supplies (usually defined as non-piped systems) are the responsibility of the Ministry of Health.

WATER DECADE TARGETS

Targets for Indonesia were confirmed during the Bali conference in 1982 (ref.1), and are as follows :

1. 75% of urban population to be supplied with water
2. 50% of these to be supplied via public taps and 50% by house connections
3. 60% of the rural population to have access to clean water.

Target (1) implies a water supply system in every town down to Ibu Kota Kecamatan level, or approximately 3,700 systems, grouped into 317 separate enterprises.

The magnitude of the task to be undertaken can perhaps best be appreciated from the planned growth in the numbers of consumers, which will increase from approximately 12 million (1983) to 46 million by 1990.

PRESENT ARRANGEMENTS FOR HUMAN RESOURCES DEVELOPMENT

Within the Directorate of Sanitary Engineering, the Sub-Directorate of Development (SDD) is responsible for developing staff of newly-created enterprises (BPAM's).

Two types of development activity are pursued:

1. Classroom training

These are courses usually of 2 weeks' duration and cover a range of water enterprise jobs : managerial, financial,

administrative and technical. The courses are implemented with the assistance of local consultants. To minimise travelling costs of trainees the courses are held in provincial locations as well as in Jakarta. During 1983/84 seven different courses were provided for enterprise staff, plus three courses for other groups (e.g. consultants). Each course ran a number of times, resulting in a total of 30 training events, or about 1,450 man-weeks of training. Most recipients of training are employees of BPAM's. There are arrangements for staff of PDAM's to participate in training, but few PDAM's take advantage of this. This is partly due to the limited number of places available and partly due to the fact that PDAM's, unlike BPAM's, must find the tuition fees, accommodation and travelling expenses from their own budgets. This is unfortunate, as there is little training available elsewhere for staff of PDAM's, except where a PDAM is the recipient of foreign aid (which often includes a training component).

2. 'Inservice' training

This is a form of assistance given to newly formed BPAM's. It includes elements of 'on-job' training and coaching, and is carried out with the assistance of local consultants. Usually between 20 and 30 BPAMs receive in-service training each year.

The task of human resources development, both now and in the future, is a formidable one. In common with the rest of the world, Indonesia is having to cut-back on government spending. External aid has been made available from a number of sources and for this Indonesia is most grateful. However, SDD must continue to work with a very limited budget, and must try to combine maximum effectiveness in human resources development with minimum cost.

PART B

DEFINITION AND SCOPE OF HUMAN RESOURCES DEVELOPMENT (HRD)

It has been recognized that in Indonesia there is a need for HRD support to a number of groups who are involved, in some way, in water sector activities (refs. 2 and 3). These include water enterprise personnel, consultants, contractors, staff of government departments, educational and professional bodies, suppliers, consumers. During recent years, however, funds have been limited, and attention has been focussed

mainly on development of water enterprise personnel. To meet this end it was felt, at the start of the Manpower Development Project, that there was need of a short definition of HRD to help clarify the project goals. The following was adopted : "HRD is an activity which is undertaken to ensure an adequate supply of personnel, having sufficient knowledge skill and motivation to satisfactorily carry out the work required of them". (A broader definition has more recently been published by the IDWSSD Steering Committee (ref.4)).

A number of water enterprises were visited to ascertain, from discussions and observations, the current human resource situation and the priority development needs. These visits revealed that :

1. Education and experience levels of senior staff were often lower than would be considered appropriate in a "developed" country.
2. Outside the main cities it was difficult to find professionally qualified people who were prepared to join water enterprise.
3. Few technical staff had received formal training.
4. In general there were many areas where performance of enterprises could be improved, and to which training could

contribute.

5. Provision of training alone would not necessarily produce all the desired improvements in performance. Equally relevant were problems concerning institutional arrangements, enterprise organisation, management attitudes, and others.

Based on the Definition of HRD, and the factors listed above, a tentative proposal for the scope of the project was prepared (see figure 1) (in this figure the currently favoured term "HRD" replaces the original term "Manpower Development").

However, it was recognized that from a base within SDD there were very real limitations over what the project could achieve. For instance :

1. The nature of the link between SDD and PDAM's was an unclear one. Where institutional and organisational problems had been identified as contributing to poor enterprise performance, what authority did SDD possess to correct the situation ?
2. It was unlikely that the project would be able to influence career and salary structures, especially the latter, which are fixed by central government or by local authorities.

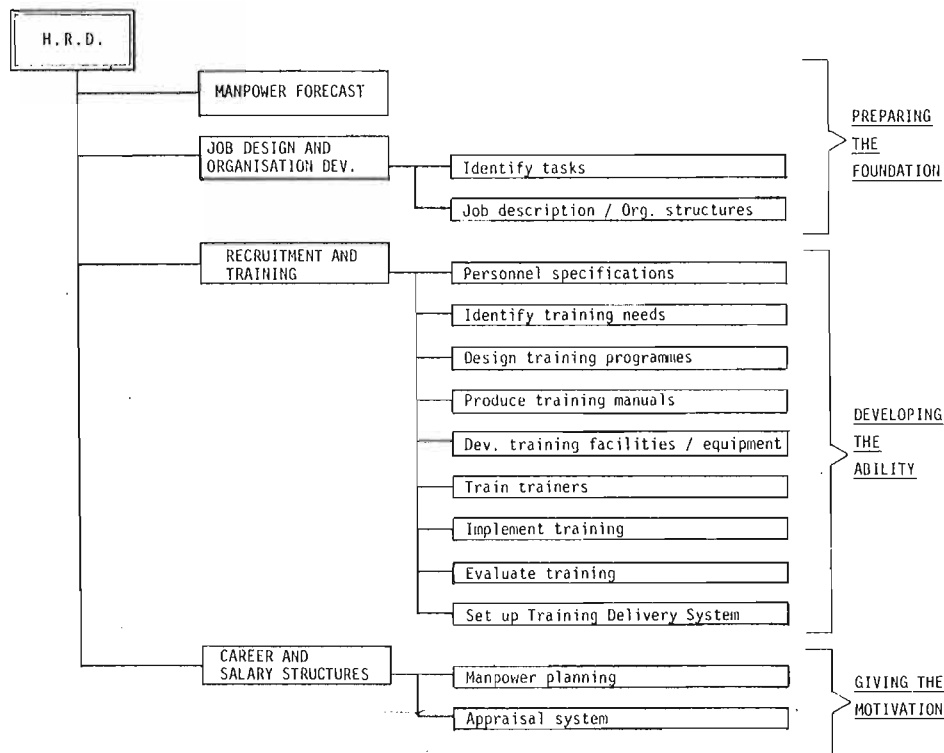


Figure 1. Scope of the Manpower Development (HRD) Project

HRD SUPPORT TO SUBDIRECTORATE OF DEVELOPMENT 1981-1984

Limited space precludes anything more than a brief overview of the main activities :

Manpower Forecasting

Forecasts were prepared for the 1990 situation, based on water decade targets, and these were interpolated for intervening years. Each water enterprise was examined individually, in terms of the natural growth of population and the planned increase in percentage to be served.

Assumptions had to be made concerning :

- the average number of persons per household (which determines the number of house connections required)
- the ratio between number of enterprise staff and number of house connections

A range of forecasts was produced, according to different assumptions used. A "median" value for total number of employees required by 1990 is 38,000.

Job Descriptions and Organisational Development

Government guidelines exist for setting-up new water enterprises. These contain "standard" organisational structure and job descriptions for senior staff. It was felt there was a need for complementary guidelines:

- which would show how the "standard" organisation structures could be adapted to fit individual circumstances (for instance, according to the type and complexity of facilities operated by the technical department).
- which would encourage and assist preparation of full job descriptions for all staff.

Accordingly, a "Manpower Classification System" and a "Simplified Guide to Manpower Classification" were produced (ref.5).

Identification of Training Needs

Early visits to water enterprises revealed that two priority groups for training were (a) senior managers and (b) technical staff. As a first phase of training, "general background" courses were provided for these two groups. A second phase programme is planned for the future which will comprise in-depth training in selected topics. To identify more accurately these and other future training needs, three approaches are being adopted :

1. A "Training Needs Questionnaire" is being completed by each enterprise.
2. A "Manpower Inventory" is being compiled for each enterprise.
3. The monthly reports from enterprises are

being subjected to computer analysis to compare the progress of each enterprise against a number of "performance indicators". It is felt these will be useful pointers to possible training needs.

Trainers and Training Materials

In Indonesia at present the number of people having in-depth experience of water supply, who are available to act as trainers, is not high. Those who are available are not necessarily skilled at passing their knowledge and experience on to others. Production of comprehensive training manuals helps to alleviate the problem, in that the quality of the training then becomes less dependent on the quality of the instructor.

A number of manuals have been produced in SDD, with the help of a group of Netherlands consultants, and this work continues to receive attention. To further improve the quality of training, consultants appointed to deliver training are first given a 4-day course in Group Instruction Techniques.

Implementation of Training

On the whole this continues to go smoothly to the extent that limited resources will allow. Facilities for courses held in the provinces have to be hired, and these often leave much to be desired. Difficulties are also experienced with the selection of trainees and the provision of audio-visual equipment. The need for a stronger organisation to handle training in the provinces is discussed below.

National Training Delivery and Support System

A target for the Manpower Development Programme was the establishment of a National Training Delivery and Support System. A key element in this was the creation of provincial training officers who, amongst other things, would :

- identify training needs in their province
- organise the necessary training, through a combination of SDD courses, training courses provided by others, "on-job" training, staff secondment between enterprises, etc.

Attempts to achieve this situation have up to now been only marginally successful. It is felt this is partly due to lack of a physical focal point for training officers' activities. Experience would seem to indicate that establishment of permanent provincial training facilities (i.e. "bricks and mortar") might be necessary from a psychological as well as a physical point of view, for the

development of a complete Training Delivery and Support System.

SETTING-UP HRD PROGRAMMES

Until recently, in developing countries, the vast bulk of foreign aid and local budget was directed towards developing the "hardware" components of water supply. "Software" such as HRD was often given only marginal attention. However, it has become apparent that successful development of water supply must take account of both elements, and nowadays HRD is coming to be viewed with greater interest. In selecting HRD projects for external support, or in setting up internal HRD programmes, experience is showing that a number of factors should be borne in mind :

1. HRD is a long-term activity. Funds directed to short-term development of staff of particular water enterprises may only produce correspondingly short-term benefits, unless there is a strong "central" resource capable of providing continued support for HRD. To foreign investors it is suggested that a part of the aid presently used in this way to support individual water supply projects could be more usefully diverted to strengthen a national HRD function.
2. HRD requires flexibility of approach. Bureaucratic organisations are, by their nature, inflexible creatures. They are capable of carrying out routine work efficiently (although not all do !), but they are slow to change their methods of working to adapt to changing circumstances. This should be remembered if the creation of a new national body for HRD is being considered.
3. HRD programmes may be slow to produce measurable results. This can be a problem when there is a need to win support for HRD from other groups, who perhaps will be persuaded only by "results". The HRD activities should be programmed so that some observable benefits are obtained at an early stage.
4. HRD requires specialist, dedicated staff. All-round skills in HRD take several years to acquire. An HRD team requires capable, self-motivated people, who are prepared to stay in the team for a minimum of three or four years. It is disruptive if team members are transferred to other work just as they are beginning to make a positive contribution.
5. HRD appears expensive, even if it is only a very small percentage of construction and operating costs. For a programme to be successful it needs support and commitment from the very top levels of

decision making, to ensure that adequate resources are made available. Foreign investors need to obtain this commitment at an early stage, when the nature and extent of foreign support is being discussed. Although HRD appears expensive, lack of HRD will be more expensive in the long-term.

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