

# Preliminary national diagnostic for environment statistics

Country: *Fiji*

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## Country Background



Fiji comprises of more than 332 islands of which 110 are permanently inhabited. The total land area is about 18,300 square kilometres. The two main islands are Viti Levu and Vanua Levu. These two islands account for 87% of the population of 0.9m. The main industries of the country are Manufacturing, Wholesale & Retail, Tourism, Transport & Storage and Financial & Insurance. We have grown over the years due to the abundance of resources such as forest, mineral and fish.



## National vision

- **Vision – “A Better Fiji For All”**
- Green Growth Framework: “ *Restoring the balance in development that is sustainable for our future*”
- Building resilience to climate change and disasters, waste management and sustainable oceans and islands resource; inclusive social development, food security and fresh water resource and sanitation management; and energy security, sustainable transportation, technology innovation and development, and greening tourism and manufacturing industries.
- Increased focus on proper management of our forests, mangroves and coral reefs
- Sustainably managed fisheries resources
- Safe, efficient, reliable, and affordable shipping services
- Stewardship of climate change issues at the local, regional and global level with the plight of small island developing states at the center of this concern.



## Environmental Concerns

### **Brief highlights of environmental concerns:**

- Clean and sustainable water supply for all
- Energy Security and Reduction in the use of Fossil fuels for energy generation
- Waste Management
- Sea level rise
- Marine Pollution
- Building resilience to climate change and Disaster risk management

**More details of environmental concerns are highlighted in the following slides**

## Environmental Concerns

### Pollution

Fiji's population is constantly growing and with this increase, pollution is increasing as well. Fiji's ever increasing population creates an urgent need to improve their sewage treatment capacity, solid waste disposal and agricultural land run-off mitigation. Most of which is running straight into the ocean. With about 80 percent of Fiji's population depending on the marine environment for their livelihood, it leaves no room for irresponsibility of individuals, or groups alike in combating marine pollution.



Kinds of Pollution in Fiji:

- Point source pollution (e.g. sewage, mining, industrial discharges, litter refuse disposal sites)
- Non point source pollution (fertilisers, herbicides, urban runoff); siltation of waterways and coastal areas from agricultural practices



## Environmental Concerns

### Deforestation

Deforestation is the logging and clearing of vegetation in an area. This becomes an issue when too many trees are removed and the area starts to suffer because of it. Once a number of trees are removed, this will surely result in some soil erosion and the consequential siltation of nearby natural waterways. Some causes of deforestation include uncontrolled logging practices, encroachment of development into rural and forested areas and infrastructural developments. The issue involves finding a balance between logging and mining and the conservation for jobs.

The Fijian dry forest is one of the largest dry forests in the South Pacific. It supports a great diversity of endemic species that have been reduced, and are in grave danger of becoming extinct. Only 1% of tropical dry forest remains in Fiji, leaving its amazing biodiversity holding on the best it can.



## Environmental Concerns

### Waste disposal

Solid waste management has become a major concern with the potential to cause negative impacts on national development activities, including tourism and trade, food supplies, public health and the environment. Water contamination/pollution from landfills is also a big issue in Fiji.

In 2008 a recycling project was introduced in order to develop a model for Fiji, the Project introduced a new interpretation of the 3R concept for small island countries as "Reduce, Reuse and Recycle/Return," adding the word "Return (for recycle)" to the conventional definition of 3R.

In December 2012, SCC launched a home composting initiative to reduce the volume of green waste and kitchen scraps transported to the landfill for disposal.



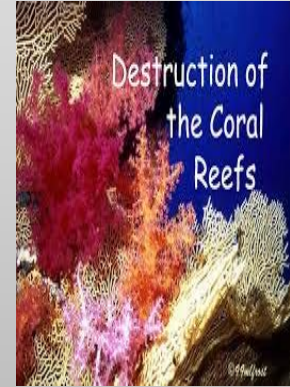
## Environmental Concerns

- Waste water problem - Sewerage, mill waste, oil waste from large manufacturing industries are discharging into foreshores.
- Due to the fact that there is no rubbish dump, all the trash that is supposed to be in the rubbish dump is littered and dumped into rivers or the ocean. Liquid waste can vary in items that are incorrectly disposed; these items include dye and oil.
- Deterioration in freshwater quality from pollution, improper agricultural practices and long-term cultural/social impact (sewage, etc.).
- Due to this problem of waste disposal, it also causes fresh water to have issues as well. In some rural parts of the country, enough fresh water cannot be provided. Furthermore, human health has also been jeopardized by the pollution of fresh waters.



## Environmental Concerns

- Falling fish stocks; slow growth in aquaculture; Low added value of fisheries resources; Overfishing by non-Fiji owned and registered vessels.
- Marine Pollution from Ports and Shipping;
- Negative effects of climate change; Loss of habitat and biodiversity; Degradation of coastal zones and marine species including mangrove systems and coral reefs;



## Environmental Concerns

### *What must be done to help the environment*

1. **EDUCATION:** about the benefits of biodiversity and sustainable development especially in fragile island ecosystems, to get people to want to conserve for future generations.
2. **LOCAL PARTICIPATION:** creating a local awareness and enthusiasm for conservation projects, for the people and by the people.
3. **ECONOMIC BENEFIT:** a tangible product of conservation efforts that can be put back into the community, whether it's the monetary benefit of tourism or the effect of conservation revitalizing much needed natural resources like fish stocks or fresh water.
4. **ORGANIZATION OF LOCALLY AND INTERNATIONALLY RECOGNIZED PROTECTIONS:** to manage and control misconduct both locally and internationally.



## Guiding principles to Environmental Concerns

- Reducing carbon footprints at all levels.
- Improving resource productivity (doing more with less).
- Move away from ‘sector based’ approach to ‘integrated approach’
- Socio-cultural education of responsible environmental stewardship and civic responsibility.
- Increasing adoption of comprehensive risk management practices
- Increasing adoption of environmental auditing
- Structural reform to encourage fair competition and efficiency.
- Incentivizing investment in efficient use of natural resources.



## Policy priorities and policy tools

Sustainable development policy priorities:

- |   |   |                          |
|---|---|--------------------------|
| - Building resilience to climate change and disasters | } | Environmental priorities |
| - Waste Management                                    |   |                          |
| - Sustainable Oceans and Islands resource             |   |                          |
| - Inclusive social development                        | } | Social priorities        |
| - Food security                                       |   |                          |
| - Freshwater resource and sanitation management       |   |                          |
| - Energy Security                                     | } | Economic priorities      |
| - Sustainable Transportation                          |   |                          |
| - Technology Innovation and Development               |   |                          |
| - Greening tourism and manufacturing industries       |   |                          |

# Policy priorities and policy tools

## Policy Tools

### FRAMEWORKS

- Green Growth framework
- Pacific disaster, risk reduction and disaster management framework

### POLICIES

- National climate change policy
- National Liquid Trade Waste Policy 2013
- Rural Water and Sanitation Policy
- Groundwater Resources Exploitation and Management Policy
- Revised National Energy Policy 2014-2020

### STRATEGIES

- National Air Pollution Control Strategy 2007
- The National Solid Waste Management Strategy 2011-2014
- Tuna Management Plan 2002

### DECREES

- The Litter Decree was amended in 2010
- Offshore Fisheries Management Decree 2012
- Draft Fisheries Aquaculture Decree
- Draft Inshore Fisheries Management Decree
- Water Resource Management Decree
- Commerce Commission Decree 2010;

### ACTS

- Public Enterprise Act (1996);
- The Public Health Act
- Electricity Act (Cap.180); Land Transport Act (1998);
- Environmental Management Act (2005); Hotels Aid Act (1999);
- Public Private Partnership Act (2006); Petroleum (Exploration and Exploitation) Act (Cap.148);
- Petroleum Act (Cap 190);
- Fuel and Power Emergency Act (Cap 191);
- Land Conservation and Improvement Act (Cap.141);
- Native Land Trust Act (Cap.134) and Crowns Land Act (Cap.132);
- State Acquisition of Lands Act (Cap.135);
- Marine Act.

[SOURCE: *Green Growth Framework*]

# Institutions

## STAKEHOLDERS

### *Supporters & Users:*

Ministry of Economy -Strategic Planning Office (Climate Change Unit), Finance Department, Fiji Bureau of Statistics

### *Users:*

Ministry of Industry, Trade and Tourism, Department of Environment (Reporting Purposes), Donor agencies, Public, Researchers.

### *Data Providers (Source):*

Department of Environment  
Ministry of Agriculture  
Department of Fisheries  
Department of Forestry  
Department of Lands  
Department of Minerals and Resources  
Department of Water and Sewerage  
Department of Meteorology  
Department of Energy  
I’Taukei Lands Trust Board (Native Land Trust Board)  
Water Authority of Fiji  
Fiji Electricity Authority



## Institutions

### **INSTITUTIONAL MECHANISMS:**

Climate Change Unit -MOE– Monitoring and Evaluation of projects and programs through their four divisions

- i.) Macro Planning and Policy
  - ii.) Good Governance Division
  - iii.) Human Resources Planning Division
  - iv.) Sectoral/Regional and Project Planning & Evaluation Unit
- Department of Environment – promote sustainable use and development of Fiji’s environment and efficient implementation of policies, legislations and programs; to fulfill Fiji’s obligation under regional and international environment related conventions and treaties.
  - ALL WORK DONE IN ISOLATION - SILOs



## Institutions

### **ROLE OF NSO:**

- Collect, collate, analyze and present
- Providing accurate, relevant and timely statistics
- Providing information over a period time
- Creating awareness on the importance of collaboration
- Co-ordinate a working group of environmental data custodians





## Knowledge

Key documents and data sources:

### ***State of Environment Report 2013***

- Compiled by Department of Environment
- To be endorsed by cabinet

### ***FIJI National Solid Waste Management Strategy 2011-2014***

- Compiled by the Department of Environment
- In circulation

### ***National Solid Waste Management Strategy and Action Plan 2006-2010***

- compiled by the Government of Fiji (Department of Environment) with the support of SPREP

### ***Republic of Fiji: Second National Communication***

to the United Nations Framework Convention on Climate Change

- Compiled by Fiji Ministry of Foreign Affairs and International Corporation in conjunction with different stakeholders i.e. Climate Change Unit in the Strategic Planning Office
- Published in 2013
- Contains information on greenhouse gas emissions inventory 2004 (data availability in 2000), ways to mitigate and adapt to climate change



## Knowledge

### ***Key Statistics***

- Compiled by Fiji Bureau of Statistics
- Compiled Quarterly & Annually
- Contains information on Socio economic situation of Fiji
- Latest available publication: June 2018
- Available online : [www.statsfiji.gov.fj](http://www.statsfiji.gov.fj)

### ***Establishment Surveys***

- Industrial sectors financial information i.e. value added and intermediate consumption
- Compiled annually
- Latest publication 2016

### ***Agricultural Census Report 2009***

- Compiled by Ministry of Agriculture
- Every 10 years
- Contains information on land use, irrigation, crop and animals, agricultural commodities



## Knowledge

### ***Fiji Electricity Authority Annual Report***

- Compiled by FEA
- Contains info on power sources and generation , distribution and consumption by customer and region
- Compiled Annually
- Latest Publication: 2016

### ***Pacific Possible: Climate and Disaster Resilience Report 2016***

- Compiled by World Bank
- Contains quantities on potential costs of climate adaption for PICs and targets ways in which decision makers can manage vulnerability and build resilience.
- First in a series of publications



## Existing compilations

### **THE SEEA CENTRAL FRAMEWORK**

- Identified priority areas via stakeholder consultations
- Recent mission with SEEA experts
- Compiling flow accounts for Water – metered water
- Compiling flow accounts for Energy – electricity and fuel
- Compiling flow accounts for Solid Waste – data from town/city councils
- Planned: Land Cover /Land Use Account
- Long Term: Ecosystem Accounting together with Department of Environment and other key stake holders – Oceans Account



## Context

### OTHER STATISTICAL DEVELOPMENT ACTIVITIES

#### *NATIONAL:*

- Fiji Land Information System
- National Strategy for the development of Statistics
- SNA 2008 Implementation Strategy
- Reporting on SDG's



## Context

### OTHER STATISTICAL DEVELOPMENT ACTIVITIES INTERNATIONAL:

- *ESCAP support* - compilation of environment statistics (SEEA pilots)
- *Bio Fin Initiative* – started in 2014. Focused on 7 thematic area
  - 1.) Forest Conservation
  - 2.) Invasive Species
  - 3.) Inshore Fisheries
  - 4.) Coastal development
  - 5.) Species Conservation
  - 6.) Protected Areas
  - 7.) Inland Waters
- *Fiji National REDD+ Policy* – reduce greenhouse emissions, strengthen socio economic status of forest resource owners and protect forest ecosystems
- *Waste Management (JICA & J-Prism)* - 5 year project on solid waste management implementation in Pacific Island Countries.



## Priorities

### **Priority Accounts**

#### **Current Compilations**

- Water Account – (physical flow accounts)
- Energy Account – (Physical flow accounts)
- Solid Waste – (Physical flow accounts)

#### **Development Work**

- Land Account (Land Cover Change Matrix template – awaiting for second set of data from Ministry of Lands.

#### **Future Work**

Extensions of Land Account:

- Ecosystems
- Oceans Account



## Constraints

### **FEASIBILITY**

#### **Ready to Test**

*Accounts – Water, Energy & Solid Waste*

*Constraints:*

Water – lack of information on water other sources of water, accounts will be mostly metred water since this information is readily available

Energy – volume information from major oil companies on consumption  
Hence only parts of these accounts will be focused on, no updated energy balances. Energy will be electricity generation and consumption

Solid Waste – Data available only two of the 9 dumpsites, as they have weighbridges for measuring tonnage of Waste. Difficult to disaggregate who supply's the waste, whether it is households or industries (which sector)



## Constraints

### **Need Capacity Building / Data Development/ Institutional Coordination, Financing:**

*Accounts:* Land Cover/ Land Use Accounts, Ecosystems, Oceans

*Constraints:*

- Skills and knowledge
- Human resource (man power)
- Interdepartmental coordination with FLIS team
- Technical expertise and awareness
- Need more data from waste companies
- Continuity of information – one off studies



## Opportunities

### **Priority Actions:**

*Accounts: Water*

*Action: Include water from other sources, Collaborate with institutions who have research or data on hydrology, to best assess how we can compile asset accounts*

*Accounts: Energy – fuel data*

*Action: Inclusion of Department of Energy Template in Establishment Questionnaires for the oil companies*

*Accounts: Waste*

*Action: Assist DOE in designing a uniform template for data collection on waste disposal (request from Town and city councils); to help with their database management*

*Accounts: Land Use/ Land Cover*

*Actions: collaboration and involvement in working groups and workshops of data custodians. Creating awareness of the data available and how it can be used for environmental monitoring*



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