

Country Name	Project for Review and Update of Nigeria National Water Resources Master Plan
Federal Republic of Nigeria	

I. Project Outline

Background	<p>The former "National Water Resources Development Plan" formulated with the support of JICA in 1995 ("M/P1995") was outdated and it required an urgent update as new issues emerged. Actual water resource potentials showed considerable differences from the M/P1995, while the demand for water in Nigeria increased coupled with a growing population and economic development. Moreover, effects of climate change needed to be taken into consideration in the management and development of water resources.</p> <p>In addition, new institutional needs occurred in 2008. The Nigeria Integrated Water Resources Management Commission (NIWRMC) was established to supervise the water resource management. Catchment Management Offices (CMOs) in 8 hydrological areas (HAs) under NIWRMC became the key decentralized arms of the water administration system.</p> <p>Under these situations, the government of Nigeria requested the government of Japan for a technical cooperation to support reviewing and updating the M/P 1995.</p>												
Objectives of the Project	<p>Through formulation of a new National Water Recourse Master Plan ("M/P 2013") and drafts of catchment management plan (CMP) for the two selected Hydrological Areas (HAs) of HA-1 (Niger North) and the Ogun-Oshun Basin in the western area of the HA-6 (West Littoral) as well as transfer of necessary skills and knowledge to the counterparts in the formulation of M/P and CMPs, the project aimed at adoption of the M/P 2013 as a national policy document and finalization of the CMPs based on agreements among local stakeholders in the HAs, thereby contributing to implementation of water resource management and development projects based on the M/P 2013 and the CMPs proposed by the project.</p> <ol style="list-style-type: none"> Expected Goals through utilization of the proposed plan¹: 1) Water resources management and development projects are implemented in adherence with the budget allocated based on the M/P 2013, 2) Water resources management and development projects are implemented based on the CMPs. Expected utilization of the proposed plan by the project: 1) The M/P 2013 is adopted as a national policy document of Nigeria, 2) The draft CMPs are finalized based on agreements among local stakeholders in the HAs. 												
Activities of the Project	<ol style="list-style-type: none"> Project site: the whole country composing of the 8 HAs, HA-1 (Niger North) and Ogun-Oshun Basin in HA-6 (West Littoral) Main activities: 1) Survey and analysis of the current status of the water sector; 2) Evaluation of water resources potential and making a projection on water supply demand balance; 3) Formulation of the National Water Resources Master Plan (M/P 2013); 4) Draft of the Catchment Management Plan for 2 HAs (HA-1, Ogun-Oshun Basin in HA-6); 5) Transfer of technology and knowledge to the counterpart personnel. Inputs (to carry out above activities) <table border="0"> <tr> <td>Japanese Side</td> <td>Nigerian Side</td> </tr> <tr> <td>1) Mission members: 14 persons</td> <td>1) Staff allocated: 25 persons</td> </tr> <tr> <td>2) Equipment: Software for survey analysis</td> <td>2) Land and facility: Office space</td> </tr> <tr> <td>3) Local cost: Cost for 4 surveys (socioeconomic survey, selected large stored dam, well inventory and ground water level monitoring), and cost for workshops and stakeholder meetings</td> <td>3) Equipment: Necessary office equipment</td> </tr> <tr> <td></td> <td>4) Local cost: Cost for drivers</td> </tr> </table>			Japanese Side	Nigerian Side	1) Mission members: 14 persons	1) Staff allocated: 25 persons	2) Equipment: Software for survey analysis	2) Land and facility: Office space	3) Local cost: Cost for 4 surveys (socioeconomic survey, selected large stored dam, well inventory and ground water level monitoring), and cost for workshops and stakeholder meetings	3) Equipment: Necessary office equipment		4) Local cost: Cost for drivers
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Project Period	August, 2011 to January 2014	Project Cost	(ex-ante) 520 million yen, (actual) 513 million yen										
Implementing Agency	Federal Ministry of Water Resources Nigeria Integrated Water Resources Management Commission (NIWRMC)												
Cooperation Agency in Japan	Yachiyo Engineering Co., Ltd., CTI Engineering International Co., Ltd., Sanyu Consultants Inc.												

II. Result of the Evaluation

1 Relevance
<p><Consistency with the Development Policy of Nigeria at the Time of Ex-Ante Evaluation and Project Completion></p> <p>The project was consistent with Nigeria's development policy of the "Vision 20: 2020" consisting a variety of plans, including the use of water resources for achieving the target such as 100% water supply rate by 2020, and the "National Water Resources Policy" (revised in 2009) and "Nigeria Water Sector Roadmap" (2011) to achieve the policy targets on the water sector at the time of ex-ante evaluation and project completion.</p> <p><Consistency with the Development Needs of Nigeria at the Time of Ex-Ante Evaluation and Project Completion ></p> <p>The project was consistent with the Nigeria's development needs to update the M/P1995 in order to reflect the growing demand on water resource development for irrigation, drinking water and hydropower generation, the climate change impacts on water resources and</p>

¹ The degree of achievement of expected goals is not to be assessed in principle at the time of ex-post evaluation, since it is defined as the medium-to-long-term goals which will be attained as a result of crystallizing the proposed plan ("output" of the project).

their management as well as institutional changes in water resource allocation at the time of ex-ante evaluation and there was no change in the development needs at the time of project completion.

<Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation>

The project was consistent with the Japan's ODA policy for Nigeria based on the 3rd policy dialogue between Nigeria and Japan which had agreed to sustain the basic policy discussed by the 2nd policy dialogue, prioritizing support for water supply as one of the 5 priority areas. at the time of ex-ante evaluation.

<Evaluation Result>

In light of the above, the relevance of the project is high.

2 Effectiveness/Impact

<Status of Achievement for the Objectives at the Time of Project Completion>

The study for reviewing and updating the M/P1995 was completed by the project as planned. Based on the study, the M/P 2013, which was composed of the water resources development plan, water resources sub-sector development plan, water resources management plan and the implementation program, was formulated. In addition, the CMPs were drafted for the two hydrological areas of HA-1 and Ogun-Oshun Basin in the HA-6. However, it was not confirmed whether transfer of necessary skill and knowledge to conduct study and analysis for formulating the master plan had been completed or not due to no available information.

<Utilization Status of the Proposed Plan at the Time of Ex-post Evaluation>

The plans proposed by the project have been utilized. The M/P 2013 has been approved by the Federal Executive Council comprising the President and Ministers on July 23rd, 2014 and adopted as a Nigerian national policy document. However, the draft CMPs have not been finalized yet since stakeholder workshops are yet to be organized due to low budgetary allocation for the Nigeria Integrated Water Resources Management Commission which has a mandate to finalize the draft CMPs. The M/P 2013 has been utilized as a reference point for all documents of FMWR, including the "Water Resources Roadmap" (2016-2030) and the "National Irrigation Development Programme" (2016-2030), the Draft National Water Resources Bill and so on. It is also used by consultant working for FMWR. In addition, FMWR has committed to align all FMWR's future projects in accordance with the M/P 2013. The CMPs will be requested to get an approval from the Federal Executive Council after the stakeholder workshops.

<Status of Achievement for Expected Goals through the Proposed Plan at the Time of Ex-post Evaluation>

The expected goals were not verified at the time of ex-post evaluation since the number of the implemented project by State governments is not monitored without integrated database although some of them are under development. However, results of monitoring exercise currently carried out by the Department of Water Resource Planning and Technical Support Services (WRP/TSS) show that some projects listed in the M/P2013 have been currently implementing by FMWR. In addition, the number of communities with access to the improved facilities increased from 695 in 2013 to 729 in 2016. For irrigation, the number of irrigation schemes also increased from 21 for 202 farmers in 2013 to 28 for 378 farmers in 2016. The number of surface water monitoring station constructed increased from 213 to 294 for the same period. Therefore, in view of the fact that the M/P 2013 has been utilized for the national program, the project has been contributing to promote the implementation of water-related projects in the country.

<Other Impact at the time of Ex-post Evaluation>

No other positive and negative impacts were observed at the time of ex-post evaluation.

<Evaluation Result>

In light of the above, the effectiveness/impact of the project is fair.

Status of Achievement of Utilization Status of the Proposed Plan and Expected Goals through the Proposed Plan

Aim	Indicators	Results
(Expected utilization of the Proposed Plan) 1. The M/P 2013 is adopted as a national policy document of Nigeria.	Adoption of the M/P 2013 as a national policy document of Nigeria.	Status of achievement: Achieved. (Ex-post Evaluation) The M/P 2013 was adopted as a Nigerian national policy document and has been utilized for the following policy documents - Water Resources Roadmap 2016-2030 - National Irrigation Development Programme 2016-2030 - Draft National Water Resources Bill, etc.
2. The draft CMPs are finalized based on agreements among local stakeholders in the Hydrological Areas (HAs)	Finalization of draft CMPs based on agreements among local stakeholders in the Hydrological Areas (HAs).	Status of achievement: Not achieved. (Ex-post Evaluation) - The drafted CMPs have not been finalized yet.
(Expected Goals through the Proposed Plan) 1. Water resources management and development projects are implemented based on M/P 2013.	Number of water resources management and development projects based on the M/P 2013 implemented.	Status of achievement: Partially achieved. (Ex-post Evaluation) -FMWR has started monitoring the implementation of the projects listed in the M/P2013. The results show that some projects has been implementing according to the M/P 2013.
2. Water resources management and development projects are implemented based on Catchment Management Plan (CMP)	Number of water resources management and development projects based on Catchment Management Plan (CMP) implemented.	Status of achievement: Not achieved (Ex-post Evaluation) - CMPs are yet to be finalized.

(Source) Interviews with FMWR and NIWRMC

3 Efficiency

Although the outputs were produced as planned and the project cost was within the plan (ratio against the plan: 99%), the project period exceeded the plan (ratio against the plan: 111%). Therefore, the efficiency of the project is fair.

4 Sustainability

<Policy Aspect>

Under the “Nigeria Vision 2020” (2009-2020), prioritizing adequate provision of sustainable access to potable water and basic sanitation, the M/P 2013 was adopted as a national policy document and has been utilized as a reference document for other policy documents such as the “Water Resource Road Map” (2016-2030) and the “National Irrigation Development Programme” (2016-2030) as well as the drafted amendment of National Water Resources Bill (2016). Therefore, the implementation of the M/P 2013 proposed by the project has been endorsed by those policy documents.

<Institutional Aspect>

Basically, there is no change in the institutional system for implementation of the proposed plans by the project while the drafted National Water Resources Bill will allow the state government and private companies to construct dams under licenses issued by FMWR. For rehabilitation and construction of boreholes, the State Water Utilities for urban areas and the State Rural Water Supply and Sanitation Agencies (RUWASAs) for rural areas are responsible under state governments. No data on the total number of staffs in FMWR and other related federal and state agencies for implementation of the M/P 2013 was available, because the country has been decentralized and there is no integrated monitoring system by the federal government. For water allocation, management and regulation, the Nigeria Integrated Water Resources Management Commission (NIWRMC) is responsible. NIWRMC increased their staff to 150 at the time of ex-post evaluation from the time of project implementation, but all of them are not engaged in the technical works. According to the focal point of NIWRMC interviewed by the ex-post evaluation, the number of technical staff has not been sufficient to conduct activities related to water allocation and regulation covering all the 8 Catchment Management Offices in the country.

Based on the recommendation by the project, the Project Monitoring Unit (PMU) had been established under the Department of WRP/TSS of FMWR and has commenced their work on 21st May 2014. However, at the timing of ex-post evaluation, the unit does not function at all due to inadequate funding and retirement of the core members of the counterpart personnel of the project. Currently, their function is temporarily being taken over by WRP/TSS. WRP/TSS is now re-establishing a PMU under the directive of the Honorable Minister of FMWR. The PMU would primarily consist of two teams; a technical team of engineers and a steering team of high-level staff. The members would be drawn from all departments of FMWR and other agencies implementing the M/P 2013 including NIWRMC. For CMPs, the implementing structure will be discussed and agreed at the stakeholder workshops planned by NIWRMC.

<Technical Aspect>

The composition of the PMU would be a technical team of experienced engineers who have received training from the European Union (EU) on monitoring of M/P 2013 between 2012 and 2017. Some members of the WRP/TSS engaged in and M/P 2013 as well as participated on the EU training, thus it suggests an experienced set of people who are knowledgeable on implementing and monitoring the M/P 2013 are still working with the FMWR.

<Financial Aspect>

Although it is impossible to trace their budget record since the Nigerian government has no integrated database which can track the actual expenditure and budgeted amount by the federal, 36 states and Federal Capital Territory (FCT) governments, only 30% of the approved budget of NIWRMC is executed in most cases and the budget is not enough to implement the projects in accordance with the M/P2013 and CMPs. However, FMWR has committed to align all FMWR’s future projects in accordance with the M/P 2013 and the budget allocation is expected to improve as the Nigerian economy is gradually recovering. Some of the projects mentioned in the M/P2013 have been funded in FMWR budget of year 2016 and 2017. Budget of 2018 is yet to be executed.

The budget for recruitment of consultant who requires conducting the review of the draft CMPs and holding stakeholder workshop (public hearing) to finalize the draft CMPs had not been approved until 2016 since the Nigerian government had been in recession since 2015 and their budget was not enough to cover all the requests from government organizations. The consultant has been hired at the beginning of 2018 and has started work already.

<Evaluation Result>

In light of the above, some problems have been observed in terms of the institutional, technical and financial aspects of the implementing agencies. Therefore, the sustainability with the effectiveness through the project is fair.

5 Summary of the Evaluation

In the project, the M/P 2013 formulated by the project has been adopted as a Nigerian national policy and utilized as a reference for other policy documents to promote adequate water resources development and management in Nigeria. On the other hand, stakeholder meetings for finalization of the drafted CMPs have not been organized yet due to serious budget shortage of the Nigerian government since 2015. However, the necessary budget for holding the meetings has been approved in 2017 and the consultant to do the job has started work in 2018. The two draft CMPs are expected to be finalized in 2018 and submitted to the Federal Executive Council for its approval. As for sustainability, the set-up of the new PMU who have been trained by the EU are expected to effectively manage the monitoring of the M/P 2013. As for efficiency, the project period exceeded the plan.

Considering all of the above points, this project is evaluated to be partially satisfactory.

III. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

- FMWR needs to oversee the progress of finalization of the draft CMPs to ensure effective utilization of the outputs under the project. In addition, to achieve the expected goals planned under the project, FMWR is recommended to revive the Project Monitoring Unit and strengthen the monitoring system of M/P 2013.
- NIWRMC needs to hold stakeholder workshops for each CMPs in 2018 and agree the implementation and monitoring structure for the CMPs among local stakeholders.

Lessons Learned for JICA:

- When JICA supports the development of masterplan / development plan in Nigeria, the necessary process and expected duration for getting the approval in the Nigerian government needs to be examined more carefully. In the case of organizing stakeholder workshops, those events should be held with financial support by JICA by the project’s end.
- Masterplan should consider the order of projects’ implementation based on the timing and amount of the budget, since this country

takes a long time to reach consensus among other stakeholders and secure the necessary budget for newly proposed actions/projects.

- In case that there is no reliable monitoring structure in implementing agencies, JICA should support implementation and monitoring of masterplan for the first few years because it is difficult to project whether adequate number of staff members is going to be ensured or not at the time of project implementation for preparing MP..