

**Paper to be presented at the African Regional Workshop on the United Nations Framework Convention on Climate Change (UNFCCC), 28-30 January 2004, Atlantic Hotel**

**Introduction**

UNESCO is the United Nations agency that is mandated to deal with science and its role in providing the framework for sound decision and policy making on sustainable development.

Under its Major Programme II- Natural Science, the organization seeks to improve human security through a better management of the environment, address the ethical principles and norms of scientific research and freshwater issues through the promotion of sound decisions for the sustainable use of freshwater and its associated biodiversity resources. The natural science programme attracts funding of US\$61,334,400 for the 2004 to 2005 biennium and is broken down into the following areas:

- ✓ Science, environment and sustainable development
- ✓ Water interactions: systems at risk and social challenges
- ✓ Global change and water: advancing hydrological sciences for improved assessment
- ✓ Water for human needs
- ✓ Water education and capacity building for sustainable development and security
- ✓ Ecological sciences: developing stewardship by people for nature
- ✓ Biosphere reserves: approaches to sustainable development
- ✓ Science and capacity building in the service of ecological sustainability
- ✓ Enhancing the link between biological and cultural diversity as a key for sustainable development
- ✓ Global partnership in Earth Observation from space for sustainable development

The focus will be:

- (a) Addressing scientific uncertainties for the management of marine environment and climate change - US\$1,135,000. This is being implemented by IOC
- (b) Developing, monitoring and forecasting capabilities for the management and sustainable development of the open and coastal ocean- US\$2,010,000. IOC leads a partnership with the World Meteorological Organisation (WMO), United Nations Environment Programme (UNEP), and ICSU to coordinate the implementation of Global Ocean Observing System (GOOS), which is a response to Agenda 21 requiring the improvement of monitoring of the global environment. GOOS is part of an Integrated Global Observing Strategy (IGOS) that is shared by the United Nations, world's space and other agencies to improve weather and climate forecasting for open ocean and coastal seas.

### **Programme Implementation**

UNESCO has five international and intergovernmental environmental organs that implement some of its science programmes. The relevant ones for this paper are:

- (1) Intergovernmental Oceanographic Commission (IOC), which has a decentralized system of operation using regional mechanisms. Its field activities are funded from extra budgetary resources and are geared towards strengthening and building national and local capacities in marine science and the sustainable management of oceans and their resources as well as renewable energy
- (2) International Hydrological Programme (IHP), which deals with water related activities that have been decentralized to focus on essential priorities at the national and regional levels. IHP helps in building national capacities of member states to enable them develop policies for integrated water resources management and water efficiency.

(3) Man and the Biosphere Programme (MAB) contribute to the Millennium Development Goal (MDG) 7 on environmental sustainability. It has established a regional flagship project at the Regional Post-graduate Training School on Integrated Management of Tropical Forests (ERAIFT) University of Kinshasa, Democratic Republic of Congo (DRC). The project provides training for African specialists and decision makers so that they can contribute to better forest management. It is being used as a model by the MAB Programme for the development of other regional training facilities for forests and other ecological systems including arid and wetlands. Within the framework of the MAB programme, links have been forged with Columbia University in the United States of America to build capacity in developing countries through connecting communities.

(4) UNESCO Fellowships Programme- Within the framework of the UNESCO/Keizo Obuchi research fellowships programme, funds are provided by the Japanese Government for post graduate training and research in environmental issues such as:

- (a) Water interactions
- (b) Integrated approaches to sustainable use of land, water and biodiversity
- (c) Water resources and related ecosystems
- (d) Water interactions and security
- (e) Water resources policy and management in river basins

This research grant is open to fellows from Least Developed Countries

(5) UNESCO also co-sponsors a fellowship scheme with the Government of Israel. Courses on environmental issues are offered at various universities in Israel especially at the Faculty of Agriculture, Food and Environmental Quality Sciences, Hebrew University of Jerusalem. These fellowships are open to candidates from Least Developed Countries.

(6) Desertification kits are provided to schools in countries like Sahelian ones where there is rapid encroachment of the desert. These are regarded as supplementary teaching materials.