

Country Name	<b>The Project for the Planning of the Nadi River Flood Control Structures</b>
Republic of Fiji	

**I. Project Outline**

Background	<p>The Nadi River Basin in Fiji is vulnerable to flood disaster, however, systematic and comprehensive flood control planning and/or flood control projects were not formulated for a long time, and the Nadi River Basin was facing a natural disaster risk. JICA implemented “The Study on Watershed Management and Flood Control for the Four Major Viti Levu Rivers in the Republic of Fiji Islands” from 1996 to 1998. Nevertheless, no actual measures were taken due to the Government of Fiji’s decision not to implement this Project. In addition, together with the economic development of the target area, land utilization greatly changed as well as the targeted flood and the expected amount of rainfall and its spatial distribution. Therefore, it was necessary to formulate the master plan and projects for flood management that took into consideration the actual recent flood damage situation.</p>								
Objectives of the Project	<p>This project aims to develop the Master Plan of the flood management of the Nadi River Basin and to implement the Feasibility Study on urgent and/or priority project(s), thereby contributing to mitigation of flood damage in the Nadi River Basin in Fiji.</p> <p>1. Expected Goals through the proposed plan<sup>1</sup>: Flood damage in the Nadi River Basin is mitigated</p>								
Activities of the Project	<p>1. Project Site: The Nadi River Basin</p> <p>2. Main Activities: (Stage 1-Basic Study) Review of existing data and collection of basic data, Evaluation of existing flood control plan and activity, Investigation of topography, riverbed materials, flood damage, etc. Analysis of rainfall and preliminary analysis of flood inundation, beach profile change, etc., Research and proposal for implementation of project/operation and maintenance management framework, etc. (Stage 2-Master Plan Study) Collection of additional data, Evaluation of major environmental and social impact items, Additional investigation of river facilities and coastal facilities, Analysis of flood inundation, river bed variation, beach profile change, etc., Formulation of the Master Plan, Selection of priority projects, etc., (Stage 3-Feasibility Study) Implementation of the Feasibility Study, Suggestions for improvement related to disaster risk, (Entire period-Technical Transfer) On-the-job training, Technical seminars and workshops, Training courses in Japan</p> <p>3. Inputs (to carry out above activities)</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Japanese Side</td> <td style="width: 50%;">Fiji Side</td> </tr> <tr> <td>1) Mission members: 19 persons</td> <td>1) Staff Allocated: 15 persons</td> </tr> <tr> <td>2) Trainees Received: 7 persons</td> <td></td> </tr> </table>			Japanese Side	Fiji Side	1) Mission members: 19 persons	1) Staff Allocated: 15 persons	2) Trainees Received: 7 persons	
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Project Period	July 2014 – June 2016	Project Cost	(ex-ante) 392 million yen, (actual) 320 million yen						
Implementing Agency	Land and Water Resources Management Division (LWRM), Ministry of Agriculture (MOA) *Currently it is reorganized into the Ministry of Waterways and Environment.								
Cooperation Agency in Japan	Yachiyo Engineering Co., Ltd. CTI Engineering International Co., Ltd.								

**II. Result of the Evaluation**

< Special Perspectives Considered in the Ex-Post Evaluation >

• In the ex-ante evaluation sheet, while the indicator to assess the expected goal through the proposed plan is defined, the indicators to assess the actual status of the utilization of the proposed plans is not specified. Therefore, the progress of budget formulation toward implementation of projects proposed by the Master Plan and the Feasibility Study Report is examined to evaluate the expected utilization (Supplemental Information 1 for expected utilization). Also, the status of implementation of the proposed plans in the Master Plan and the Feasibility Study Report is examined to see the expected utilization (Supplemental Information 2 for expected utilization).

**1 Relevance**

<Consistency with the Development Policy of Fiji at the Time of Ex-Ante Evaluation >

“The Roadmap for Democracy and Sustainable Socio-Economic Development” (2010-2014) described that disaster risk reduction was essential for sustainable development and greater community resilience. Strong emphasis was placed on the analysis and evaluation of hazards, formulation of effective disaster prevention plans, and implementation of effective projects of risk reduction.

<Consistency with the Development Needs of Fiji at the Time of Ex-Ante Evaluation >

After the development study implemented from 1996 to 1998, large scale floods caused serious damages. Therefore, it was necessary to redefine the scale of flood to be targeted and to re-examine the structural measures (retarding basin, dam and river improvement, etc.) proposed by the development study and their priorities.

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

<sup>1</sup> The degree of achievement of expected goals is not to be taken into consideration for the rating of effectiveness/impact 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 plans (“output” of the project).

The project was consistent with Japan's ODA Policy. In the priority areas in Japanese ODA policy toward Fiji (environment and climate change), assistance to strengthen the capacity to cope with natural disaster and climate change was listed<sup>2</sup>.

<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 project was implemented in 3 stages, Basic Study, Master Plan Study and Feasibility Study. The development study project was successfully carried out and the following reports were developed: (1) The Master Plan of the flood management of the Nadi River Basin, (2) The Feasibility Study Report on urgent and/or priority projects. The Master Plan and the Feasibility Study Report were completed by the end of the project and discussed during the Joint Coordination Committee (JCC) Meeting. At the JCC, the Government of Fiji (GoF) provided confirmation of their plans to submit the Master Plan and the Feasibility Study Report to the Cabinet for its approval to enable implementation of the projects proposed under the Project<sup>3</sup>.

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

The Master Plan and the Feasibility Study Report were accepted by the GoF for the implementation. The actual implementation of the proposed plans is still under deliberation at the time of ex-post evaluation. The Government of Fiji is holding extensive discussions with various development partners relating to funding of different components of the project and as per budget (Supplemental Information 1). As the proposed plans require substantive investments in infrastructure works, the GoF is still looking at options for funding from different partners to support different aspects of the plans. The whole project plan proposed for Nadi River flood alleviation consists of 3 components, Project A, B and C and the GoF has had ongoing discussions with possible donors for the implementation of each component. As various stakeholders are involved in the proposed projects, coordination and discussion amongst the stakeholders has been challenging and has resulted in further delays.

The GoF will be implementing certain aspects of the components of the project plans through the Ministry of Waterways and Environment's Watershed Management program once funding is secured. While the GoF had placed the projects for proposed plans for Nadi River flood alleviation as high priority, with the current COVID-19 pandemic being the top priority for the whole nation, implementation of the project has become a lesser priority. As a result, the proposed plans have not been launched yet (Supplemental Information 2).

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

As the project plans proposed by the Master Plan and the Feasibility Study Report have not been implemented yet, there is no achievement with regard to the Expected Goal. As this is the medium-to-long-term goals, the achievement of the Expected Goal is not taken into consideration for the evaluation judgment of Effectiveness/Impact (refer to the footnote 1).

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

The project was classified as Category B based on the JICA Guidelines for Environmental and Social Considerations (April, 2010). During the implementation of the development study<sup>4</sup>, no negative impact has been observed.

<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							
(Utilization Status of the Proposed Plan) The Master Plan and the results of Feasibility Study are approved by GoF.	Progress of deliberation of proposed Master Plan and the results of the Feasibility Study toward approval	(Ex-post Evaluation) achieved • The Master Plan and the Feasibility Study Report were accepted by the GoF.							
	Progress of budget formulation toward implementation of plans proposed by the Master Plan and the Feasibility Study Report (Supplemental Information 1)	(Ex-post Evaluation) Not achieved • The budget is under deliberation. The GoF is seeking funding from different partners to support different aspects of the proposed plans.							
	Status of implementation of the proposed plans in the Master Plan (Supplemental Information 2)	(Ex-post Evaluation) not achieved • The proposed plans have not been launched yet. The whole project plan proposed consists of 3 components and the GoF continuously holds discussion with possible donors for the implementation of each component.							
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<sup>2</sup> Source: Ministry of Foreign Affairs, "ODA Country Data Book in 2014"

<sup>3</sup> The Master Plan and the Feasibility Study Report were actually submitted to the implementing agency after the JCC.

<sup>4</sup> Pilot projects were not included in the development study.

		(Watershed management)	concept paper on the National Drainage Guidelines and the Watershed Management Act. This includes upstream and catchment area. One donor agency has presented the findings of the Survey for Component C to the GoF and now waiting for confirmation from GoF.
(Expected Goals through the Proposed Plan) Flood damage in the Nadi River Basin is mitigated.	Difference between the inundation area assumed for the design scale (e.g., 50-year flood) and the actual inundation area after the implementation of priority projects	(Ex-post Evaluation) Not achieved • As the project plans proposed by the Master Plan and the Feasibility Study Report have not been implemented yet, there is no achievement with regard to the Expected Goal.	

Source : Final Report, Questionnaire and interview with Ministry of Waterways and Environment

### 3 Efficiency

Both the project cost and the project period were within the plan (ratio against the plan: 82% and 100%, respectively). The outputs of the project were produced as planned. Therefore, the efficiency of the project is high.

### 4 Sustainability

#### <Policy Aspect>

The Ministry of Waterways and Environment have developed the Ministry Strategic Plan (2020-2024), which aligns to Fiji's 5- and 20-Year National Development Plans and other related plans. In the Strategic Plan (2020-2024), building resilience to climate change and waterways-related hazards through irrigation, improved drainage, flood control, and riverbank and coastal protection is highlighted as the strategic objective.

#### < Institutional/Organizational Aspect>

After the project completion, through government reshuffle, the Ministry of Waterways and Environment was created and is responsible for daily operations related to flood control. The Department of Waterways under the Ministry is responsible for the provision of flood mitigation measures, improved drainage, riverbank protection, coastal protection and smart irrigation technologies throughout the country. Although the number of employed staff is rather limited, there is not major problem in daily operation.

#### <Technical Aspect>

The daily operation has been carried out without major problem but there is a need for additional technical staff to meet the demand for services. Out of 135 staff members at the Ministry, there is only three engineers. Due to budget limitation, the Ministry cannot recruit new staff or renew the contract of its engineers. In addition, there is significant difference in the level of technical capacity amongst the Principal Engineer, Engineers and Technical Officers<sup>5</sup>. The data included in the Master Plan and the Feasibility Study Report are extensively used.

#### <Financial Aspect>

The budget allocated to the Ministry of Waterways and Environment has decreased over the years however the Ministry is implementing its activities with the reduced budget. For example, the budget allocated to drainage and flood protection was decreased from FJD7,000,000 in the fiscal year 2017/2018 to FJD1,423,386 in 2019/2020 and further reduced to FJD880,000 in 2020/2021. The budget allocation to the Ministry has been also affected by the COVID-19 pandemic.

#### <Evaluation Result>

In light of the above, slight problems have been observed in terms of the institutional/organizational, technical, and financial aspects of the implementing agency. Therefore, the sustainability of the effectiveness through the project is fair.

### 5 Summary of the Evaluation

The objective of the project was achieved by the time of project completion as planned, by submitting the Master Plan and the Feasibility Study Report. The Master Plan and the Feasibility Study Report were accepted by GoF, although actual implementation of the proposed plans in the Master Plan and the Feasibility Study Report is still under discussion. However, the proposed plans are the priority projects of the GoF and the GoF is trying all avenues to implement the proposed plans. Therefore, the effectiveness/impact is fair. On sustainability, further strengthening of manpower and technical capacity is required at the Ministry of Waterways and Environment and the allocation of the budget is decreasing, therefore, the sustainability of related agencies is fair. Considering all of the above points, this project is evaluated to be satisfactory.

## III. Recommendations & Lessons Learned

### Recommendations for Implementing Agency:

- Currently the government places a top priority on the countermeasures against the COVID-19 pandemic, and the implementation of the proposed project plans for Nadi River flood alleviation has been shifted to lower priority. Furthermore, Fiji has also been affected by Tropical Cyclones therefore priority has again now shifted to rehabilitation and recovery, consequently, this has again shifted GoF's priorities. Taking into consideration the current challenging situation relating to COVID-19 and aftermath of cyclones, it is recommended that the Government of Fiji should realize the importance of implementing the project and its implementation is made a higher priority again.
- The Project is being coordinated and managed by the Ministry of Economy who is responsible for securing funds and stakeholder coordination for this proposed projects while the implementation of the proposed project is being managed by the Ministry of Waterways and Environment. Therefore, GoF should be encouraged to more effectively facilitate the coordination among stakeholders as well as donors. For example, regular meetings should be initiated by the GoF between all the stakeholders to see the progress of the components under project A, B and C.

### Lessons Learned for JICA:

<sup>5</sup> The Ministry has the structure with the principal Engineer on the top, then Engineer, and then Technical Officers, based on qualification, years of service and experience.

• Due to number of reasons the launch of the proposed plans has been delayed. It is desirable that the proposed plans be commenced soon after the submission of the master plan and related reports. For this, coordination amongst stakeholders is important. It may be useful to provide recommendations to establish a coordinated implementation system by the end of the development study to ensure effective approval and implementation process of the proposed plan.