Japan International Cooperation Agency

« Cooperation Program with Mauritius »

Ms. Manoela RAZAFIMAHEFA
Mr. Hiroshi HASHIMOTO
Mr. Takeshi KUWANO

Mauritius, 29th October 2012
Outline

• Japan’s ODA and JICA

• Japan’s Cooperation Program for Mauritius

• Preliminary results of some projects
  (Coastal protection and Landslide management projects)
Japan’s ODA and JICA

**ODA**
- Bilateral Assistance
  - JICA
  - ODA Loans
  - Grant Aid
  - Others
- Multilateral Assistance
  - Financial contributions to international organizations

**JICA**
- Technical Cooperation
  - Technical Cooperation Projects
  - Acceptance of Training Participants
  - Dispatch of Experts
  - Provision of Equipment
  - Technical Cooperation for Development of Planning
  - Loan
  - Private Sector Investment Finance
  - Economic Development, etc.
    - (Grant Aid for General Projects, etc.)
  - Aid for Increase of Food Production, etc
    - Food Aid Grant Assistance for Unprivileged Farmers.
  - Dispatch of Volunteers
  - Emergency Disaster Relief
  - Citizen Participatory Program
Japan’s Cooperation Programme for Mauritius
Climate Change Adaptation Programme

The Africa Adaptation Programme
(AAP: Joint framework by UNDP and the Japanese Government)

- Disaster Risk Reduction
- Water Resources
- Tourism
- Environmental Policy
- Agriculture
- Education

- Coastal Protection
- Landslide
- Cyclone
- Damage Assessment
- Sea Level Rise
- Safe Water Supply
- Water Resources Development

The Project for Sectorial Approach to Climate Proofing
(Technical Assistance)

- The Project for Capacity Development on Coastal Protection and Rehabilitation
  (Technical Assistance)

- The Landslide Management Project
  (Technical Assistance)

Mauritius Meteorological Services Project
(Grant Aid)

- Mauritius Meteorological Services
  (Technical Assistance)

O&M of Water Treatment Plants
(Technical Assistance)

Sewerage Project
(ODA Loan)  7 billion yen

Training Courses in Japan
Main topics: disaster risk management, coastal protection, landslide control, meteorological Services, sewerage system, water resources, tourism

Adaptation Fund
Preliminary results of some projects

Capacity Development for Coastal Protection and Rehabilitation

Outline of the Project

• 1) Overall Goal
  – Coastal conservation plan is approved by GoM

• 2) Objectives
  – To identify affected sites of coastal erosion
  – To formulate coastal conservation plans
  – To show the effectiveness of the conservation plan through demonstration projects
  – To enhance technical capacity in MoESD

• 3) Activities
  – Baseline survey, formulation of coastal conservation plan, implementation of demonstration project, technical transfer of coastal conservation management
Sea Level and Surface Temperature Rise in Recent Years

- 3.2 mm/year of sea level rise from 1987 to 2011 in Port Louis with rapid increase

- 0.1 degree/year of sea surface temperature rise from 1991 to 2010 around Mauritius

- Data from MMS
Coastal Erosion Problems

Long Term Erosion
30km long coastline was eroded from 1967 to 2008 in Mauritius. The maximum beach retreat was 20m.
At Pte. D’Esny 12m of erosion at an average (right)

Erosion Caused by Cyclone
High waves bring temporally erosion of 30 m at its maximum.
Beach scarp at Flic en Flac (left)
Coral Degradation

★ Long-term decline in coverage of living corals

<table>
<thead>
<tr>
<th>Year</th>
<th>2000 Coverage 52%</th>
<th>2010 Coverage 19%</th>
</tr>
</thead>
</table>

By AFRC

★ Present condition of coral coverage

2012 Total 33 sites Av. Coral coverage = 27 %

By JICA & MoESD

Except for few sites, it is apparent that decrease of living corals in Mauritian reefs.

By global worming (coral bleaching) & eutrophication?
Coastal Conservation Plan Applicable in Mauritius

• Plan Includes several measures

• Structural Measures
  • Sand nourishment, rock armoring, groyne

• Non Structural Measures
  • Set back, EIA, land use control, early warning
  • Management of coastal space

• Adaptive management is the key with monitoring
Outline of the Project

The project of landslide management in the Republic of Mauritius

• MPI: Ministry of Public Infrastructure, National Development Unit, Land Transport and Shipping
• JICA: Japan International Cooperation Agency

(1) Overall Goal
• To mitigate landslide disasters in Mauritius

(2) Objectives of the Project
• To establish a landslide monitoring system by developing a landslide countermeasure plan and activity plans for Landslide Management Unit
• To implement the Feasibility Study and Pilot Project in high risk area
• To develop the capacity of government agencies involved in landslide management through the activities

Component 1: Basic Survey

Component 2: Formulation of a Landslide Management Plan

Component 3: Implementation of the Feasibility Study (F/S)

Component 4: Implementation of the Pilot Project
Landslide Disaster in Mauritius

- Damaged house
- Distorted house
- Cracked floor
- Main cliff
Results of Basic Survey

Example of Quatre Soeurs

Japan International Cooperation Agency
Instrumentation and Monitoring

Strain gauge

Piezometer

Variable water table

Rain gauge

Extensometer

Protection pipe
Action Plans

1. Hazard evaluation of landslide
2. Design/implementation of landslide countermeasure
3. Proposal of early warning/evacuation
4. Proposal of revision of Planning Policy Guidance
5. Formulation of organizational reinforcement
6. Preparation of guideline/manual
Thank you for your attention

jicamr-ad@jica.go.jp
http://www.jica.go.jp/madagascar/french/