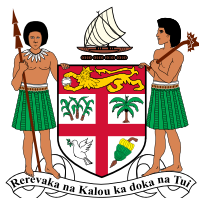


FIJI WATER SUPPLY, SANITATION AND HYGIENE (WASH)

DISASTER RECOVERY FRAMEWORK GUIDE

Disaster Recovery Series
07 February 2023



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Acknowledgment

This publication was prepared under the Asian Development Bank (ADB) technical assistance project Building Disaster-Resilient Infrastructure through Enhanced Knowledge. Grant funding for the project came from the Japan Fund for Prosperous and Resilient Asia and the Pacific (JFPR), financed by the Government of Japan through ADB.

The United Nations Development Programme delivered output 3 of such Project with the aim to enhance technical capacities for recovery planning, and implementation, including adapting the Post Disaster Needs Assessment (PDNA) and Disaster Recovery Framework (DRF) guidelines to national contexts and specific infrastructure sectors, with the focus of this guidance being Fiji's WASH sector.

This publication has been developed with collaboration and input from various partners, including the Ministry of Rural & Maritime Development and Disaster Management, the Ministry of Lands and Mineral Resources, the Ministry of Infrastructure and Meteorological Services, the Ministry of Health and Medical Services, Water Authority of Fiji and Fiji WaSH Cluster Partners including UNICEF.

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Contents

1	Background.....	1
2	Introduction.....	2
2.1	WASH and Disaster Risks.....	2
2.2	WASH and Disaster Impacts in Fiji.....	3
2.3	Moving from the PDNA to the DRF.....	3
2.4	Bridging the Humanitarian – Development Nexus.....	4
2.5	Structure of the WASH DRF Guideline.....	5
3	Stakeholders For The WASH DRF Report Preparation.....	6
4	Fiji’s WASH Recovery Policy Context.....	8
4.1	WASH Policy.....	8
4.2	WASH Standards.....	8
4.2.1	Water Suppl.....	9
4.2.2	Sanitation (Excreta Disposal).....	9
4.2.3	Hygiene.....	10
4.2.4	Drainage.....	10
4.2.5	Solid Waste.....	11
4.3	WASH Sector and Disaster Management Laws or By-Laws.....	11
4.4	WASH and Disaster Management Rules or Regulations.....	13
4.5	WASH and Disaster Management Policies, Plans & Projects.....	14
4.6	WASH Policy Improvement Needs.....	15
5	WASH Institutional Arrangements for Recovery.....	16
5.1	WASH Institutional Responsibilities.....	16
5.1.1	Lead Agency for Recovery.....	17
5.2	Assignment of Recovery Responsibilities for WASH.....	17
5.2.1	Separation of Roles for WASH Service Delivery.....	19
5.2.2	Role of External Agencies.....	19
6	WASH Recovery Financing Mechanisms.....	20
6.1	Disaster Recovery Financing Options.....	20
6.2	WASH Financing Flows.....	22
6.3	Leveraging Commercial Financing for WASH.....	23
6.4	Reliability of the Financial Management Systems.....	24
7	WASH Recovery Implementation Procedures.....	26
7.1	Identification Stage.....	26
7.1.1	Prioritisation Criteria.....	26
7.1.2	Technical feasibility.....	27
7.2	Preparation Stage.....	28
7.2.1	Economic viability.....	28
7.2.2	Project management capacity.....	29
7.2.3	Environmental and social safeguards.....	29
7.3	Appraisal.....	32
7.3.1	Project Approval.....	32
7.4	Execution.....	33
7.4.1	Procurement.....	33
7.4.2	Detailed Design.....	35
7.4.3	Reconstruction.....	36
7.5	Grievance Redress.....	37
7.6	Completion.....	38
7.6.1	Operation and Maintenance (O&M).....	39
8	Monitoring and Evaluation (M&E).....	40
8.1	Monitoring.....	41
8.1.1	Monitoring Objectives.....	41
8.2	WASH Indicators.....	42

8.2.3	Hygiene.....	43
8.2.4	Solid Waste.....	43
8.2.5	Additional WaSH Sector Indicators.....	44
8.3	WaSH Monitoring Framework.....	46
8.4	Evaluation.....	46
8.5	Resources for Monitoring and Evaluation.....	47
8.5.1	Financial Resources.....	47
8.5.2	Human Resources.....	48
8.6	DRF Sector Guideline Review.....	48
9	References.....	49

Figures

Figure 1: Global average annual impact of water and non-water related emergencies.....	2
Figure 2 Disaster Risk Reduction & Build Back Better Components.....	3
Figure 3: Linkages between the PDNA, the DRF and Fiji’s development plans (TC Winston DRF Report, 2016).....	4
Figure 4: How the DRF builds on the PDNA.....	4
Figure 5: Fiji Inter Cluster Structure.....	6
Figure 6: SDG water supply service ladder.....	9
Figure 7: Constituent materials in municipal solid waste.....	11
Figure 8: Fiji’s Inter-Cluster structure.....	16
Figure 9: Typical mix of financing flows for WASH service provision.....	22
Figure 10: Using concessional finance to leverage commercial finance.....	23
Figure 11: Financial Management Cycle.....	23
Figure 12: WASH Recovery Implementation Cycle.....	26
Figure 13: Pre-feasibility assessment of options.....	27
Figure 14: Considering NPV and EIRR together.....	28
Figure 15: Managing environmental and social safeguards.....	30
Figure 16: Elements of environmental and social safeguards.....	31
Figure 17: Managing the design and reconstruction of WASH services.....	33
Figure 18: National and international procurement procedures.....	34
Figure 19: The theory and practice of grievance redress.....	38
Figure 20: The shift from a public service to a commercial service model of WASH delivery.....	39

1 Background

The Fiji WASH sector DRF Guide for Fiji was prepared under the Asian Development Bank (ADB) technical assistance project Building Disaster-Resilient Infrastructure through Enhanced Knowledge. Grant funding for the project came from the Japan Fund for Prosperous and Resilient Asia and the Pacific (JFPR), financed by the Government of Japan through ADB. The United Nations Development Programme delivered output 3 of such Project with the aim to enhance technical capacities for recovery planning, and implementation, including adapting the Post Disaster Needs Assessment (PDNA) and Disaster Recovery Framework (DRF) guidelines to national contexts and specific infrastructure sectors, with the focus of this guidance being Fiji's WASH sector.

After a Post-Disaster Needs Assessment (PDNA) has been conducted by government, often with the technical support of the Tripartite Institutions (World Bank, European Union and United Nations), the next step is for the Government to develop a detailed Disaster Recovery Framework (DRF) for each of the sectors included in the PDNA. The Disaster Recovery Framework development is a government-led and owned exercise, that is conducted in association with the stakeholders relevant for the recovery of Fiji and affected sectors, including but not limited to the civil society, the private sector, and international partners. The general DRF Guide provides an understanding of the main steps that each sector should take to develop a recovery framework that will be included in the overall DRF for the country.

This Fiji WASH Sector DRF guideline is adapted from the generic WASH DRF Guide to provide the reader with local context and understanding of the recommended structure of a government-led Disaster Recovery Framework for the Fiji WASH sector. This is intended to assist government and non-government stakeholders engaged in the development of the DRF to design and implement post-disaster recovery programs for the Fiji WASH sector. The purpose of the PDNA and DRF Guides for the WASH sector is to assist Fiji in carrying out a PDNA and formulating a DRF after any type of disaster event. Planning and preparation for disaster recovery can and should be performed regularly, to facilitate a smooth assessment and assist implementation subsequent recovery. Much of this work can be done well before any disaster occurs. Table 1 provides a list of disaster preparedness activities and when they should be performed.

Table 1: High Level Disaster Management Activity Timeline

Activity	Pre-Disaster	Disaster imminent or current	Post-Disaster
Establish disaster response policy (including BBB), procedures and organisational structures	X		
Stakeholder Consultation	X		X
Financial Preparedness Planning	X		
PDNA Training	X		X
Review and update Data Collection Template(s)	X		
Collect Data and Update Baseline Data Set	X		X
Update and Disseminate PDNA Tools	X		
Review PDNA Resource Plan	X		
Review PDNA execution cost estimate and funding strategy	X		
Pre-position emergency resources according to standard procedures	X		
Disaster			
National Emergency Operations Centre (NEOC) Activation		X	
Relief Operations		X	X
PDNA execution if requested by Fiji Government			X
Develop Disaster Recovery Framework based on PDNA and previous recovery knowledge.			X
Implement DRF activities, monitor and evaluate			X

2 Introduction

The Recovery phase in the response to a humanitarian emergency signals a shift, from the immediate provision of emergency WASH services through the humanitarian response, to the restoration of the delivery of affordable access to safe WASH services through development operations. The recovery phase therefore needs to strike a balance between delivering urgently needed WASH facilities (via the humanitarian response) and the building of the institutions that are responsible for sustainably managing WASH services (via development operations).

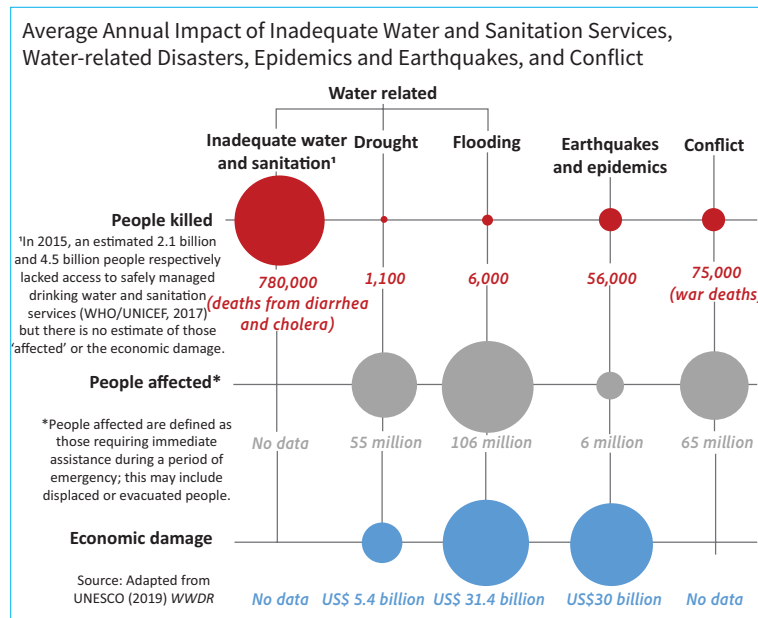


Figure 1: Global average annual impact of water and non-water related emergencies

The recovery program in the DRF provides an opportunity to incorporate build-back-better (BBB)¹ principles and disaster risk reduction (DRR)² to strengthen resilience to future disasters. This guidance note for the implementation of a Disaster Recovery Framework for the WASH sector aligns with the structure of the generic DRF Guide, to cover WASH policies, institutional coordination, financing mechanisms and implementation arrangements.

2.1 WASH and Disaster Risks

According to the [World Risk Report](#), the risk of a natural event turning into a disaster depends on both the force of the event, as well as the conditions of the society and its response structures. The susceptibility of a society to natural events increases with weak infrastructure networks, greater poverty and inequality and lower access to public health services³. While extreme natural events cannot be directly prevented, Fiji can reduce societal vulnerability to risk by:

- improving public infrastructure and wealth, reducing poverty and under-nutrition;
- strengthening governance and the quality of preventative and curative health services; and
- investing in the future capacity of people and the environment;

where water is both a major cause of natural risks and a societal determinant of the ability to manage those risks.

1 Build-back-better (BBB) refers to the use of the recovery phases after a disaster to increase collective resilience.

2 Disaster risk reduction (DRR) is a systematic approach to identifying, assessing and reducing risks.

3 Bündnis Entwicklung Hilft (2018) WorldRiskReport

2.2 WASH and Disaster Impacts in Fiji

An estimated 90% of natural disasters globally are water related. For Fiji, the UNDRR DESINVAR data base⁴ indicates that since 2000:

- Floods have resulted in USD227M impact on the economy, affecting at least 205,461 people in total
- Cyclones have caused USD982M in damage and losses, affecting at least 959,983 people in total (roughly equivalent to the current population)
- Drought has caused estimated losses of USD60M in the economy, affecting at least 694,455 in total

These disaster impacts include people directly and indirectly affected by unsafe drinking water and sanitation services, some of whom already struggle with inadequate WaSH access. This highlights the need to provide effective and appropriate recovery from disasters in the shortest possible time.

2.3 Moving from the PDNA to the DRF

PDNA and associated DRF are formulated sequentially, after a disaster event. The PDNA Guide and this DRF Guide for the WASH sector should be used to assist Fiji in carrying out a PDNA and formulating a DRF after any type of disaster event.

The PDNA assesses the multisectoral damage and losses to quantify the costs, type, size and location of post-disaster needs for restoration of infrastructure, services and capacities. The PDNA seeks to create a multi-sector planning envelope to inform the trade-offs necessary to manage the recovery process.

While the PDNA includes an assessment of the physical damage costs and economic losses to water, sanitation and hygiene services in the wake of a disaster, the DRF is the logical next step defining the policies, institutional arrangements, financing mechanisms and implementation frameworks necessary for the recovery of the WASH sector to at least pre-disaster levels. The PDNA process includes the development of a sector recovery strategy which forms the basis of the Disaster Recovery Framework. The strategy is developed by the WaSH PDNA team in consultation with sector stakeholders.

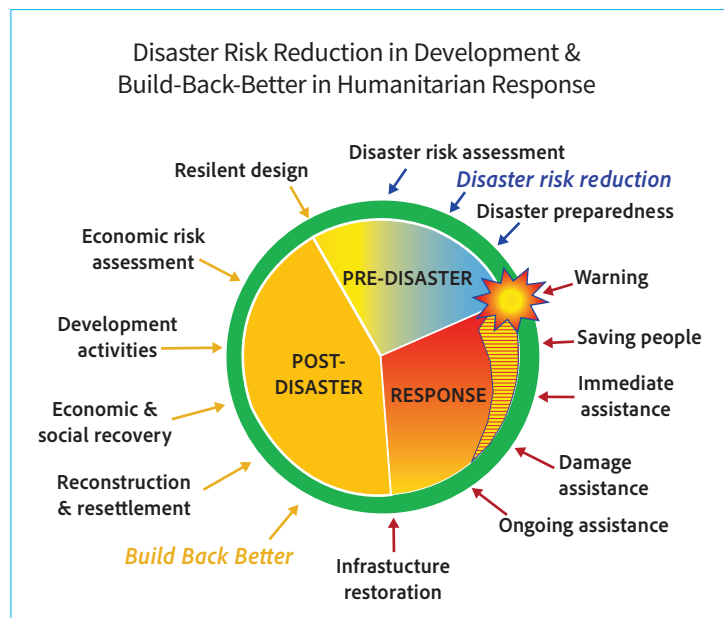


Figure 2 Disaster Risk Reduction & Build Back Better Components

The purpose of the Disaster Recovery Framework (DRF) is to take this recovery strategy a step further to define how the recovery process will be managed and what recovery “looks like” based on the Recovery Vision and Guiding Principles developed during the PDNA.

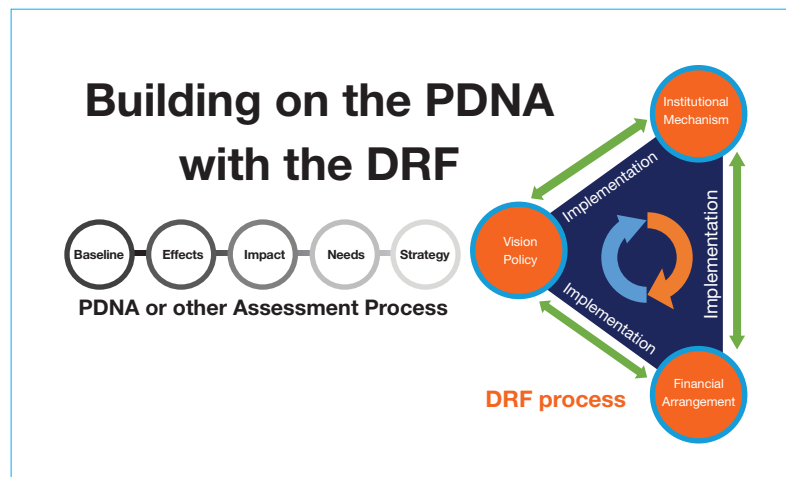
4 <https://www.desinventar.net/Desinventar/profiletab.jsp>

While the PDNA is a snapshot of all the recovery needs assessed, regardless of whether all these needs can realistically be implemented, the DRF recognizes the limitations of available human, financial and organizational capacities. At the core of the DRF lies the prioritization and sequencing of recovery activities with the necessary human and financial resources. There are clear linkages between the PDNA, the DRF and Fiji’s National Development Plans as the following example from the TC Winston PDNA report shows (Figure 3). In that report the DRF timeline was proposed as 2 years, but this is usually up to 5 years and the duration will vary in length between disasters and sectors as determined by the Government of Fiji.



Figure 3: Linkages between the PDNA, the DRF and Fiji’s development plans (TC Winston DRF Report, 2016)

2.4 Bridging the Humanitarian – Development Nexus



While the imperative for the immediate provision of WASH services to those at risk from a disaster justifies centralized delivery systems that may bypass routine procedures and local regulations, this can undermine the systems designed to provide checks and balances to ensure the sustainability of services. [Bridging the humanitarian-development nexus](#) requires cognizance from both humanitarian and development actors of their mutually reinforcing contributions to reducing risks and enhancing development opportunities⁵.

5 OCHA Policy Development and Studies Branch (2017) *New Way of Working*

The goal of a disaster recovery framework is to restore WASH infrastructure, services and institutions to pre-disaster levels in disaster affected areas and in doing so contribute to the development of the WASH subsector as a whole. The DRF provides an opportunity for bridging the humanitarian-development nexus by:

- incorporating build back better (BBB) principles into the Humanitarian Response to enable countries to ‘leapfrog’ towards sustainable delivery systems.
- incorporating lessons learned on disaster risk reduction (DRR) into Development Operations to reduce vulnerability to future humanitarian disasters.

2.5 Structure of the WASH DRF Guideline

This document is structured to assist the WASH DRF team to build on the PDNA to develop the WASH DRF chapter by assessing the options and the necessary trade-offs associated with the Recovery of WASH services.

- 1. WASH DRF Policy chapter:** describes the state of WASH recovery policy in Fiji. It lists the relevant policies and how they affect recovery for the sector. Identify gaps and suggests policy directions.
- 2. WASH DRF Institutional chapter:** describes the WaSH governance structure in Fiji – what institutions are responsible for WASH and how they coordinate with each other, including their roles in recovery.
- 3. WASH DRF Financing chapter:** explains the mechanisms for financing recovery in the sector. It lists the sources of funding including external sources and how resources are reallocated or mobilized quickly for recovery.
- 4. WASH DRF Implementation chapter:** describes the existing implementation, communication, procurement and monitoring & evaluation systems.

WASH Covid Recovery Framework Annex: provides an example of policies, institutions, finances and implementation arrangements that may be associated with the recovery of the WASH subsector from COVID-19 or future similar disease outbreaks.

3 Stakeholders For The WASH DRF Report Preparation

The team for preparation of the WaSH Sector DRF will be drawn from key stakeholders and informants from the WaSH PDNA (including Clusters), led by the Ministry of Economy. The Minister of Economy will have responsibility to provide overall coordination and implementation of monitoring of the Disaster Recovery Framework (DRF), with line Ministries taking a lead role in the implementation of programs that fall within their portfolios.

The Ministry of Economy and Ministry of Rural & Maritime Development and National Disaster Management will liaise and coordinate to ensure that all recovery activities maintain their momentum as focus shifts to the two-year Recovery Programs. The link between relief and recovery will be ensured through continued involvement of the Disaster Core Team within the Strategic Planning Office of the Ministry of Economy in both the relief clusters and priority recovery activities.

The Line Ministries with direct responsibility for recovery in the Fiji WaSH sector are:

- Ministry of Economy (Lead)
- Ministry of Rural and Maritime Development and Disaster Management (NDMO)



- Ministry of Health and Medical Services
- Ministry of Infrastructure and Meteorological Services
 - » Water Authority of Fiji
 - » Department of Water and Sewerage
- Ministry of Lands and Mineral Resources
 - » Mineral Resources Department
- Ministry of Education, Heritage and Arts
- Ministry of iTaukei Affairs

The Ministry of Economy will provide data gathering and reporting assistance to the recovery planning and monitoring process through the Fiji Bureau of Statistics. WaSH Sector recovery is also delivered in consultation with the Fiji Cluster System. The Fiji Cluster System is comprised of;

- Inter Cluster led by the National Disaster Management Office;
- 9 sectoral clusters led by the Permanent secretaries of relevant ministries: and
- Supporting partners

Currently each cluster has a co-lead from the Pacific Humanitarian Team (PHT) mainly because of resources available within the PHT that can be mobilised within each cluster. The PHT is a network of humanitarian partners with the capability and expertise to assist Pacific Island Territories and Countries (PICTs) in preparing for and responding to disasters in the region. The PHT supports the Fiji Governments in delivering effective, appropriate, timely and coordinated disaster preparedness, response and recovery actions. The PHT is co-chaired by the United Nations Resident Coordinator (RC) in Fiji.⁶

4 Fiji's WASH Recovery Policy Context

4.1 WASH Policy

The Constitution of Fiji guarantees the right of every Fijian to clean and safe water in adequate quantities, and accessible and adequate sanitation facilities. However, there isn't a specific WaSH sector recovery policy in Fiji.

The current reference points for WASH recovery planning are other development related documents. The Fiji Government's development objectives and standards for the WaSH sector are documented in a disaggregated manner in:

- The 5-Year & 20-Year National Development Plan (2017)
- The Rural Water and Sanitation Policy
- Minimum Standards on Water Sanitation and Hygiene (WASH) In Schools Infrastructure 2012
- Fiji National WASH Cluster Emergency Response Cluster Standards
- The National Water and Sanitation Policy - currently being prepared (October 2022) for future release; not yet available for review

These documents do not discuss recovery but should form the basis for recovery planning in the DRF.

As evidenced by the diversity of "standard" documents, policy for recovery is not centralized, but rests informally with individual Ministries, highlighting a significant gap in Fiji's disaster management and recovery governance framework. There is disaggregation of responsibility for WASH service delivery, and hence recovery, in Fiji. The most coordinated approach to WASH service delivery and recovery lies with the WaSH Cluster, under the leadership of the Ministry of Health and Medical Services. This is discussed more in Section 5 WASH Institutional Arrangements for Recovery.

4.2 WASH Standards

In the absence of a sector recovery policy, the existing WASH standards and development objectives should guide the DRF preparation. The Fiji National WASH Cluster Emergency Response Cluster Standards list WASH service delivery standards for use in humanitarian response and development work, expressing the objectives listed in Fiji's National Development Plan (NDP).

The relevant objective of the NDP is to achieve universal access to safe and affordable water, sanitation and hygiene (WASH) services (across the whole of the service delivery chain) and the reduction of inequality by 2030. The headline Water and Sanitation supply principle in the NDP is:

"100 Percent Access to Clean and Safe Water and Proper Sanitation. Every Fijian has a right to clean and safe water in adequate quantities. For the urban areas, 100 percent access to clean and safe water will be realised by 2021 and for the rural and maritime areas by 2030."

The WASH Recovery Policy chapter of the DRF must support Fiji's 5-Year & 20-Year National Development Plan (NDP) targets and priorities, in the context of the Fiji National WASH Cluster Emergency Response Cluster Standards, while limiting itself to the restoration of services to pre-disaster levels.

4.2.1 Water Supply

Water Safety and Security	
SDG 6.1 & 6.4	Description
Water security	-Change in water use efficiency over time - Level of water stress
Safely managed service	Drinking water from an improved source which is located on premises, available when needed and free of faecal and priority contamination
Basic service	Drinking water from an improved source if collection time is not more than 30 minutes for a round trip with queuing
Limited service	Drinking water from improved sources which require over 30 minutes for a round trip including queuing
Unimproved service	Drinking water from unprotected dug wells or springs
No service	Drinking water from a river, dam, lake, pond, stream, canal or irrigation channel

Source: Adapted from WHO/UNICEF JMP (2017)

Fiji’s National Development Plan aims for 100 per cent access to clean and safe* water to be realized by 2021 for urban areas and by 2031 for rural areas.

*A safely managed service (as measured by the JMP) has been defined as “drinking water from an improved source which is located on premises, available when needed and free of faecal and priority contamination”.

While the National target for water safety and security may not be achievable with the resources and timeframe available for Recovery, the DRF team may choose to prioritise the progressive realization of these targets.

The applicable Fiji National WASH Cluster Emergency Response Cluster Standards for formulating the DRF are:

Standard 1: Access and Water Quantity

- All people have safe and equitable access to a sufficient quantity of water for drinking, cooking and personal and domestic hygiene. Public water points are sufficiently close to households.

Standard 2: Water Quality

- Water is palatable and of sufficient quality to be drunk and used for cooking and personal and domestic hygiene without causing risk to health.

Standard 3: Water Facilities

- People have adequate facilities to collect, store and use sufficient quantities of water for drinking, cooking and personal hygiene, and to ensure that drinking water remains safe until it is consumed.

4.2.2 Sanitation (Excreta Disposal)

Fiji does not have a sanitation recovery policy.

Fiji’s national targets for Sanitation service provision are defined in the 5-Year & 20-Year National Development Plan 2017 (NDP), the Rural Water and Sanitation Policy 2021, and the Minimum Standards on Water Sanitation and Hygiene (WASH) In Schools Infrastructure 2012.

A safely managed sanitation service (as measured using JMP parameters) is defined as the “use of improved facilities which are not shared with other households and where excreta are safely disposed in situ or transported and treated off-site”.

Sanitation service standards for excreta disposal are defined in the Fiji National WASH Cluster Emergency Response Cluster Standards and should form the basis for recovery planning:

Standard 1: Environment Free of Human Faeces

- The living environment in general and specifically the habitat, food production areas, public centres and surroundings of drinking water sources are free from human faecal contamination. People maintain their dignity and privacy and are free from harm by avoiding OD.

Standard 2: Appropriate and Adequate Toilet Facilities

- People have adequate, appropriate and acceptable toilet facilities, sufficiently close to their dwellings, to allow rapid, safe and secure access at all times, day and night.

While the targets for safely managed sanitation in Fiji may not be achievable with the resources and timeframe available for Recovery from an identified disaster, the DRF team may prioritise the progressive realization of these targets in a similar fashion to the programming of water service recovery needs and in accordance with the NDP.

4.2.3 Hygiene

There is no documented Hygiene Recovery Policy in Fiji.

Targets for Hygiene service provision in Fiji are defined in the 5-Year & 20-Year National Development Plan 2017, the National Water Resources Management and Sanitation Policy 2022 (DRAFT), Rural Water and Sanitation Policy 2021, and the Minimum Standards on Water Sanitation and Hygiene (WASH) In Schools Infrastructure 2012.

The development goal in Fiji is “universal access to adequate and equitable sanitation and hygiene by 2030” where a basic hygiene service is defined as ‘availability of a handwashing facility on premises with soap and water’. Hygiene service standards are defined in the Fiji National WASH Cluster Emergency Response Cluster Standards and should form the basis for recovery planning:

Standard 1: Hygiene Promotion Implementation

- Affected men, women and children of all ages are aware of key public health risks and are mobilised to adopt measures to prevent the deterioration in hygienic conditions and to use and maintain the facilities provided.

Standard 2: Identification and use of hygiene items

- The disaster-affected population has access to and is involved in identifying and promoting the use of hygiene items to ensure personal hygiene, health, dignity and well-being.

4.2.4 Drainage

Fiji does not have a WaSH sector drainage target under the NDP or guidance in the National WASH Cluster Emergency Response Cluster Standards. Drainage is only covered under the Agriculture sector. The Rural Water and Sanitation Policy states a drainage requirement under Section 14.9 Water Committee as:

“Water Committee will have to ensure the following...

- (vii) ensure proper drainage systems for wastewater are in place and promote safe and hygienic environment in the villages and settlements.”(sic)

No reference is made to specific standards or guidelines for rural drainage. The Water Authority of Fiji has urban drainage design guidelines in the Water Authority of Fiji Subdivision Standard 2021.

4.2.5 Solid Waste

The national laws and regulations⁷ in Fiji related to waste management are:



- **Environment Management Act 2005.** The Act provides an integrated system for the protection of natural resources, and for the control and management of developments, waste management and pollution control, and for the establishment of a national environmental council and for related matters.
- **Environment Management (Waste Disposal and Recycling) (Amendment) Regulations 2018 / LN 53 of 2018.** This Regulation provides a framework for the administration of waste disposal and recycling, with institutional arrangement for permit system and compliance enforcement mechanisms. It specifies requirements for waste recycling in terms of lead acid batteries, plastic bottles, landfills and recycling and waste collection.
- **National Solid Waste Management Strategy (2011-2014).** Fiji recognizes waste management as a pressing issue that needs immediate action. It is recognized as a major concern with the potential to cause negative impacts on the national development activities including public health, the environment, food security, tourism and trade.

Waste management strategies incorporated into the DRF must be devised and implemented in accordance with these pieces of legislation. A Waste Management service standard is defined in the Fiji National WASH Cluster Emergency Response Cluster Standards and should form the basis for recovery planning:

Standard 1: Collection and Disposal

- The affected population has an environment not littered by solid waste, including medical waste, and has the means to dispose of their domestic waste conveniently and effectively.

4.3 WASH Sector and Disaster Management Laws or By-Laws

The WASH DRF team is encouraged to identify all the Laws and By-Laws associated with the Disaster Management and WASH sectors. This should enable the identification of the legislation that is relevant to the WASH DRF.

⁷ <https://laws.gov.fj/Acts/DisplayAct/2576>

Legislation relevant to the Fiji WASH DRF may be contained in the following laws:

- *Disaster Management Act*: assigns responsibilities for the management of the response in humanitarian emergencies that may enable WASH development regulations to be bypassed.
 - » Natural Disaster Management Act (NDMA) of 1998
- *Local Government Acts*: assign functional responsibilities (i.e. policy, planning, capital creation, O&M and M&E) and the powers to ensure service compliance across the WASH service chain.
 - » Local Government Act 1972 (Revised 2020)
- *Public Health Acts*: establish the responsibilities of citizens and government agents to protect public health by minimizing the transmission of water borne diseases. This may include WASH standards for households & public buildings, markets & restaurants, offices & factories.
 - » Public Health (Amendment) Act 2021 (No 6 of 2021)
- *Water Resources Acts & Land Acts*: define the rights to water resources (groundwater, surface water, rain) as well as the ‘rights of the pipes’ in relation to the land.
 - » Land Conservation and Improvement Act 1953 Revised Edition of the Laws (Consequential Amendments) Act 2016 (No 31 of 2016)
 - » Land Development Act 1961
 - » Land Use Act 2010
- *Environmental Acts*: define the necessary processes to minimize the negative environmental consequences of activities that affect the safe management of water and wastewater.
 - » Environment Management (Amendment) Act 2020 (No 42 of 2020)
 - » Drainage (Budget Amendment) Act 2018 (No 22 of 2018).
- *Physical Planning Acts & Building Acts*: establish the processes and systems for determining the permissible uses of land and creation of residential / commercial / industrial buildings.
 - » Town Planning (Amendment) Act 1997 (No 8 of 1997)
- *Water and Sewerage & Company Acts*: establish the boundaries for public or private, limited or unlimited entities that manage the delivery of WASH services to customers.
 - » Water Authority of Fiji Act 2007, Water supply (temporary or Emergency Supply) By-Laws 1956 Revised Edition of the Laws (Consequential Amendments) Regulations 2016 (LN 99 of 2016)
- *Water & Sanitation By-Laws, Building By-Laws & Planning By-Laws*: often enacted by Local Governments establish the procedures and limits within which citizens can create assets to access water and sanitation, solid waste and drainage services.
 - » Water Authority of Fiji Act 2007, Water supply (temporary or Emergency Supply) By-Laws 1956 Revised Edition of the Laws (Consequential Amendments) Regulations 2016 (LN 99 of 2016)
 - » Drainage (Budget Amendment) Act 2018 (No 22 of 2018).
- *Annual Budgets*: including all public funded and donor financed WASH activities that are generally tabled as Bills for approval by the relevant Legislature.
 - » Government budgets from Ministry of Economy
 - » Development Budgets from WaSH Cluster members
 - » Donor budgets from tripartite donors, Australian Humanitarian Partnership (AHP), The Preparedness and Response Fund (PRF), NZ Disaster Response Partnership.

4.4 WASH and Disaster Management Rules or Regulations

The WASH DRF team is also encouraged to identify the rules and regulations established by the respective departments for the execution of the relevant WASH and Disaster Management Laws. This should enable the identification of the rules and regulations that are relevant to the WASH DRF, and the identification of any gaps in the allocation of responsibilities for the recovery of the WASH sector. Examples of rules that may be relevant to the allocation of responsibilities include:

- *Standing Orders on Disasters*: by Disaster Management Departments establish the hierarchy of responsibilities of all agencies throughout the disaster management cycle of risk reduction, alert and warning, disaster response and rehabilitation.
 - » National Disaster Management Plan 1995
 - » Fiji's National Emergency Operations Centre Standard Operating Procedures 2010
- Drinking Water Quality Standards*: by the Department of Health or a Standards Agency set point-of-delivery standards on all drinking water providers. The WHO Guidelines on Drinking Water Quality (4th Edition) proposes limits and processes to manage water quality (www.who.int).
 - » WAF verifies drinking water quality against the WHO guidelines.
- *Effluent Water Standards*: by the Department of Environment set binding wastewater standards at the point-of-release from properties on industries, municipalities and agriculturalists.
 - » Schedule 3 – National Liquid Waste Standards - of The Environment Management (Waste Disposal and Recycling) Regulations 2007 provides concentration limits for liquid discharge to “General” and “Significant Ecological Zone” locations.
- *Recreational Water Standards*: by the Department of Environment set water quality limits on the use of surface water for recreational or other purposes (e.g. fishing, water sports, irrigation).
 - » There are no specific recreational water quality compliance standards in Fiji.
- *Solid Waste Management Rules*: by the Department of Environment set standards for the generation, collection, transport and treatment of solid waste and roles to ensure compliance.
 - » Environment Management (Waste Disposal and Recycling) Regulations 2007
- *Environmental Rules*: by the Ministry of Waterways and Environment establish the limits and processes (e.g. Environmental Impact Assessments) for activities with a bearing on water and wastewater.
 - » Environment Management (Waste Disposal and Recycling) Regulations 2007
- *Water Resource Allocation Rules*: by the Department of Water Resources set abstraction limits and water entitlements for domestic, environmental, agricultural and industrial uses.
- *Building (& Plumbing) Codes*: by the Department of Housing sets the water and wastewater plumbing standards for buildings and the liability for qualifications.
 - » Public Health (National Building Code) Regulations 2004
 - » Water Supply By-laws 1995 Revised Edition of the Laws (Consequential Amendments) Regulations 2016 (LN 99 of 2016)
- *Planning (Zoning) Codes*: by the Department of Land sets the processes for ensuring that the development and use of property complies with approved spatial development plans.
 - » Public Health (National Building Code) Regulations 2004
 - » The WAF Subdivision Standard 2021

Water & Wastewater Material Standards: by the Department of Infrastructure or a Standards Agency set quality standards for pipes, pumps and fittings (see ISO 24510-14, www.iso.org).

- » The WAF Subdivision Standard 2021 requires that all engineering designs relating to Water and Sewerage systems carried out by the Developer with regard to the Water Reticulation and Wastewater Collection systems must be designed in accordance with Water Services Australia (WSA) codes.
- *Water & Wastewater Design Standards:* by the Water Authority of Fiji sets the minimum standards for the design & construction of water supply & sanitation assets.
 - » The WAF Subdivision Standard requires that all engineering designs relating to Water and Sewerage systems carried out by the Developer with regard to the Water Reticulation and Wastewater Collection systems must be designed in accordance with Water Services Australia (WSA) codes.
- *Qualification Standards:* by the Department of Infrastructure or Professional Association set qualifications for engineers (civil, mechanical, electrical) and plumbers engaged in the sector.
 - » A registered Engineer recognized by WAF must sign off on all hydraulic calculations, designs, drawings and plans for all plan submissions to WAF. The Engineer must be well versed with hydraulic standards and codes including the latest WSA design codes and Fiji National Building Codes.
- *Land Acquisition & Easement Rules:* by the Department of Land sets the conditions for the mandatory purchase or the nonpossessory right to use land for water management assets.

Planning Approval, Building License, Occupation Certificate, Plumbers License: issued by Local Governments ensure compliance with national water and wastewater construction standards.

- » Public Health (National Building Code) Regulations 2004
- *Connection Agreements & Customer Service Obligations:* by service providers set the obligations for consumers and providers to reach an agreement on the delivery of water and wastewater.
 - » Water Authority of Fiji Customer Charter 2020 - 2022

4.5 WASH and Disaster Management Policies, Plans & Projects

Finally, the WASH DRF team is then encouraged to assess the pre-existing WASH policies, plans and projects. While existing policies, plans and projects in the WASH and Emergency sectors **are not binding** on future endeavors, they do provide an opportunity to deploy existing processes and capacities within the WASH DRF. Pre-existing policies, plans and projects that may be relevant to the deployment of capacities include:

- ***WASH & Disaster Management Policies:*** by the relevant departments propose the high-level strategic alignment for the WASH and disaster management sectors. While sector policies are important for establishing future priorities, they are less binding than laws, rules or regulations.
 - » National Disaster Management Plan (NDMP) of 1995
 - » The Republic of Fiji National Disaster Risk Reduction Policy 2018-2030
 - » Department of Water and Sewerage Rural Water and Sanitation Policy 2021
- ***Medium-term Development Plans:*** by planning and finance departments seek to project forward the five-year funding envelope and expenditure requirements across all sectors. While the MDTP is strategically important for translating the WASH and disaster management policy priorities of into a funding framework, it is not binding on government revenue or expenditure allocations.
 - » The Republic of Fiji 5-Year & 20-Year National Development Plan

- **WASH and Disaster Management Projects:** by the respective line departments (WAF, DWS, MRD, MoHMS, MoEHA) are prepared seeking annual budget allocations to implement the WASH and disaster management plans of the government. While such projects propose to deliver the WASH or disaster management policy objectives, they are often subject to the legacy of previous annual budget allocations and delivery may be compromised.

4.6 WASH Policy Improvement Needs

Research by Winterford and Gero (2018) into the humanitarian response and recovery planning after TC Winston highlighted opportunities for improvement in the recovery policy context. The research found that the TC Winston humanitarian response silenced the longer-term development agenda, with no strong connection or complement between the humanitarian response and longer-term development outcomes. disconnected governance arrangements for long term-development, response and recovery.

While there are high level objectives standards and policy goals for the sector, the linkages between development targets and recovery planning could be strengthened through developing coherent recovery policy which links those targets to delivery mechanisms and funding:

- The cluster system could be strengthened, building on emerging practice in Fiji, to provide governance and institutional policy arrangements which link humanitarian response and the development agenda.
- Governance and institutional arrangements for development and recovery should be better codified and communicated at both divisional and community level, where the same community leaders are responsible for the development agenda and also humanitarian response and recovery.

As documented in the 2016 DRF (Government of Fiji 2016), the WASH sector recovery after TC Winston was mainly focused on infrastructure rehabilitation, at the expense of other WASH sub-sectors. This must be addressed in the future policy context to ensure all WaSH sub-sectors are resourced for recovery.

5 WASH Institutional Arrangements for Recovery

This chapter on Institutional Arrangements discusses the Institutions responsible for WASH and their roles and responsibilities in the recovery of WASH services to pre-disaster levels.

It is recommended that the team in charge of defining the institutional arrangements for the WASH DRF should assess the current legislation, regulations and rules to understand de-jure ‘who should be doing what’ in the Recovery Process.

Most of the actors in the WaSH sector in Fiji have roles in normal development activities, humanitarian response and in recovery process in Fiji. These arrangements are discussed in more detail in the following sections.

5.1 WASH Institutional Responsibilities

Institutional responsibility for WASH recovery in Fiji is not truly centralized, but rests somewhat informally with individual Ministries and levels of government, highlighting gaps and complexity in Fiji’s disaster management and recovery governance framework.



The centralizing of WASH service planning, delivery, coordination and monitoring lies with the Fiji National Water, Sanitation and Hygiene (WASH) Cluster, under the leadership of the Ministry of health and Medical Services. The purpose of the Fiji National Water, Sanitation and Hygiene (WASH) Cluster is to ensure the adequacy, coherence and effectiveness of overall humanitarian outcomes by mobilising all stakeholders who are working for development, disaster management preparedness, response and recovery in the WASH sector.

Established after TC Evan in 2012, the Fiji Cluster System is a government-led humanitarian coordination structure. Currently it operates at the national strategic level throughout the DRM cycle (preparedness, response, recovery & rehabilitation). The Fiji Cluster System comprises;

- Inter Cluster led by the National Disaster Management Office;
- 9 sectoral clusters led by the Permanent secretaries of relevant ministries; and
- Supporting partners

The Inter-Cluster mechanism is the overarching mechanism for all humanitarian coordination in Fiji and is the forum for inter-operability between sectoral Clusters, sub-national humanitarian coordination and the Fijian Government. The Inter-Cluster Secretariat is based with the National Disaster Management Office (NDMO), within the **Ministry of Rural and Maritime Development and Disaster Management**, of which the Permanent Secretary is also the Inter-Cluster Lead and the Disaster Controller under the Natural Disaster Management Act 1998. The WASH Cluster is led by the **Ministry of Health and Medical Services**.

In a disaster management and recovery context, the Cluster's institutional relationships change slightly, but the Cluster mechanism remains central. The National Disaster Management Council (NDMC) is the Fiji government body tasked with the formulation of policies and strategies in relation to the Disaster Management and response, including for WaSH. In the event of a disaster, the Emergency Committee of the NDMC undertakes the coordination of emergency activities including initiating and directing a PDNA. The National Disaster Management Office (NDMO) is the government designated authority that coordinates the implementation of government sanctioned policies relating to preparedness, disaster mitigation and emergency operations under the direction of the NDMC.

In the Recovery phase, responsibility and leadership for the implementation and monitoring processes transitions away from the emergency response arrangements and into a model more closely resembling Fiji's ongoing humanitarian development systems. The Disaster Recovery Framework needs to be prepared with awareness of the changing allocation of both humanitarian and development responsibilities for WASH, and the transition between them as the disaster relief and recovery processes unfold. The institutional transition from disaster to recovery is discussed more below.

5.1.1 Lead Agency for Recovery

In Fiji, the Cluster System remains operational at all times, taking part in emergency humanitarian response to disasters, disaster impact assessments, and recovery planning and implementation. The primary difference between emergency operations and recovery operations is that the lead agency changes, per the TC Winston DRF, although this is not clearly documented anywhere officially.

- The WaSH cluster is active in all stages of the DRM cycle, with membership from all the relevant line ministries and other development organisations.
- The NDMO has the lead role during disaster management, through the Inter-Cluster mechanism.
- The Ministry of Economy is engaged during the PDNA development process as a contributor of data and a stakeholder during the consultation processes due to its role in financial management.
- The **Ministry of Economy** is actively involved in the review and acceptance of the DRF.
- During post-disaster recovery operations in Fiji (implementing the DRF), the **Ministry of Economy (MoE)** has primary responsibility for the planning, implementation and monitoring of disaster recovery measures, overseeing the work of the WaSH Cluster and constituent actors. (see next section)

This is essential to ensure that the assignment of responsibilities for the restoration of WASH assets to pre-disaster levels does not undermine the role of the pre-existing institutions responsible to sustain the quality of WASH service delivery.

5.2 Assignment of Recovery Responsibilities for WASH

In Fiji there is significant alignment of responsibilities for implementing WASH for development and those during disaster recovery. Given the involvement of the sector's implementing agencies in both capacities, *there is a need for the WASH Disaster Recovery Framework to strike an appropriate balance between capacity for rapid reconstruction and the accountability for sustaining service delivery.*

The Minister of Economy will have overall responsibility for coordination and implementation monitoring of the Disaster Recovery Framework (DRF) with the WASH cluster and the NDMO. Line Ministries will take the lead

role in the delivery of WASH recovery programs that fall within their portfolios. For WASH in Fiji the relevant line ministries are:

- Ministry of Economy
- Ministry of Rural and Maritime Development and Disaster Management (NDMO)
- Ministry of Health and Medical Services
- Ministry of Infrastructure and Meteorological Services
 - » Water Authority of Fiji
 - » Department of Water and Sewerage
- Ministry of Lands and Mineral Resources
 - » Mineral Resources Department
- Ministry of Education, Heritage and Arts
- Ministry of iTaukei Affairs

During the recovery phase, the Ministry of Economy and Ministry of Rural & Maritime Development and National Disaster Management (via the NDMO) will liaise and coordinate to ensure that all recovery activities maintain their momentum as focus shifts from the disaster relief and assessment phase to the Recovery Program. The link between relief and recovery will be ensured through continued involvement of the Disaster Core Team within the Strategic Planning Office of the Ministry of Economy in both the relief effort and for priority recovery activities.

The Ministry of iTaukei Affairs (MTA) is responsible for developing, implementing and monitoring government programs focused on the governance and wellbeing of the iTaukei people. The iTaukei people are the major indigenous people of the Fiji Islands. The Ministry provides a direct link between Government, iTaukei institutions and its administration across the fourteen provinces. Through its various institutes, it is the custodian of official records relating to iTaukei land, fishing grounds, headship titles, traditional knowledge, and expressions of culture. It is mandated to deal with dispute resolution over land, fishing grounds, chiefly and traditional headship titles; it safeguards and preserves language and culture through advocacy programs. The Ministry also administers the Centre for Appropriate Technology and Development.

Coordination of the overall DRF implementation will be provided by a DRF Steering Committee and (four) DRF Working Groups covering each Recovery Priority (Government of Fiji 2016). WASH recovery has historically been managed under the “Repairing and Strengthening Critical Infrastructure” working group with cross-sectoral coordination assistance from the DRF Steering Committee. The DRF Steering Committee will be established by the Ministry of Economy and chaired by the Permanent Secretary for Finance. Other members of the Steering Committee will comprise the four Permanent Secretaries of the ministries leading the Working Groups. The DRF Steering Committee will be convened and report to the Minister of Economy on a quarterly basis.

The infrastructure DRF Working Group, led by the Ministry of Infrastructure and Meteorological Services, will provide the operational coordination for WASH Recovery Priorities and will include all government, non-government, and development partners who have a stake in WASH Recovery. The DRF Working Group will be responsible for the further development of the Recovery Programs, implementation of recovery activities and for monitoring implementation. This close alignment of responsibilities of the sector stakeholders with different contexts should be considered carefully when setting expectations during the DRF preparation, so as to minimize the potential for conflict between disaster recovery and normal development operations.

5.2.1 Separation of Roles for WASH Service Delivery

There is often a risk that assignment of recovery responsibilities by the DRF team can undermine the accountability of policy makers and service providers to ensure safely managed WASH services for all. The DRF team must always be cognizant of the fact that the extension of recovery support can drive the accountability of policy makers and WASH service provider upwards in a manner that reduces the downward accountability to citizen / clients. In the Fiji context, this risk is minimized due to the inclusion of the main WASH service providers (WAF, MRD, MoHMS, MoEHA) in the WaSH Cluster and the DRF team for the recovery planning and execution phases.

5.2.2 Role of External Agencies

The Fiji WASH sector is heavily reliant on external agencies for technical support, human resources inputs, and financial and material inputs following disasters. The WASH DRF team should ensure that any support from external agencies for WASH asset creation does not reduce the focus on operation and maintenance, causing a reduction in tariff revenues, leading to lowering of the quality of WASH services and a declining viability of service provision.

This means that the WASH DRF team should seek to ensure that all financing of WASH Assets by external agencies is fully recovered through tariff revenues, facilitating future investments in the improvement of WASH services.

The financing of external agencies (3rd parties) for WASH recovery (via WASH public sector providers or poor client / citizens organisations) must always strengthen the clear separation of policy making, from service provision, from regulation.

6 WASH Recovery Financing Mechanisms

The team in charge of developing the financing chapter of the WASH DRF need to start by assessing the sources of financing that are presently or potentially available, that are most appropriate to the specific projects and priority activities to address the identified WASH recovery needs identified in the PDNA. Advice on the available and preferred sources of recovery financing can be obtained from the Ministry of Economy (See below)

The team needs to assess not only the availability of the different financing sources (i.e. national or international, public or private) but also their differing suitability for addressing the WASH needs identified within the PDNA, in case of donor restrictions on the application or availability of the funds. This requires an understanding of the reliability and sustainability of different financing sources, the inherent biases within the public or private financing modalities (i.e. prioritizing equity versus a return-on-investment), the balance between financing efficiencies and the risks of patronage (i.e. the underlying conditions associated with ‘easy money’).

As financial means are finite and prioritizing the most important needs is essential, the team will need to sequence the recovery financing in alignment with the recovery projects to strike a balance between addressing priority needs and ensuring sufficient resources are available to enable full delivery of the recovery objectives. While the team needs to understand the global financing trends within the WASH sector, the public expenditure reviews and economic projections produced in the macroeconomic section of the PDNA should enable the team to estimate the economic and financial capacities for full WASH recovery.

6.1 Disaster Recovery Financing Options

International and national agreements, agencies and financing instruments have been established to respond to major humanitarian disasters. These systems seek to ensure that a lack of finance does not inhibit the initial humanitarian response to disasters. However, there is a growing recognition that international public financing is playing an increasingly less significant role in both humanitarian and development financing⁸.

At the private / community level in low-income countries, most financial support in the times of need comes from within households and extended families, or by borrowing from neighbors and local moneylenders. While these sources of finance are easily accessible, they can only provide relatively small amounts and/or at costly borrowing costs. There are however options through which government action can improve the access of the community to finance in the response to, and during recovery from, disasters. This is particularly pertinent for poor households which have little savings and limited access to finance, including those living in informal peri-urban settlements or those without access to formal service provision systems.

Existing disaster recovery finance instruments in Fiji include:

- The **National Disaster Relief and Rehabilitation Fund**, also known as the Prime Minister’s Fund, which can release up to F\$1 million (US\$0.5 million). This is designed for rapid deployment by the Ministry of Economy to provide humanitarian relief support.
- The **Rehabilitation Fund** receives an annual appropriation of F\$2 million (US\$1 million).
- The **Australian Humanitarian Partnership (AHP)** is an Australian government initiative working in partnership with Australian NGOs that partner with local NGOs in Fiji (formerly known as the HPA). AHP is divided into two components: Disaster READY (focuses on DRR and preparedness) and Disaster Response/Relief.
- The **Preparedness and Response Fund (PRF)** is a fund set up by the Australian Government to support disaster preparedness and response activities in Fiji through the Fiji Program Support Facility (the Facility). It represents approximately 2% of the Australian Government’s total annual bilateral aid budget to Fiji, or around AUD700,000 a year. From 2017 to 2022, the PRF will be one of the main mechanisms to support the resilience and disaster-readiness of Government of Fiji partners and local Civil Society Organisations (CSOs)

⁸ European Report on Development (2015), Combining finance and policies to implement a transformative post-2015 development agenda

- **NZ Disaster Response Partnership** is a contestable funding program accessible by NZRDP accredited NGOs which have existing partners in Fiji. This will fund up to NZD250,000 per activity, aimed at relief and early recovery programs up to 12 months in length. The current agencies accredited to the NZDRP are: ADRA, Caritas, CBM, Childfund, Christian World Service, Habitat for Humanity, Oxfam, Rotary, Salvation Army, Save the Children, SurfAid, TearFund, UNICEF and World Vision.
- Sovereign **Disaster Risk Insurance** is available to member nations through PCRIC (Pacific Catastrophe Risk Insurance Company). PCRIC offers financial products to provide PICs with finance in the immediate aftermath of a natural disaster event. By providing rapid liquidity to affected PICs, PCRIC helps countries respond quickly and sustain hard-won development gains.

Note: at the time of writing, Fiji had not taken up disaster risk insurance with PCRIC.

Historically, Fiji has been unable to finance the full cost of disaster recovery from domestic reserves⁹. The balance of needs for recovery has been financed through a combination of the mechanisms above, donor commitments during the PDNA / DRF process and flash appeals for additional support.

The team in charge of drafting the WASH DRF should ascertain what funding options are currently accessible and, to what extent they can play a favorable role in the recovery of the WASH sector.

Additionally, the government may be able to facilitate or increase access to the relevant options identified as relevant to assist in the provision of community-level financing for WASH improvement:

- *Savings and loan groups*: enable poor people to pool their savings entitling members to draw on the group for loans, in turns or according to need, when sufficient funds are available. *The formalizing of savings groups can enable external financial assistance to be made available to saving group members for the most pressing self-recovery activities.*
- *Micro-finance institutions (MFIs)*: can play an important role in reducing vulnerability before disasters and supporting post-disaster recovery. While MFIs may reschedule loans or provide emergency loans to enable households to meet their immediate needs after a disaster, these MFIs can be constrained by a lack of access to capital. *In such cases, the extension of soft loans to wholesale MFIs, to make capital available to retail MFIs, can enable households access to non-productive loans to finance the recovery of WASH assets to a specific standard.*
- *Domestic and Commercial Disaster Insurance*: is an effective method of sharing risk, enabling policy holders confidence to invest (e.g. in WASH home improvements) or expand (e.g. a WASH business enterprise). This can occur as a stand-alone insurance or as a ‘compulsory savings’ component directed by MFIs into emergency funds. *While insurance is predominantly driven by commercial imperatives, public intervention to back-stop certain events can be vital in enabling policy holders’ rapid access to finance after a major disaster.*
- *Cash transfers*: are increasingly deployed in humanitarian assistance programs giving people greater choice about what goods and services to buy, according to their own needs and priorities. *Conditional cash transfers for WASH recovery activities can stimulate (without distorting) local markets and are most effective if they build on national identity card systems that limit double-dipping and/or conditional cash transfers in social protection programs.*
- *Remittances*: from family members through a variety of formal and informal channels is an important source of financial support during and after a crisis. *Strengthening communications systems (e.g. mobile phone money transfers, access to the internet) is important in facilitating access to remittances by families wishing to undertake self-recovery activities. This should take place after a disaster occurs and continue as an ex-ante preparation measure.*

⁹ PCRAFI (Pacific Catastrophe Risk Assessment and Financing Initiative) (2011) Country Risk Profile: Fiji, Fiji is expected to incur, on average, 79 million USD per year in losses due to earthquakes and tropical cyclones. In the next 50 years, Fiji has a 50% chance of experiencing a loss exceeding 750 million USD

While the instruments enabling affected populations to access finance during the humanitarian response need to be developed prior to a disaster, in the recovery phase there is often time to tailor the instruments for recovery financing around existing systems and capacities.

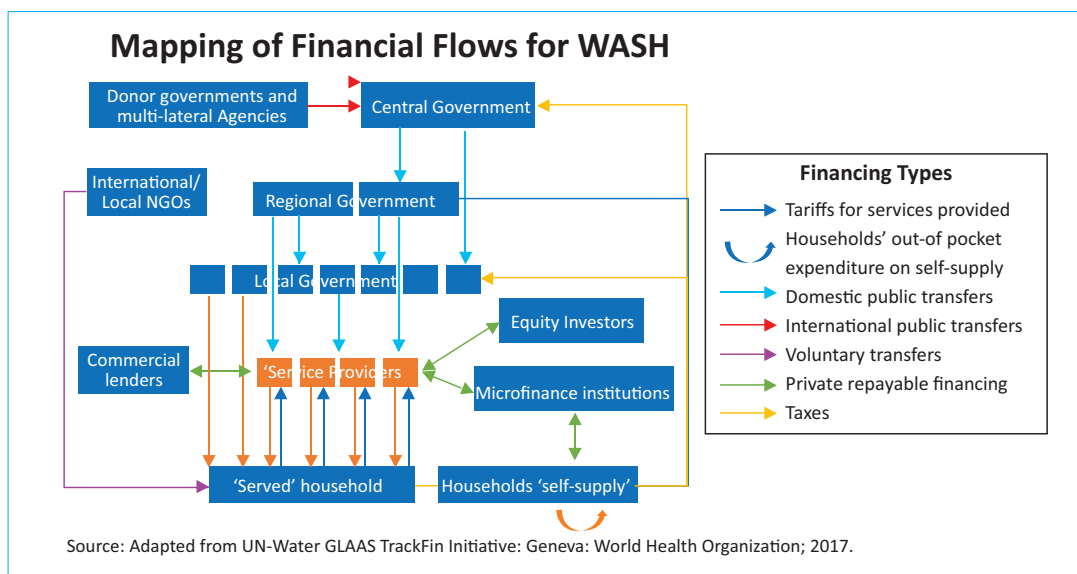
6.2 WASH Financing Flows

Water and sanitation services in Fiji are paid for through a combination of **tariffs** from water users, **taxes** from citizens, and **transfers** from external sources.

- **Tariffs (households and businesses)**¹⁰: are fees paid by consumers¹¹ that also repays the repayable finance raised by public utilities.
- **Taxes (government)**: are funds that originate from domestic taxation channeled to the sector via transfers from all levels of government including repayable finance borrowed by governments.
- **Transfers (external sources)**: are funds from international donors and charitable foundations that often come from other countries in the form of grants and/or concessionary loans.

According to the GLAAS survey of data from 25 low- and middle-income countries¹²:

- *Most WASH financing originates from households (66%)* normally in the form of tariffs from networked water and sewerage services but also in the form of household investments in tail-end systems (e.g. informal settlements where WASH assets cannot be secured) and self-supply systems (e.g. household wells, water tanks and household toilets) and the recovery of repayable finance.
- *Repayable financing constituted just 8% of WASH financing*, primarily taken out by government service providers for the expansion of access to networked water services.
- *The next largest source of WASH financing is taxes from government (24%)* predominantly directed to public goods (i.e. drainage and hygiene) and expansion of access to improved water sources.



- *Globally, transfers from external sources have constituted just 2% of WASH sector financing* and has historically been primarily targeted towards the expansion of access to networked water services in urban areas. However, the DRF for TC Winston documented a combined need for donor funds and unmet funding at **93% of the critical infrastructure replacement cost**.

Given the small contribution of Fiji’s external public sources to WASH sector financing, the WASH DRF must seek to utilise overseas development assistance (ODA) to leverage:

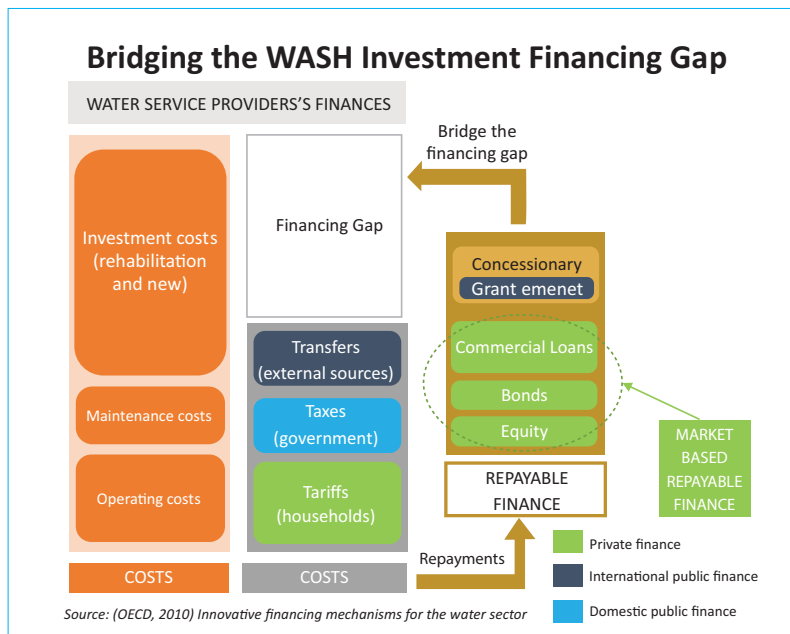
10 This also accounts for household investments in the tail-end and self-supply of water and sanitation services.

11 Also includes headworks fees imposed on property developers for treatment plants to meet the needs of future tenants

12 UN-Water (2017) GLAAS: Financing universal and sustainable WASH under the SDGs, World Health Organization

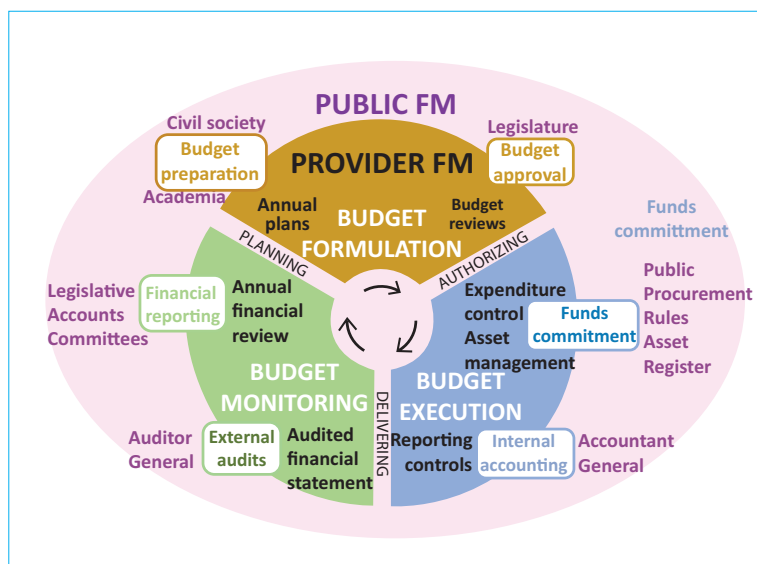
- commercial repayable finance to invest in the recovery of networked water and sewerage facilities where the costs are borne by households over time through tariffs.
- This includes concessional loans and grants from international financing institutions (IFIs) which seek to improve the financial viability of investments and/or utilities.

local private repayable finance to support households to invest in the recovery of the tail-end and the self-supply of water, sanitation and hygiene facilities.



local public finance (through taxes) to invest in the recovery of municipal drainage and solid waste facilities, with the funds to be recouped over time through rates and taxes.

6.3 Leveraging Commercial Financing for WASH



Although water sector financing has historically focused on public finance, it is private finance that may have the most capacity to meet the long-term WASH recovery needs of Fiji. However, commercial finance is currently constrained by high-risk where the deals are small or risky or the (perceived) creditworthiness of water utilities and the Government is weak. To address these constraints:

- access to commercial finance may be enhanced through blended financing, intermediary institutions and access to local capital markets¹³.

13 Baietti, Aldo; Raymond, Peter (2005) Financing Water Supply and Sanitation Investments: Utilizing Risk Mitigation Instruments to Bridge the

- financial absorption capacity may be addressed by enhancing corporate governance and technical assistance to prepare “bankable” proposals.

Greater access to commercial finance in the WASH sector may then arise due to improved perception of corporate governance of water service providers.

While the concessionary grant financing of water utility assets may be necessary during the recovery period, there is a risk that this will undermine a budget-driven performance driver for the utility. Grant funding of assets can increase the net worth of water utilities, decrease the reliance on tariff revenues, contributing to costly utilities with low turnover. It is important to remember that the long-term sustainability of water services is dependent on the viability of asset investments and the utilities that manage those assets.

Repayable finance can also be used to target household level improvements in the quality of water, sanitation and hygiene facilities. This may entail

- the extension of non-productive loans by micro-finance institutions (MFIs) to poor households to improve their water or sanitation facilities, or
- the deployment of output-based-aid (OBA) retrospectively to utilities for each new poor household that is connected to the piped water network¹⁴.

Alternatively, the blending of output-based aid (OBA) with the wholesaling of loans to micro-finance institutions (MFIs) can make commercial finance and market expertise available to households willing to construct WASH facilities that are compliant to a minimum specified standard¹⁵. Increased access to and quality of WASH services at the household level will also increase the willingness to pay of consumers, increasing the return on investment for the service provider.

Increasing the access to commercial finance for WASH recovery activities can

- increases the pool of funds available for recovery
- prompt an increase in the governance standards required by and of water utilities
- contributing to higher quality WASH services at a lower life-cycle cost.

6.4 Reliability of the Financial Management Systems

It is essential to ensure that the financial management system of the implementing agencies provides sufficient integrity to undertake the proposed recovery activities. *Irrespective of whether recovery activities are being undertaken by an NGO or the Fiji government ministries and departments, WAF, a municipality, a private water corporation, a micro-finance institution or the district government, it is important to ensure the integrity of the financial management systems (in budget formulation, execution and monitoring) of the proposed implementing agencies.*

All WASH service providers or financing intermediaries must have an established financial management cycle that includes the formulation, execution and monitoring of budgets for the recovery activities proposed. In the case of public finance, there are additional financial management compliance requirements that apply.

- **Budget Formulation:** stems from planning processes that establish physical and financial targets. It includes annual processes for budget preparation (based on anticipated expenditures and revenues to achieve annual plans) and budget approval (budget reviews and authorization of expenditures). *The management of public finances typically also includes civil society engagement during budget preparation and the approval of budgets by the elected members of the respective legislature.*

Financing Gap Water Supply and Sanitation Sector Board discussion paper series; No. 4.

14 Menzies, Iain; Suardi, Mario (2009) OBA in the Philippines: Improved Access to Water Services for Poor Households in Metro Manila, The World Bank

15 Ahmed, Rokeya (2019) ICR for the OBA Sanitation Microfinance Program - P157958, The World Bank

- **Budget Execution:** following DRF authorization includes:
- » the commitment of funds (including procurement for the creation of new assets,
 - » the operational costs and the staffing levels to maintain all assets and revenues) and
 - » the accounting of funds (including the reconciliation of receivables, division of powers & rotation of duties, inventory of asset condition, internal audits and procedures for identifying electronic data errors)¹⁶.

The management of public finance typically also includes compliance with the Public Procurement Rules, Public Asset Registration requirements and the accounting controls monitored by the Accountant General.

- **Budget Monitoring:** includes the processes for external audits (of financial accounts and processes) and financial reporting (summarizing the financial status of the implementing agency and projects).

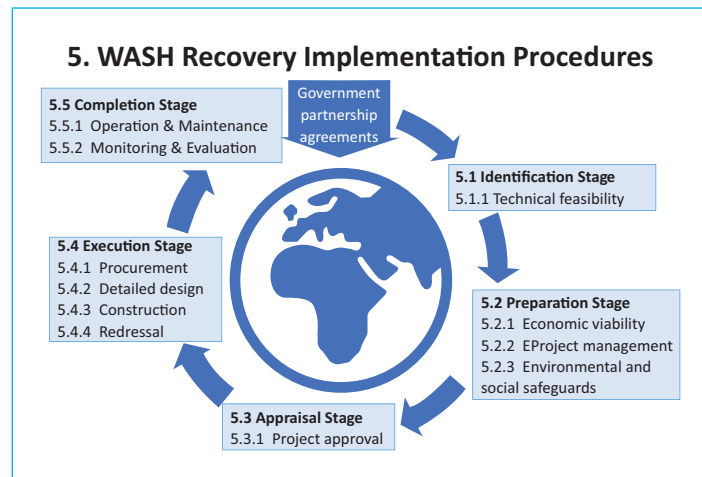
The management of public finance typically also includes meeting the legal and public financial management requirements established by the Auditor General and financial reporting being subject to reviews of the Legislative Standing Committees.

The WASH DRF finance team should understand the strengths and weaknesses of the financial management systems of the implementing agencies to ascertain the risks on the efficient utilization of recovery funds.

The quantum and the form of the financing available for WASH Recovery will affect, and is affected by, the proposed WASH recovery activities and the capacities of the proposed implementing agencies. The WASH DRF Financing chapter is therefore both contingent upon, and will affect, the WASH DRF Implementation chapter.

¹⁶ Although the International Public Sector Accounting Standards (IPSAS) apply to cash-based accounting systems it is considered as a transition toward accrual-based accounting systems [IPSASB-HandBook-2021-Volume-1_0.pdf \(ifac.org\)](#)

7 WASH Recovery Implementation Procedures



WASH recovery implementation in Fiji is undertaken by government and non-government actors, financed from national or mostly international sources. The WASH disaster recovery framework implementation is led by the Ministry of Economy in the context of the methodologies and guidelines developed by the United Nations, World Bank and European Union. This means that all WASH Recovery implementation activities undertaken by civil society and non-government organisations, bilateral and multilateral development organisations, government departments and the private sector will likely be framed by country partnership agreements. These activities will typically comprise of (1) identification, (2) preparation, (3) appraisal, (4) execution and (5) completion stages. The detailed procedures adopted by each of the implementation Cluster and partner agencies will vary slightly according to internal protocols, however they should follow this general process flow for consistency across the sector.

The WASH Recovery phase tends to adopt implementation procedures that are deployed in Development Operations. However considering use of procedures deployed in the Humanitarian Response (emergency) phase may offer opportunities to shorten WASH recovery implementation timelines.

The WASH DRF implementation chapter should address the following stages of the implementation cycle.

7.1 Identification Stage

The PDNA identifies the WASH Recovery needs (with financing envelopes) based on the sectoral effects and impacts identified, which are then documented in the DRF. However, PDNA does not assess the financial and practical feasibilities of the different options to address each of the recovery needs. For instance, the loss of potable water supply may be restored by repairing the existing system, replacing with a new system in the same context to address the disaster risks or installing a completely different system from a less disaster-prone source. *While technical feasibility is often overlooked, it is the most critical point for the consideration of Build-Back-Better solutions.*

7.1.1 Prioritisation Criteria

When establishing WASH recovery priorities to include in the plan, consider the general prioritisation of:

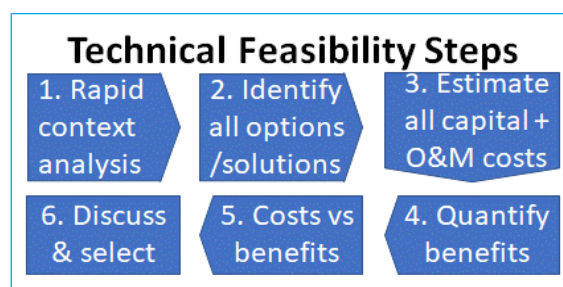
- **Public Health Concerns:-** Public health concerns are an important consideration during recovery. The recovery plan should prioritise the reinstatement and support of essential services to reduce the risk of disaster impacts further extending into public health deterioration. For example, the interruption of services such as routine household solid waste collection, a wastewater treatment facility, or a water treatment plant, could all have negative effects on the public health. By addressing public health concerns, your community will be better able to recover.

- **Critical Infrastructure and Key Resources:-** The components that are necessary for the health and welfare of the population of the community. Restoration of essential services and repair, as well as rebuilding of key assets are high priorities for any community's recovery (e.g., reconstructing a village sanitation system).
- **Economic Impacts:** Disasters can have a range of economic impacts on a community (losses). For example, restoring water supply services is essential for the economic recovery of businesses and the community in general.
- **Community Needs:-** Consider the number of households who could be impacted and potentially displaced by a disaster. The number of individuals who may need access to alternative water, sanitation and hygiene facilities including additional health care will change depending on the nature and context of the disaster impacts.

Considerations for prioritizing Recovery Activities

1. **LIFE SUSTAINING:-** Does the activity help sustain the lives saved?
2. **TIME CRITICAL:-** Can or should the activity be implemented alongside disaster relief interventions? Does the activity require materials or other inputs with a long lead time which need early procurement?
3. **CULTURALLY AND SOCIALLY APPROPRIATE:-** Does the activity respond to the cultural and social norms and needs of the affected community?
4. **GENDERED IMPACTS:-** Will the activity positively address gendered impacts of the disaster on access to WASH services?
5. **BRIDGE BETWEEN RELIEF AND LONG-TERM RECOVERY:-** Does the activity link relief and long-term recovery by building upon relief assistance and laying the essential foundations for long term recovery/reconstruction?
6. **FACILITATE THE DELIVERY OF RELIEF ASSISTANCE:-** Does the activity help facilitate the delivery of relief assistance?
7. **ECONOMIC AND FINANCIAL VIABILITY:-** Is there sufficient funding available to implement the activity? The economic viability of investments in WASH is often higher after a disaster due to the tangible public health benefits, while the financial viability is often lower after a disaster due to an unwillingness to pay (or an unwillingness to charge) full cost recovery user tariffs.
8. **STRENGTHEN NATIONAL AND LOCAL CAPACITY TO TAKE CHARGE OF THE RECOVERY PROCESS:-** Does the activity aim to resuscitate and strengthen national and local capacity to coordinate and lead the implementation of early recovery programmes and plan for full recovery (BBB)?
9. **REDUCE DEPENDENCE ON RELIEF ASSISTANCE:-** Does the activity help support the resilience and the spontaneous recovery efforts of communities, and help restore local economies and the broader livelihoods, community infrastructure and basic social services?

7.1.2 Technical feasibility



At the identification stage, it is essential to undertake an assessment of all the technically feasible means of addressing the WASH recovery needs of the affected population to ensure that recovery goes beyond the replacement of “like-for-like”. This requires the quantifying of the plus the capital costs (repair or replacement) plus projected operation and maintenance (O&M) costs, against the benefits (and risks) of all the possible options. *The analysis should conclude with concurrence amongst the affected stakeholders on the most feasible means of addressing a particular WASH Recovery need.*

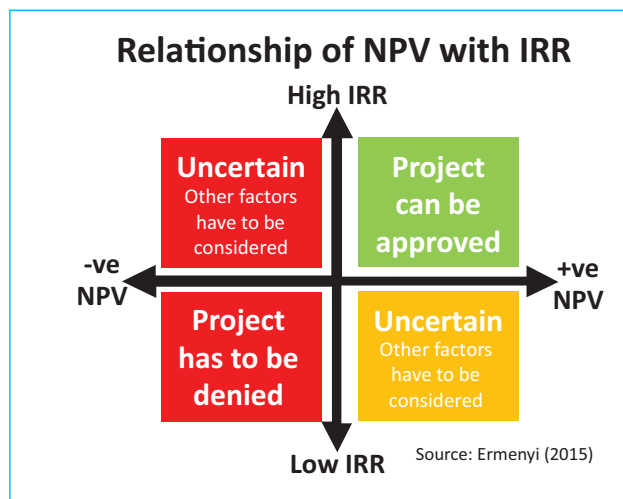
The technical feasibility stage can be supported by the application of local knowledge and standards for

best practice, for example the use of E.P.S.'s for water treatment in Fiji's outer island communities. While the technical feasibility stage may be simplified where there is a strong case for the restoration / repair of existing infrastructure, it should never be bypassed. *The feasibility stage is the major point at which long / short term social and environmental opportunities, benefits and costs are assessed against different technology options.* Latter assessments of social and environmental risks during the Preparation Stage, simply better quantify the risks and detail the measures to mitigate those risks.

7.2 Preparation Stage

Once the most technically feasible solution to address a particular WASH Recovery need has been identified, the activities for the implementation of that alternative need to be defined within capital works plans. The preparation stage seeks to assess the viability of each, or a bundle of, WASH Recovery projects from an economic, institutional, social and environmental perspective.

7.2.1 Economic viability



During the assessment of the viability of any WASH investment it is vital to reflect on

- technology choices,
- decisions to repair or reconstruct,
- the viability of build-back-better options,
- the distribution of the costs and benefits,
- the balance of public benefit.

to ensure that public investments deliver the intended returns for the public. A **net present value (NPV)** calculation enables the public benefits of different project costs to be compared¹⁷, while the **economic internal rate of return (EIRR)** is used to ascertain the public benefits when only one project is being considered¹⁸. In addition, the **financial internal rate of return (FIRR)** calculation is required to assess the financial return on investments for commercial public WASH service providers¹⁹. WASH projects should generally NOT be approved:

- if the NPV is negative or if another option has a higher NPV, or
- if the EIRR is less than the nominated discount rate²⁰, or
- if the FIRR is less than the weighted average cost of capital (WACC).

17 For mutually exclusive projects, over the same time frame (without cost constraints), the investment with the greatest NPV (and greater than 1) provides the greatest public benefit.

18 The EIRR calculates the interest (or 'discount') rate at which the net present value of benefits is equal to the costs (i.e. if the calculated EIRR for the project is greater than the discount rate then the benefits are considered to exceed the costs).

19 The FIRR is obtained by equating the present value of investment costs (as cash out-flows) and the present value of net incomes (as cash in-flows). The FIRR represents the percentage financial return on the investment.

20 Discount rates reflect the social marginal rate of time preference. ADB uses a nominal discount rate of 12%.

The exception to this may be situations where the net benefit of the WASH investment is not directly measurable as a return on the WASH investment itself. This may include instances such as WASH services in schools or health facilities where the direct financial return is uncertain, but an overall benefit to the health and productivity of the community is the objective.

The economic viability of investments in WASH is often higher after a disaster due to the tangible public health benefits, while the financial viability is often lower after a disaster due to an unwillingness to pay (or an unwillingness to charge) full cost recovery water tariffs.

7.2.2 Project management capacity

To ensure that the executing agency(s) (mainly WAF, MRD, DWS, NGOs) possess the requisite capacity to oversee the execution of the proposed WASH Recovery activities an assessment is required of the:

- *Management Systems*: to determine the extent to which the implementing agency(s) have the capacity for scheduling and implementing the proposed WASH project activities.
- *Procurement Systems*: to ascertain the degree to which the planning, bidding, evaluation, contract award and contract administration arrangements provide sufficient assurance of the delivery of the contracted deliverables.
- *Financial Management Systems*: to determine the degree to which the planning, budgeting, accounting, internal controls, funds flow, financial reporting and auditing arrangements provide a reasonable assurance on the appropriate use of funds and safeguarding of project assets.

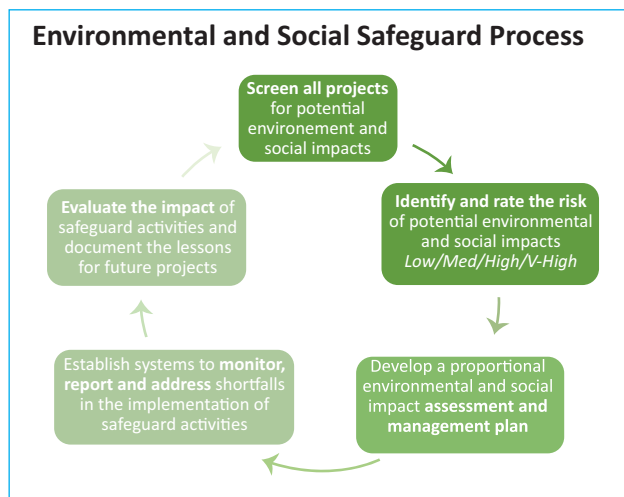
Management capacity assessments are required for national and local implementing agencies to ensure that the assignment of responsibilities is matched by executing capabilities. ***While such capacities may have previously existed for the creation and management of WASH assets, flaws in these capacities may have contributed to the failure of WASH assets in the first place. This can be evident in the lack of maintenance planning and implementation leading to asset degradation prior to damage in the disaster.***

The Limitations of the Community Management of WASH Assets

The demand responsive approach (DRA) that has been the hallmark of the shift to community management of water supply and sanitation schemes present some fundamental asset creation, operation and maintenance risks that need to be understood during Recovery. For instance:

- Village water supply and sanitation committees (VWSC) generally do not exist as legal entities, which means that they are not able to bear the liabilities associated with the ownership of public WASH assets (i.e. there is no form of recourse in the event of death or disease from a failure in O&M resulting in the delivery of polluted water to households).
- This means that joint bank accounts bearing the name of the VWSC are opened by individuals from the VWSC. As a result, all the funds in the VWSC bank account do not belong to the VWSC, but rather the individual office bearers from the VWSC (i.e. in the event of the removal of these office bearers by the VWSC, the Bank cannot prevent those individuals from withdrawing all the VWSC funds neither can they be prosecuted).
- This also means that VWSCs are not able to legally own the WASH assets, or the land on which they are placed, or any rights to water allocations or easements of land. This typically means that the public WASH assets are ‘written-off’ the public register as having zero value and placed on donated land ceding control of the assets without recourse to the landowner.

While community participation and demand responsive approaches are vital for Recovery, it needs to be recognised that communities have limited capacity to bear asset ownership liabilities, as well as financial management and procurement risks.



7.2.3 Environmental and social safeguards

All proposed WASH Recovery projects need to be screened during project preparation, for environmental and social impacts that may occur during construction and operation. Depending on the level of risk, an environmental and social management plan may need to be prepared detailing how impacts will be mitigated and managed, including timing, budget, roles and responsibilities. This plan needs to be monitored by the implementing agency and the Ministry of Economy, with an end-line assessment providing an opportunity for learning and sharing lessons for future projects. *Social safeguards are particularly important during periods of social, economic and political turbulence that often coincide with the Recovery phase.*

Assessment of the [environmental and social impacts](#) of all WASH undertakings should address:

Environmental protection: including the protection of biodiversity, sustainable use of resources, prevention of pollutants, management of waste, preservation of cultural heritage; management of disaster risks and climate change via environmental [assessment](#) and [management](#) plans.

Children, vulnerable and disadvantaged groups: including their identification and appropriate engagement to avoid disproportionate negative consequences and ensure a share in the benefits while avoiding unintended consequences that may exacerbate violence or inequalities.

Displacement and resettlement: including the effects of the adherence to the legal compulsory acquisition, or access to, or possession of, or use of land and the appropriate avoidance, mitigation or compensation measures to minimize the negative impacts on the most vulnerable.

Indigenous peoples: engagement with iTaukei including their full and equitable participation in consultation processes in a manner respectful of their dignity, human rights, aspirations, culture and customary livelihoods that enables them to continue to pursue indigenous economic, social and cultural priorities.

Health and safety: including avoidance of the use of forced labour, work detrimental to child well-being and unsafe work practices coupled with the appropriate consultation, information, training, equipment and the health and safety incident reporting systems to work safely.

Special environmental and social safeguards provisions may be required for waterways, disputed areas and safety of dams.

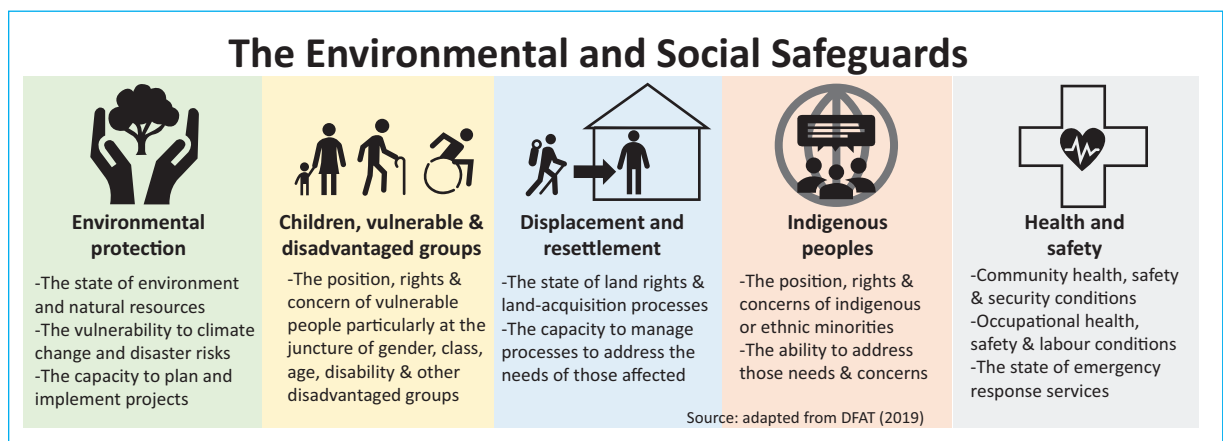


Figure 16: Elements of environmental and social safeguards²¹

Securing the land for WASH assets is essential for the safety and security of WASH services. In Fiji, infrastructure for WaSH may need to be installed on land which falls under traditional iTaukei custody. It is vital to negotiate the access to and use of traditional lands for the installation and/or repair of WaSH infrastructure. The failure to negotiate and secure the rights of the WASH assets to the land on which they are located cedes control of the assets from the WASH asset owner to the landowner. Placing publicly funded WASH assets on donated land, private land or even public land without binding acquisition, lease or easement agreements allows the landowner to exercise control over access to WASH assets unless appropriate agreements are put in place first.

In the Recovery phase, the secure tenure of land under the same ownership as the WASH assets should pre-exist. However, in many past cases the failure to secure the iTaukei land for WASH assets has been a contributing factor to the failure of WASH assets due to historical grievance and access issues. Land and WASH asset ownership must be verified during the consultation and preparation stages.

21 Australian Government Department of Foreign Affairs and Trade (2019) *Environmental and Social Safeguard Policy*

Securing the Land with WASH Asset Ownership

A failure to secure the ownership of WASH assets (and liabilities) with the rights to the land can have perverse consequences, as illustrated here in the occurrence of some recovery initiatives in Pakistan, Bangladesh, Vanuatu and Papua New Guinea.

- In Pakistan, public handpumps placed on donated land appeared to have disappeared, where households constructed purdah walls on their property eclipsing public access to handpumps.
- In Bangladesh, most public handpumps are placed on private land typically donated by only the most powerful and wealthy landowners. Similarly, the free provision of public sanitation facilities by NGOs in the informal settlements of Dhaka has been accompanied by an increase in the price of rent by those who exercise control over that land and that housing stock, which effectively displaces those with the least capacity to pay.
- In Vanuatu and Papua New Guinea, constructing community piped water systems that run through customary land, without agreed easements for the pipes, has resulted in water pipes being cut when tribal disputes erupt.

7.3 Appraisal

All WASH Recovery project proposals should undergo some form of appraisal process to secure approval, irrespective of whether the projects are ultimately approved by government departments, or parliamentarians, NGOs, iTaukei beneficiaries, bi-lateral donors or lending agencies. This necessitates the succinct compilation of the justification of the benefits against the costs and the means of mitigating risks. Project appraisal processes will generally solicit inputs from affected stakeholders, from peers (be-it associated departments or colleagues), and from senior management (policy makers) to ensure that alternate perspectives have not been overlooked.

In Fiji, the Appraisal process will initially be conducted within the DRF Working Group and in consultation with key stakeholders including:

- Members of the WASH Cluster
- Technical Experts from WAF, MRD, DWS, MoHMS and EU resident mission (or consultants)
- District Commissioners
- Itaukei Affairs
- Representatives from the affected communities

7.3.1 Project Approval

While the processes associated with the appraisal and approval of development projects by NGOs, government, donors and financing institutions can be extremely tedious (typically extending beyond 6-12 months) there are several avenues through which the project approval processes may be shortened during the Recovery phase.

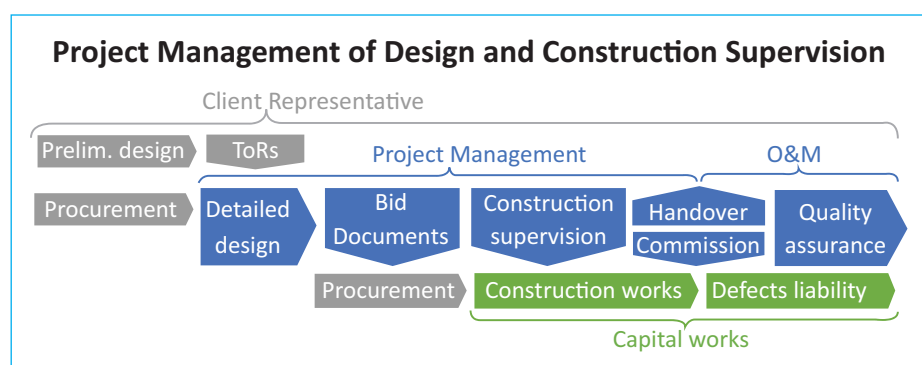
- Some World Bank WASH projects include a zero-budget allocation for emergency response under pre-defined streamlined procurement and disbursement procedures. *This allows for the rapid reallocation of funds from other project components and may even serve as a conduit for additional funds to be allocated to the WASH project for early recovery.*
- Some Asian Development Bank WASH projects require a percentage of the total infrastructure contracts to have been advertised prior to project approval. *Pursuing additional financing to*

operational projects for Recovery can significantly reduce the project preparation and approval processes, due to the ability to utilise previous due diligence assessments, existing staffing capacity in project management units & the potential to issue contract variations for already competitively procured contractors.

7.4 Execution

Most WASH asset recovery projects entail the management of capacities for design (including all civil, mechanical and electrical works), construction (and the supervision of construction) and commissioning (including defects liability management). While the responsibilities for project management, procurement, design, construction, supervision and commissioning may be outsourced to one or numerous entities, client representation is essential at all decision points in the recovery process.

The notion of ‘the client’ is particularly important in understanding the execution of infrastructure works. ‘The client’ typically refers to the asset owner but it can also refer to the entities that are responsible for the design, procurement, construction, operation, maintenance, and testing of WASH assets.



In some contexts, a Project Management Unit (PMU) is created to implement recovery projects, however this has not historically been the case in Fiji with the Steering Committee and working groups filling that function. While the establishment of a PMU within a client organisation or government department appears to enable client representation and project management capacity to be combined, it does not replace the need for regular client feedback from the departments responsible for asset design, construction, operation, maintenance and testing.



- For example, large government owned water utilities such as WAF have a project management branch; civil, mechanical and electrical design branches; and an operations branch. In managing the Recovery projects, the project management branch would need to ensure that the client (i.e. the operations branch) has regular opportunities to provide feedback on proposals from the design branches.
- Alternatively, a government water engineering department that builds and transfers WASH assets to municipalities may have established a project management unit that has employed a private engineering firm for the design and supervision of construction. In such cases, the project management unit needs to solicit client feedback on construction standards from the design client (i.e. the department responsible for design standards) as well as the operation and maintenance client (i.e. WAF or the community).

7.4.1 Procurement

A significant portion of the funds allocated for recovery will typically be disbursed through the procurement of engineering design firms, or construction companies, or project management organisations, or supervision consultants. Given the significant risks that this infers, [international procurement procedures](#) for different contexts have been developed by multilateral finance institutions that provide a ‘best practice’ framework. These procurement procedures are often tailored by national governments to suit requirements that may be limited by scope, timeline and/or capacity). However, the Fiji Government and SOEs such as WAF have well developed procurement process for domestic and international sourcing of goods and services

As the competitive procurement of goods and works is generally preceded by the competitive procurement of technical advisory services, procurement processes typically absorb a significant amount of the time for the execution of WASH projects. There are however several options for reducing procurement timelines during Recovery:

- During early recovery, direct selection from standing supplier arrangements such as WAF supplier panels
- can sometimes be justified but this can jeopardise value-for-money by reducing competition. Due to these patronage risks, typically there are very strict rules surrounding the direct selection of contactors. In some cases where the WASH recovery activities are relatively well defined (i.e. the drilling and development, casing and testing of production bores), the competitive empanelling of contractors

prior to a disaster at a standard rate (i.e. the cost per metre of bore drilled & developed) can significantly reduce procurement timelines.

- During recovery, issuing contract variations to existing contractors that have already been competitively procured can present an opportunity to balance value-for-money imperatives with shortened timelines. Typically, however there are limits of less than thirty percent cost variation on the works of a competitively procured contractor.
- Material delivery times to Viti Levu and on to the outer islands can often be several months. Investment in strategic reserves of commonly used / damaged materials such as pipes, components such as valves, and consumables such as fasteners, to facilitate simple repairs can aid early recovery. These reserves could be deployed to distributed storages, then replenished with the disaster recovery funds.

7.4.2 Detailed Design

All Water and Wastewater infrastructure in Fiji should be designed and constructed in accordance with the specifications recorded in the Water Authority of Fiji Subdivision Standard (2021) or later amendments, unless varied by agreement for specific requirements.

Small Scale / Village Level Infrastructure

A number of “standard” designs have been developed and implemented by the Fiji government and development partners for rural community-level, school and health facility WASH infrastructure in Fiji. These designs are established, documented and costed to a level that allows for rapid deployment in the recovery phase, subject to material availability. The designs include Ecological Purification Systems (EPS) for water treatment and various improved latrine and water point designs.

Larger Scale Infrastructure

While government departments, public utilities and NGOs historically may have had the technical and human resource capacity to prepare detailed designs for WASH assets during the recovery, WASH design capacity now tends to be concentrated in specialist engineering design companies. Typically, these companies are familiar with Fijian and international engineering standards and Fiji construction practices and often can even take on the project management roles of design, procurement support, construction supervision and commissioning.

While engineering design and project management capacity may be engaged from the private sector, client representation expertise from WAF, DWS and MRD is imperative in the review and approval of detailed designs. *This means that detail design drawings & specifications should be referred to expert departments representing the client for approval, irrespective of whether the recovery project is executed by government or non-government organisation.*

The Necessity of Expert Client Representation in Design Review

While there are numerous technology options and multiple brands compliant with international standards that can fulfill a particular infrastructure purpose, WASH asset owners will tend to adopt standard technologies and /or brands that maximise operability and minimize spare parts. A review of detailed designs will typically require expert inputs from the client organisation regarding:

- Structural works (i.e. the client standards for elevated tanks including the specifications of materials, operator access, corrosion protection, foundations, aesthetics)
- Civil works (i.e. the client standards for pipe materials of particular sizes including the detail specifications for above & below ground use, coatings (internal & external), joining (type of welding / fixing), fittings (tees, elbows and retail connections)
- Mechanical works (i.e. the client standard of materials, mechanical seals, impellers for submersible or suction pumps, or the detailed specifications for foot valves, air valves, check valves, gate valves, butterfly valves, water meters and backflow prevention devices)
- Electrical works (i.e. client standards for electrical transformer ratings, peak/off peak tariffs, switchboard components configuration, electric motor sizing / brand for pumps and valves)
- Instrumentation works (i.e. client standards for electronic flow meters, water quality sensors, tank water level indicators, PLC standards, SCADA input / output requirements)

Ideally, the project management unit will seek expert feedback from within client organisation to ensure that cutting-edge-design (often by private engineering firms) is tailored to meet the client's knowledge, aptitude and practices for undertaking system operation and maintenance.

7.4.3 Reconstruction

WASH reconstruction works in Fiji are performed either by the implementing agency staff (WAF, MRD, MoHMS) or more typically by contractors, and sometimes by NGOs and volunteers. The risks for failure to meet quality of construction standards may therefore be borne by a number of parties depending on the project type, scale and location. In all of these scenarios, construction supervision by the client organisation, or independently on behalf of the client organisation, is essential:

- to ensure that the detail and quality of construction is compliant with the contracted design specifications and standards
- to provide a timely and informed response to construction queries or alternatives raised by contractors
- to advise on issues beyond the scope of the contract that affect the execution of the contract (i.e. access to land, shutdowns of existing equipment, community relations)
- for informed negotiation on the necessary contract variations in the interests of the client
- for verification of the release of scheduled payments against contractor invoices

Construction supervision is particularly important when there are important unknowns (i.e. for the drilling of wells where the yield and the quality of water are unknown until the production bore has been drilled and developed, which can then affect the treatment, storage and distribution systems).

During the recovery phase, local access to quality materials, qualified personal and skilled labour may be limited, affecting the price, pace and sustainability of recovery projects. The value-for-money imperatives need to be managed so as to not undermine long-term sustainability (by accepting sub-standard materials)

or distort markets (by bypassing local supply chains), or deplete resources (by capturing all available resources).

While the recycling of materials from damaged structures can present a number of benefits in the recovery process (i.e. they are immediately available; can reduce the environmental impact; can reduce the amount of debris that needs to be cleared away; can reduce the cost of construction and transportation) this needs to be balanced against the potential costs (i.e. flaws in the quality of materials, the additional labour costs of processing materials).

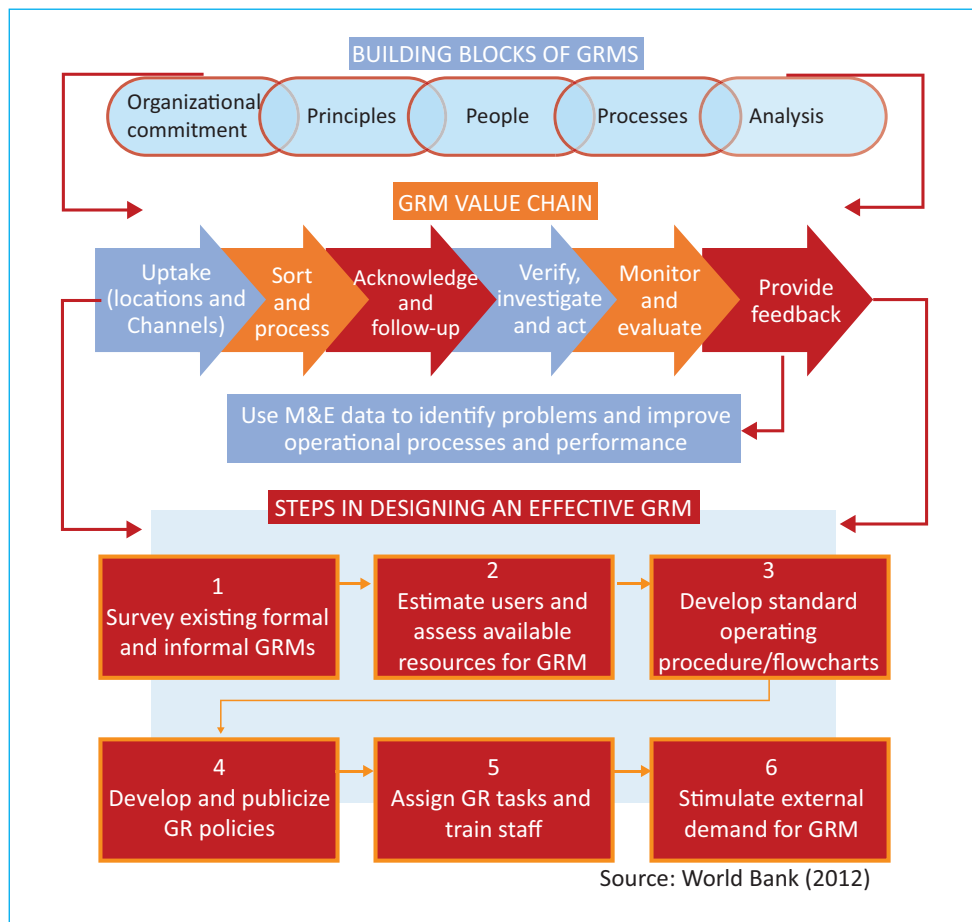
7.5 Grievance Redress

There is no grievance redress / complaint management policy documented for the disaster recovery context in Fiji.

The official FAQ page of the website of the **Office of The Prime Minister of the Republic of Fiji** lists the Government's standard grievance management process as:

- a. *Before bringing your complaint to our office, it is advisable that you first lodge it (complaint) with the relevant Ministry, Agency, Department or Organisation. Please note that when we receive your complaint, we will also liaise with the responsible Ministry, Agency, Department or Organisation to ensure that all necessary policies and processes are followed.*
- b. *Below are some ways in which you can lodge a complaint with our office;*
 - i. *Visit our complaints desk at the Ground Floor, Government Buildings, Suva.*
 - ii. *Write a letter and address it to Client Services Unit, Office of the Prime Minister, P. O. Box 2353, Government Buildings, Suva.*
 - iii. *Email your complaint through our website email portal on the home page.*
 - iv. *Call us on 3211614 and speak to any of our Client Services Officers.*
 - v. *Advise any of our officers during our community visitations/consultations or our weekly talkback shows on Radio Fiji One.*
- b. *Our office will contact you on the update or outcome of your complaint.*

No information regarding grievance redress policies could be located on any of the other government WASH sector stakeholder's websites. None are listed on the Government's policy listing of Constitutional and Legislative documents.



The development of a formal Grievance Redress Mechanism (GRM) for the DRF implementation is advisable to ensure that recovery processes are accountable, transparent, and responsive to beneficiaries. GRMs can improve recovery processes by generating public awareness about the recovery project objectives; deterring fraud and corruption; mitigating risk; and providing project management staff with practical feedback.

There are five building blocks to [develop](#)²² and six steps to [implement](#)²³ GRM's that are tailored to the context and responsive to the grievances of all those affected (especially the poor and marginalised) according to the World Bank.

While GRM mechanisms may be

- 'project based' to specifically address the project communications and redressal risks
- 'utility wide' enabling the escalation of unredressed grievances to more senior management
- 'public sector wide' offering a single avenue for grievances and corruption across sectors

there is an opportunity during Recovery to establish a single GRM that is 'area based' to respond to the multi-sector needs of citizens in the Recovery catchment area. The design and promotion of a suitable GRM for the DRF implementation process should be performed by and under the leadership of the Ministry of Economy, in consultation with the sector working groups and District administrations.

7.6 Completion

During the completion stage of a project, the ownership (and responsibility) for reconstructed or new WASH systems transfers from the constructor (contractor, NGO, government agency) to the Ministry of Economy (i.e. client representative) and onwards to the ultimate client, whether that be a government agency or a community water and sanitation association (i.e. the asset owner).

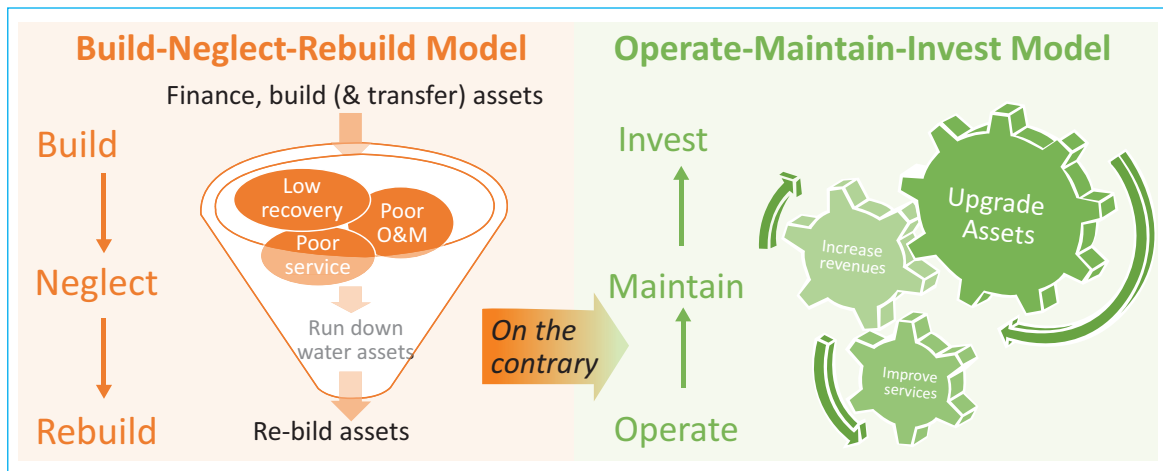
22 World Bank. (2012) *Part 1: The theory of grievance redress* Washington, DC: World Bank

23 World Bank. (2012) *Part 2: The practice of grievance redress* Washington, DC: World Bank

At the completion stage of the recovery activities, it is essential to ensure that the asset owner has the requisite capacity (human resources, spare parts, mobile plant) to operate and maintain WASH assets.

7.6.1 Operation and Maintenance (O&M)

The transfer of subsidised WASH assets to service providers can potentially undermine the incentives for professional operation and maintenance. Subsidising assets can lead to under-pricing of services and a low recovery of revenues. This leads to a lack of funds to operate and maintain the assets, leading to declining service standards, until the assets again need to be rebuilt to restore the services.



The build-neglect-rebuild cycle of service delivery is a function of poorly targeted public funding, unviable service providers (i.e. with expensive WASH assets and low revenues) and one of the reasons for the lack of commercial finance in the WASH sector.

Requiring the repayment of the cost of WASH assets by the asset owner increases the likelihood of the generation of revenues sufficient to operate, maintain and invest in the expansion of WASH services into the future. This improves the likelihood that commercial lenders will make finance available to WASH service providers in the future. Increased commercial finance in the WASH sector is then likely to be linked to increased revenues from improved operation and maintenance procedures of service providers leading to a virtuous operate-maintain-invest cycle of service delivery.

8 Monitoring and Evaluation (M&E)

Monitoring and evaluation serve several purposes. In the absence of effective monitoring and evaluation, it would be difficult to know whether the intended results of the DRF are being achieved as planned, what corrective action may be needed to ensure delivery of the intended results, and whether initiatives are making positive contributions towards human development.

Monitoring and evaluation always relate to pre-identified results nominated in the DRF plan. M&E are driven by the need to account for the achievement of intended results and provide a fact base to inform corrective decision making. They are an essential management tool to support the UNDP commitment to accountability for results, resources entrusted to it, and organizational learning. Furthermore, both feed into the overall program management processes and make an essential contribution to the ability to manage for development results.

The design and application of an M&E system (or dedicated M&E chapter in the DRF) with a clear set of indicators and performance benchmarks is integral to the measurement and reporting of the performance of the DRF approach in achieving its outcomes.

- **Monitoring** can be defined as the ongoing process by which stakeholders obtain regular feedback on the progress being made towards achieving their goals and objectives²⁴.
- **Evaluation** is a rigorous and independent assessment of either completed or ongoing activities to determine the extent to which they are achieving stated objectives and contributing to decision making.

Effective and timely decision making for the DRF implementation requires information from regular and planned monitoring and evaluation activities. **Planning for monitoring and evaluation must start at the time of program or project design, and they must be planned together.** While monitoring provides real-time information on ongoing program or project implementation required by management; evaluation provides more in-depth assessments. Planning for monitoring must be done with evaluation in mind. The availability of a clearly defined results or outcome model and monitoring data, among other things, determine the ‘evaluability’²⁵ of the subject to be evaluated.

An M&E system is much more than a project Management Information System (MIS). WASH project MISs have historically been designed to measure the inputs and outputs associated with the delivery of public works or services. This typically included primarily financial management and performance data such as:

- Budget and allocation splits by project and sub-project element
- Timeline(s)
- Human resource allocation
- Project acquittal information (budget expenditure, work completion percentage)
- Safety Management
- Defects and variations

While a project MIS will tend to generate a large amount of information on the status of the delivery of a package of works or services for managers, such systems rarely provide any information on the effectiveness of those services in addressing the intended outcomes of the project. For example, the measuring of the financial and physical progress in the delivery of improved drinking water infrastructure does not give any indication on whether this system is being safely operated and maintained, or whether the water is being consumed safely within households.

Monitoring and Evaluation in WaSH focuses on measuring progress against **achieving goals**, not just task completion. Therefore, the performance of the WaSH DRF implementation must be monitored in terms of traditional project management performance, **plus** performance against WaSH indicators to allow sectoral

²⁴ Handbook on Planning, Monitoring and Evaluating for Development Results, UNDP, 2019

²⁵ Evaluability can be defined as clarity in the intent of the subject to be evaluated, sufficient measurable indicators, accessible and reliable information sources, and no major factor hindering an impartial evaluation process.

recovery to be gauged. The following sections discuss the requirements for monitoring the WaSH recovery aspects of the DRF, as traditional project management is extensively documented elsewhere.

8.1 Monitoring

Monitoring is the process of collecting information on a set of indicators for key parameters or objectives. By subsequently comparing the current indicator data with previous data (evaluation), we can track progress over time and find out which solutions are effective for meeting the DRF objectives, and which are not. This information is essential for an effective follow-up and review, to ensure accountability and communicating needs to improve or correct the DRF implementation. By defining indicators, we specify what we want to monitor, and by defining methodologies, we describe how to monitor these indicators.

The key questions that **monitoring** seeks to answer include the following:

- Are the preidentified objectives being produced as planned and efficiently?
- What are the issues, risks and challenges that we face or foresee that need to be taken into account to ensure the achievement of results?
- What decisions need to be made concerning changes to the already planned work in subsequent stages?
- Will the planned and delivered outputs continue to be relevant for the achievement of the envisioned outcomes?
- Are the outcomes we envisaged remaining relevant and effective for achieving the overall national priorities, goals and impacts?
- What are we learning?

8.1.1 Monitoring Objectives

The objectives which are the subject of monitoring for the WaSH DRF are the recovery needs identified in the PDNA then refined and prioritised in the DRF.

8.1 WASH Indicators

To allow for consistent, effective and efficient collection of monitoring information for the WaSH DRF, the sectoral performance indicators used should align with existing sector indicators to the greatest extent possible. The 5-Year and 20-Year National Development Plan sets out targets and indicators for the sector. Progress towards meeting the SDG 6 development goals for Fiji is measured and tracked through the WaSH Cluster under the leadership of the Ministry of health and Medical Services. Fiji's 5-Year and 20-Year National Development Plan sets out Targets and associated Indicators for assessing the nation's progress towards achieving its SGD 6 objectives, which are used in the cluster reporting.

DRF project M&E systems in Fiji should, as far as is practical, align with the existing systems to generate WASH data for SDG 6 indicators, allowing DRF performance comparisons with global and national indicators. The DRF monitoring could easily piggy-back onto the WaSH cluster indicator monitoring as many of the same stakeholders will be involved in the DRF. The WaSH cluster assessment data is regularly provided to the JMP for incorporation into the global reporting data set, so the monitoring data format is consistent with international norms.

As far as possible, indicators should be disaggregated. Averages tend to hide disparities, and recognizing disparities is essential for programming to address the special needs of groups such as women, indigenous groups and marginalized populations. Indicators can be disaggregated by sex, age, geographic area and ethnicity, among other things. The key to good indicators is credibility—not volume of data or precision in measurement. Large volumes of data can confuse rather than bring focus and a quantitative observation is no more inherently objective than a qualitative observation. An indicator's suitability depends on how it relates to the result it intends to describe.

Fiji National WASH Cluster Emergency Response Cluster Standards include specific compliance (Yes / No) indicators for measuring and evaluating outcomes for hardware and software implementation programs. These are provided below for the relevant Standards and should be used to monitor and evaluate the DRF implementation outcomes where applicable.

8.1.1 Water Supply

Standard 1: Access and Water Quantity

- All people have safe and equitable access to a sufficient quantity of water for drinking, cooking and personal and domestic hygiene. Public water points are sufficiently close to households.

Indicators:

- Average water use for drinking, cooking and personal hygiene in any household is 15 litres per person per day.
- Maximum distance from any household to the nearest water point is 500 metres.
- Queuing time at a water source is no more than 30 minutes.
- Number of people per tap is 250 based on a flow of 7.5 litres per minute.
- Number of people per hand pump is 500 based on a flow of 17 litres per minute.
- Number of people per single-user open well is 400 based on a flow of 12.5 litres per minute.

Standard 2: Water Quality

- Water is palatable and of sufficient quality to be drunk and used for cooking and personal and domestic hygiene without causing risk to health.

Indicators:

- There are no faecal coliforms per 100ml of water at the point of delivery.
- Any household-level water treatment options (such as water purification tablets or filters) used are effective in improving microbiological water quality and are accompanied by appropriate training, promotion and monitoring.
- There is no negative effect on health due to short-term use of water contaminated by chemicals (including carry-over of treatment chemicals) or radiological sources, and assessment shows no significant probability of such an effect.
- All affected people drink water from a protected or treated source in preference to other readily available water sources.
- There is no outbreak of water-borne or water-related diseases

Standard 3: Water Facilities

- People have adequate facilities to collect, store and use sufficient quantities of water for drinking, cooking and personal hygiene, and to ensure that drinking water remains safe until it is consumed.

Indicators:

- Each household of 5 people has at least two clean water collecting containers of 10 litres.
- Water collection and storage containers have narrow necks and buckets have covers.
- There is at least one washing basin per 100 people and private laundering and bathing areas available for women. Enough water is made available for bathing and laundry.
- Water at household level is free from contamination at all times in line with the Fiji national drinking water quality guidelines.

- All people are satisfied with the adequate facilities they have for water collection, storage, bathing, hand washing and laundry.

8.1.2 Sanitation (Excreta Disposal)

Standard 1: Environment Free of Human Faeces

- The living environment in general and specifically the habitat, food production areas, public centres and surroundings of drinking water sources are free from human faecal contamination. People maintain their dignity and privacy and are free from harm by avoiding OD.

Indicators:

- The environment in which the affected population lives is free from human faeces.
- All excreta containment measures (e.g., trench latrines, pit latrines), are at least 30 metres away from any groundwater source. The bottom of any latrine or soak-away pit is at least 1.5 metres above the water table.
- In flood or high water table situations, appropriate measures are taken to tackle the problem of faecal contamination of groundwater sources.
- Drainage or spillage from defecation systems does not contaminate surface water or shallow groundwater sources.
- Toilets are maintained and children's faeces is disposed of hygienically.

Standard 2: Appropriate and Adequate Toilet Facilities

- People have adequate, appropriate and acceptable toilet facilities, sufficiently close to their dwellings, to allow rapid, safe and secure access at all times, day and night.

Indicators:

- Toilets are appropriately designed, built and located to:
 - » Minimise security threats to women and children throughout the day and the night
 - » Provide privacy
 - » Be easy to clean
 - » Allow for the disposal of women's menstrual hygiene materials
 - » Minimise fly and mosquito breeding
 - » Provide mechanisms for desludging, transport and appropriate disposal if needed
 - » Minimise contamination of groundwater and the environment in high water table or flood situations
- A maximum of 40 people use each toilet.
- Toilets are no more than 50 metres from dwellings.
- Use of toilets is arranged by household(s) and/or segregated by sex

8.1.3 Hygiene

Standard 1: Hygiene Promotion Implementation

- Affected men, women and children of all ages are aware of key public health risks and are mobilised to adopt measures to prevent the deterioration in hygienic conditions and to use and maintain the facilities provided.

Indicators:

- All user groups can describe and demonstrate key hygiene behaviours.
- All people wash their hands after defecation, after cleaning a child's bottom, before eating and preparing food.
- All hygiene promotion activities and messages address key behaviours and misconceptions and are targeted at all user groups.
- Representatives from all user groups are involved in planning, training, implementation, monitoring and evaluation of the hygiene promotion work.
- Care-takers of young children and infants are provided with the means for safe disposal of children's faeces.

Standard 2: Identification and use of hygiene items

The disaster-affected population has access to and is involved in identifying and promoting the use of hygiene items to ensure personal hygiene, health, dignity and well-being.

Indicators:

- Women, men and children have access to hygiene items and these are used effectively to maintain health, dignity and well-being.
- All women and girls of menstruating age are provided with appropriate materials for menstrual hygiene following consultation with the affected population.
- All women, men and children have access to information and training on the safe use of hygiene items that are unfamiliar to them.
- Information on the timing, location, content and target groups for a Non Food Item (NFI) distribution is made available to the affected population.
- The safety of affected populations and staff is prioritised when organising an NFI distribution.

8.1.4 Solid Waste

Standard 1: Collection and Disposal

- The affected population has an environment not littered by solid waste, including medical waste, and has the means to dispose of their domestic waste conveniently and effectively.

Indicators:

- All households have access to refuse containers which are regularly emptied.
- There is timely and controlled safe disposal of solid waste with a consequent minimum risk of solid waste pollution to the environment.
- All medical waste (including dangerous waste such as glasses, needles, dressings and drugs) is isolated and disposed of separately in a correctly designed, constructed and operated pit or incinerator with a deep ash pit, within the boundaries of each health facility

8.1.5 Additional WaSH Sector Indicators

There are a range of indicators which are commonly used in Fiji to describe the type and physical condition of water and sanitation infrastructure during infrastructure construction or repair. Standard WASH indicators are also commonly used in the WaSH Sector to describe the level of access to WaSH services, mainly using the JMP classifications. These serves to complement the physical status assessment of infrastructure and assets, providing a measure of levels of project delivery, capacity, service provision and ease of access to WaSH.

Table 2 lists common WaSH indicators already used in Fiji and examples of the associated infrastructure and service types. These indicators are common through the regular cluster reporting for JMP assessment,

gathering of baseline data, PDNA and DRF processes. These should be used as appropriate to monitor the hardware components of the recovery DRF implementation

Table 2: WaSH Indicator Type Examples and Associated Infrastructure

Indicator	Examples of Infrastructure Types
Inventory of water sources, treatment, and distribution assets (Quantity and Quality)	Examples. Water Sources: <ul style="list-style-type: none"> - Stream (protected or unprotected intake) - Hand dug well - Groundwater bore - Rainwater harvesting and storage Treatment: <ul style="list-style-type: none"> - Trash Screen - Roughing Filter - Ecological Purification System (EPS) - Chlorination Distribution: <ul style="list-style-type: none"> - Submersible pump - Centrifugal pump - Storage tank - Distribution pipework and fittings - Water truck or cart
Location, JMP classification and number of water supply services / supply points (Quantity and Quality)	Examples: <ul style="list-style-type: none"> - Piped Water into dwelling (Improved) - Public tap, standpipe (improved) - Unprotected Well (Unimproved) - Uncovered Cistern or Tank (Unimproved)
Inventory of wastewater collection and treatment assets (Quantity and Quality)	Examples: <ul style="list-style-type: none"> - Flush Toilet - Pour Flush Latrine - Dry Latrine - No Facility (open defecation)
Location, JMP classification and number of sanitation facilities (Quantity and Quality)	Examples: <ul style="list-style-type: none"> - To piped sewer system (Improved) - To septic tank (Improved) - To open drain (Unimproved) - Ventilated Improved Pit (Improved) - Pit Latrine WITHOUT Slab / Open Pit (Unimproved)
Number of households and individuals accessing the water supply and sanitation services at each location	Inventory / count.
Location and type of solid waste management assets and services (Quantity and Quality)	Examples: <ul style="list-style-type: none"> - Burning Bin – Household - Community Waste Pit - Solid waste removal service

8.2 WaSH Monitoring Framework

The Monitoring Framework maps the desired outcomes of the DRF to the specific monitoring requirements. A clear framework, agreed among the key stakeholders at the end of the planning stage, is essential to carry out monitoring and evaluation systematically. This framework serves as the basis for monitoring and evaluation of the DRF implementation, and should clarify:

- The DRF outcomes sought (from the PDNA)
- What is to be monitored and evaluated (the indicators)
- The activities needed to monitor and evaluate progress – how is the data collected?
- Who is responsible for monitoring and evaluation activities
- When monitoring and evaluation activities are planned (timing)
- How monitoring and evaluation are carried out (methods)
- What resources are required and where they are committed

In addition, relevant risks and assumptions in carrying out planned monitoring and evaluation activities should be seriously considered, anticipated and included in the M&E framework.

Table 3: Example of A Results Based Monitoring Framework

Objective (From DRF)	Indicator from NDP	Current Value	Target DRF Value	Risks and Assumptions	Collected by	Data Collection Method	Timing / Frequency
SDG 6.1 By 2030 achieve universal and equitable access to drinking water for all.	% Access to Improved water supply in rural areas.	60% estimated (was 75% before disaster)	85% by end 2024 per original forecast tracking in NDP	Sufficient funding available to support projects. No additional disasters	WaSH Cluster District Officers MoHMS	Surveys	Quarterly

8.3 Evaluation

Through the review of direct evidence and objective supporting information, evaluations enable managers to make informed decisions and plan strategically. The Fiji Government highly values the ability of government staff and counterparts to carry out credible evaluations and use them to make evidenced-based decisions for development and recovery. The effective conduct and use of evaluation requires appropriate human and financial resources, sound understanding of evaluation and most importantly, **a culture of results-orientation, learning, inquiry and evidence-based decision making.**

- **Evaluation** is a rigorous and independent assessment of either completed or ongoing activities to determine the extent to which they are achieving stated objectives and contributing to decision making.

When evaluations are used effectively, they support program improvements, knowledge generation and accountability through:

- Supporting program improvements—Did it work or not, and why? How could it be done differently for better results?
- Building knowledge for generalizability and wider-application—What can we learn from the evaluation? How can we apply this knowledge to other contexts.
- Supporting accountability—Is the project doing the right things? Is the project doing things right? Did the project do what it said it would do?

The DRF implementation is of a relatively short duration, measured in months to a few years. This makes the DRF suitable for a Project Evaluation approach where the Focus, Scope and Purpose are as follows:

- **Focus:** Generally speaking, inputs, activities and outputs - if and how project outputs were delivered within a sector or geographic area and if direct results occurred and can be attributed to the project.
- **Scope:** Specific to project objectives, inputs, outputs, and activities. Also considers relevance and continued linkage with outcomes.
- **Purpose:** Project based to improve implementation, to assess resource requirements, to re-direct future projects in the same area, or to allow for re-scoping of project delivery.

The quarterly sectoral evaluation will be led by the Ministry of Economy and head of the sector working group, with participation from representatives of the implementing agencies. Progress of the DRF implementation will be assessed and reported against the WaSH DRF monitoring framework indicators and the project management financial and resource allocation metrics established in the DRF. A WaSH sector evaluation report will be issued to the DRF Steering Committee in a format to be agreed during the DRF preparation. The sector report will be combined with the overall DRF evaluation report for review with the Ministry of Economy.

8.4 Resources for Monitoring and Evaluation

Inadequate resources lead to poor quality monitoring and evaluation. To ensure effective and quality DRF monitoring and evaluation, it is critical to set aside adequate financial and human resources at the DRF planning stage. The required financial and human resources for monitoring and evaluation should be considered within the overall costs of delivering the agreed DRF results and not as additional costs.

8.4.1 Financial Resources

Financial resources for monitoring and evaluation should be estimated realistically at the time of planning for monitoring and evaluation. In the past in Fiji, these costs have not been budgeted for and have had to be met from the Ministry's internal budgets, or they were not performed at all. While it is critical to plan for monitoring and evaluation together, resources for each function should be separate.

In practice, each sectoral project should have two separate budget lines for its monitoring and evaluation, agreed in advance with partners. This will help the implementors to be more realistic in budgeting. It will also reduce the risk of running out of resources for evaluation, which often takes place towards the end of implementation. Monitoring and evaluation costs associated with projects can be identified relatively easily and be charged directly to the respective project budgets with prior agreement among partners through inclusion in the project budget.

Sourcing and securing financial resources for monitoring and evaluation of outcomes or programs can pose additional challenges, as there is not one project where these costs can be directly charged. The most commonly observed financing mechanism is to draw resources together from relevant projects. Some additional possibilities include:

- Create a separate monitoring and evaluation fund, facility or project line associated with the DRF to which all the constituent projects would contribute through transfer of some project funds. This facility could be controlled and disbursed by the Ministry of Economy as required.
- Mobilise funds from partners directly for an outcome or program monitoring and evaluation facility.
- Allocate required funds for each outcome based on planned costs of monitoring and evaluation from the overall DRF budget.

It is important that recovery partners consider the resources needed for monitoring and evaluation and agree on a practical arrangement to finance the associated activities during the DRF preparation. Such arrangements should be documented at the beginning of the program to enable partners to transfer necessary funds in accordance with their procedures, which can take considerable time and effort.

8.4.2 Human Resources

Human resources are critical for effective monitoring and evaluation, even after securing adequate financial resources. For high-quality monitoring and evaluation, there should be:

- Dedicated staff time—For effective monitoring and evaluation, staff should be dedicated for the function. The practices of deployment of personnel for monitoring vary among organizations. Some UNDP country offices have established monitoring and evaluation units with specific terms of references (ToRs), dedicated skilled staff, work plans and other resources.
- Skilled personnel—Staff entrusted with monitoring should have required technical expertise in the area. A number of UNDP country offices have a dedicated monitoring and evaluation specialist. Where necessary, the Ministry of Economy’s skill levels could be augmented to meet the skill needs by request to development partners such as UNDP. Ongoing investment in developing such capacity within the Ministry of Economy and others may be required.

8.1 DRF Sector Guideline Review

Finally, this DRF sectoral guide is a living-document that is a reference for the recovery of the sector, up until the sector has recovered to its pre-disaster levels. It is therefore important to monitor and evaluate the recovery projects and activities on a regular basis, and, when needed, to update the WASH DRF itself, based on the monitoring assessments results. The update of this WASH DRF document will also be required based on the evolving policy, risk, economic and social contexts.

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