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# FOUNDATION FOR ENVIRONMENT CLIMATE AND TECHNOLOGY

## Progress – 2004

Although we had already been working together since 2000, we registered Foundation for Environment, Climate and Technology formally on December, 2003.

### Projects Completed:

- Climate Variability and Rice Production in Sri Lanka (2000) - We showed a relationship between rice production in Sri Lanka and El Nino System. These findings are useful to underpin the use of seasonal climate predictions for agricultural management and policy-making in Sri Lanka in general and the Mahaweli River basin in particular.
- Climate and Natural Disaster Risk (2002 – 2003) - The risks posed by multiple natural hazards in Sri Lanka were explicitly identified. We identified the potential for mitigation and response approaches that take into account the interactions among different hazards and vulnerabilities. Compared Sri Lankan and global scales of information for usability. This work was funded by the Earth Institute at Columbia University.

### Ongoing projects:

- River Basin Management in the Mahaweli River Basin in Sri Lanka (2000-2004) - We collaborated with the International Research Institute for climate prediction and the Mahaweli Authority to identify the use of seasonal climate forecasts for water resource and environmental management. We studied climatic impacts on rainfall, streamflow and investigated drought and flood indices, and showed the applicability of climate information for agriculture, water resources, environmental and disaster management.
- Malaria and Dengue and Predictive Risk Mapping and Early Warning Systems ( 2003 – 2006 ) - We have undertaken a project on climate and malaria and dengue in Sri Lanka in collaboration with the International Water Management Institute and other partners to develop an early warning system for malaria risk in the *Uva* Province as a prototype. This effort is funded by the US National Oceanic and Atmospheric Administration.
- Climate and Human-Elephant Conflict (2001 – 2004) - We established the climate influences on human elephant conflict. We seek to use climate information, seasonal climate prediction, remote sensing and spatial-analytic techniques to assist wildlife, natural resources, environmental and water management. This was funded by a grant from Columbia University.
- Climate Change and Variability and Tea and Coconut Plantations in Sri Lanka\_ ( 2002 – 2005 ) - This project is a collaborative undertaking between five Sri Lankan organizations with funding from the Global Environmental Facility. The project objectives include climatic analysis, impact assessment, development of adaptation strategies and capacity building.

### Proposals:

Developed proposals in the area of disaster risk management and renewable energy were presented to the board and were accepted for pursuit of funding.

- Disaster Risk Identification for Sri Lanka – Collaborating with relevant partners in Sri Lanka we propose to work in the areas of risk identification and risk reduction in the water sector. The project is envisioned to extend over five years including start up, pilot demonstration and capacity building. The first step would involve the formulation of a detailed project proposal in partnership with relevant partners in Sri Lanka, and securing successful funding.
- Disaster Information Dissemination - We have put together Internet Resource Centers to generate expertise by mobilizing persons across the world and to connect those who can help with those who need help. At <http://www.recoverlanka.net/> and <http://www.geolanka.net/>.
- Climate and Rural Energy - we propose to conduct the research needed to adapt climate information to the formats which shall be useful for the renewable energy community and to convey it in multiple forms whether it be energy managers, policy makers, designers or scientists and engineers generally.

**Development of website:** <http://www.climate.lk/fect/fect.html>

### **Papers published:**

Nov 2004: May 2003 disaster in Sri Lanka and Cyclone 01-B in the Bay of Bengal, Natural Hazards, 33: 303-318, 2004.

May 2004: Lareef Zubair, Cyclone Hazards and Response in Sri Lanka, Journal of the Institute of Engineers, Sri Lanka.

January 2004: Vidhura Ralapanawe, Lareef Zubair, Ruvini Perera, Upamala Tennakoon , Identification of Global Natural Disaster Hotspots Review and Synthesis Meeting, World Bank Working Paper, Washington, D.C.

### **Reports**

December 2004: Fine Scale Hazard Analysis for Disaster Risk Identification, Foundation for Environment, Climate and Technology, Kandy, 2004.

### **Articles**

July 2004: [Empowering the Vulnerable](#), TIEMPO, 52:3-6, University of East Anglia, UK, Also see SciDev.net [Communities facing climate change need local science](#)

### **Conference Proceedings/Abstracts**

March 2004: Vidhura Ralapanawe and Lareef Zubair, Identification of Global Natural Disaster Hotspots Review and Synthesis Meeting, World Bank, Washington, D.C.

**Collaborations:** We had productive collaborations with personnel attached to Mahaweli Authority of Sri Lanka (MASL), International Research Institute for Climate and Society (IRI), University of Peradeniya (UOP), Natural Resources Management Services (NRMS), National Water Resources Authority (Interim), Department of Meteorology, International Water Management Institute (IWMI), Sri Lanka Department of Wildlife Conservation, Coconut Research Institute, Tea Research Institute, University of North Carolina, Indian Institute of Tropical Meteorology, Indian Institute of Science, and Frontier Research System for Global change.

**FECT**

c/o, Maintenance office  
Mahaweli Authority  
Digana Village, Rajawella  
Kandy, Sri Lanka

PHONE (+94) 81-2376746, 4922992,  
FAX (+94) 81-23764746  
E-MAIL [climate@sltnet.lk](mailto:climate@sltnet.lk)  
WEB SITE <http://www.climate.lk>