

The need for capacity development to enhance rural water supply and sanitation service delivery: The RWSSC/JICA Approach in Nigeria

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Abstract/Summary

A project to improve the capacity of Rural Water Supply and Sanitation Centre (RWSSC) of the National Water Resources Institute, Kaduna and staff of Rural Water Supply and Sanitation Agencies in Nigeria especially those that benefitted from the Japanese International Cooperation Agency (JICA) Aid grant is presented as a model that has increased capacity of the Agencies staff for effective service delivery. The project commenced with the assessment of institutions' capacity and training needs, and stakeholder workshop to consider the results and skill gaps identified. Decisions and actions that will assist in the implementation of the project were agreed with stakeholders. This was followed by the development of nine relevant courses, delivery of trainings to address knowledge and skill gaps and supporting of the institutions with necessary working tools. A total of 567 staff were trained and 2,389 boreholes drilled in rural communities. The project was rated relatively high for enhancing capacity of personnel and making an improvement in rural water supply and sanitation service delivery in Nigeria.

Introduction

In an effort to improve rural water supply and sanitation in Nigeria, the National Water Resources Institute (NWRI) in collaboration with Japan International Cooperation Agency (JICA) carried out a training and research project in the area of rural water and sanitation known as “The Project for Enhancing the Function of Rural Water Supply and Sanitation Centre for Capacity Development (RWSSC)” in National Water Resources Institute (NWRI). The goal of the Project is to enhance service delivery in rural water supply and sanitation (RWSS) in Nigeria through capacity development of stakeholders.

In response to the realization of the need to assist the Nigerian Government, JICA conducted a preliminary and detailed planning surveys in 2009. Findings of the two surveys indicated need to intervene which resulted in the signing of Record of Discussion (R/D) on 21st October, 2009. Consequently, the project commenced and designed to last for 45 months. Capacity of Rural Water Supply and Sanitation Centre established at NWRI and other RWSS institutions at state level was envisaged to be strengthened. The vision of the Centre is to be the hub for capacity development and information dissemination in Rural Water Supply and Sanitation sub-sector in Nigeria. This paper presents activities carried out, findings and achievements made by the project in rural water supply and sanitation sub-sector in Nigeria.

Methodology/Activities

Institutional Assessment (IA)

This aspects of the project focused on assessing the capacity of rural water supply and sanitation institutions in Nigeria. It utilizes the concept of “accelerators and potholes” to identified capacity gaps in the assessed institutions. The gaps were classified under a framework called “SKEAMEE” (SKE = Skills, Knowledge and Experience; AM = Attitude and Motivation; EE = Enabling Environment) and Capacity Development (CD) actions and plans developed to address the gaps. A total of 66 institutions were as-

essed (16 State and 53 Local Government Area (LGA) institutions).

Accelerators and Potholes

Based on the position profiling and analysis, the key factors that make various position holders perform their tasks efficiently and the ones that hamper their performance were identified and referred to as accelerators and potholes respectively. Here accelerators are the things that pull towards achieving a goal while potholes stall or stop progress. Progress is made when the accelerators are maximized and the potholes are minimized, or transformed into accelerators.

Training Needs Assessment (TNA)

This step centred on identifying priority areas of training needs in the assessed institutions. Structured questionnaires were utilized and supplemented with Focused Group Discussion (FGD) with staff supervisors and key officers of the institutions. The Training Needs Assessment assisted in elucidating findings of the Institutional Assessment ,and 18 State and 36 Local Government Area institutions were assessed.

Development appropriate training modules and manuals

Following the conduct of the Training Needs Assessment, nine priority areas of trainings were identified and training modules and manuals developed to cover areas of needs.The manuals were reviewed and standardized in a stakeholders’ workshop.

Training of stakeholders in the rural water supply and sanitation sub-sector

This step focused on delivering trainings to stakeholders using the modules and manuals developed.The approach comprised participatory and didactic style to deliver trainings. Outreach system and use of centralized locations as venue were employed for the trainings to reduce cost. The out-reach system involves use of subject matter experts to deliver trainings in-house at work place of trainees without taking them out of their duty stations. This system allows practical aspects of the trainings to be harmonized with work activities to ensure that trainings are relevant to actual job performance.

Training Impact Assessment (TIA)

This centred on evaluating impact of the trainings. The Rural Water Supply and Sanitation Centre ensured that after each training, trainees are monitored through their supervising officers to find out whether the trained staffs have put the new knowledge and insights into practice or not. Post training impact evaluation was also carried out also to determine impact of the trainings using one of the State institutions (Niger State Rural Water Supply and Sanitation Agency (RWSSA) as pilot.

Establishment of effective management system at RWSSCC

This aspect of the project involves identifying and deploying qualified staff from National Water Resources Institute to the Rural Water Supply and Sanitation Centre to coordinate activities of the Centre. Capacity of the Centre staff was enhanced by the JICA experts through mentoring and conduct of Training of Trainers (ToT) on various aspects of the Centre activities. Administrative, Monitoring and Public Relations (PR) manuals, extension materials and monograms were developed to facilitate service delivery in the Centre. This aspect of the project also include the development and maintenance of a National Water Resources website accessible to stakeholders.

Conduct of applied research

This aspect of the project centred on conduct of research activities which include:

- Community Led Total Sanitation (CLTS) study in two rural communities (Karuga and UngwarBagudu) located in Chikun LGA of Kaduna State to serve as pilot and model for training on CLTS. Provision of water supply facilities was introduced to slightly differ the approach from the usual CLTS philosophy;
- Hydrogeological assessments,updating and production of hydrogeological maps.

Main Results/Findings

Capacity gap

The findings from the assessments showed generally low level of capacity in most of the assessed institutions. Capacity gap linked to Skill Knowledge Experience relate to lack of training, inadequate qualified staff and poor information sharing. Issues around Altitude Motivation include inadequate staff welfare, lack of promotion, poor administrative procedures and poor organizational attitude. While under the Enabling Environment, a general dearth of basic working materials, tools and equipment including lack of functional drilling rigs and absence of enabling law were identified as factors constraining service delivery in most of the institutions.

Training needs

A summary of the identified training needs in the assessed institutions is presented in Table 1.

Table 1: Summary of training needs identified

S/No	Area of Training Need	Respondents (%)	Priority Level
1.	Geophysical Investigations	57	5
2.	Borehole Geophysical Logging	62	4
3.	Borehole Drilling	69	5
4.	Pumping Test	54	4
5.	Submersible and Hand Pump Installation and Maintenance	86	5
6.	Maintenance of Drilling Equipment	50	5
7.	Water Quality Analysis	75	5
8.	Community Led Total Sanitation	70	5
9.	Basic Hygiene Promotion Techniques	68	4
10.	Community Mobilization and Sensitization	89	5
11.	Sanitation Structures Construction	70	5
12.	Waste Management	58	5
13.	Computer Appreciation	56	4
14.	Computer Appreciation	56	4

NWRI 2010

CLTS in Karuga and UngwarBagudu

The implementation of CLTS approach in Karuga and Ungwar Bagudu triggered provision of more latrines for safe sanitation practices and end to open defecation in the model communities. The sanitary facilities (latrines) were provided by the community members themselves through a social awakening and mobilization using CLTS approach. Due to lack of safe water, the communities were provided with two (2) boreholes - one for each of the communities (Figure 3).



Sanitary facility built by a community member



Water supply facility provided in UnguwarBagudu

Figure 3: Implementation of CLTS in Karuga and UnguwarBagudu

Towards Addressing the Capacity Constraints and Achievements

Development of Capacity Development actions and plans

As a step towards addressing the identified capacity constraints in the assessed institutions, Capacity Development actions were developed that can minimize the potholes and maximize accelerators. Capacity Development actions and plans were developed in conjunction with respective institutions' staff to address the capacity gaps. The Capacity Development actions and plans covered the three major areas Skill Knowledge Experience, Altitude Motivation, and Enabling Environment. In the plans, priority levels were allocated to each Capacity Development action for implementation by the assessed institutions and other stakeholders.

Passing of enabling Law for some Rural Water Supply and Sanitation Agency Institutions

As part of outcome of the Institutional Assessment , enabling Law for establishing some of the States Rural Water and Sanitation institutions to operate as full Agencies with autonomy for providing rural water supply and sanitation services were passed by their respective State Government and Assembly. This was particularly an issue forKaduna, Imo and Nasarawa Rural Water Supply and Sanitation institutions. The effort has resulted in the transfer of all mandated functions of rural water supply and sanitation from parent and line ministries to the Rural Water Supply and Sanitation Agencies (based on the enabling law). This was imperative for the Rural Water Supply and Sanitation Agencies to be visible and recognized as credible organizations for rural water supply and sanitation services delivery in Nigeria.

Implementation of training programmes and impact

The standardized training manuals developed were utilized for training of stakeholders (Figure 1). The manuals and trainings include:

- Groundwater Investigations Techniques (General methods and Geophysical Surveys)
- Borehole Construction and Completion
- Drilling Technology

- Hand pump Installation, Operation and Maintenance
- Borehole Rehabilitation and Maintenance
- Alternative Water Supply Sources Development (Hand dug well, Spring Development & Rainwater Harvesting)
- Drilling Machinery Maintenance Technology
- Sanitation and Hygiene Practices
- Community Mobilization and Sensitization



Figure 1: Some training activities and facilities provided during the Project

A total of 29 training sessions were carried out between 2011 and 2014 under the project, and 567 participants have benefited from different trainings of the RWSSC across Nigeria (Figure 2) especially the JICA Grant Aid focus States, Federal establishments and the private sector.

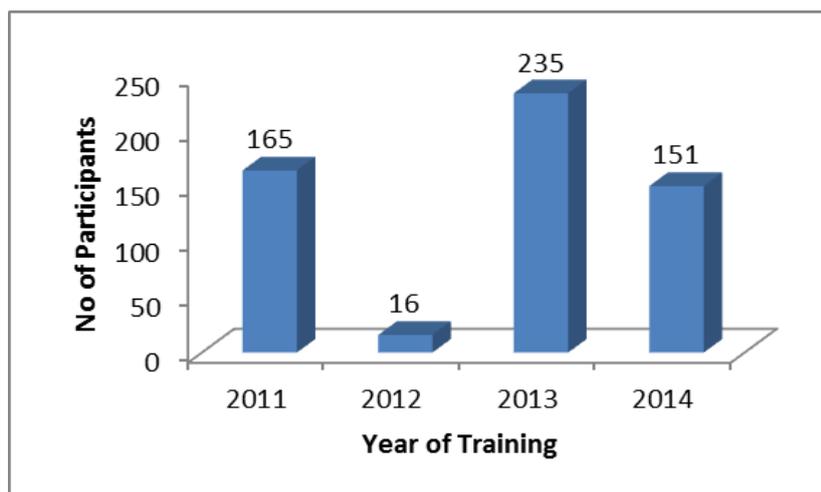


Figure 2: Summary of trainings conducted by RWSSC (2011-2014)

Based on analysis of the training impact evaluation, comments by the trainees supervisors indicate improvement in the execution of geophysical survey, borehole drilling, pump installation, machinery maintenance, sanitation and hygiene practices and community mobilization and sensitization.

Supporting Rural Water Supply and Sanitation institutions with machinery and equipment by JICA

Machinery and equipment comprising drilling rig, compressor, service trucks, drilling accessories and other groundwater exploration equipment were provided for effective service delivery, training and research under the JICA project. The RWSSAs supported include Bauchi, Enugu, Kano, Katsina, Kebbi, Ondo, Oyo, Taraba and Yobe Rural Water Supply and Sanitation at state level and Rural Water Supply and Sanitation Centre at federal level.

Boreholes planned and completed during the JICA Project

In order to assess impact of the project and targets in terms of total number of boreholes drilled and counterpart funding for materials, allowances and operations provided to the States RWSSAs to achieve targets, an evaluation was conducted. Table 2 shows the summary of targets and achievement made.

Table 2: Boreholes Planned Targets and Achievement by States during the JICA Project

S/No	State	Target No. of Boreholes	Total No. Drilled	% Achieved	Remarks
1	Oyo	100	1,358	over 1000	4 Years period
2	Kano	240	403	168	
3	Yobe	98	98	100	
4	Katsina	92	185	201	
5	Bauchi	76	86	113	
6	Niger	100	59	59	2 Years Period
7	Ondo	100	15	15	Lack of counterpart funds
8	Enugu	100	50	50	
9	Taraba	100	98	98	
10	Kebbi	100	37	37	

From Table 2, target for the project in terms of boreholes to be drilled during the project period entails the construction of 1,106 boreholes in Ten (10) States. Records shows that the States RWSSAs constructed a total of 2,389 boreholes representing over 208 % achievement. Prior to the project, borehole drilling were not effective in most of the States.

Conclusions and Recommendations

Analyses of the evaluation revealed that 96.6% of the trainees rated the training methods as appropriate and trainer’s skills have improved through the ToTs. Trainings are reviewed based on Plan-Do-Check-Act (PDCA) cycle and management of the Rural Water Supply and Sanitation Centre is highly improved service delivery. Some of the lessons learnt include the need to define source of funding from the start of projects, the age of Counterpart staff should be considered to avoid early exit of such staff after undergoing trainings. Procurement of equipment need improvement to avoid delay in arrival of such equipment for trainings and project activities.

The project recommends continuous institutional and training needs assessment, transfer of skill/knowledge to younger generation, possible replication of this project in other developing countries and increase in budgetary allocation to achieve sustainable implementation of rural water supply and sanitation and socio economic development of Nigeria and other developing countries.

Key word: **Capacity development, rural water supply, sanitation, groundwater**

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