

Current UNU-HQ activities related to Nairobi Working Program.

UNU consist of the UNU-Center, the headquarters, located in Tokyo and 13 other Research and Training Centers and our mandate is capacity development in the developing countries especially targeting the higher education sector. Many activities related to climate change take place in these RTCs. Here, I am briefly outlining 2 current activities and 1 planned activities at UNU-Center, in Tokyo, that has direct relevance to NWP.

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1. Capacity Building and Training for extreme flood risk assessment (current)

UNU has developed a system of training modules that provide training to professionals to carry out simulations using advanced numerical weather forecasting models and coupling with flood models to estimate flood extents, risks and potential losses. The training is carried out in two steps. First a set of trainers are trained in a 1.5 month long 2 phase training program. Then with the help of those trained, in-country training for a large group of professionals is carried out. In order to facilitate proper 'customization' of these systems to local conditions these activities are organized for groups that comprise of research universities and the government agencies responsible for flood management or early warning.

In 2007 – 2008 training of trainers was conducted for 5 countries (China, Nepal, Phillipines, Sri Lanka and Viet Nam). The follow up country training for 30 professionals from each country will be carried out from December 2008 to May 2009. Training for a group of another 5 countries will take place in 2009.

2. Adaptation studies (current)

UNU-Center has done a comprehensive study on adaptation due to global dimming in Sri Lanka, that is composed of

- a. Rainfall observations
- b. Climate modeling
- c. Impact assessment on rice production
- d. Macro economic analysis on effects on development policies

The study has shown that Rainfall is affected most likely by atmospheric aerosols that cause 'Atmospheric Brown Cloud' phenomena, the rice production can be affected by as much as 17% yield reduction, and that agriculture is the most vulnerable sector in all water-using sectors that need immediate attention. A brochure that describes the study is available.

3. Capacity development in higher education sector for designing adaptation strategies (planned)

Adaptation to climate change will play a key role in leading environmental policy and governance in the coming decades. However, the knowledge and approaches are fragmented and there are no established scientific approaches or methodologies in designing adaptation strategies. This project aims to investigate and identify principles that would lead to successful adaptation practices through a network of academic institutions, coordinated by UNU, and to develop a framework for designing and implementing adaptation strategies.

The main emphasis of this research is to develop knowledge base and methodologies to design and implement adaptation strategies that involve various stakeholders in Asia Pacific countries. This knowledge will be incorporated in the national higher education programs in the form of a 'generic adaptation curriculum' that will provide example entry points to develop localized adaptation programs that utilize expertise of different disciplines and the needs of different stakeholders and national development programs.

1. What is the most suitable framework to distinguish and elucidate multiple dimensions of adaptation to climate change that encompass target sectors (such as water, transport, etc.), actors (such as international organizations, national and local governments, NGO, community and individuals, etc.), climatic zones, development levels, and spatial and temporal aspects?
2. What are the scientific principles to be used in planning adaptation strategies that would exploit opportunities, promote sustainable development, ensure equity and harmonize with development strategies as well as to identify priority areas for intervention among different needs in various sectors.
3. How to harmoniously synthesize existing knowledge-base dispersed in engineering, natural sciences and socio-economic disciplines to implement adaptation strategies?
4. What support mechanisms, (such as a global adaptation fund or technology transfer, etc.), will sustainably support adaptation?