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**EQUITABLE AND SUSTAINABLE WASH SERVICES:
FUTURE CHALLENGES IN A RAPIDLY CHANGING WORLD**

**Assessing the impact of connecting vulnerable households
to piped water supply two years after the project**

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Cote D'Ivoire

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Background

Between 2017 and 2018, Action Contre la Faim (ACF) supported a government program to [1] reduce the deficit in water production and [2] improve access for vulnerable households (L'arrêté N° 436/MIE/CAB). The program aimed to increase the number of households with a connection to the water network, but the connection fee was high for poorer households (225 Euros). The French Agency for Development (AFD) supported a program to subsidise household connections, reducing the cost to 15 Euros for vulnerable households. There was very high demand for the project and the ACF team worked with the government to identify and prioritise the households. In addition, ACF was responsible for community messaging on water usage, minimising waste and bill management. The project supported the installation of 23,254 new connections, 12,000 in the district of Abidjan (region of Lagunes) and 11,254 across 12 localities in 4 regions on the west of the country (Region du Guemon, Region du Bafin, Region du Cavally and Region du Tonkpi). A 2016 report from Society for Water Distribution (SODEC) highlighted that of the 987367 households in Abidjan only 46% had a water connection. Two years after the project ACF conducting a capitalisation survey to assess the impact of the households that had been connected. The objective of the survey was to measure the level of satisfaction, health impacts, socio-economic impacts and any changes in hygiene for the targeted households benefiting from the social connections in the targeted districts.

Methodology

The survey consisted of household interviews with 400 households that benefited from the subsidised connection. Individual semi-structured interviews with heads of households (beneficiaries and non-beneficiaries) were used to measure both quantitative and qualitative aspects of their knowledge, attitudes and practices related to the project objectives, and more specifically their level of satisfaction. The survey was designed with to have a precision of 10% with a confidence interval of 95%. The survey also undertook interviews with the community leaders, project stakeholders and focal points from the health districts who had been associated with the project during its implementation between 2017 and 2018.

Results

The results cover a presentation of the demographics, the level of satisfaction with the project, the impact on health and finances and the changes in hygiene. The households interviewed had a low level of education (Abidjan: 66.5%; Montagnes: 60%), the main economic activity was trade (Abidjan: 40.5%; Montagnes: 49%), and 46 of households were between 4 and 6 in Abidjan and 7 to 10 people in the Montagnes district. These characteristics are consistent with the criteria for poor and vulnerable households as defined by the National Institute of Statistics of Côte d'Ivoire and ACF (INS 2015).

Two years after the project, the beneficiaries and shareholders are still satisfied with the project. All of the community leaders and 99.5% of the beneficiaries are satisfied with the project, citing the improvements in

access to drinking water at lower cost, reduction of drudgery and improved hygiene conditions. However, 44% and 76% of the beneficiaries in Abidjan and the Montagnes respectively reported some difficulties related to discontinuity of service, breakages and leaks and late receipt of invoices. The various partners are satisfied with the project, due to the number of meters installed and the significant number of people benefiting. During the interviews, the challenges accounted doing the implementation were raised as well as solutions to improve the project were suggested.

The main impact of the project was on the access to water. In Abidjan 89% of households used exclusively the water network for all their water supply, instead of unprotected sources. However, because of the discontinuity of service and to reduce the cost of their bills, 79% of beneficiaries in the west, continued to use alternative sources for their hygiene needs. The households reported a significant increase in the quantity of water used. In Abidjan water per household increased from 34.2 L to 53.7 L per person per day and in the Montagnes from 14.9 L to 22.3 L. The cost of drinking water decreased from 6356 [11, 56] to 1835 [3.34] FCFA in Abidjan and from 3820 [6.95] to 1114 [2.03] FCFA in the Montagnes. In addition, water collection has also decreased for women and girls by 76% in Abidjan and by 11% in the Montagnes, with a reduction in the frequency, from more than 3 times a day to only once a day. A significant health impact recorded from the declarative and sanitary data shows a reduction in water-related diseases from 63% to 37%, particularly in childhood diarrhoea, which went from 61% to 39% or a 22% reduction and related mortality was reduced by 60%.

The impact on hygiene shows a slight increase in the number of households with handwashing facilities from 14% to 24% or 10% in Abidjan and from 7% to 11% in the Montagnes. Unfortunately, 60% of beneficiaries have poor wastewater management. The communication and awareness-raising strategy implemented by ACF was rated as good by 76%. However, the procedures to be followed and the documentation required (to demonstrate the household was vulnerable) were found to be exaggerated and constraining by 30% of the population. Reviewing the management of the water meters, the survey found that 65% of the beneficiaries understand how monitor their connections in order to check its proper functioning, know how to avoid leaks and track their consumption. The meter cancellation rate was only 1%. Due to a lack of resources, 77% of the beneficiaries did not protect their meters, thus exposing them to theft, breakage and leakage.

Conclusion

Two years after the implementation of the drinking water supply project in the districts of Abidjan and Montagnes, this capitalization study revealed a positive social, economic and health impact. This impact is expressed by a high level of satisfaction at the household level. The significant increase in access to safe water, the volume of water used, the reduction in cost, significant improvements in health make a strong case for the importance of connecting vulnerable households to reliable water networks.

Key words

Social connections, Water supply, vulnerable households, Côte d'Ivoire, Subsidies.

Thematic area 7

Urban water management.

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