



NATIONAL WATER RESOURCES MANAGEMENT AND SANITATION POLICY

2026

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Foreword

Access to safe drinking water and sanitation is fundamental not only to the health and wellbeing of all Fijians, but also to poverty reduction and economic development. Clean water and adequate sanitation are essential to a thriving society, contributing to improved public health, enhanced quality of life, and sustainable economic growth.

The National Water Resources Management and Sanitation Policy promote the efficient, equitable, and sustainable management of Fiji's water resources. It aims to ensure universal access to safe drinking water, adequate sanitation, and hygiene services. The policy provides a comprehensive framework for the water and sanitation sectors, guiding the planning and implementation of programmes to effectively address both current and emerging risks to water resources, the environment, infrastructure, and public health.

Furthermore, the policy encourages all sectors to integrate water, sanitation, and hygiene (WASH) considerations into national development efforts, reinforcing Fiji's commitment to global initiatives that seek to ensure the availability and sustainable management of water and sanitation for all. It aligns with the United Nations Sustainable Development Goals, particularly SDG 6, which targets universal access to water and sanitation by 2030. It also reflects outcomes from COP30, including the recognition of water as central to climate resilience and the global commitment to scaling up climate adaptation, enhancing water security, and strengthening integrated water resources management.

The Water Sector Strategy 2050 is aligned with this Policy and provides the long-term strategic direction for the development of a resilient, inclusive, climate-responsive, and sustainable water and sanitation sector. Together, the Policy and the Strategy support a coordinated national approach towards strengthening water security, improving service delivery, protecting water resources, and enhancing institutional capacity to meet the needs of current and future generations.

At present, administrative and institutional arrangements for water and sanitation remain fragmented, resulting in gaps in coordination and service delivery. This fragmented approach has slowed progress in addressing water and sanitation challenges at both national and sub-national levels. The absence of a comprehensive and integrated policy framework has further constrained the systematic management of these critical sectors.

This policy establishes a unified platform for dialogue, coordination, and collaboration among government agencies, development partners, stakeholders, and communities. Through structured planning and coordinated implementation of national and local programmes, it enables more effective and efficient responses to sector challenges.

In addition, the policy supports Fiji in achieving the targets set out in its National Development Plan over the next 5 to 20 years, while aligning with international commitments, including those reaffirmed under COP30 notably the Global Goal on Adaptation, the Water Action Agenda, and commitments to climate-resilient infrastructure and services.

The policy sets clear objectives, targets, and strategies to mainstream water and sanitation across all relevant sectors, ensuring their integration into national development frameworks. It also seeks to mobilize and guide the allocation of technical and financial resources necessary for sustainable and climate-resilient water and sanitation solutions.

The development of this policy was informed by extensive consultations with key stakeholders, ensuring that it reflects the diverse needs and priorities of communities across Fiji. The Department of Water and Sewerage, in collaboration with the Technical Working Group for Water and Sanitation, led and coordinated this process. This partnership has been instrumental in ensuring the policy's relevance, practicality, and alignment with national priorities.

I extend my sincere appreciation to all stakeholders and members of the Technical Working Group for their invaluable contributions and steadfast support throughout the policy development process. Your commitment has been critical in shaping this policy, which will guide our collective efforts to secure Fiji's water and sanitation future.

I commend this policy to all stakeholders and call for continued cooperation and collaboration in addressing the challenges facing the water and sanitation sector. Together, we can build a healthier, more resilient, and sustainable future for all Fijians.

A handwritten signature in blue ink, appearing to read 'Ro Filipe Qaraniqio Tuisawau', with a long horizontal flourish extending to the right.

Ro Filipe Qaraniqio Tuisawau

Honourable Minister for Public Works, Meteorological Services and Transport

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- Office of the Prime Minister
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- Ministry of Civil Service
- Ministry of Public Enterprises
- Ministry of Health and Medical Services
- Ministry of iTaukei Affairs
- iTaukei Land Trust Board
- Ministry of Rural and Maritime Development and National Disaster Risk Management
- Ministry of Fisheries and Forestry
- Ministry of Commerce and Business Development
- Ministry of Strategic Planning, National Development and Statistics
- Ministry of Housing and Local Government
- Department of Town and Country Planning
- Office of the Solicitor-General
- UNICEF
- Mr. Paul Taylor, Consultant

Abbreviations

• DTCP	- Department of Town and Country Planning
• DWS	- Department of Water and Sewerage
• ESD	- Ecologically Sustainable Development
• FCCC	- Fijian Competition and Consumer Commission
• FMS	- Fiji Meteorological Service
• GEDSI	- Gender, Equality, Disability and Social Inclusion
• iTLTB	- iTaukei Land Trust Board
• IWRM	- Integrated Water Resources Management
• MHMS	- Ministry of Health and Medical Services
• MOU	- Memorandum of Understanding
• MRD	- Mineral Resources Department
• NAP	- National Adaptation Plan of Fiji (2018)
• NDRMO	- National Disaster Risk Management Office
• NDP	- National Development Plan 2025-2029
• NFAP	- Nadi Flood Alleviation Project
• PES	- Payment for Ecological Services
• RWSP	- Rural Water and Sanitation Policy
• SOP	- Standard Operating Procedure
• WWTP	- Wastewater Treatment Plant
• UN	- United Nations
• WAF	- Water Authority of Fiji
• WRM	- Water Resources Management
• WSMP	- Water Supply Management Plan
• WSS-2050	- Water Sector Strategy 2050
• WTP	- Water Treatment Plant
• WWTP	- Wastewater Treatment Plant

Definitions

Aquifer	A naturally occurring underground water reserve
Beneficial use	The use of a water resource that provides a benefit to human life, wellbeing, economy, or to the environment
Borehole	A narrow shaft bored into the ground, to find and extract water
Climate change	The long-term trend in global temperature change that affects weather patterns, precipitation and runoff into rivers and streams
Constitution	The Constitution of the Republic of Fiji
Customer	A person or organisation supplied with a water supply or sewerage service by WAF or by a community managed water supply or sewerage scheme
Desalination	A process that removes salt or other minerals from water
Developer	A person or company that created a new parcel of land that required a separate water and /or sewerage connection.
Drinking water quality standard	A level for a water constituent which does not result in significant human health risk, and which ensures the water is acceptable for drinking and domestic use
Drinking water safety and security planning	A risk-management plan developed and used by communities to ensure water of acceptable quality and quantity is available to all
GEDSI	Gender Equality, Disability and Social Inclusion
Government	Government of the Republic of Fiji
Groundwater	Any water located beneath the ground surface in soil pore spaces and the fractures of rock formations such as aquifers and springs
IWRM	Integrated Water Resources Management, is a process which promotes the coordinated development and management of water, land and related resources to maximize the resultant economic and social welfare in an equitable and sustainable manner
Ministry	The Ministry responsible for water supply and sewerage services
Peri-urban area	The area surrounding or next to an urban area, where settlement is intensifying
Rainwater Harvesting	Accumulating and storing rainwater for use
Reticulation	The network of pipes, pumps and service reservoirs that delivers drinking water from a water source or water treatment plant to consumers

Rural	All areas outside of metered urban and peri-urban water reticulation systems
Safe water	Water that meets the National Drinking Water Quality Standard
Sanitation	The provision of facilities and services for the safe disposal of human excreta and domestic wastes
Service Agreement	An agreement between the Ministry responsible for water services and a water service provider
Sewage	Human waste from domestic and commercial premises including faeces, urine, waste from kitchens, showers, baths, domestic laundries etc;
Sewer	A conduit used for the conveyance of wastewater
Sewerage	The management and operation of drainage by sewers
Surface water	Water found on the land surface in rivers, streams, lakes, lagoons, and impounded behind dams in reservoirs
Take water	To withdraw water from a water body in nature, by diversion, pumping or other means, for human or environment use
Urban	The central business district of a city or town, along with its suburban developed areas
Vanua GIS	Web based Property/Land Information application developed and managed by the Ministry of Land and Mineral Resources. This is used by Ministries and stakeholders to view Government Spatial Assets and data
Water Committee	Committee established consisting of members of the community responsible for the operations and maintenance of rural water and sanitation schemes. This is a requirement of the RWSP.
Water conservation	The use of water efficiently and not wastefully, including measures to re-use, recycle and save water
Water service provider	An organization that provides water supply or sewerage services to customers
Water service regulator	The organisation responsible for regulating, monitoring and evaluating the performance of water service providers in Fiji
Water services	Water supplies for domestic, commercial and industrial uses, and sanitation, meaning the disposal of wastewater and sewage
Water source	A source of surface water or groundwater from which water may be taken for beneficial use
Water Supply Management Plan	The holistic, systematic and integrated design and management approach used to address water and sanitation issue ensuring the project's sustainability through the community's ownership and participation

1. Introduction

1.1 Background to the Policy

The National Water Resources Management and Sanitation Policy (Policy) propose a comprehensive water sector reform program aimed at improving and sustaining Fiji's water services encompassing both water supply and sewerage systems and ensuring more active management of the nation's water resources, including both surface water and groundwater. Given its broad scope, the Policy will impact multiple ministries and benefit water users as well as those who provide and receive water supply and sewerage services.

The Policy also recognises the importance of environmental sustainability, climate resilience, disaster risk reduction, and social inclusion in water sector planning and management. It promotes integrated approaches that strengthen resilience to climate change impacts, protect freshwater ecosystems, and ensure equitable access to safe water and sanitation services for all communities.

Need for the Policy

This Policy is essential for several reasons:

1. **Inadequate Coverage:** Access to safe water supply and sanitation remains incomplete in Fiji. Existing water supply and sewerage systems often do not function at the expected standards.
2. **Coordinated Management and Effective Oversight:** Multiple agencies manage water for drinking, agriculture, industry, energy, and ecosystems, often without proper coordination. It is crucial to establish effective oversight of water resources and services to ensure that service providers are supported and held accountable for maintaining appropriate service standards.
3. **Pressure on Water Resources:** Increasing demand from commercial and industrial sectors places pressure on water resources. However, there is currently no clear framework to determine the appropriate amount of water development or to manage how and where water is extracted.
4. **Climate Change and Disaster Risk:** Climate change is expected to intensify droughts, flooding, sea-level rise, saltwater intrusion, watershed degradation, and extreme rainfall events. These impacts will place additional strain on already stressed water resources, infrastructure, public health systems, and vulnerable communities. Integrated climate adaptation and disaster risk reduction measures are therefore essential for long-term water security and resilience.
5. **Improving Water Quality and Sanitation:** Many rural and peri-urban communities still lack access to safe drinking water and basic sanitation. Pollution from wastewater, agriculture runoff, and improper waste disposal threatens both surface and groundwater.

1.2 Need for an Enhanced Water Sector Framework

To address these challenges, an enhanced water sector framework is required. This framework will introduce clear new responsibilities between the multiple government agencies, some of which may necessitate new laws. At present, the governance structure does not provide effective mechanisms to address the following issues:

- i. **Urban Water and Sewerage Services:** Current governance arrangements are not meeting best practice delivery standards for customers.
- ii. **Groundwater Control:** There is a lack of control or limitations on the amount of groundwater extracted by large-volume commercial users, and no system to monitor or track their extractions.
- iii. **Surface Water Management:** Similarly, there is no control over the amount of water extracted from surface water sources.
- iv. **Water Use Monitoring:** There is insufficient understanding of how water users are impacting water resources, partly because water flow measurement systems need upgrading, and partly because water users are not compelled to provide information on the volume of water they are using.
- v. **Protection from Pollution:** Groundwater and surface water resources must be safeguarded against pollution and degradation from various sources.
- vi. **Management of Assets and Investments-** climate resilient infrastructure for continued services of water and sanitation.
- vii. **Establish Water and Sanitation Tariffs** that are fair, equitable, and financially sustainable, ensuring affordability for households while supporting the needs of businesses that rely on reliable water supply and sanitation services.
- viii. **Catchment Protection:** Drinking water catchments need to be properly protected to prevent reductions in both water quantity and quality.
- ix. **Inequality in Access;** Not all communities have equal access to safely managed Water supply and Sanitation Services.
- x. **Environmental and Social Safeguards:** Water infrastructure development and water resources management must incorporate environmental and social safeguards to minimise adverse impacts on ecosystems, biodiversity, water quality, customary land interests, and vulnerable communities.
- xi. **Climate Resilient Infrastructure and Planning:** Future water and sanitation investments must incorporate climate-resilient planning, disaster preparedness, and risk-informed infrastructure standards to ensure long-term sustainability and service continuity.

These challenges require urgent attention and can be addressed through a progressive and comprehensive water sector reform program. The Policy will establish a structured approach to resolve these issues, ensuring better management of Fiji's water resources for current and future generations.

1.3 Key Water Sector Challenges

The long-term demand for freshwater in Fiji has been increasing and will continue to rise with economic development. Water demand is not only driven by population growth but also by the expansion of industries, commerce, and tourism. Additionally, there is greater demand in both urban and rural areas due to increased access to piped water supply, which allows the installation of domestic water-using facilities. However, water sources are under increasing pressure, affecting both the quantity and quality of water generated by rainfall and groundwater.

Land degradation impacts stream flow, leading to greater extremes in water levels, along with higher volumes of wastewater being released into the environment. More agricultural chemicals and erosion also degrade water quality. Urban and industrial development poses the risk that

toxic waste can infiltrate groundwater sources, rendering them unusable. These challenges are common to all societies that are modernizing and developing.

Although Fiji is blessed with abundant water resources in many areas, some locations rely on desalination as the only reliable method for obtaining freshwater. Fiji also experiences periodic drought conditions. As a result, the country must approach water services and management creatively, adapting to a variety of geographical situations and conditions. Fiji shall also establish a regulatory framework that recognizes and supports the diversity of water service ownership and operation throughout the growing tourism industry, ensuring consistent service standards, environmental protection, accountable licensing, and equitable access.

On the other extreme, Fiji faces riverine flooding, which can be worsened by cyclones and storm surges. It is crucial that investments in flood protection works, such as those proposed for the Nadi River, are not undermined by allowing development in flood-prone areas.

Global studies highlight that the growing impacts of climate change will affect both the quality and quantity of freshwater supplies in coastal and island regions due to rising sea levels and changes in precipitation patterns. This leads to climate-induced issues such as saltwater intrusion and slow replenishment of natural water resources. Furthermore, climate challenges are likely to significantly affect human health, particularly in rural areas lacking adequate sanitation. These aspects are not currently incorporated into water resource planning in Fiji, but this must change by factoring climate change considerations into all aspects of rural water and sanitation development.

In Fiji, forests play a vital role in capturing and storing water, ensuring drinkable water for both rural and urban areas. Undisturbed, naturally occurring trees and forests near streams and rivers act as natural filters, holding water and slowing runoff. These ecosystems provide essential services that should be recognized and valued as natural capital. Over time, their importance will only increase as the impacts of climate change intensify. Forests help maintain high water quality, regulate the volume of available water, and control surface and groundwater flows.

The diversity of plant species and trees offers numerous benefits, many of which may not be fully recognized in land-use decisions. Undisturbed forests near rivers and streams act as natural filtration systems, providing free and effective water purification. The benefits of forest-based communities are starkly contrasted with those living in areas affected by degraded land management practices. These benefits are known as ecosystem goods and services, which include water and food provision, prevention of landslides, control of desertification and salinization, flood control, and water purification. A healthy forest ecosystem supports a healthy watershed, sustaining communities, livelihoods, and reducing the cost of living. Degrading a healthy forest ecosystem leads to a weakened watershed, increasing reliance on monetary sources for essential goods and services. The monetary value of these ecosystem services is often underappreciated locally, especially compared to other land-use options.

The protection and restoration of watersheds, forests, wetlands, and recharge areas are essential nature-based solutions that contribute to climate adaptation, flood mitigation, drought resilience, water quality protection, and ecosystem sustainability.

Water services and water resources management are governed by a legal framework that requires updating in some areas and remains incomplete or absent in others. New legislation is needed to address groundwater allocation and management, while amendments to existing laws on surface water allocation, flood management, and development are either under preparation or have been identified in policy. In addition, governance of water services and water resources

remains fragmented, with administrative challenges persisting. More proactive and effective management will require enhanced technical expertise, increased resources, and stronger coordination across responsible agencies. In addition, implementation of this Policy will require stronger environmental governance, improved inter-agency coordination, and integration of environmental and social safeguard considerations into planning, investment, and operational decision-making processes.

The Policy is consistent with the National Adaptation Plan (NAP), National Climate Change Policy, Environment Management Act 2005, Environment Management (Amendment) Act 2025, Climate Change Act 2021, Fiji National Biodiversity Strategy and Action Plan (NBSAP) 2026–2030, Nationally Determined Contributions (NDCs), and the Low Emission Development Strategy (LEDS). It is also aligned with relevant international agreements and protocols to which Fiji is a signatory, as well as other national policies, strategies, and development frameworks.

The Policy further supports Fiji's commitments under the United Nations Sustainable Development Goals (SDGs), particularly SDG 5 on gender equality and the empowerment of women and girls, SDG 6 on clean water and sanitation, SDG 9 on resilient infrastructure and innovation, and SDG 13 on climate action. The Policy is also aligned with the National Development Plan (NDP) and other supporting national policies and plans.

The policy specifically addresses the three key directions identified in the 5-Year NDP:

- a) Strengthen water sector planning and sustainable water resource management.
- b) Expand access to ensure equity in the provision of water and sanitation services; and
- c) Ensure long-term sustainability in the provision of freshwater resources and catchment security.

1.4 Water Services and Water Resources

The policy addresses two key elements in Fiji's water sector: water services and the management of water resources.

1.4.1 Water Services

Water services are those required to provide water for drinking, domestic use, commerce, and industry. Water supply involves the harvesting, storing, transporting, treating, and distributing water for domestic use, including drinking, as well as for other societal needs such as business, industry, and agriculture. Water services also include sanitation, which is provided through systems that safely dispose of wastewater and sewage. Additionally self-supply of water and sanitation, such as reliance on rainwater and onsite septic tank, are also a key consideration.

1.4.2 Water Resources

Water resources refer to the naturally occurring freshwater that can be used by society. This includes rainwater, water in streams and rivers, water in lakes and freshwater lagoons, and groundwater. This could also include desalination water and recycled/reused wastewater. The management of water resources involves protecting, allocating, and using Fiji's naturally occurring freshwater resources for beneficial purposes in a sustainable manner.

1.5 Vision

The vision of the policy is:

- (a) To ensure that Fiji's water resources are managed, maintained, and protected to provide equitable and secure access to water for beneficial uses across all sectors of Fijian society and the economy, while sustaining freshwater resources and the land and water environments; and
- (b) To ensure that water supply and sanitation services (WSS) are available safely, reliably, and affordably to all Fijians in all regions and settlements of Fiji.

1.6 Mission

The mission of the policy is to enhance the well-being of communities and sustainably promote Fiji's economy through effective, inclusive, climate-resilient, and financially sustainable management of water services and water resources.

1.7 Purpose and Scope

The purpose of this policy is to outline the government's intention to create a comprehensive and effective framework for providing water services and sustainably managing Fiji's water resources. The policy covers all water service providers, how these service providers are regulated, and all agencies involved in the planning and management of water resources in Fiji to:

- a) Ensure that water supply and sanitation are provided to all Fijians in urban and rural areas, adhering to international best practices and national standards where available; and
- b) Better protect, conserve, and manage Fiji's water resources, both surface water and groundwater, in a sustainable, climate-resilient, environmentally responsible, and socially inclusive manner to benefit human well-being, economic development, and the environment, now and for future generations.

1.8 Policy Objectives

The specific objectives related to water services and management include:

- (a) **Urban Water Supply:** To provide continuous, safe, accessible and affordable domestic water supply to all urban areas and adequate, reliable water for industry, commerce and public facilities.
- (b) **Urban Sanitation:** Ensure continuous, safe, accessible, and affordable domestic water supply to all urban areas and reliable water for industry, commerce, and public facilities.
- (c) **Rural Water Supply:** In the long term, provide all rural settlements in Fiji with sustainable, safe, accessible, and affordable water supply schemes, locally and sustainably managed.
- (d) **Rural Sanitation:** Achieve effective and sustainable rural sanitation schemes, including wastewater disposal and treatment, in rural settlements where joint schemes are feasible.
- (e) **Regulation of Water Services:** Establish an open and effective standard performance evaluation system for all water supply and sewerage services, providing public information and continuous improvements to service delivery.

- (f) **Water Resources Information:** Create consistent, comprehensive, and reliable surface water and groundwater data to support all aspects of water resources management, development, and use.
- (g) **Watershed Management:** Implement watershed planning and management measures to halt land degradation, improve forested areas, and enhance soil and water resources in upland areas, leading to improved water quality and reliability in streams and water bodies.
- (h) **Waterways Management and Protection:** Maintain the beds and banks of streams, rivers, and estuaries in stable and healthy condition to ensure uninterrupted flow and prevent degradation.
- (i) **Surface Water Allocation:** Establish a water allocation framework that ensures equitable, sustainable, and harmonious access to freshwater for all sectors of Fijian society and the economy.
- (j) **Groundwater Management and Allocation:** Maintain well-managed groundwater resources that are accessible for safe urban and rural water supply, equitably shared for all productive purposes, and protected from contamination.
- (k) **Flood Management:** Minimize flood risks by reducing flood hazards, limiting exposure, and increasing resilience and vulnerability reduction.
- (l) **Irrigation Water Management:** Ensure reliable access to water for irrigation, improve water use efficiency, and ensure consistency with other water demands.
- (m) **Drainage Management:** Limit local flooding in urban and rural areas through effective drainage and reduce contamination of stormwater.
- (n) **Drought Preparation and Response:** Plan and develop measures to provide resilience in drought conditions, including developing low-cost solutions for water scarcity.
- (o) **Water Saving and Conservation:** Achieve high levels of water conservation in Fiji and minimize the wastage of quality water from natural sources through water supply schemes.
- (p) **Water Quality Protection and Management:** Maintain the quality of water resources for beneficial use and environmental protection, free from pollutants.
- (q) **Water and Environment:** Sustain the environmental health of bodies of water and the ecosystems supported by water in nature.
- (r) **Climate Change Adaptation and Resilience:** Strengthen resilience of water and sanitation systems to climate change, natural disasters, flooding, drought, and sea-level rise through adaptive planning and resilient infrastructure development.
- (s) **Environmental Protection and Safeguards:** Ensure water sector development is undertaken in compliance with environmental legislation and incorporates environmental and social safeguards to protect ecosystems, biodiversity, public health, and vulnerable communities.
- (t) **Financial Sustainability:** Promote financially sustainable water and sanitation systems through effective investment planning, lifecycle asset management, equitable tariffs, and coordinated financing mechanisms.
- (u) **Social and Economic Values:** Ensure the protection of everyone's right to water, with opportunities for all social groups to have a say in water management decisions.
- (v) **Capacity Building:** Build the capacity of communities and empower them to manage water and sanitation risks, adopt risk management concepts, and support community involvement in water resource management by raising awareness and strengthening the capacity of non-governmental organizations (NGOs) and government agencies.
- (w) **Skills Development:** Enhance the overall skill level of the water sector from the top management through to the field workforces, including contractors, to better address national water challenges and establish a model Pacific Island National Water Sector that can support other Pacific Islands nations who are facing similar challenges.

1.9 Policy Benefits

The primary benefits of the policy include:

- (a) Ensuring that water supply and sanitation are provided to all Fijians in urban and rural areas at standards that reflect international best practices.
- (b) Providing sustainable operation and management of water supply and sewerage schemes, especially in rural areas where communities manage their own services.
- (c) Protecting water sources from overuse and contamination under diverse conditions, from small island groundwater sources to upland drinking water catchments.
- (d) Better coordination across government and stakeholders.
- (e) Creating a fair, secure, and equitable water allocation system for authorizing water use, ensuring legal security and avoiding conflicts.
- (f) Safeguarding water sources from overuse, contamination, and climate change impacts, including adaptation measures like rainwater harvesting and water infiltration techniques.
- (g) Ensuring flood alleviation measures reduce flood risks and that development follows guidelines to minimize exposure to flooding.
- (h) Establish a systematic technical regulatory framework for the plumbing industry, developers, and water supply customers to ensure that high standards of workmanship are consistently applied and maintained
- (i) Strengthening climate resilience and disaster preparedness within the water and sanitation sector.
- (j) Supporting environmentally sustainable development and protection of freshwater ecosystems.
- (k) Improving Fiji's ability to access climate finance and development partner assistance for water sector investments.

1.10 Policy Principles

The policy principles are drawn from international bodies, conferences, and agreements, including:

- a) The Dublin Principles for Water and Sustainable Development (1992);
- b) The United Nations Conference on Environment and Development (1992);
- c) The United Nations Sustainable Development Goals (SDGs);
- d) The Global Water Partnership's definition of Integrated Water Resources Management (IWRM); and
- e) The United Nations Office for Disaster Risk Reduction, specifically the Sendai Framework for Disaster Risk Reduction 2015-2030.

The policy principles include:

- a) **Integrated Water Resources Management (IWRM):** A process that promotes coordinated development and management of water, land, and related resources to maximize economic and social welfare without compromising the sustainability of vital ecosystems and the environment.
- b) **Conjunctive Use and Management:** Recognizing and managing all sources of water, particularly groundwater and surface water, in a coordinated manner. In areas of high-water demand, allocation among competing priorities should be clearly defined, transparent, and publicly disclosed to ensure equitable and efficient use of resources.

- c) **Hydrologic Unit:** Water resources should be managed based on the hydrologic unit. For surface water, this unit is the river basin or catchment area. For groundwater, it is the aquifer.
- d) **Ecologically Sustainable Development (ESD):** Utilizing and conserving resources in a way that enhances the community's quality of life while maintaining ecological processes that support life.
- e) **Precautionary Principle:** Taking preventive action in the face of uncertainty to avoid potential harm to the environment.
- f) **Participatory Management:** Ensuring that all stakeholders, especially marginalized groups, are involved in the decision-making process for water services and resource management.
- g) **Water Conservation and Efficiency:** Encouraging efficient use of water, minimizing wastage, and adopting best practices in water use and technology.
- h) **Water Security:** Providing a legal framework that guarantees the right to use water while protecting water sources from interference, ensuring regular and safe water supply.
- i) **Climate Change:** Evaluating and adapting to the impacts of climate change in water planning and resource allocation, particularly regarding flood and drought risks.
- j) **Environmental Sustainability and Safeguards:** Water sector planning and development shall minimize adverse environmental and social impacts, protect ecosystems and biodiversity, and comply with applicable environmental legislation and safeguard requirements.
- k) **Climate Resilience and Disaster Risk Reduction:** Water infrastructure and water resources planning shall incorporate climate adaptation, disaster preparedness, and resilience measures to address long-term climate and natural hazard risks.
- l) **Financial Sustainability:** Water services and infrastructure investments should be planned and managed to ensure long-term operational, maintenance, and financial sustainability.
- m) **Water Reform:** Examining and implementing reforms in law and administration to provide legal certainty, protect the environment, and ensure reliable water supply and sanitation for all.
- n) **Access to Water Services:** Prioritizing water for domestic use, particularly in urban and rural areas, and ensuring it remains protected from competing demands.
- o) **Protection of Water Sources:** Giving the highest priority to protecting water sources, especially those used for domestic supply.
- p) **Affordable Domestic Water Supply:** Ensuring that water supply and sanitation services are affordable for all sectors of Fijian society.

1.11 Gender Equality, Disability and Social Inclusion (GEDSI)

The principles of this Policy extend to include persons with disability, promote gender equality and social inclusion, to ensure water, sanitation and climate adaptation actions are inclusive, equitable and responsive to the needs of women, persons with disability, vulnerable and marginalised groups.

a) Inclusive Climate Adaptation

Adaptation plans shall consider:

- i. Differential climate impacts on women, children, elderly, and persons with disabilities; and
- ii. The needs of rural, remote and informal settlements.

b) Inclusive Design and Service Delivery

- i. Water and sanitation facilities shall comply with universal accessibility standards.
- ii. Sanitation services shall address accessibility during climate related emergencies.

c) Participation and Decision Making

- i. Women, persons with disabilities, and other vulnerable groups shall be meaningfully involved in climate and water decision-making.
- ii. Participation shall include representation in consultation bodies, water management decisions and in planning forums.

GEDSI considerations shall be integrated across all water services, water resources management, planning, regulation, and investment decisions under this Policy.

1.12 Environmental and Social Safeguards

The implementation of this Policy shall incorporate environmental and social safeguard principles to minimise adverse impacts associated with water supply, sanitation, flood management, and water resources development activities.

Water sector investments and activities shall:

- protect ecosystems, biodiversity, and water quality;
- minimise pollution and environmental degradation;
- support community health and safety;
- promote meaningful stakeholder consultation and participation;
- respect customary land and community interests; and
- address the needs of vulnerable and disadvantaged groups.

All projects developed under this Policy shall comply with applicable environmental laws, regulations, and development partner safeguard requirements where relevant.

2. Water Services

2.1 Introduction to Water Supply and Sanitation

Water supply and sanitation are essential services for ensuring the health and well-being of all Fijians. The Water Authority of Fiji (WAF) is responsible for providing water supply and sanitation in urban areas, and for constructing water supply and sewerage systems in rural areas. Rural water services are funded by the Government or donors but are operated and managed by the local communities under a mutual obligation approach. In line with the national commitment to strengthen water and sanitation services, the Water Authority of Fiji has developed the Water Sector Strategy (WSS) 2050, which provides a strategic framework for improving the sustainability, resilience, efficiency, and accessibility of water and wastewater services throughout Fiji.

The Strategy focuses on strengthening water security, reducing non-revenue water, improving service reliability, expanding access to underserved and peri-urban communities, enhancing wastewater management systems, and building climate-resilient infrastructure. It also promotes institutional strengthening, digital transformation, customer-focused service delivery, and long-term investment planning to support Fiji's national development priorities and Sustainable Development Goal 6 (SDG 6). The Strategy complements this Policy by guiding the implementation and operational priorities of the water sector over the medium to long term.

The policy concerns for water services include:

- Ensuring safe and reliable water access in urban and peri-urban areas;
- Ensuring safe and reliable water access in rural and outlying areas;
- Providing safe and sustainable sanitation in urban, rural and outlying areas;
- Ensuring safe wastewater disposal via sewerage systems;
- Protecting water supplies from the effects of climate change;
- Minimizing sewage pollution;
- Ensuring compliance with environmental management, pollution control, and public health requirements; and
- Promoting climate-resilient and environmentally sustainable water and sanitation infrastructure.

The National Development Plan (NDP) 2025-2029 outlines the targets and indicators for water supply and sanitation in Fiji:

- Urban areas: 100% access to clean and safe water by 2029.
- Rural and maritime areas: 67% access to clean and safe water by 2029.

Principles for Urban and Rural Water Supply and Sewerage Services

- a) Providing improved access to water services is a government priority.
- b) Compliance with SDG 6 for water services and targets in the NDP:

- 88 % access to clean and safe water by 2029 (for the total population, rural population, and urban population).
- 30% access to a central sewerage system by 2029 (for the total, urban, and rural populations).

- c) Ensuring safe drinking water for domestic use is a high priority for the health of all Fijians.
- d) Inefficient water supply and sewerage infrastructure must be upgraded to avoid negative long-term health, reliability, cost, and pollution impacts.

2.2 Urban Water Supply

Fiji's topography and climate pose challenges for supplying water throughout the year. WAF provides urban water supply by developing surface water and groundwater sources, treating the water to meet Fiji National Drinking Water Quality Standards, and distributing the treated water to customers. The Government has supported WAF in maintaining and extending water delivery infrastructure but increasing demand and water quality concerns continue to challenge service delivery.

Peri-urban areas, which are on the outskirts of urban areas, face intensified settlement but may not have full water services. WAF and the Department of Water and Sewerage (DWS) establish plans for servicing peri-urban areas”

Due to the cost and occasional scarcity of water, it is essential to raise public awareness about water's value, promote water-saving attitudes, and encourage water conservation.

Policy Principles

- a) All properties in urban and peri-urban areas must be connected to the urban water supply.
- b) Support the implementation of the WSS 2050 to improve water security, service reliability, operational efficiency, climate resilience, and sustainable water and wastewater management throughout Fiji.
- c) Water use demand management must be prioritized, encouraging water saving and conservation by WAF and urban consumers.
- d) Raise community awareness about the value of water and promote conservation.
- e) Consider alternative water sources to augment the piped supply in areas with periodic water scarcity.
- f) Explore desalination (preferably using renewable energy) when other sources are inadequate.
- g) Provide urban piped water to towns and settlements with sufficient population to support common schemes.
- h) Ensure enforceable standards and approvals for plumbing and development, covering the design, materials, and construction of all new water and sanitation connections.
- i) Introduce fiscal incentives for water conservation practices, such as rainwater harvesting and smart metering.
- j) Urban water infrastructure planning and development shall incorporate climate resilience, energy efficiency, environmental safeguards, and disaster risk reduction considerations.
- k) All major water infrastructure and sanitation projects shall comply with the requirements of the Environment Management Act 2005 and Environment Impact Assessment (EIA) Regulations.
- l) EIA approval shall be mandatory prior to the issuance of extraction permits, development approvals, or implementation of major projects including dams, boreholes, wastewater treatment plants, drainage schemes, and flood management infrastructure.
- m) Community consultation requirements under the EIA process shall be integrated into project planning and implementation.

Strategies

- a) Increase urban water supply connections from 99% to 100% in all urban and peri-urban areas.
- b) Implement the key priorities identified under the WSS 2050, including strengthening infrastructure resilience, reducing water losses, improving customer services, expanding access to underserved communities, enhancing wastewater management systems, and supporting long-term planning and investment.
- c) Define water supply standards for pressure, flow and reliability, distinguishing between “at-pressure”, continuous flow customer and those with intermittent supply who rely on tanks and water carting for some or all the time.
- d) Complete a Drought Management Plan for urban water supply in water-scarce areas, considering climate and hydrological data.
- e) In urban and peri-urban areas where water supply sources dry up during prolonged dry periods, development of groundwater where the potential is adequate needs to be considered as a reserve for drought periods.
- f) Implement Demand Management Strategies within 3-5 years of the policy’s commencement, including:
 - i. A leakage detection and loss reduction program;
 - ii. Urban demand management programs;
 - iii. Commercial and industrial demand management programs
 - iv. Community awareness campaigns for water conservation; and
 - v. Tariff structures to encourage water conservation.
- g) Develop principles for water supply tariffs that promote conservation, which should be considered by the Fiji Competition and Consumer Commission (FCCC) when recommending water tariffs.
- h) Introduce Water Efficiency Labelling Standards (WELS) scheme within five years for water-using appliances.
- i) Review and update the legal framework for drinking water catchment protection, ensuring that water sources are protected from potential contamination through the introduction of protective policies and legislation.
- j) Conduct water quality monitoring at WAF sources to identify potential pollutants and optimize treatment options.
- k) Conduct water quality monitoring and ensure compliance with Fiji National Drinking Water Quality Standards at all WAF water treatment facilities and piped systems.
- l) Establish a Consumer Advisory Council to support WAF, understand consumer needs, and provide public information on water services.

Water Supply Interruptions Strategy

To mitigate interruptions in water supply:

- (a) Include intermittent supply water tanks in new buildings as per the Fiji National Building Code.
- (b) Provide guidelines for the installation and management of water tanks in existing dwellings.
- (c) Offer financial incentives for tank installation in urban areas facing supply interruptions.
- (d) Link water carting to on-site water tank storage capacity.

- (e) Promote rainwater harvesting and include guidelines in the Fiji National Building Code.
- (f) Install desalination plants in coastal areas with insufficient water resources.
- (g) In the long term, develop centralized water supply schemes outside urban areas, to be installed by WAF in towns with justifiable populations.

2.3 Urban Sanitation

Effective sanitation, through the disposal of wastewater, is essential for human health and well-being. In urban areas, sanitation services are provided through sewerage systems developed and operated by WAF. While urban areas generally have sewerage systems, some properties still rely on independent septic tanks. Therefore, it is crucial that new development areas are connected to wastewater treatment plants (WWTPs) for sanitation and health purposes.

Unsewered areas in urban and peri-urban regions face certain development restrictions, which can affect potential investments. For instance, the minimum lot size required for unsewered properties in subdivisions is relatively high. This issue must be addressed on a case-by-case basis. For example, multi-unit developments may not be permitted unless the minimum lot sizes are adjusted, making it possible to connect to sewer lines.

Some urban and peri-urban lands fall outside the development area or criteria for sewerage development by WAF. Individual land lots may also be too small to qualify for sewerage systems or to be connected to a larger network. Regulations should, therefore, be reviewed to allow individual and multi-unit developments to be connected to sewer systems on a case-by-case basis, even if they currently fall outside the permitted criteria for public sewerage schemes, whether operated by WAF or another entity.

Informal settlements, which are typically unsewered, present a significant concern. Sewerage systems are often impractical due to the transient nature of their populations and temporary housing structures. Although rural-to-urban migration has led to the growth of informal settlements since Fiji's independence, the current rate of expansion is straining government resources and negatively affecting public health and the environment. Where feasible, the expansion of piped sewage disposal systems (or other safe and appropriate sanitation options) in urban and peri-urban areas is a high priority for the government.

Policy Principles

- a) All dwellings and buildings in urban areas should be connected to a sewerage system.
- b) Properties in urban and peri-urban areas still using septic tank sewage disposal systems will be progressively connected to WAF sewerage systems.
- c) WAF sewerage systems will be extended to peri-urban areas, with all properties connected to the sewer.
- d) Centralized sewerage systems will be installed by WAF in larger settlements outside urban areas, and these will be locally operated and managed.
- e) Appropriate legislative powers will be introduced to implement the policy.
- f) Urban water infrastructure planning and development shall incorporate climate resilience, energy efficiency, environmental safeguards, and disaster risk reduction considerations.
- g) All major sanitation projects shall comply with the requirements of the Environment Management Act 2005 and Environment Impact Assessment (EIA) Regulations.

- h) EIA approval shall be mandatory prior to the issuance of development approvals, or implementation of major projects including wastewater treatment plants and pump stations.
- i) Community consultation requirements under the EIA process shall be integrated into project planning and implementation.

Strategies

- a) In the long term, connect all dwellings and properties within urban and peri-urban areas to WAF's sewer infrastructure:
- b) Gradually connect all existing dwellings, with WAF having the authority to mandate connections as appropriate, as per the WAF Act 2007.
- a) Require new dwellings to connect to the sewer by amending the Town Planning Act 1946, mandating sewer connections where infrastructure is available, and setting standards for wastewater disposal in the Fiji National Building Code.
- b) Develop a ten-year, costed sewerage extension plan for WAF coverage of urban sewage disposal in major urban centres.
- c) Create and implement guidelines for standardized septic systems to minimize pollution and health risks.
- d) In areas with sufficient population and management capacity, install centralized sewerage plants with treatment facilities, using best-practice technologies.
- e) When introducing water supplies consider the sanitation implications.
- f) Maintain the urban sewerage upgrading and rehabilitation program to replace and maintain sewerage systems.
- g) Raise public awareness about the importance of improved sanitation and educate communities about the health impacts of poor sanitation and emphasize the importance of effective sanitation.
- h) Promote awareness within the developer and plumbing industries that compliance with plumbing standards is mandatory.
- i) Fund education and training programs on sanitation management in schools, universities, health facilities, public institutions, and communities.
- j) Empower WAF to control the disposal of toxic and harmful substances into its sewers, in line with the National Liquid Trade Waste Policy. Strengthen legislative provisions to enable WAF to control industrial discharges and apply sanctions where necessary. Strengthen WAF's capacity to require onsite industrial wastewater pre-treatment or recycling.
- k) Establish standardized criteria for the approval of septic tanks and other environmentally safe, independently managed systems in urban and peri-urban areas. This will be achieved by developing technical guidelines for independent wastewater disposal systems and establishing clear procedures for local government authorities to apply and enforce these guidelines. In addition, ensure that breaches of discharge conditions are reported promptly and that appropriate remedial actions are taken.
- l) Review all WAF WWTPs and, if necessary, upgrade operations and management to meet wastewater discharge quality standards.
- m) Establish a comprehensive monitoring program for sewage collection and treatment facilities to identify external impacts, including data relevant to Fiji's National Greenhouse Gas Inventory.
- n) The Department of Water and Sewerage and Ministry of Environment and Climate Change should develop cooperative procedures to monitor the quality of treated sewage discharged by WWTPs operated by WAF and other entities into the environment.

- o) Ensure all major sewage and wastewater infrastructure developments comply with environmental approval requirements, including Environmental Impact Assessment (EIA) processes where applicable under the Environment Management Act 2005
- p) Promote energy-efficient and climate-resilient wastewater treatment technologies that minimize environmental pollution and greenhouse gas emissions.

2.4 Rural Water Supply and Sanitation

The Government is committed to extending and upgrading water services in rural areas of Fiji that are not connected to urban schemes. It is crucial that local communities served by water supply and sewerage schemes are properly consulted on proposals for new services, and that they take an active role in the management and routine operation of these schemes. This will be supported by the Rural Water Supply (RWS) Unit, which will provide ongoing technical assistance, to ensure the long-term sustainability of services. In line with Fiji's commitment to the United Nations Sustainable Development Goals and Clauses 35 and 36 of the Constitution, the Government has removed the 10% community contribution previously required for rural water and sanitation projects. This change aims to ensure all Fijian communities have access to safe drinking water and proper sanitation.

Policy Approach

For rural water supply and sanitation schemes, the Government, along with international donors and NGOs, will provide the initial capital funding for designing and installing these systems. Community participation will be integral throughout the entire process design, installation, management, and operation. Water supply and sanitation schemes must adhere to the technical standards outlined in the Rural Water Supply and Sanitation Policy (RWSP), approved in June 2021, as well as the Practical Guidelines for the Rural Water Supply Management Plan, and be consistent with the Public Health Act 1935. Local participation and responsibility are expected to contribute to the sustainable operation and maintenance of these schemes, supported by ongoing technical and institutional assistance.

Rural water and sanitation investments shall incorporate climate adaptation measures, environmental safeguards, source protection measures, and inclusive community engagement to ensure long-term sustainability and resilience.

Strategies

- a) The Department with relevant stakeholders will establish a prioritization process through a National WASH Coordination Committee for investment in Rural water and sanitation schemes
- b) The Department of Water and Sewerage will be responsible for monitoring the installation and management of rural water supply and sanitation schemes, in coordination with the Ministry of Health and Medical Services (MHMS).
- c) A Water Supply Management Plan (WSMP) must be submitted to DWS for approval for all rural water supply and sanitation schemes before funding can be approved.
- d) Community participation will be ensured throughout the design, installation, and management stages of rural water supply and community level sanitation schemes, fostering local ownership and responsibility.
- e) All independent (non-centralized) rural water supply and sanitation schemes must comply with the technical and management requirements of the RWSP and the Practical Guidelines for the Rural Water Supply Management Plan.

- f) Capital funding for rural water supply schemes may be provided by the Government, donors, and non-governmental organizations for the development for rural water supply and sanitation schemes. However, communities will be responsible for ongoing operational and maintenance costs, with appropriate technical and financial support provided by the Government where issues arise that are beyond the technical and financial capacity of a community
- g) Local communities must formally agree to take responsibility for operating and maintaining their water supply or sanitation schemes through a Memorandum of Understanding (MOU), with input from water committees established by the iTaukei Affairs Board.
- h) The Government will ensure capacity-building and training for staff and rural community members responsible for operating and maintaining rural water supply and sanitation schemes.
- i) Community awareness programs will promote water conservation practices, civic responsibility for water resource use, and protection of traditional water sources, blending traditional and modern water conservation techniques with expertise from Provincial Council Offices.
- j) Women, youth, and people with disabilities are to be represented on rural community consultation bodies and water committees, ensuring their concerns are adequately considered in the design, operation, and management of rural water supply schemes.

2.4.1 Rural Water Supply

All rural communities obtain drinking water directly or indirectly from rivers, streams, boreholes, wells, rainwater harvesting, and, more recently, desalination. These water sources need protection from pollution, and some may require treatment to make the water safe for drinking and domestic use.

Policy Principles

- a) When designing water supply schemes, all water sources should be considered. Multi-source schemes should be designed where appropriate, particularly where water scarcity is a regular risk factor.
- b) There will be ongoing regulatory oversight of water supply schemes, including water quality monitoring against safe drinking water standards, to ensure domestic water safety.
- c) Domestic water safety is paramount in rural areas, and continued assistance will be provided to maintain water quality standards.
- d) Water and sanitation services will be a key consideration in rural development programs to enable an integrated approach to rural development by the Government and its partners.

Strategies

- a) Water source investigations will include rainwater harvesting, in addition to streams, rivers, and groundwater.
- b) Desalination plants will be considered for islands where feasibility studies show no viable or sustainable alternative water sources.
- c) Water use charges will be levied to cover operation and maintenance costs.
- d) In communities where water supply schemes are introduced, the Water Committee will be responsible for operating and maintaining the scheme with ongoing technical and financial assistance from the Government, in conjunction with integrated village development planning and local government programs.

- e) Periodic water quality monitoring will be conducted by relevant authorities to ensure the safety of rural water supplies.
- f) If rural water supply schemes fail to provide safe water, DWS and related agencies will engage with the community to resolve the issues through negotiation, involving other stakeholders such as WAF and NGOs.
- g) Rural development projects must incorporate water and sanitation needs. This may include, but is not limited to, the sizing of solar systems for water desalination in rural maritime communities or sustainable water and wastewater management for community ice plants.
- h) The MHMS will establish a national drinking water committee to provide advice on achieving and maintaining safe drinking water supplies.
- i) Drought preparedness plans and strategies will be incorporated into the WSMP for communities vulnerable to periodic water scarcity.

2.4.2 Rural Sanitation

Many rural areas in Fiji lack effective sewage disposal or treatment systems. The Government is committed to ensuring adequate wastewater disposal and treatment in rural areas, particularly in population centres and settlements where centralized systems are feasible. The Government will also ensure the ongoing operation and management of these communal sanitation schemes is sustainable.

Policy Principles

- a) The Government will progressively install sewerage schemes and upgrade existing sanitation systems to provide Basic or Safely Managed Sanitation Facilities throughout rural areas in Fiji.
- b) When piped water supply is introduced to a settlement, the need for a joint sewerage scheme must be investigated due to the likelihood of increased wastewater generation.
- c) The disposal of liquid waste will be monitored in conjunction with Ministry of Environment to prevent health or environmental disruption.
- d) Every effort will be made to strengthen local stakeholder participation in the monitoring and management of joint sewerage schemes.

Strategies

- a) Develop sanitation management arrangements following the design of schemes for villages and settlements in rural areas.
- b) Identify operation and maintenance requirements in plans and technical guidelines for rural schemes. Before handover, formal agreements will be made with the community to assign responsibility for the ongoing operation and maintenance to ensure the long-term sustainability of the communal schemes.
- c) All rural sewage schemes proposed by WAF, NGOs, or others must comply with the RWSP and receive formal approval of the Water Management and Sanitation Plan (WMSP) before capital funding is made available.
- d) The Government will support research and innovation in sanitation technologies tailored to the needs of rural communities.

3. Regulation of Water Services

The Government, alongside the public, needs to be informed about the quality and delivery of water supply and sanitation services in both urban and rural areas. Until now, clear benchmarks for the quality of these services have not been established. To address this, a Water Services Regulator will be created. This entity will report to the Government on the delivery of water supply and sewerage services and make recommendations for improvements. The public will be provided with better transparency regarding service delivery and areas requiring improvement.

The purpose of regulating water services is to ensure that these services meet the Government's criteria for water supply and sanitation. The Water Services Regulator will coordinate, monitor, report on and approve water and sanitation service provision by all providers including WAF.

Strategies

- a) Introduce a Water and Sewerage Services Act to establish a Water Services Regulator, empowering it to carry out regulatory duties and functions for both urban and rural water services.
- b) Establish DWS as the Water Services Regulator
- c) Require DWS, as the Water Services Regulator, to evaluate the performance of urban and rural water supply and sanitation schemes and report to the Minister.
- d) Develop and approve a Service Agreement between the Ministry and Water Service providers including WAF, which outlines the Government's service delivery expectations, including standards and criteria for service delivery.
- e) Develop financial sustainability frameworks for water and sanitation services, including asset management planning, cost recovery mechanisms, climate financing opportunities, and equitable tariff arrangements that balance affordability with long-term operational sustainability.
- f) Task DWS by assessing the likely impacts of climate change on water security and water supply, as well as the climate-related effects of wastewater treatment. In consultation with WAF, DWS will recommend strategies for addressing anticipated climate changes impacting water security and propose relevant programmes for Government consideration.
- g) Ensure that environmental and social safeguard requirements are incorporated into water services planning, infrastructure development, operational management, and regulatory oversight.
- h) Implement annual reporting to the public on the performance of water supply and sanitation services, with recommendations for improvement.
- i) Establish benchmarks for urban and rural water service delivery based on international norms and standards and require DWS to report to the public and the Minister on areas needing improvement.
- j) Adopt the Fiji National Drinking Water Quality Standard as the benchmark for water quality in urban and rural water supply schemes.
- k) License and regulate plumbers through relevant authorities, requiring minimum qualifications, practical training, and demonstration of skills, in addition to written examinations for licensing.
- l) Foster research cooperation with academic institutions and companies to identify suitable technologies for water services.
- m) Conduct research into and pilot the use of low-cost and innovative water treatment and wastewater treatment technologies for rural villages and settlements, ensuring they can be locally managed.

- n) Promote research and innovation in climate-resilient, low-carbon, and environmentally sustainable water and sanitation technologies suitable for Fiji's geographic and climatic conditions.
- o) Investigate technologies compatible with Fiji's Low Emission Development Strategy (LEDS), which incorporate both adaptation and resilience considerations, guided by the (NAP).
- p) Establish a National Water Resources Management Coordination Committee.
- q) Organize a National Water Forum periodically to develop strategies for improving water services in Fiji.

4. Management of Water Resources

4.1 Introduction

Water resources, encompassing surface water and groundwater, are critical natural assets in Fiji. These resources support essential services, agriculture, commerce, industry, and tourism. However, as water demand is expected to increase and the quality of water in certain areas faces threats, it becomes imperative to actively manage these resources. Additionally, climate change is predicted to bring more extreme weather patterns, resulting in increased flooding and droughts. The rise in sea levels is also anticipated to cause saltwater intrusion and more frequent storm surges affecting coastal regions.

Effective water resources management must also integrate environmental protection, ecosystem conservation, watershed management, climate adaptation, disaster risk reduction, and social safeguard considerations to ensure sustainable and equitable water use.

Given these challenges, it is vital to adopt a proactive management approach to water resources. This includes carefully planning for water use, regulating where and how much water can be taken, and determining the methods for its utilization. Achieving this will require legislative changes as well as improvements in technical and administrative capabilities.

4.2 Water Resources Information

Accurate, reliable, and accessible information on water resources is essential for understanding available water supplies, assessing flood and drought risks, identifying threats to water quality, and supporting informed planning and decision-making. Two primary categories of data are required for effective water resources management: surface water (streamflow) data and groundwater data. Consistent monitoring systems and reliable databases for these datasets are fundamental to assessing Fiji's water resources, supporting climate change adaptation, strengthening disaster preparedness, and guiding sustainable development.

This Policy recognises that surface water and groundwater information systems should be managed separately while operating in an integrated and coordinated manner to support national water resources planning and management. The Fiji Meteorological Service (FMS) shall remain responsible for the collection, monitoring, management, and dissemination of surface water and hydrological data, while the Mineral Resources Department (MRD) shall remain responsible for groundwater monitoring, assessment, and management.

Greater effort shall be directed towards improving the quality, coverage, accessibility, integration, and sharing of water resources data between relevant government agencies and stakeholders. Data and information systems shall support evidence-based planning, climate resilience initiatives, flood forecasting, drought preparedness, watershed management, water allocation, environmental protection, and achievement of the Sustainable Development Goals (SDGs), including SDG 6 on Clean Water and Sanitation.

Water quality, groundwater, hydrology, and pollution monitoring data shall be integrated into the National Environmental Database System and the Environmental-Economic Accounting framework to support coordinated national environmental management, planning, and reporting. These monitoring systems shall also support State of Environment reporting, Nationally Determined Contributions (NDC) reporting, climate convention reporting, and biodiversity reporting obligations. In addition, the Policy supports the strengthening of independent environmental compliance monitoring systems, Environmental Impact

Assessment (EIA) compliance auditing and enforcement, pollution discharge monitoring and tracking systems, and inter-agency environmental data sharing and reporting mechanisms.

Policy Principles

For both surface water and groundwater data, the following principles will apply:

- a) Water resources monitoring is essential for understanding water availability, quality, risks, and long-term sustainability.
- b) Reliable and comprehensive databases for surface water, groundwater, hydrology, water quality, and pollution monitoring shall be maintained to support water resources management, climate resilience, and decision-making.
- c) Water resources information shall support public health protection, environmental management, flood and drought preparedness, climate adaptation, and sustainable development planning.
- d) Data sharing, coordination, and interoperability between relevant government agencies shall be strengthened through integrated information management systems.
- e) Water resources information should be accessible through national geospatial and environmental information systems, while protecting confidential and commercially sensitive data.
- f) Regular data quality assurance, validation, and long-term monitoring shall be undertaken to maintain reliable records and identify trends and risks.
- g) Best practice technologies and modern information systems shall be progressively adopted for data collection, storage, analysis, and reporting.
- h) Surface water, groundwater, water quality, and pollution monitoring systems should integrate, where practical, to support holistic water resources management.
- i) Monitoring systems shall support national environmental reporting, climate reporting obligations, environmental-economic accounting, biodiversity reporting, environmental compliance monitoring, EIA auditing, and pollution discharge tracking.

Strategies

- a) Data-sharing agreements and standardised protocols shall be established between relevant agencies to improve coordination, integration, and management of water resources data.
- b) Surface water, groundwater, water quality, pollution monitoring, and flood risk data shall be incorporated into national GIS and environmental database systems to support planning, public access, disaster risk reduction, and climate resilience.
- c) Monitoring systems shall support State of Environment reporting, Nationally Determined Contributions (NDC) reporting, climate convention reporting, and biodiversity reporting obligations.
- d) Modern monitoring technologies, digital systems, and automated data collection methods shall be progressively introduced to strengthen national monitoring capabilities.
- e) Institutional capacity, technical training, environmental compliance monitoring, EIA auditing, and pollution discharge tracking systems shall be strengthened.

4.2.1 Surface Water Information

A major upgrade of the Hydrology Division within the FMS will be carried out to re-establish flow discharge calibration, incorporating updated technology, channel cross-sections, flow gauging, and rating curves.

- i) A review of national key river gauging sites will be conducted to assess the adequacy of current data collection points.
- ii) A quality review of historical streamflow data will be undertaken to establish a continuous, reliable time-series of data.
- iii) Data storage and archiving systems will be upgraded to enhance data analysis and interaction capabilities while ensuring data quality control.
- iv) FMS will be empowered to obtain streamflow data from public and private organizations where necessary to enhance the national database.
- v) A national review will be conducted to assess the need for real-time streamflow data for flood warning systems, and a plan will be developed to upgrade river gauging capacity in relevant locations.
- vi) A surface water quality database for Fiji will be established, incorporating sample data from all sources.

4.2.2 Groundwater Information

- i) Conduct a baseline groundwater survey to update and revise the existing groundwater data archive.
- ii) Continue to expand the groundwater database by incorporating data from existing sources.
- iii) Upgrade the groundwater monitoring network, data technology, and the storage and management systems.
- iv) Require private companies to provide all groundwater drilling data for inclusion in the national groundwater database.
- v) Mandate that public and private organizations that record water table levels and other groundwater data submit their records to MRD at intervals specified by MRD.
- vi) Initiate coordinated collection of groundwater quality data and integrate this information into the groundwater archive.

4.3 Water Resources Planning

Planning for water resources is essential because water sources, such as rivers and aquifers, need to be managed and protected at a scale that matches the source. This process involves gathering reliable information, analysing data, and negotiating or deciding how various demands, values, and priorities should be balanced and managed. There are two key components in water resources planning: the technical component (information and analysis) and the coordination component (managing interests and demands).

Water resources planning can be categorized into two types:

1. Plans made without the need for special legislation; and
2. Plans with legislative backing, which, when made, become legally binding on the relevant organizations or individuals.

In Fiji, there is a pressing need to enhance water resources assessments to evaluate both surface water and groundwater conditions. Emerging needs for planning include controlling activities or impacts on water resources, such as:

1. The safe extraction limits of water from various sources (surface and groundwater);
2. Rules and protocols for operating flood works before and during floods (where applicable); and
3. Land use and vegetation protection in vulnerable upland areas.

This policy does not suggest that water resources planning be undertaken across all areas, such as the entire coverage of major river basins. Instead, resources should be focused on priority issues and locations where water allocation, water quality protection, or the aquatic environment are of high importance. Flood management planning will also be critical, particularly if operable flood works are constructed. It is important to note that infrastructure planning for water supply is not included here.

Key Types of Water Resources Plans:

- (a) **Water Resources Assessment:** Assess the quantity, variability, and quality of water resources for management purposes.
- (b) **Integrated Water Resources Management (IWRM) Plans:** Identify coordination and management requirements for the effective, sustainable management of water resources.
- (c) **Watershed Management Plan:** Establish rules and guidelines for land use, soil and vegetation protection to benefit streamflow and groundwater.
- (d) **Water Allocation Plan:**
 - i. Understand the volumes of water that can be safely allocated for human and environmental uses.
 - ii. Allocation of water resources among regions or users sustainably.
 - iii. Establish rules for water extraction, including limits on abstraction from a water source.
- (e) **Flood Management Plan:** Identify and respond to flood risks by establishing rules for flood warning, operation, and control of floodwaters.
- (f) **Water Quality Management Plan:** Create a framework to protect water sources from pollution.

Policy Principles

- a) Water resources planning must be based on reliable information, data, and technical analysis.
- b) Planning priorities should align with water resources assessment findings and emerging issues.
- c) Community involvement should be a key part of any planning that affects land, vegetation, soil, or water, particularly when it impacts the livelihoods, economic opportunities, or well-being of communities.
- d) Consultation procedures should ensure that all sectors and interests are heard, with particular attention to the representation of women and people with special needs.
- e) Water resources planning shall incorporate environmental and social safeguards, climate risk assessments, ecosystem protection, and disaster risk reduction considerations.

Strategies

- a) **National Surface Water Resources Assessment:** The Ministry of Agriculture and Waterways will assess major catchments.
- b) **Consideration of Climate Change:** All water resources planning will account for the impacts of current and projected impacts of climate change.
- c) **Integrated Water Resources Management (IWRM):** Develop an IWRM plan, as required by the National Development Plan (NDP), to provide a comprehensive roadmap for water resources management.
- d) **Watershed Management Plans:** Develop plans for upland areas where critical land degradation is occurring, in accordance with strategies outlined in Section 3.4.
- e) **Water Allocation Plans:** Create allocation plans for surface water and groundwater in areas where water sources are under stress. These plans will include:
 - i. The extent, variability, and sustainable limits of water resources.
 - ii. Rules to ensure equitable access and sustainability.
- f) **Rivers and Streams Act and Groundwater Management Act Amendments:** Amendments will incorporate water allocation rules that are legally binding.
- g) **Groundwater Management Plans:** Establish plans for vulnerable aquifers, especially on small islands, to prevent depletion or pollution.
- h) **Flood Management Plans:** Develop plans for areas at high risk of flooding, including:
 - i. Standard Operating Procedures (SOPs) for flood-related operations.
 - ii. Clear roles and responsibilities for authorities managing flood hazards.
 - iii. Confirmation of responsibilities related to flood warnings and operations.
- i) **Legislation for Flood Management:** If necessary, develop legislation that empowers a flood operation manager to enforce flood management protocols during flood events.

4.4 Watershed Management

Watershed management involves planning and managing land and vegetation to protect and improve the quality of soil and water within a catchment area. In Fiji, upland areas have experienced degradation due to the removal of natural vegetation, leading to soil erosion. This, in turn, causes streams and rivers to face reduced flow during normal-to-dry conditions and increased flow during heavy rainfall. Therefore, it is crucial to prevent further loss of vegetation, particularly trees and forests, due to their role in both surface water and groundwater management, as well as to restore degraded areas.

Forests, wetlands, mangroves, riparian vegetation, and upstream catchments shall be recognised as critical natural infrastructure that supports water security, groundwater recharge, biodiversity conservation, erosion control, flood mitigation, and climate resilience. Watershed management shall therefore promote ecosystem-based adaptation (EBA), nature-based solutions, and sustainable land management practices to strengthen resilience to climate change and natural hazards.

Watershed management typically requires a community-based planning approach, where local communities work together to plan and implement protective measures. This process must be voluntary and cooperative, ensuring that the communities involved agree to and participate in the management measures. Watershed management plans do not necessarily require legislative force but should ideally have formal commitments from communities to follow the plan's provisions.

Special measures are needed to protect watersheds that supply water to urban areas and utilities, such as electricity providers. Catchments upstream of dams must be maintained in a condition that ensures a reliable flow of water into reservoirs. This requires stringent protection against activities that harm forests and natural vegetation.

The central principle for watershed management in Fiji is mutual obligation, recognizing the contributions of both the government and the local communities within watershed areas. Under this approach, the government, supported by donors, will provide the technical framework, planning, and financial support for remedial measures identified in the plan. In return, communities will take responsibility for adhering to the plan, following watershed guidelines, and supporting restoration efforts, while receiving necessary information and training.

The Ministry of Agriculture and Waterways is responsible for coordinating and planning watershed management in areas requiring preventive or restorative measures to maintain or improve vegetation cover, forest resources, soil quality, and stream health. The Ministry, under Legal Notice No. 74 of 2023, will work with local communities, technical agencies, and, where applicable, NGOs.

Additionally, the Fiji Forest Policy 2007 provides for the creation of Watershed Management Areas to facilitate watershed management planning.

Policy Principles

- a) **Mutual Obligations:** Watershed management will be based on a joint planning and management process between the government and communities within the watershed.
- b) **Priority Areas:** High priority will be given to maintaining and remediating watersheds that protect water sources for urban and rural water supplies.
- c) **Vulnerability Assessments:** Surveys will identify areas where land degradation is most severe, particularly where water resources are affected.
- d) **Environmental Impact Assessment:** Land use and watershed practices must be assessed in technical studies when developing watershed management plans.
- e) **Voluntary and Cooperative Planning:** Watershed planning must be voluntary and cooperative, with outcomes based on community agreement to the measures included in the plan.
- f) **Community Commitment:** When government or donor funds are used for watershed improvements, the local community must formally commit to maintaining and managing these improvements.
- g) **Sustainable Land Use:** Watershed management proposals will aim to enhance local land use, agriculture, and natural product harvesting in sustainable ways.
- h) **Protection of Water Supply Catchments:** It is crucial that catchments upstream of water supply and utility dams are protected from development that could affect water quantity or quality.

Policy Targets

- a) **Sustainable Watershed Practices:** Watershed management plans leading to sustainable practices, supported by local communities in areas showing evidence of degradation.
- b) **Protection for Water Supply Catchments:** Ensure sufficient protection of water supply and utility catchments to eliminate water quality threats.

Strategies

a) Watershed Planning and Management

- A Watershed Management Programme will be initiated for priority upland areas, involving assessment, planning, and community-based measures. The programme will include:
 - i) **Water Committee:** A committee, composed of local community representatives, will be responsible for watershed planning in areas requiring protection or improvement.
 - ii) **Coordinated Efforts:** The Ministry of Agriculture and Waterways will coordinate the programme with support from Ministry of Environment and Climate Change, Lands, iTaukei Affairs, Forestry, Mineral Resources, and Water and Sewerage.
 - iii) **Other Stakeholders:** Local government, Provincial Council Offices, village authorities, and NGOs will also participate.
 - iv) **Approval Process:** The watershed management plan will require approval from the responsible ministry and the watershed committee, in consultation with relevant village and rural authorities.
 - v) **Mutual Obligation:** An MOU will define the mutual obligations of both the community and the government. Government financial contributions for watershed maintenance will depend on the plan and the agreed mutual obligations being acceptable to the watershed committee.
 - vi) **Consistency with Plan:** All authorities involved in approving activities in the watershed area will ensure that approvals align with the approved watershed management plan.
 - vii) **Donor Participation:** Non-government donors involved in watershed management will ensure funding is contingent upon the approval of the relevant plan.
- A **Watershed Management Guideline** will be developed by the Ministry of Agriculture and Waterways to outline processes, coordination arrangements, technical inputs, plan-making procedures, and monitoring and evaluation mechanisms.
- **Land Use Assessment:** Standard technical guidelines for assessing land use in vulnerable upland areas will be developed and applied by field staff of relevant departments.
- **Consistency with Approved Plans:** All leases and approvals issued by relevant authorities must be consistent with the approved watershed management plan for the area.
- **Payment for Ecosystem Services (PES):** The feasibility of implementing PES, based on the value of maintaining and improving watershed forests, will be explored and potentially implemented through financial incentives.
- **Water Authority Participation:** WAF will be included in all watersheds planning projects related to high priority drinking water catchments.

b) Protected Catchment Areas

- A **National Survey** will be conducted to identify land that directly contributes to current and future urban water supply facilities, which may then be nominated as high priority drinking water catchments.

- **Legal Mechanism:** A legal framework for declaring protected catchments will be introduced to provide clear protection status and establish high-level safeguards for water quality and quantity.
- **Control and Protection:** Catchments upstream of dams serving water supply or public utilities will be assigned to water service providers or public utilities. These entities will apply access control measures and develop catchment protection plans in collaboration with landowners.
- **Protection of Limited Areas:** Protected catchment areas may be declared upstream or adjacent to important water supply intake works.
- **Protection Plans:** Plans for protected catchments will be developed by utilities in cooperation with the Ministry of Agriculture and Waterways and landowners. These plans will address:
 - i) Current land use, including development, settlement, agriculture, and forestry.
 - ii) Activities causing erosion, soil degradation, and streambed damage.
 - iii) Diffuse sources of pollutants, such as agricultural chemicals.
 - iv) Local activities contributing to the deterioration of watershed conditions.
 - v) Protective measures to ensure the watershed remains suitable for water supply.
- **Management Control:** The control of protected catchments will be assigned to water service providers, who will apply measures to limit access and protect the catchment area.

4.5 Waterways Management and Protection

Waterways, including streams, rivers, and estuaries, provide significant ecological, social, and economic value. Therefore, it is essential to protect and maintain the stability and health of waterway banks and beds, as well as other water bodies such as lakes and wetlands. By doing so, we can minimize erosion, siltation, flooding, and damage to riverine ecosystems. The condition of riverbeds and banks also influences streamflow and water quality, with poorly managed waterways potentially leading to turbid water that is unsuitable for human use.

Riparian land, which borders streams and rivers, plays a crucial role in stabilizing riverbanks. Hence, it must be protected from damage caused by vegetation loss and physical interference. The Fiji Forest Policy 2007 outlines the role of forests, trees, and vegetation in preventing soil erosion and streambed degradation. Any work on riverbeds, such as de-silting, dredging, or the removal of sand and gravel, requires approval from the Ministry of Lands and Mineral Resources under the State Lands Act 1945.

Policy Principles

- a) **Protection of Riparian Zones:** Protecting the riparian zone adjacent to waterways is essential for river health.
- b) **Infrastructure Design:** Infrastructure affecting waterways must comply with technical guidelines and be reviewed by the Ministry of Agriculture and Waterways to ensure consistency with flood and river channel stability criteria.
- c) **Active Measures:** Implement active measures to prevent excavation or destruction of waterway beds and banks, ensuring stability and maintaining streamflow.
- d) **Excavation Guidelines:** Excavation in stream and river channels must align with preserving channel stability and ecological values.
- e) **Community Involvement:** Community participation is vital for the protection of waterways.

- f) **Natural Changes:** Recognize that waterways naturally evolve over time, which may impact adjacent land.

Policy Target

Implement measures to protect waterway beds and banks, ensuring rivers and streams flow freely in healthy channels.

Strategies

- a) **Hydrological and Geomorphological Assessments:** Conduct assessments for applications seeking licences to extract materials (sand or gravel) from waterway beds or banks, with conditions safeguarding downstream water resources.
- b) **Monitoring Scheme:** Establish a verifiable monitoring system to ensure compliance with extraction conditions, involving officers from Ministry of Lands and Mineral Resources.
- c) **Guidelines for Riparian Easement:** Publish guidelines for demarcating riparian easements as defined in Section 3 of the Rivers and Streams Act 1880.
- d) **Erosion Awareness:** Produce educational material on the causes and effects of erosion on stream and riverbeds, along with measures to maintain riparian vegetation.
- e) **Riparian Zone Management Manual:** Develop a policy manual for the optimal management of riparian zones.
- f) **National Waterways Plan:** Create a National Waterways Plan that prioritizes the stabilization and remediation of river channels and identifies waterway conditions for implementing environmental water management.
- g) **Technical Criteria for Waterway Assessment:** Develop standard technical criteria for assessing waterways, focusing on streamflow, water quality, and ecological values.
- h) **Infrastructure Design Standards:** Establish standards for infrastructure crossing or encroaching on waterways, ensuring designs account for natural erosive and depositional forces, allow unobstructed high flow passage, and minimize river channel disruption.
- i) **Waterway Value Promotion:** Provide information on the importance of waterways and the need to avoid activities that could degrade stream and river flow.
- j) **Excavation Control:** Enforce strict control over excavation activities in riverbeds and banks and assess the impacts of excavation based on the Director of Lands' authority.
- k) **Waterway Stabilization:** Ensure stabilization works are consistent with the natural characteristics of stream and river channels, using geomorphological studies and establishing a referral procedure for Ministry of Agriculture and Waterways' project review.
- l) **Community Stakeholder Engagement:** Involve community stakeholders in programs to remediate stream and river channels and riparian land.
- m) **Strengthening Expertise:** Enhance geomorphological expertise within Ministry of Agriculture and Waterways.

4.6 Surface Water Allocation

Water allocation is the process of granting rights to take and use water from natural sources. According to the Rivers and Streams Act 1880, the State holds the rights to freshwater in rivers and streams but may issue special rights to extract it. In the past, this authority has not been utilized, but it will be necessary in the future for several reasons. First, major water users require assurance that their rights will not be jeopardized by new entrants taking water from the same

source. Second, water demand is expected to rise, and competition for water in certain locations could lead to challenges.

The Rivers and Streams Act 1880 lack specific legal guidance on issuing water rights, particularly regarding the assessment and management of water rights and the definition of how water should be allocated. Therefore, the Act must be reviewed and amended as necessary to provide clear procedures for managing water rights.

In simple terms, a water allocation framework defines how much water can be taken from where, by whom, and for what purposes. This framework ensures that rivers and streams are not over-allocated, avoiding negative impacts on others and preventing downstream consequences.

Policy Principles

- a) **Water Allocation Scheme:** Establish a legally binding system to allocate water within defined limits and conditions, considering the projected impacts of climate change. This will help prevent over-allocation if available water resources decrease.
- b) **Legal Foundation:** The current law will serve as the foundation for developing procedures and guidelines for issuing water licenses.
- c) **Beneficial Uses:** Water will only be allocated for beneficial purposes.
- d) **Domestic Water Priority:** Domestic water use will be prioritized.
- e) **Protection of Existing Rights:** Existing recognized water rights will be protected from interference by future proposals. When determining new rights, existing rights will have priority.
- f) **Right to Object:** Parties potentially impacted by water allocation will have the right to object and appeal the decisions.
- g) **Hydrological Assessment:** The impact of water rights on river and stream hydrology will be evaluated before granting rights.
- h) **Social, Economic, and Environmental Impacts:** The social, economic, and environmental impacts of water extraction will be considered in water rights decisions.
- i) **Surface Water for Agriculture:** Surface water sources will be prioritized for irrigation and agriculture, with groundwater available as a secondary or emergency source.
- j) **Rainwater Harvesting:** Rainwater harvesting should accompany rural uses, where feasible, including agricultural uses.
- k) **Incorporation of Pre-existing Uses:** Existing water users will be incorporated into the water allocation system without changes unless serious issues arise.
- l) **Water Efficiency:** Encourage water-saving measures and efficient water use.

Policy Target

Establish a functional surface water allocation framework and create legally recognized water rights that prioritize domestic water supply and encourage beneficial water use.

Strategies

- a) **Surface Water Allocation Policy:** Develop a policy to establish principles and guidelines for surface water allocation.
- b) **Amendment of Rivers and Streams Act 1880:** Revise the Act to create a surface water allocation framework, providing legal guidance for water rights applications and establishing monitoring and management protocols for water users.

- c) **Water Rights Appeals Body:** Establish an ad-hoc body to handle appeals related to water licenses, composed of judicial experts, technical specialists, community representatives, water resource and water utility management expertise.
- d) **Administrative Responsibilities:** Assign administrative duties related to water licensing, including application receipt, hydrological assessments, social and economic considerations, public proposal publication, objection management, licensing, monitoring, and enforcement.
- e) **Water Abstraction Rules:** Develop rules for water abstraction from rivers and streams, where necessary, specifying limits on allowable extraction.
- f) **Surface Water Monitoring:** Monitor the status of surface water bodies and update rules or plans to reflect changing conditions and water usage.
- g) **Minor Water Use Mapping:** Record and map existing minor water uses that do not require a formal water right.
- h) **Promote Water Efficiency:** Encourage water users to adopt water-saving practices through the water allocation system.
- i) **Incorporation of Historical Water Use:** Require existing non-minor water users to apply for a water license reflecting their historical use, provided no conflicts or environmental issues arise.
- j) **Water Rights and Customary Fishing:** Develop policies on water rights and customary fishing rights that align with the legal possession of water resources by the State and the rights of registered customary fishing rights holders.
- k) **Mining Water Use:** Apply water licensing to mining operations, ensuring water conservation measures are in place for mining activities.
- l) **Water Allocation Plans:** Create water allocation plans for regions with complex water uses and availability conditions, setting limits on extraction and outlining general extraction rules.

4.7 Groundwater Management and Allocation

There is an urgent need to actively manage Fiji's groundwater resources. Currently, it is not possible to ensure that groundwater is used within sustainable limits. More information is required to understand the quantity of groundwater available, the impact of groundwater extraction, and the movement or behaviour of groundwater beneath the surface.

Groundwater generally moves slowly, making it vulnerable to contamination, which is often irreversible. Therefore, careful management is essential to prevent depletion or contamination of groundwater reserves, especially from sources like seawater on small islands. It is also crucial to ensure that boreholes, particularly those used for domestic water supply, are well-constructed to prevent deterioration or contamination.

To address these concerns, a Groundwater Management law is proposed. This law would regulate groundwater extraction, enhance quality protection measures, and oversee the drilling of boreholes for domestic water supply.

Policy Principles

- a) The government has a responsibility to ensure that groundwater, as a natural resource of Fiji, is managed, maintained, and protected for the benefit of current and future generations.
- b) Groundwater data is essential for understanding the extent of groundwater resources and how they should be used and managed.

- c) Groundwater usage must remain within sustainable limits, with equitable access for all types of users.
- b) Priority will be given to ensuring that groundwater is available for drinking and domestic use.
- c) Groundwater use rights must be clearly defined in law to protect users and ensure that sustainable limits are maintained.
- d) The environmental value supported by groundwater must be recognized, and the effects of climate change must be considered in planning.
- e) Companies and organizations installing boreholes for domestic water supply must adhere to technical standards to ensure the reliability and quality of drinking water.

Policy Target

To implement effective measures, including legislation, ensuring that groundwater is sustainably managed for essential water supply, industry, agriculture, and environmental needs.

Strategies

- a) Introduce and implement the Groundwater Resources Development and Management Policy.
- b) Expand and develop the groundwater data and information base to better understand the resources and their behaviour.
- c) Develop national groundwater mapping and include this information in the Vanua GIS for public access.
- d) Establish a groundwater allocation framework for all major users.
- f) Introduce a Groundwater Management law to:
 - i) Regulate all major groundwater users by issuing permits specifying how much water can be extracted.
 - ii) Establish rules for groundwater drawdown and other criteria to ensure the sustainability and quality of groundwater.
 - iii) Define protection zones around boreholes and wells to prevent contamination and create rules for waste disposal in areas vulnerable to pollution.
 - iv) Regulate drilling standards for companies extracting groundwater, especially for domestic supply.
- g) Promote and, where necessary, mandate the conjunctive use of groundwater and other sources (e.g., surface water, rainwater), with measures to recharge aquifers.
- h) Develop policy guidelines for protecting vulnerable groundwater reserves on small islands.
 - i) Implement demand management measures to conserve groundwater, especially for irrigated agriculture and urban areas.
 - j) Investigate the national implications of climate change on groundwater and design appropriate response measures.
 - k) Balance social, cultural, economic, and environmental factors in decisions regarding groundwater allocation and protection.
 - l) Encourage communities and stakeholders to collaborate in preventing the deterioration of groundwater, protecting and restoring groundwater resources, and reversing trends of rising pollution levels.

4.8 Flood Management

Fiji frequently experiences severe floods and storm surges. Due to climate change, the frequency and severity of these events are expected to increase, with drier periods becoming more common and wet periods characterized by more intense rainfall and streamflow. Flooding in Fiji causes significant damage to buildings, property, livestock, and, in some cases, results in loss of life. Flooding can occur due to heavy precipitation, storm surges, or high river flows, or a combination of these factors. It is critical to identify areas prone to regular flooding and assess the associated risks to life, property, and assets.

The NDRMO handles flood preparedness, response, relief, and recovery. FMS provides climate and weather data to predict flood risks and manages the river flow-monitoring network for issuing flood warnings. However, to improve flood risk predictions, streamflow information is also necessary. Integrated flood management involves several key activities, including:

- a) Hydrological analysis of river systems to estimate the historical frequency and severity of floods.
- b) Designing and constructing flood protection systems.
- c) Operating hydraulic works to minimize flood flow to vulnerable areas.
- d) Raising community awareness about flood risks.
- e) Creating flood maps indicating flood susceptibility and risk.
- f) Developing design and materials standards in the National Building Code to ensure resilience to flood events.
- g) Establishing urban and rural planning rules to minimize flood exposure.

In Fiji, there are currently limited flood protection works. A major flood alleviation scheme is proposed for Nadi and surrounding areas, which will require managing and protecting the infrastructure and making operational decisions immediately before and during flood events. The success of the Nadi scheme and any similar initiatives will depend on controlling development location and design to minimize flood exposure.

A stronger legal and institutional framework is necessary to better identify flood hazards, prevent further exposure to flood risks, and reduce the vulnerability of people, properties, and infrastructure to flood damage.

Policy Principles

- a) Flood risk assessments, considering frequency, severity, and duration, should be based on long-term climate, precipitation, and streamflow data.
- b) New settlements and developments should be guided by flood risk information, particularly from local communities.
- c) Communicate flood risk assessments to communities and settlements to raise awareness about immediate and long-term flood risks.
- d) A standard level of flood risk should be applied across Fiji to guide development decisions and related conditions.
- e) Land should be allocated for flood detention and passage to reduce flood peaks that threaten settlements, assets, and human life.
- f) Buildings and infrastructure in flood-prone areas should adhere to standards designed to resist flood damage, reducing vulnerability.
- g) Where appropriate, local communities should manage flood control work and schemes.

Policy Target

To establish measures, including legislation, necessary to reduce flood hazards, limit exposure to floods, and minimize flood risks.

Strategies

- a) Assign clear responsibility for flood management in the national Gazette to define roles in flood policy and risk minimization.
- b) Amend the Drainage Act 1961 to cover flood protection and hydraulic works for river and catchment protection.
- c) Amend the Town Planning Act 1958 to include flood-related objectives and planning rules to:
 - Empower planners to impose rules on building locations and designs to reduce flood exposure.
 - Provide a legal basis for land allocation for flood detention and passage.
- d) Review the Town Planning Act's general provisions and schemes for areas at flood risk.
- e) Include flood resilience standards in the Fiji National Building Code, with mandatory application for development approvals.
- f) Strengthen the capacity of Ministry of Waterways to conduct flood studies, generate predictive models, and create flood maps for planning purposes.
- g) Introduce a flood risk layer in Vanua GIS to provide accessible flood risk data for public and private use.
- h) Review and upgrade flood warning systems in flood-prone river catchments, ensuring effective communication.
- i) Create a flood management plan for the Nadi area, outlining operational responsibilities and decision-making procedures before and during flood events.
- j) Introduce long-term flood alleviation schemes for all areas in Fiji identified as flood-prone with significant settlement and asset value.
- k) Continue promoting the NDRMO's flood emergency planning program.
- l) Develop guidelines for the local operation and management of flood control works and schemes.

4.9 Irrigation Water Management

Irrigation is the largest consumer of water in Fiji, accounting for 61% of all annual freshwater withdrawals, including those for agriculture, irrigation, and stock production (Green Growth Framework 2014). Irrigation, particularly for rice cultivation, has recently become a focus for agricultural development. Water use for irrigation is expected to increase, drawing from both surface water and groundwater sources. As a result, efficient water use is essential. Conflicts with other water uses, particularly domestic demand, can be mitigated by appropriately integrating irrigation into water allocation schemes.

Policy Principles

- a) Irrigation schemes will be incorporated into water allocation arrangements for both surface and groundwater resources.
- b) Access to irrigation water will be prioritized, while ensuring that domestic water needs are met.

- c) Measures to promote water conservation and improve efficiency in irrigation will be encouraged.
- d) Recycling and reuse of irrigation water will be promoted where feasible.

Policy Target

To ensure irrigation schemes can measure or estimate water usage, supporting effective water management.

Strategies

- a) Include irrigation projects in the surface and groundwater allocation schemes to align irrigation demand with other water needs.
- b) Conduct a survey to identify and evaluate methods for calculating or estimating water withdrawal for irrigation and determine if more precise measurement is required.
- c) Review global irrigation water demand, seasonal patterns, and volumetric requirements to plan for both current and potential future changes, in alignment with the national water resources assessment (strategy 3.3(a)).
- d) Initiate a program to develop water conservation measures, including:
 - Improving irrigation scheme infrastructure and leak detection.
 - Enhancing irrigation watering practices for irrigation.
- e) Identify opportunities for recycling irrigation drainage internally and externally to irrigation schemes.
- f) Review the quality of irrigation drainage to the environment and develop measures to eliminate irrigation-related pollution.

4.10 Drainage

Drainage and flooding are closely linked. Flood events cause greater damage where drainage systems are inadequate. While urban drainage is the responsibility of local governments, many drainage systems in Fiji's urban areas are insufficient to prevent localized flooding. As urban density increases and runoff from impervious surfaces rises, older drainage systems become inadequate. Drainage is also necessary for irrigation schemes and waterways. Estuaries require regular dredging to maintain river flow, reduce flooding, and facilitate navigation.

Policy Principles

- a) Drainage works should be designed and built to handle the annual exceedance probability (AEP) for rainfall in the relevant location and account for projected Climate Change.
- b) Damage and loss assessments should be used to prioritize the installation or upgrading of drainage systems.
- c) Stormwater drainage should be separated from sewage or other contaminated outflows wherever possible.
- d) Infrastructure design guidelines should consider the relationship with local drainage systems.

Policy Target

To install and upgrade urban drainage systems in line with growing urban development, ensuring that urban flooding is limited to extreme hydrological events.

Strategies

- a) After completing the National Flood Action Plan (NFAP), develop a flood management plan for Nadi to define operational responsibilities and decision-making protocols before, during, and between flood events, including Standard Operating Procedures (SOPs) for flood detention areas.
- b) Conduct a national review of urban drainage works in the context of proposed master plans, city and town development plans, and increased urbanization to identify priority locations for upgrading.
- c) Create a monitoring database and digital platform to track local flooding events in urban areas for planning and maintenance purposes.
- d) Ensure that urban drainage augmentation and refurbishment projects are designed as part of the broader urban planning strategy, not in isolation.

4.11 Drought Preparation and Response

Drought occurs when water scarcity results from demand exceeding supply. Some areas in Fiji, particularly the Western Division of Vanua Levu, experience a rain shadow effect, leading to more frequent dry conditions. Small islands with minimal or no permanent surface water are also prone to drought conditions. Preparing for potential droughts, characterized by low rainfall and low river flow, is essential to prevent drastic measures. Drought impacts both water supply and agriculture.

The key elements of drought preparation include:

- (a) Analysing long-term trends and estimating the frequency and severity of water scarcity.
- (b) Planning and developing water supply schemes that utilize all potential sources, including rainwater, groundwater, and surface water.
- (c) Installing water storage facilities at various scales, down to the household level.
- (d) Developing drought response plans that identify cost-effective emergency measures to meet basic water needs.
- (e) Projected impacts of climate change on water supply availability and water demand when developing drought plans and drought response.

Drought declarations trigger disaster responses, so preparation is crucial for reducing and delaying the need for emergency interventions.

Policy Principles

- a) Widely disseminate information on climatic trends and short- to medium-term weather forecasts.
- b) Drought planning should identify national-scale vulnerabilities in the event of water scarcity.
- c) Drought-related programs should install water storage solutions to address short-term emergencies and longer-term scarcity.
- d) Implement water conservation measures to reduce water consumption during both wet and dry periods.

Policy Target

To implement measures that raise awareness of water scarcity threats and improve planning responses to enhance resilience in water supply and agriculture.

Strategies

- a) Launch a program to disseminate information on long-term drought predictions from FMS.
- b) Conduct a national drought plan to identify vulnerabilities and develop preparedness measures for domestic water supply and irrigated agriculture.
- c) Initiate a nationwide program to incorporate household water storage in areas prone to drought.
- d) Water suppliers should develop SOPs to progressively reduce water supply as scarcity worsens.
- e) Allow water carting as a temporary solution during extreme water scarcity or for operational breakdowns in water supply systems.
- f) Require rainwater harvesting tanks in all developed areas, including rural and maritime zones, through the Department of Town and Country Planning.
- g) Implement temporary water restrictions in drought-prone urban areas, such as limiting outdoor water usage.

4.12 Water Efficiency and Conservation

Water conservation involves implementing measures to save water and improve efficiency to reduce the demand on supply resources. It is crucial to prevent water wastage in residential, commercial, industrial, agricultural, and public services. Wasted water refers to water lost due to leaks or used inefficiently, such as through poor practices or the use of inefficient appliances and fixtures. Although various water-saving programs have encouraged customers to avoid wasting water, there has not been a strong requirement for customers to consider conservation. It is important that large water users, including those in the commercial, industrial, tourism, and residential sectors, adopt effective water conservation practices.

Water efficiency measures not only reduce operational costs for WAF but also extend the useful life of WAF's water and wastewater treatment infrastructure by reducing the volume of water treated.

Policy Principles

- a) Water conservation principles, including the reduction of non-revenue water (NRW), must be integrated into water service operations and water resource management.
- b) Water extraction, treatment, and delivery to customers should be undertaken in the most cost-effective and operationally efficient manner, with measures in place to minimise system losses and inefficiencies.
- c) Demand management measures targeting customers should be prioritised before expanding supply infrastructure and should be implemented where they are demonstrated to be more cost-effective than increasing water supply.
- d) Water allocation must ensure that water sources are not depleted to levels that compromise their sustainability or ability to provide ongoing beneficial services.
- e) In areas with limited surface water resources, guidelines for domestic and other water uses should be carefully developed and enforced to ensure sustainable utilisation.
- f) Agricultural water use should adhere to best practices that promote water efficiency, conservation, and reduced wastage.

Policy Target

To implement water conservation measures and demand management strategies that achieve measurable reductions in current water usage.

Strategies

- a) Develop a national water conservation management strategy for Fiji.
- b) Prioritize WAF's leakage detection program and apply international benchmarks for water system losses (e.g., International Water Association's benchmarking initiative and International Loss Index).
- c) Launch a coordinated national 'Value of Water' and water conservation program to educate urban and rural communities on the importance of preventing water wastage.
- d) Investigate mechanisms and incentives to limit water wastage and improve water efficiency by users, led by the Department of Water and Sewerage and WAF.
- e) Apply industrial water use norms to large-scale industrial users and develop conservation strategies for enterprises using high volumes of water or exceeding expected water usage.
- f) Include water conservation and loss reduction in WSMPs and MOUs with rural communities and provide educational materials on water conservation.
- g) Incorporate drainage water recycling and other conservation measures in the design of irrigation schemes.

4.13 Water Quality Protection and Management

Water quality is essential for sustaining human life and the environment. While natural sources such as chemical components in rock strata pose some risks, the most serious threats to water quality arise from human activities. These include point sources of pollution, such as urban and industrial outflows, as well as non-point or diffuse sources.

Point sources are discharges of liquids, like stormwater, sewage, and industrial wastes, into bodies of water, where the discharge point is identifiable. Under the Environment Management Act 2005, these discharges must be licensed under controlled conditions.

Diffuse sources of pollution are more challenging to manage. These pollutants run into streams and rivers via land runoff, often stemming from agricultural practices, urban runoff, or rural settlements. Loss of vegetation, resulting in erosion, can also contribute to water quality degradation through increased siltation and suspended solids. Effective management of diffuse pollution requires a watershed-based approach.

A comprehensive water quality management framework must control both point sources and diffuse pollution. Diffuse pollution can impact marine waters and coral reefs through estuarine runoff, making it particularly important to address in Fiji.

Policy Principles

- a) Water quality monitoring for both surface water and groundwater must be sufficient to assess the condition of water resources and identify threats.
- b) Monitoring water sources and bodies should be integrated into the management of community water services.
- c) Protect land surrounding groundwater abstraction bores as a priority.
- d) Eliminate activities within drinking water catchments that cause erosion or chemical infiltration into streams.
- e) Monitor and regulate the contribution of intensive agriculture to watercourse pollution.

- f) Local management action should be taken to address diffuse sources of pollution as a voluntary activity.
- g) Sewage disposal systems must be monitored, and remedial actions must be taken to prevent faecal and other contaminants from entering water sources.

Policy Target

Enhance water quality monitoring programs and establish measures to manage both point-source and diffuse pollution that degrade water resources.

Strategies

- a) Develop a water quality monitoring database to cover drinking water quality and the impacts of WWTP discharges on water bodies.
- b) Review water quality data agreements to ensure full integration of information on surface water and groundwater resources.
- c) Develop a national surface water database within FMS.
- d) Assess the capacity of water quality laboratory testing to provide timely data for managing environmental discharges and allocate resources to improve capacity where necessary.
- e) Investigate low-cost water sampling opportunities for rural water supply managers to monitor basic water quality parameters under WSMPs.
- f) Implement groundwater protection zones around production bores, particularly for domestic water supply, to prevent contamination.
- g) Survey intensive agricultural activities and waste disposal practices to identify measures to limit waterway pollution.
- h) Develop guidelines for the application of agricultural chemicals in drainage water and enforce their mandatory application where they pose risks to watercourses or groundwater.
- i) Educate rural communities on the potential for contaminating water supply bores through waste disposal and include anti-pollution measures in WSMPs.
- j) Create a Fiji Water Quality Guideline for ambient surface water bodies that is tailored to local conditions and aligned with international standards.
- k) Establish a water-watch program for community and school data collection on water quantity and quality, to be integrated into a national database.
- l) Introduce legal measures to prevent stormwater from being diverted into sewers and impose penalties for such actions.

4.14 Water and Environment

Fiji has conducted relatively little research on the ecological values of freshwater in its rivers and streams. Rivers support unique freshwater fish species, crustaceans, and aquatic flora, many of which are endemic to Fiji. These ecosystems depend on the availability of water to sustain their health. It is essential to consider the environmental values supported by water resources, as they are crucial for maintaining the health of living organisms and vegetation.

Both surface water and groundwater contribute to the environment through wetlands, lagoons, and streams. The water table sustains surface water bodies and streamflow, which rely on infiltration from healthy ecosystems. Thus, the management of both surface and groundwater resources must recognize their role in supporting environmental values.

Pollution sources can severely damage water resources, particularly groundwater, which is especially vulnerable to contamination by toxic liquids such as oil, petrol, and industrial solvents, especially when disposed of improperly.

Policy Principles

- a) Water resources planning must account for important environmental values that could be threatened by development, pollution, or watershed degradation.
- b) Aquatic environmental features must be identified, and measures should be taken to ensure they receive sufficient surface water during planning and water management processes.
- c) Water allocation decisions must consider the environmental impacts of granting access to surface and groundwater resources.
- d) Point sources of pollution, such as outflows from urban WWTPs, industrial facilities, and stormwater drains, need to be understood and controlled to prevent untreated discharges.
- e) Potential sources of groundwater contamination should be closely monitored, with actions taken to eliminate or mitigate their impact.

Policy Target

To implement strategies that protect environmental values and prevent water resource contamination.

Strategies

- a) Include base flow criteria in the assessment of rivers and streams when evaluating water license applications.
- b) Adopt criteria to restrict water abstraction during low flow conditions to protect environmental values, as outlined in the Water Allocation Framework.
- c) Survey aquatic features with high conservation value, such as wetlands, and ensure their protection in water resources planning and allocation.
- d) Review WWTP discharges from urban sewerage systems and implement measures to improve the quality of discharged water.
- e) Ensure that WWTPs in urban and rural areas provide sufficient treatment to prevent water resource contamination.
- f) Include conditions in mining licenses to limit the disposal of mining wastewater into the environment.

4.15 Social and Economic Values

The water resources of Fiji must be managed, allocated, and protected for the benefit of all sectors of society, both in urban and rural areas, while also promoting economic development. Equity in access to water for basic needs and productive purposes is crucial to maintain. One of the key challenges in water management is addressing the effects of upstream activities on downstream conditions. Often, the rights of both "upstream" and "downstream" communities are central to these concerns. Even groundwater management must ensure that abstraction in one location does not negatively impact others, such as by depleting the water table.

Another critical issue is the inclusion of women and disadvantaged groups in water management decisions. Additionally, the impact of water uses on social values such as amenity, access to water bodies, and maintaining traditional rights to activities and benefits should also be considered.

There is a need to balance public interests, individual rights, economic development opportunities, and community wellbeing. This policy aims to recognize the rights of traditional landowners and their economic opportunities, while balancing these with public interests. Although this policy does not resolve all legal rights or social expectations of traditional landowners, it highlights the key considerations for water services and water management decision-making.

Policy Principles

- a) Water resources decision-making must consider the interests and rights of all sectors of society.
- b) Water allocation mechanisms should account for the social and economic benefits of water development.
- c) Women should be represented in water resources decision-making, in alignment with the Dublin Principle No. 3: Women play a central role in the provision, management, and safeguarding of water.
- d) The interests and rights of individuals and communities must be balanced against the Government's obligation to provide essential water-based services, such as water supply and sewerage.
- e) Forums should be established, where appropriate, to enable public, community, and sectoral interests to contribute to decisions on water allocation and provision.

Policy Target

To implement approaches that consider the interests of all sectors of society while supporting Fiji's social and economic development.

Strategies

- a) Ensure the representation of local communities and landowners on watershed planning and management bodies.
- b) Develop a policy to define social values in water resource management and include these values in water allocation decisions.
- c) Include women in planning forums such as flood management plans, water allocation plans, and watershed management plans.
- d) Review the need for a compensatory mechanism in water allocation laws to address cases where granting water use causes material harm to others.
- e) Conduct a valuation and feasibility study of watershed ecosystem services.

5. Reform Strategy

5.1 Key Reform Intentions

5.1.1 Water Services

The reform aims to establish a Water Services Regulator for urban and rural water supply and sewerage, with appropriate powers to monitor and report on service standards by water service providers. A proposed Water and Sewerage Act will empower the Water Services Regulator to require WAF and rural water supply and sanitation schemes to provide information about their service delivery.

The Government will issue a Service Agreement to WAF, outlining the delivery standards that must be met in exchange for annual funding. The Government and public will be kept informed about the service levels and any improvements to be made.

Urban and rural water services will be assessed based on their ability to meet Fiji National Drinking Water Quality Standards and benchmarks for continuity of supply and pressure for all water customers. Strategic planning will identify areas where water supply and sewerage schemes need to be expanded or introduced.

Rural water services will be provided upon formal acknowledgment and mutual commitment by the rural communities served. This framework already exists under the Rural Water Supply Programme (RWSP).

5.1.2 Water Resources Management

The main reform intention is to effectively monitor, allocate, protect, and sustainably manage water resources for beneficial purposes. The major gaps identified in Fiji's water resource management are:

- a) **Surface Water Allocation and Management:** While the foundation for water allocation exists, there is a lack of legal guidance on how to administer it, and the capacity for large-scale implementation needs to be developed.
- b) **Groundwater Allocation and Management:** Currently, there is no legislation in place, but there is administrative capacity within MRD.

Surface water information needs significant upgrading, as its current condition does not provide reliable data on river flow. Improving this data is a priority. Groundwater monitoring is in place, though some improvements are necessary.

Watershed planning and management are critical due to land degradation impacting water and streamflow. A consistent approach to obtaining the voluntary support of rural communities is required, and a mutual obligation model similar to water services should be applied to watershed management.

Flood risk management is also a priority, particularly in the Nadi region, requiring better control over building locations and designs, which are currently not regulated. A combination of flood risk assessments and planning measures may be introduced through town and country planning.

5.2 Legislative and Regulatory Program

The following legislative and regulatory reforms are proposed to strengthen integrated water resources management, water services regulation, public health protection, environmental sustainability, and climate resilience:

1. **Water and Sewerage Services Act**

To establish the Department of Water and Sewerage as the Water Services Regulator and provide the legal framework for regulating and monitoring water supply and sewerage service delivery.

2. **Groundwater Management Act**

To establish a legal framework for groundwater allocation, abstraction permits, monitoring systems, and licensing of drilling companies and borehole construction standards.

3. **Amendment to the Rivers and Streams Act 1880**

To introduce procedures, technical criteria, and legal mechanisms for issuing, monitoring, and enforcing surface water licences and water allocation arrangements.

4. **Amendment to the Town Planning Act 1946**

To strengthen flood risk management provisions, introduce flood detention and hazard zones, and empower planning authorities to require flood resilience and climate adaptation measures for developments.

5. **Other Legislative Reforms**

- Amendment of the Drainage Act 1961 to include flood management and related infrastructure works;
- Legal adoption and enforcement of the National Building Code to incorporate flood resilience, rainwater harvesting, wastewater disposal, and climate-adaptive building standards; and
- Establishment of legal mechanisms to declare, manage, and protect drinking water catchments and environmentally sensitive water source areas.

5.3 Financial Implications

Implementation of this Policy and its Implementation Plan will occur progressively through phased legislative, institutional, technical, and infrastructure reforms. While the Policy itself does not require immediate additional funding beyond existing approved Government budget allocations, implementation of the proposed reforms and priority actions will require sustained financial and human resource support over time.

Future investment will be required for regulatory and institutional strengthening, infrastructure upgrades, water resources monitoring systems, flood risk and climate resilience initiatives, watershed management, technical capacity development, and compliance and enforcement functions.

Additional resources will particularly support water services regulation, groundwater and surface water management, flood management, watershed protection, and hydrological information systems.

Funding will be mobilized through national budget processes, medium-term development planning, sector investment programmes, development partner support, climate financing mechanisms, and public infrastructure investment programmes.

Implementation of the Policy will also strengthen coordination of sector investments and improve Fiji's access to regional and international financing for climate adaptation, disaster resilience, integrated water resources management, and sustainable water and sanitation services.

5.4 Information and Technical Capacity

Strengthening national water information systems, technical capability, and institutional capacity is essential for effective implementation of this Policy.

The national surface water information system requires significant upgrading to improve the reliability, accessibility, and coverage of hydrological and river flow data used for water allocation, flood forecasting, drought management, infrastructure planning, and climate resilience assessments.

Groundwater information systems and databases currently exist but require modernization, expansion, and integration into a unified national water information management framework.

Priority attention and resources shall be directed towards strengthening hydrological monitoring systems and technical capacity within the relevant agencies responsible for hydrology, meteorology, water resources assessment, and environmental monitoring.

The integration of water-related information into national geospatial and GIS platforms, including the Vanua GIS Programme managed by the Ministry of Lands and Mineral Resources, shall be promoted to improve accessibility of data for planners, developers, researchers, infrastructure agencies, and resource managers.

Technical capacity development shall be prioritized in areas including:

- analytical hydrology;
- hydrogeology;
- geomorphology;
- hydraulic and flood modelling;
- climate risk assessment;
- watershed management;
- groundwater monitoring;
- GIS and data analytics; and
- water quality monitoring and compliance assessment.

5.5 Protection of Water Sources

The protection, conservation, and sustainable management of drinking water sources and watersheds are national priorities essential for safeguarding water security, public health, ecosystem integrity, and climate resilience.

The drinking water catchments supplying urban and rural communities are increasingly vulnerable to land degradation, deforestation, unsustainable land use practices, pollution, and climate-related impacts. Without appropriate intervention, these pressures may significantly reduce water quality, water availability, and ecosystem health over time.

Watershed management shall therefore be supported through integrated planning frameworks, catchment protection measures, and collaborative management arrangements involving Government agencies, landowners, local communities, and other stakeholders.

The Ministry responsible for water resources and waterways shall coordinate watershed planning and management processes in collaboration with relevant agencies, including:

- Ministry of Lands and Mineral Resources;
- Department of Town and Country Planning;
- iTaukei Land Trust Board (iTLTB);
- Ministry of Fisheries and Forestry;
- Fiji Meteorological Service (FMS); and
- other relevant stakeholders.

Mutual obligation and community participation arrangements shall be encouraged to support sustainable land management, catchment restoration, erosion control, water source protection, and long-term environmental stewardship.

5.6 Administration and Resources

To implement the Policy, additional personnel and resources will be required in the following key areas:

1. Urban and rural water services regulation and monitoring (DWS).
2. Groundwater management and regulation (MRD).
3. Surface water licensing (Ministry of Lands and Mineral Resources, Ministry of Agriculture and Waterways).
4. Flood management (Ministry of Agriculture and Waterways).
5. Watershed planning and management (Ministry of Agriculture and Waterways).

5.7 Policy Implementation, Monitoring and Evaluation

This Policy shall be implemented over a ten-year period following Cabinet approval and will require phased legislative and administrative reforms, supported by targeted stakeholder consultation. Effective implementation depends on coordinated action across government agencies and stakeholders, reflecting the interlinked and cross-cutting nature of water resources management, water supply, sanitation, environmental protection, climate resilience, and disaster risk reduction.

To strengthen coordination and address institutional fragmentation, a national multi-stakeholder **National Water Resources Management Coordination Committee** shall be established to provide strategic oversight, coordination, and advisory support, ensuring integrated delivery of outcomes aligned with national priorities, NDP, and SDG 6.

The Department of Water and Sewerage shall coordinate and monitor implementation of the Policy and shall submit annual progress reports to Cabinet. Implementation, monitoring, and evaluation shall integrate GEDSI as a cross-cutting requirement, ensuring equitable, inclusive, and climate-responsive outcomes.

All implementing agencies shall incorporate GEDSI principles into planning, consultation, service delivery, and investment processes. Monitoring frameworks shall include GEDSI-

responsive indicators and, where feasible, use disaggregated data to assess equitable access and participation. Annual reports to Cabinet shall include an assessment of GEDSI outcomes, identifying progress, challenges, and actions required to strengthen inclusive delivery under this Policy.

5.8 Review

This Policy shall be reviewed by the Department of Water and Sewerage five years after commencement, or earlier where necessary, in consultation with relevant Government agencies, stakeholders, development partners, and affected communities.

5.9 Commencement

This Policy shall come into effect from the date of approval by Cabinet.

