

Cuba and Climate Change
Gisela Alonso Dominguez, Cuba

For Cuba, the idea of sustainability is part of the socialist principles that support our human development model. A clear political will of State and Government has paved the way to integrate economic development to equity, social justice and environmental protection towards sustainable development. Within this framework National Environmental Agency performs important functions such as:

- Integrates and implements plans and programs for research, R & D, and scientific-technical services related to environmental management, systematic study of the natural resources of interest, as well as programs for ecosystem rehabilitation and natural environmental events watch.
- Proposes the actions and priorities for developing projects to be carried out with national and international organizations.
- Acts as National Technical Focal Point for the following binding instruments of the Environmental sphere:
 - Biodiversity Convention
 - Convention on Climate Changes

Climate change is identified as a threat to national sustainable development considering expected adverse effects such as: reduction of forest cover, loss of biodiversity, increase in frequency and/or intensity of hydro-meteorological events, reduction of agricultural productivity, reduction of farming area, reduction of water quality and availability, damage to mangrove forests and coastal ecosystems as well as increase in coastal settlement vulnerability

Accordingly, Cuban national environmental priorities include closely related subjects such as:

- Studies on hazard, vulnerability and risk under extreme natural events, adaptation to those and mitigation of effects.
- Environmental impact studies for all strategic development programs, as well as their possible harm under extreme natural events.
- Improvement in early warning systems.

Cuban CC comprehensive program includes:

Mitigation:

- Energetic Revolution and inventory of greenhouse gases

Adaptation:

- Hazard, vulnerability and risk studies (HVR)
- Impact of sea level rise on Cuban coastal zone (present and future scenarios) –
- Environmental-Risk management. Coastal zone monitoring
- Sectoral programs, plans and projects. Land planning (i.e. Varadero beach artificial nourishment, increase the production of rice, potato and banana
- cattle reanimation, use of efficient irrigation systems, rational use of agrochemicals, use of agrotechniques in correspondence with climate conditions, implementation of new technical constructive norms and use of new materials, implementation of the risk studies results in new projects; inclusion in the educational plans at different levels the Climate Change Adaptation themes; Educational project 2009-2011 directed to increase the knowledge about Energy-Climate Change relationship

- Environmental education

Up to date, among some important lessons learned are:

- The main hazard for the Cuban archipelago is sea level rise
- Identified the main present and future coastal vulnerabilities and the protective role of coastal ecosystems (mangroves, coral reefs and beaches)
- The next version of the warning map should include the information about hydrology, hydrogeology, sea level and recent vertical movements of the Earth's crust.

Other important actions within the CC Program are: Inclusion of the adaptation issues in the sectoral programs, plans and projects; emphasizing food production; comprehensive water management ; construction, coastal planning and strategic environmental assessment of programs and plans.