### JICA PROJECT BRIEF NOTE

## THE PROJECT FOR SUSTAINABLE RURAL WATER SUPPLY, SANITATION AND HYGIENE PROMOTION IN NIASSA PROVINCE, THE REPUBLIC OF MOZAMBIQUE

~IMPROVING THE CONDITION OF WATER SUPPLY, SANITATION AND HYGIENE IN THE TARGET DISTRICTS BY STRENGTHENING THE CAPACITY OF PLANNING, SUPERVISION AND MONITORING OF THE PROVINCE AND DISTRICTS~

#### February 2017



This Project included technical capacity development for rural water supply, sanitation and hygiene as well as a series of activities for facility design and construction. While giving attention to the cultural background and behavioral style of local citizens and counterparts, the implementation of the Project promoted the ownership and sustainability of counterpart organizations. The project also paid special attention to the designing of latrines taking into consideration people with disabilities, gender, hygiene promotion and sustainability of the facilities.

## 1. Background and Challenges of the Project

The Republic of Mozambique (referred to hereafter as "Mozambique") has been politically stable since the end of the sixteenyear civil war in 1992. Since then, the Government of Mozambique and development partners have been engaged in the reconstruction of basic infrastructures that were devastated during the civil war.

In the rural water supply and sanitation sector, a rate of 70% access to safe drinking water and 50% access to sanitation facilities by 2015 has been set in 2006 in order to achieve the Millennium Development Goals (MDGs).

However, the access rate to safe drinking water in the rural areas in Mozambique at the

planning stage of the Project was 29% (2010, WHO-UNICEF), and access to sanitation facilities was only 5%, which was the lowest level among neighbouring countries. Therefore, in order to achieve the MDGs goals, the National Rural Water Supply and Sanitation Program (PRONASAR 2010-2015) was established by the Government of Mozambique and the development partners under the Sector-Wide Approach Programme (SWAP)<sup>1</sup> in order to improve the situation of rural water supply and sanitation.

<sup>&</sup>lt;sup>1</sup> A method for cooperating with donor countries and recipient countries to formulate and implement consistent development plans in individual fields

Moreover, due to the revitalization of economic activities and the movement of goods, growth is expected in Nacala Corridor, which starts at the Port of Nacala in the north of the country and stretches to Malawi and Zambia through the Provinces of Nampula and Niassa.

Due to policy reform undertaken in 2013, the Government of Mozambique revised the number of beneficiaries per water point from 500 inhabitants to 300 inhabitants. As a result of the new policy, the access rate to safe drinking water in rural areas in Niassa Province dropped to 36.45%, which was much lower than the national average of 52%.

Construction of new water supply facilities was limited in Niassa because it has not been targeted by other development partners for large-scale cooperation projects, and Niassa was now the only one of the ten Provinces of Mozambique showing a downward trend in the coverage rate of drinking water. Therefore, in view of the consistently high demand for projects in the water and sanitation sector in rural areas, this Project was implemented from January 2013 to February 2017.

## 2. Approach for Overcoming the Challenges

Based on the background described above, this Project supported implementation system and capacity strengthening of the National Directorate of Water Supply and Sanitation of the Ministry of Public Works, Housing and Water Resources (DNAAS/ MOPHRH)<sup>2</sup>, the Provincial Directorate of Public Works, Housing and Water Resources of Niassa (DPOPHRH) and District Services of Planning and Infrastructures (SDPI) in order for them to implement their projects based on PRONASAR policies.

Furthermore, during the implementation of Project activities in the target communities, measures for sustainable development were taken into consideration so that Mozambican counterparts might continue to conduct related activities to strengthen the operation and maintenance of rural water supply and sanitation facilities even after the completion of the Project.

Based on the results of the baseline survey conducted in the four target Districts (Mavago, Muembe, Majune and Mandimba), the Project selected the following as target sites: a) Communities where new water points were to be constructed, b) Communities where nonfunctioning existing water facilities were to be rehabilitated, c) Communities and schools where CLTS (Community-Led Total Sanitation)<sup>3</sup> was to be conducted, and d) Water and Sanitation Committees (CAS) established through PEC (Community Education and Participation)<sup>4</sup> activities in communities where new water facilities were constructed.

The framework of the Project is shown in Figure 1 and the Project Implementation Structure is shown in Figure 2 as follows.

<sup>&</sup>lt;sup>2</sup> The name was changed to Direcção Nacional de Abastecimento de Água e Saneamento (DNAAS)/ Ministério das Obras Públicas, Habitação e Recursos Hídricos (MOPHRH) due to organizational reform in December 2015.

<sup>&</sup>lt;sup>3</sup> CLTS is an approach to induce collective initiatives in communities to abandon open defecation through community participation activities (mapping of defecation areas, observation of open defecation sites, calculation of quantity of feces produced and group discussion on negative consequence of open defecation) by evoking shame and disgust remembered from fecal contamination.

<sup>&</sup>lt;sup>4</sup> Method of community participation activities that include rural water supply facilities construction/ operation and maintenance/ hygiene and sanitation improvement



Fig. 1 Framework of the Project

The responsibilities of each member of the Project Implementation Structure are indicated in the following table.

Position	Institution
Project Manager	National Director, DNAAS/
	MOPHRH
Project	Head of the Department of
Administrative	Water Supply and Sanitation,
Manager	DNAAS/MOPHRH
Project Executive	Provincial Director,
Manager	DPOPHRH
Project Technical Manager	Head of the Department of
	Water and Sanitation (DAS),
	DPOPHRH
Counterpart (C/P)	DAS/DPOPHRH
	Technicians, SDPI Staffs of
	the 4 Target Districts

The Project was implemented based on the following approaches.

## (1) Ensuring Sustainability and Sense of Ownership in Mozambique

It was expected that the counterpart organizations would have the appropriate

organizational structure and capacity to achieve the overall goal through their own efforts. To ensure the sustainability of the Project outcomes and the sense of ownership on the counterpart personnel, Project activities were carried out jointly in order to engender mutual trust among the Project members including the experts and Japanese the Mozambican counterparts. Also, the Project counterparts were encouraged to actively participate in and contribute to meetings, and to prepare and present reports through their own efforts from the early stages of the Project.

## (2) Cooperation with PRONASAR

PRONASAR is established as the national program for the rural water supply and sanitation sector in Mozambique. The PRONASAR constitutes specific policies to achieve the goals determined in PESA-ASR (Strategic Plan for Rural Water and Sanitation) and stipulates usage of the sector common fund, roles of stakeholders in central and provincial governments, the private sector and NGOs, implementation processes for rural water supply and sanitation activities and monitoring methods, etc.

The aim of this Project was to strengthen the capacity of Mozambican counterparts for promoting rural water supply and sanitation projects in accordance with the implementation process stipulated in PRONASAR. Activities conducted under this Project, including the construction of new water supply facilities, operation and maintenance of facilities, promotion of hygiene and sanitation, were basically performed in accordance with the stipulations of PRONASAR.

Also, although PRONASAR stipulates that the spare parts supply chain shall be managed by the private sector, in view of experiences in similar projects in other provinces and other countries, the difficulty in this regard was that spare parts shops had not been profitable in rural areas.



Fig. 2 Project Implementation Structure

For this reason, in this Project, the spare parts supply chain was decided to be established as a unified structure in the entire Niassa Province in cooperation with other development partners, Provincial DAS, District SDPIs, Local Mechanics and local retail shops.

With the cooperation of existing retail shops and hardware stores, etc., instead of setting up new shops that only sell spare parts, the structure was supposed to be set up not relying solely on the profit from sales of spare parts for its management. Moreover, since all stakeholders introduced the same system, training of stakeholders and monitoring of sales activities should be done efficiently, and sustainability of the spare parts supply chain was expected to be secured.

## (3) Coordination with Mozambican Stakeholders

The stakeholders involved in this Project were quite diverse, namely DNAAS, DPOPHRH, SDPIs and communities in the target districts, schools and health centres where hygiene and sanitation promotion activities would be conducted, and those who were responsible for health and education sectors in the Province and District level.

In order to ensure smooth coordination among all stakeholders, a Provincial GAS (Water and Sanitation Working Group) was reactivated immediately after the commencement of the Project, thereby enabling efficient information sharing with the respective stakeholders.

## (4) Coordination with Other Donors

In Niassa Province, the Swiss Agency for Development and Cooperation (SDC) and WaterAid have actively supported the water supply and sanitation sector. Therefore, in this Project, great effort was put into raising synergy by sharing information with other cooperation partners through Provincial GAS and Project meetings while also mutually utilizing the expertise and challenges acquired through past experiences.

## (5) Capacity development for Private Contractors and Consulting Companies

Under the implementation policy of PRONASAR on operation and maintenance of water supply facilities and hygiene and sanitation promotion, private resources were proactively mobilized such as hiring private consultants for PEC activities.

However, there is an insufficiency in terms of the number of private contractors and consultants which have a certain level of capacity in rural areas far from major cities such as Niassa Province.

In rural area where the availability of the contractors who could respond to the quality and work period required for the construction was limited, there was a risk that contracting with suppliers from a distant place would be the only choice, then cost would be higher, and the countermeasures for defect would be negatively affected in case of trouble in the facility.

In view of this situation, in accord with the policies of PRONASAR, the Project addressed whenever possible the capacity development and utilization of local private contractors and consultants in order to ensure sustainability of the rural water supply and sanitation projects in the future, and to ensure the sustainability of efforts made by Counterpart institutions.

#### (6) Securing the Source of Fund for Sustainability

As mentioned above, mobilizing private consultants for PEC activities requires a continuous budget to be secured by government institutions.

For the above reason, much of the funding for the PEC activities relies upon funding from cooperation partners including the PRONASAR Common Fund.

In order to ensure the sustainable continuation of activities for water supply and sanitation in Niassa Province even after the completion of the Project, consideration was given during the Project implementation period toward strategies to utilize government funding as well as the Common Fund.

## (7) Construction of Water Supply Facilities

50 water supply facilities with hand pumps were constructed by the Project. To construct the facilities, the Project utilized local contractors with technical support by the Japanese experts for improving capacity of DPOPHRH and SDPIs counterparts in the planning and management of water supply facility construction.

Construction work design and supervision were consigned to local consultants, with also technical support for counterparts during every phase of construction.

## (8) Rehabilitation of Existing Water Supply Facilities

Rehabilitation of non-operational hand pumps was carried out by local contractors in respective districts, subject to the hiring of local mechanics trained in the Project. This enabled such mechanics to maintain and improve their knowledge and repair skills of hand pumps.

Furthermore, some spare parts used for rehabilitation work were purchased at the spare parts shops established in the district so that the circulation of spare parts could be stimulated in the structure of the spare parts supply chain established under this Project.

## (9) Construction of School Latrines with Handwashing Facilities

Total 20 school latrines were constructed by the Project. When selecting target schools for the construction of school latrines with handwashing facilities, the accessibility of stable and safe drinking water at the site must be taken into consideration. Therefore, a prerequisite to selection was the construction of a new borehole with a hand pump or the existence of a functioning borehole. The latrines constructed by the Project were accompanied with handwashing facilities and consideration was given to disabled people, female students and the local culture of the target area.

## (10) Zone PEC

In line with the policy of PRONASAR, PEC activities were contracted out and implemented by a private consultant company specialized in PEC activities.

PEC activities were conducted so as to improve the condition of water supply and sanitation through community sensitization. In this Project, a Zone PEC approach was adopted that targeted certain areas (zones) rather than communities. The features of the Zone PEC approach are that PEC activity continues even after construction of the water supply facility, that monitoring period for activity situation of water and sanitation committees and behaviour change are secured, and that paying attention to ensuring achievement and sustainability of the outputs. Due to those points, the Zone PEC approach was adopted in accordance with PRONASAR policy.

## (11) Hygiene and Sanitation Promotion

In communities where CLTS had been conducted to eradicate open defecation in Zone PEC activities, and through the construction of school latrines and hygiene education in local schools, the Project promoted the improvement of hygiene behaviour including Open Defecation Free (ODF) among the entire population by raising the awareness of children about hygiene and sanitation.

Also, targeting the communities that had reached ODF status, the Project promoted a pilot scheme to popularize improved latrines in homes.

## (12) Capacity Development of DPOPHRH and SDPIs

The roles and responsibilities of the Province, Districts and communities were identified, and consistent organizational capacity development for each institution was provided by the Project based on PRONASAR.

The training required for the capacity development of Provincial/District staff was consigned to CFPAS in order to standardize the level of training in accordance with PRONASAR.

## (13) Dissemination to Other Districts

A manual was formed to compile the knowledge and experiences gained through the implementation of the activities in this Project, which was shared with relevant organizations through Provincial GAS. After completion of the Project, the Project outputs were to be disseminated to other Districts through the efforts of Mozambican counterparts.

In this regard, even non-target District staffs were encouraged to participate in Project activities through Provincial GAS meetings as well as seminars/workshops organized by other development partners.

# 3. Results from Implementing these Approaches

## (1) Reactivation of Provincial GAS (Output 1)

Since it was reactivated in April 2013, the Provincial GAS (Water and Sanitation Working Group) meeting has been held every month. The topics and issues were selected for discussion and sharing with member institutions working in the water and sanitation sector in the Province such as international organizations, development partners, the Provincial Directorate of Environmental Action, the Provincial Directorate of Health. the Provincial Directorate of Education, and NGOs.

In 2015, a National GAS meeting was held in Niassa Province on October 29<sup>th</sup> and 30<sup>th</sup>, and 80 people participated from the Ministry, DPOPHRH of other provinces, development partners, international organizations and NGOs etc. Some activities being implemented in the Project were presented and one of the Project sites was visited during the meeting. Experiences and good-practices shared in the Project were highly regarded by nationwide stakeholders.



Project site visit by National GAS members

## (2) Construction of Water Supply Facilities (Output 2)

Total 50 water supply facilities were constructed (32 water points fitted with hand pumps for communities and 18 for schools), and 65 existing hand pumps were rehabilitated. As a result, 34,500 people gained access to safe drinking water, which contributed to an improvement of the access rate (2.6% increase) in the Province.



Borehole with hand pump constructed in the Project

## (3) Construction of School Latrines with Handwashing Facilities (Output 2)

School latrines with handwashing facilities were constructed for 20 primary schools in the four target districts. The construction of these latrines was subcontracted to local construction companies located in each District. The reason to use local construction companies was to improve the construction and the management capacity of local companies.

Under close supervision and careful instruction from local supervisors contracted to the Project, construction works were carried out prioritizing safety, quality and schedule control.

Regarding the design of the latrines, taking consideration the Islamic cultural into background of the majority of people in the Province, longer private walls were built and water taps for hand washing were placed inside the wall. In consideration for gender sensitivity, doors were installed in all of the individual rooms including female latrines to ensure privacy. Also, in terms of arrangements for disabled people, the doors were increased in width, and slopes and handrails were placed for wheelchair users and crutch users.

As mentioned above, the design, which takes the perspective of users into careful consideration, was appreciated and shared widely with stakeholders in the sector.



School latrine (for boys)



Water tap placed inside privacy wall



Doors installed in individual rooms for privacy protection





Handrails placed inside the door and on the wall

Slope at the entrance

## (4) Establishment of Unified Spare Parts Supply Chain in the Niassa Province (Output 3)

Assistance was provided for establishing a structure for the supply of spare parts, which is indispensable for maintenance of hand pumps. In these activities, in order to ensure sustainability in the province as a whole, a unified system at the provincial level was established involving not only the target districts of the Project (4 districts), but also other development partners, NGOs, and provincial and district governments active in Niassa Province. In this way, the breakdown period of hand pumps in the target districts was reduced from an average of 14 days at the time of commencement of the Project down to 2.2 days.

For total 7 districts, the 4 target districts and 3 districts that were not receiving any donor

assistance, activities such as calculation of the initial stock of spare parts and their sales prices, of the initial procurement stock and distribution to each district, training for district retail shops selling spare parts and local hand pump mechanics, and publicity activities to the local residents regarding the sale of spare parts, etc., were carried out, and sale of spare parts commenced in the 7 districts in December 2015. Also, joint provincial conferences were held periodically in order to establish a unified system within the province. By sharing knowhow and progress, etc., the activities for setting the system spread to every district supported by other development partners, and the activities were promoted at provincial level.



Spare parts shop in Muembe District



Fig. 3 Unified structure of spare parts supply chain in Niassa Province

(5) Training for Planning, Implementation and Monitoring and Evaluation for Water Supply and Sanitation Improvement in the Province and the Target Districts (Output 3)

## i) National Information System for Water and Sanitation (SINAS)

Since the independence in 1975, the Government of Mozambique has been constructing water supply facilities in order to improve the rural water supply situation. However, it was confirmed that many facilities were abandoned or not operated due to aging, lack of maintenance and monitoring, etc.

Also, there was a problem that an efficient planning could not be made due to the lack of detailed information and/or information sharing on those facilities, such as location, number and types of the problems existed, etc.

In order to improve this situation, DNAAS launched the national roll out of the establishment of the database of water supply and sanitation facilities, which is called SINAS<sup>5</sup>, which had previously been conducted politely in some provinces, and created a manual in 2013. In 2014, training for SINAS operations was started for provincial and district officials. In Niassa province, the first training was hosted by DNAAS in July 2014, and an outline of SINAS and equipment to be used were mainly explained. The second training was held in September 2015, and lectures and discussions on data entry method and explanation of how to use GPS were provided.

Since the SINAS trainings sponsored by the DNAAS above were limited to the outline description of the system, the Project provided the necessary training and support for the operation of SINAS such as data collection, data entry and updates, and monitoring, etc. to the stakeholders at each administrative level.

As a result, SINAS became operational in the four target districts, which enabled the location of each water supply and sanitation facility to be identified on the map, and information regarding distribution and operational status to be ascertained.

## ii) Capacity Development for Counterparts

Trainings were provided for Project counterparts in DPOPHRH/DAS and SDPI in the target districts. Based on the road map elaborated by the Project team, the training required to strengthen their administrative capacity, starting from basic computer skills through to skills to prepare district annual budgets and action plans, was conducted throughout the Project period.

As a result of these trainings, at the end of the Project, the counterparts showed a great improvement in knowledge and skills according to the capacity assessment conducted compared to the beginning of the Project.



Presentation by a district counterpart in the Joint Coordinating Committee Meeting (2016)

<sup>&</sup>lt;sup>5</sup> SINAS : A database system for managing information on water supply and sanitation facilities nationwide. The facility information (data) is designed to flow from district  $\Rightarrow$  province  $\Rightarrow$  central (DNAAS) every 3 months, and the database is used as a tool for planning, monitoring and evaluation

- (6) Hygiene and Sanitation Promotion in the Target Districts (Output 4)
- i) Community-Led Total Sanitation (CLTS) and Certification of Open Defecation Free (ODF)

CLTS and PHAST<sup>6</sup> were implemented in the target communities for the purpose of achieving ODF status in more than 60 communities by the end of the Project implementation period. ODF evaluation was conducted by external institutions in Niassa Province in November 2015 and October 2016, and 72 communities in the Project target districts were declared to have achieved ODF status.



Community hygiene and sanitation promotion activity

## ii) Orientation for Operation and Maintenance of school latrines with hand-wash facilities

The use and maintenance of the constructed latrines was taught in orientation training conducted among all students and teachers in the target schools (Beneficiaries: 6,017 students and 173 teachers; total 6,190 persons). An Operation and Maintenance Manual was developed utilizing efficient visual materials such as illustrations for use during the training so that most of the students, who had never used such facilities before, could easily understand the content.

<sup>6</sup> PHAST : Transformation of hygiene behavior and environmental sanitation by a participatory approach

Each student entered the facility to personally confirm the method of use.



Fig. 4 Operation and maintenance manual for school latrines



Students waiting in line to learn how to use the latrine

## (7) GAS-Niassa Web Site (Output 5)

A provincial GAS meeting was held every month. In the meetings, progress and outcomes of projects conducted by JICA and other development partners were exchanged and guidelines/manuals produced by the Project were shared. The news, details of the meetings, and agenda, etc. were posted on the web site of GAS Niassa. The information was updated regularly by the member institutions and was utilized as a tool for information sharing and publishing.



(https://sites.google.com/site/gtasniassa/home) Fig. 5 Website of GAS-Niassa

## (8) Training in Other Countries and Provinces (Output 5)

In connection to capacity development activities, site visits were conducted abroad (in Brazil) in the first Project year, in Zambezia Province in the second Project year, in Manica Province in the third Project year, and in Cabo Delgado Province in the fourth Project year with the aim of exchanging experiences in construction, and the operation and maintenance of rural water supply facilities.

The counterparts that participated in the trip in Brazil acquired good practices from other countries, and became capable of conducting planning, implementation and supervision with consideration for sustainability, and showed a great improvement in their approach to work.

In addition, the trips to other provinces helped to stimulate the establishment and operation of SINAS, and there were also some districts that began considering attempts to form groups for individual water and sanitation committees.



Participants listening to explanations of a rain water storage technique and hand pumps in a semi-arid region in Brazil

## (9) Knowledge Sharing and Advocacy

The outcomes, lessons learnt and good practices obtained from the Project were shared with stakeholders nationwide by the following means:

 Advertisements and articles about the progress and results of the Project activities were published seven times in AGUA, which is the specialist magazine for the water supply and sanitation sector in Mozambique.



Fig. 6 Advertisement of the Project published in the specialist magazine "AGUA" in June 2016

A national seminar was held in February 2017 hosted jointly by DNAAS and JICA in order to share the experiences and discuss about the revision of PRONASAR (2017 – 2030) with all stakeholders in the rural water and sanitation sector of the country. The Project made a presentation about the outcomes and good practices of the Project and recommendations for the revision of PRONASAR.

The lessons learnt and recommendations presented by stakeholders as well as the Project in the seminar are expected to contribute to the revision of the PRONASAR.



Chief Advisor of the Project making presentation in the national seminar

## 4. Good Practices and Lessons Learnt from Implementation of the Project

All stakeholders including counterparts, Japanese experts, local assistants, and local private contractors/consultants were regarded as a team, and respected the position, situation, personality, competence level, etc. of each person. It was believed that this 'consideration and attention' constantly paid to those who involved during the implementation of the activities strengthened the relationship of trust within the team and led to increased motivation among the stakeholders, which is considered to have contributed to the acquisition of significant achievements.

The good practices and lessons learnt from individual activities are as follows.

#### (1) Capacity Development for Counterparts

The capacity of counterparts in both the provincial and district level was successfully strengthened by carrying out "custom made" training designed on the basis of the capacity level assessment and a request from counterparts. The training was conducted using the following cycle:

- 1. Assessment of the capacity level of each counterpart (Identifying weak points is important)
- 2. Plan the training according to the capacity level (Custom made training)

- 3. Conduct the training
- 4. Observation of the reaction and outcome (plan to increase the motivation of trainees)
- 5. Feedback for the next training.

As a countermeasure for the transfer of personnel from the counterparts to other districts, two or more staff from all districts were targeted, and training was strengthened among technician level personnel, for whom transfers are rare, which was a factor in establishing technical transfer outcomes in each district and in ensuring the sustainability of activities.

#### (2) Peer Learning among Counterparts

In the final stage of the Project, a training approach called "Peer Learning" was introduced. Peer learning included visits to other districts to see how fellow technicians use the acquired knowledge and to share good practice among the districts. Also, some technicians who had acquired a higher level of knowledge and skills through the Project activities visited other districts to provide necessary support to fellow technicians. By purposely forming an environment in which there is a spirit of rivalry among individual staff and among districts, while also stressing a sense of companionship among counterparts, the staff demonstrated greater motivation and assertiveness.



Counterpart of Mavago District explaining GPS usage to Counterpart in Majune District



Fig. 7 Result of Capacity Assessment of C/Ps Assessment of C/Ps Structure

## (3) Utilization and Capacity Development of Local Resources including Private Companies

In this Project, capacity development was carried out for local private companies based in Niassa Province employed for PEC activities, the construction of boreholes with hand pumps, and the construction of school latrines. Although there had been a great scope for improvement in their implementation skills at the beginning, these activities were completed successfully due to the close supervision of the Project team and on-site construction supervision consultants. The utilization and capacity development of local private resources is highly effective as their enhanced skills and knowledge shall contribute to the future development of local society in the Province.

#### (4) Hygiene and Sanitation Promotion

In this activity, the Project analysed the latrine coverage ratio and the reasons why each household does not own latrines, and used a flexible and timely approach that included not only CLTS but also PHAST and door-to-door visits depending on the individual conditions in the target communities. As the result, community leaders and Water and Sanitation Committees showed a great interest towards attaining ODF status, and there were cases where they took action based on their own initiative by visiting families in the community in order to improve sanitation conditions rather than awaiting intervention from the Project, which led to a great improvement of sanitation condition as a whole.

With regard to ODF evaluation, in order to improve the competence of evaluators, provincial workshops were held to standardize the evaluation approach so that every evaluation carried out by any evaluator would bear similar results. ODF evaluations were successfully conducted in a fair manner thanks to this workshop, which had transferred realistic criteria and practical evaluation techniques to the evaluators.

## (5) Establishment of Unified Structure of Spare Parts Supply Chain

A sales system based on market principles of supply and demand was adopted as the structure of the spare parts supply chain, and a trustworthy local dealer was selected as the vendor at the district centre, after which local mechanics well-known by communities were selected as the vendors at Administrative Post level.

After providing detailed explanation to the vendors about the objectives of this activity, which entails a social component aimed at improving the water supply and sanitation situation in the communities rather than being a mere business activity, the vendors started to show a more receptive and collaborative attitude.

One of the reasons behind the functionality of this structure was the development of a good relationship among the district vendors, the local mechanics, SDPIs and the Project team, whereby most of the improvement ideas suggested by the dealers were accepted and materialized by the Project and SDPIs.



Vendors from other Districts learning to manage the spare parts shop in Mandimba District. This exchange visit was also based on a suggestion from District SDPI and vendors.

## (6) Cooperation between the Project and JICA Volunteers (JOCV)

Two JICA volunteers were dispatched to the Project implementing organization, DPOPHRH /DAS. These young volunteers actively accompanied and participated in Project activities such as PEC and the establishment of SINAS during the Project implementation period, where they had good opportunities to enhance their knowledge of water supply and sanitation. Following the completion of the Project, together with counterpart technicians of DPOPHRH/DAS, they have been conducting post-project monitoring work in the communities.

Also, in August 2016, a Regional Workshop for JOCVs was held in Niassa Province. A total of 31 people participated in the workshop, including 22 volunteers from seven African countries (Cameroon, Malawi, Rwanda, Sudan, Uganda, Kenya, and Mozambique) called the Water Security Action Team (W-SAT<sup>7</sup>) and some JICA officials, and they also visited some Project sites and discussed the details of the Project activities.



Project site visit during the Regional Workshop for JOCVs

It is obvious that utilizing the characteristics of Technical Cooperation Projects together with those of JOCV and proactive coordination between both parties resulted in increased sustainability and the independent growth of Project outcomes.

<sup>&</sup>lt;sup>7</sup> JICA volunteers dispatched in African countries for the purpose of the provision of safe drinking water

## (7) Contribution to International Efforts such as SDGs

In SDGs (Sustainable Development Goals), target  $6.2^8$  states that "pay special attention to the needs of women and girls and those in vulnerable situations". Also, a resolution was adopted in the United Nations General Assembly in 2010 that the access to safe drinking water and sanitation shall be considered as human rights. Therefore, consideration to benefit all people has been required.

In this Project, with those recent international efforts mentioned above in mind, the activities were carried out with regard to gender, people with disabilities, socially vulnerable people, etc. with the following considerations.

## > Gender

- As to the construction of school latrines with handwashing facilities, doors were installed in all of the individual rooms to ensure users' privacy. Also, longer private walls were built and water taps for handwashing were placed inside the wall in order to promote handwashing after use of the latrines and to secure privacy.
- In selection of construction point of water supply facility, there had been a custom that community leader made a decision, but this Project involved community members, especially many women, to participate in the selection process and decided where to construct the facility in the community.
- When establishing the water and sanitation committees of the communities, consideration was given

that half of the members should be women.

## People with disabilities

• As to the construction of school latrines with handwashing facilities, the doors were increased in width, and slopes, handrails and stools were placed for wheelchair users and crutch users.

In all the activities carried out in this Project, under the concept "No one left behind", it was devised that the opinions of stakeholders and beneficiaries were listened as much as possible and their intentions were respected, giving due consideration of their local culture, religious background and customs etc.

Hence, these outcomes are expected to contribute to achieve SDGs (Goal 6: Water and Sanitation) in Mozambique.

(Project period: January/2013 to February/2017)

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National Program for Rural Water and Sanitation, National Directorate of Water, 2009

Minutes of the Meeting for the Establishment of GAS - Niassa, Provincial Directorate of Public Works and Housing (DPOPH), 2010.

<sup>&</sup>lt;sup>8</sup> Target 6.2: "By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations"