

# **NDC Implementation Planning**

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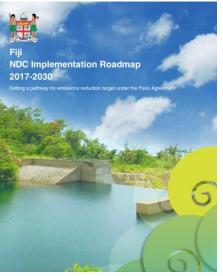
Suva, Fiji

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#### Background

- UNDP analysis of NDC implementation plans/roadmaps
  - 10 countries: Fiji, Ecuador, Ghana, Lebanon, Nauru, Paraguay, Philippines, Rwanda, Trinidad & Tobago, Vietnam
  - Interviews with those who provided technical assistance in: Fiji, Lebanon, Rwanda, Trinidad & Tobago
  - Effort to identify common elements, good practices
- NDC implementation document
  - UNDP, UNEP-DTU, World Resources Institute, in collaboration with UNFCCC
  - Public comment period beginning in April





*Fiji's NDC Implementation Roadmap* 

#### **Objectives of an Implementation Plan**

- Serves as **framework** to coordinate NDC implementation
- Identifies policies, actions, and measures to achieve NDC goals and expected impacts (incl. development priorities, SDGs)
  - Drives NDC goals into government plans and budgets
  - Outlines a plan for **monitoring progress** toward mit/adap goals
  - Identifies resources needed, possible sources of funding
  - Specifies timeframes and roles/responsibilities
  - Assesses capacity needs, info/data gaps, feasibility/risks
  - Identifies necessary regulatory and legal frameworks



### **Developing an Implementation Plan**

#### **Considerations:**

- 2-6 months for countries studied
- Some countries requested outside technical assistance
- Data needs (e.g., for tracking)
- Stakeholder mapping and consultations key (buy-in, determine priorities, etc.)
  - Who (ministries, PS, CSOs, etc.)
  - How (surveys, workshops, etc.)

#### Factors that may affect process:

- Government structure (existing instnl. arrangements, approval process)
- Prior stakeholder processes (INDC)
- Mandate (national CC policy/law)
- Type of NDC (national- or sectorallevel plan)
- Progress on related efforts, synergies
  - E.g., development strategies, sectoral plans, NAPs, etc.



#### **Common Elements of Implementation Plans**

- Country Overview (e.g., NDC summary, relevant CC policies)
- Methodology (incl. stakeholder engagement, data collection)
- Governance/Institutional Arrangements
- Mitigation and Adaptation Actions (incl. alignment with SDGs)
- Financing Implementation
- MRV
- Potential Barriers to Implementation
- Non-environmental impacts (SDGs, other social/economic "co-benefits")



## 1) Governance/Institutional Arrangements

- Plans identify institutional arrangements based on analysis of existing framework/agency roles
  - Includes roles/responsibilities, coordination mechanisms
- NDC Coordination Body (typically in environment/CC ministry)
  - Communicate and coordinate actions to achieve outcomes
  - Act as a secretariat, support sectoral line ministries responsible for actions
  - Ensure progress monitored and reported
  - Review and amend the plan as needed
- Plan for engaging stakeholders



### 2) Mitigation and Adaptation Actions

- Actions can be **prioritized** based on effectiveness, feasibility, costs, other criteria
- Consider sequencing:
  - Short term: quick wins (show progress, attract funds)
  - Medium term: within budgeting/planning timeframes
  - Long term: more visionary actions (beyond planning horizon?)

#### • Common elements (for each action):

|   | Prioritization of activities | Co-be    | enefits                | 🖵 Risks     |  |  |
|---|------------------------------|----------|------------------------|-------------|--|--|
|   | Baseline scenario            | 🛛 Abate  | ement costs            | □ Timeframe |  |  |
|   | Target                       | 🖵 Key E  | nabling elements       |             |  |  |
| Responsible line ministries Capacity building needs |                              |          |                        |             |  |  |
|   | Cost estimates               | 🛛 Techr  | nical assistance needs | S           |  |  |
|   | GHG mitigation potential     | 🖵 Barrie | ers                    |             |  |  |

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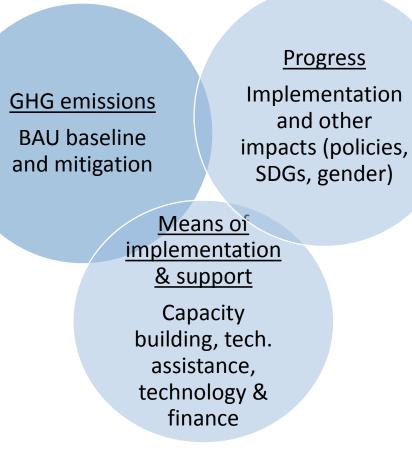
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Table 6: Lake Kivu methane-to-power project

| Activity Name   | Lake Kivu n                                       | nethane-t   | to-power p  | roject  | Priority                     | High  |  |  |  |
|---|---|---|---|---|------------------------------|---|--|--|--|
| Activity No.  | 3   |   |   | NDC label   | Non NDC ac                   | tion  |  |  |  |
| Purpose   | Mitigation  |   | Sector  |   | Energy                       |   |  |  |  |
|   | aseline Scenario                                  |   |   |   |                              |   |  |  |  |
| The estimated annual GHG emissions for the year 2012 is approximately 0.16 million tCO_e, multiplying by a factor of 25 in the baseline scenario to reach 3.97 million tCO_e in 2030 (REMA 2015).   |   |   |   |   |                              |   |  |  |  |
| Target  |   |   |   |   |                              |   |  |  |  |
| Potential installation  | tential installation of additional 50 MW.         |   |   |   |                              |   |  |  |  |
| Current impleme   | urrent implementation status / ongoing activities |   |   |   |                              |   |  |  |  |
|   | 30MW are already installed and in operation       |   |   |   |                              |   |  |  |  |
| Responsible line  |   | MININF  | RA  |   |                              |   |  |  |  |
| Responsible lead  |   | REG   |   |   |                              |   |  |  |  |
| Other stakeholder involved  |   | REG, private companies (e.g. Kivuwatt, Symbion Power) financial<br>institutions including those involved in the first phase (i.e. ATDB's<br>private sector am, the Emerging Africa Infrastructure Fund; Belgian<br>Investment Company for Developing Countries; Netherlands<br>Development Finance Company; and the European Financing<br>Partners, civil society |   |   |                              |   |  |  |  |
| Cost estimates  |   |   |   |   |                              |   |  |  |  |
| Cost for the first phase: 128 million USD<br>Assuming a similar cost structure (i.e. around 4.92 million USD/MW), full operations 50 MW from<br>Symbion Power) could cost up to 250 million USD in total.<br>Timeline Expansion of the 50 MW under Symbion Power could be realized by<br>2028 |   |   |   |   |                              |   |  |  |  |
| Milestones  |   | •   | Total insta                                       | lled capacity t   | o reach 80 MV                | V by 2028   |  |  |  |
| Adaptation bene   | fits  | •   |   | fected by extre   |                              | ing share of sources<br>events (i.e.              |  |  |  |
| Co-benefits   |   | ÷   | stability<br>Reduction<br>Job creati<br>Reduce th | of the risk of I<br>on<br>e cost of impo<br>of pollutants a | imnic eruption<br>rted fuels | rce and increase grid<br>s<br>n fossil fuel based |  |  |  |
| Relevant Sustain  | able Develo                                       | pment G   | oals  |   |                              |   |  |  |  |
| 7 ENGRAFER 13 CAME  |   |   |   |   |                              |   |  |  |  |
| MRV system/ ind   | licators  |   | MW instal<br>MWh supp                             | led<br>blied to the grid                                    | d (MWh/year)                 |   |  |  |  |

Example from Rwanda's Roadmap

## 3) MRV



Example from Fiji's Roadmap - MRV system for the energy sector

- Tracking across 3 dimensions:
   communicate progress, identify gaps,
   *corrective action*
- Instead of stand-alone MRV system, some countries: individual actions, sectoral indicators
  - Build on previous systems, align with SDG monitoring
- Many plans include steps for setting up MRV system (Ricardo/CDKN):
  - Arrangements for oversight/coordination
  - Assess existing mechanisms
  - Policy and legislative framework
  - Data management processes



## 4) Financing NDC Implementation

- Some countries incorporate throughout plan, others own section
- Estimated investment needs for each action to reach targets
- Organized by type of finance/availability or by type of action and potential funding sources
- Assess current **public expenditures**, potential **sources** of finance (private, public, international, domestic)
- Consider mechanisms and policies to mobilize resources

| Water Sector Proposals     | Phase-I    | Phase-2   | Total Cost |  |
|----------------------------|------------|-----------|------------|--|
|                            | 2025       | 2035      | (AUD)      |  |
| Water Treatment Works      | 1,515,000  | 1,365,000 | 2,880,000  |  |
| Water Storage              | 2,400,000  | 2,200,000 | 4,600,000  |  |
| Pump Station               | 1,780,000  | 850,000   | 2,630,000  |  |
| Additional Various System  | 130,000    | 200,000   | 330,000    |  |
| Pump Items                 |            |           |            |  |
| Water Reticulation         | 14,750,000 | 0         | 14,750,000 |  |
| House Connections          | 1,200,000  | 330,000   | 1,530,000  |  |
| SCADA                      | 500,000    | 200,000   | 700,000    |  |
| Sub-Total                  | 22,275,000 | 4,815,000 | 27,420,000 |  |
| Sewerage Works             | Phase-I    | Phase-2   | Total Cost |  |
|                            | 2025       | 2035      | (AUD)      |  |
| Immediate Repairs to STP   | 75,000     | -         | 75,000     |  |
| at Nauru Primary School    |            |           |            |  |
| New Sewage Treatment       | 9,130,000  | 3,075,000 | 12,205,000 |  |
| Plant                      |            |           |            |  |
| Upgrade sea outfall        | 200,000    | -         | 200,000    |  |
| structure for STP          |            |           |            |  |
| Sewer Reticulation, Septic | 18,690,000 | 5,990,000 | 24,680,000 |  |
| Tanks, Pump Stations etc   |            |           |            |  |
| Sub-Total                  | 28,095,000 | 9,065,000 | 37,160,000 |  |

Example from Nauru's Roadmap - Water Supply and Sanitation Master Plan (2015-2035)



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## **Challenges and Recommendations Identified**

#### **Challenges:**

- Lack of time, resources, capacity
- Availability of data
  - Affects quality of baseline, ER estimates
  - May require shift in timelines
- Info on investment costs
- Foreseen challenges:
  - Establishment of MRV system
  - Changes to legal/reg. frameworks
  - Financing

#### **Recommendations:**

- Don't reinvent wheel (plans, MRV)
- Create mandates for data collection/sharing (e.g., national CC policy)
- Include statistics bureaus, regulatory agencies as key stakeholders
- Consider housing NDC Coordination Body in **powerful ministry**
- Emphasize **co-benefits** of NDC implementation (SDG link, gender)
- Consider making plan living document
  - Adjust based on progress





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