



Intra-Seasonal Climate Predictions for Sri Lanka and Maldives for Water Resources Management

Foundation for Environment, Climate, and Technology [FECT]; University of Peradeniya [UoP]; Male' Water Supply and Sewerage Company [MWSC]; Maldivian Meteorological Service [MMS]; Mahaweli Authority of Sri Lanka [MASL]; Columbia University, USA

Goal of the Project

To understand Intra-Seasonal (IS) variability of rainfall around Sri Lanka and Maldives better, refine prediction schemes, translate this information to support water management and upgrade local capacity for climate science and climate services.

Objectives

- Characterize the **IS variability** of regional climate
- Develop, refine and assess **IS rainfall prediction systems**
- Develop protocols to **translate IS predictions into hydrological variables** for decision support for water management
- Incorporate **IS predictions into hydro-climatic advisories** being provided and evaluate its utility
- **Develop capacity** through improving research infrastructure, providing research opportunities, training for students, hydrologists and meteorologists.

Project initiated: 2012

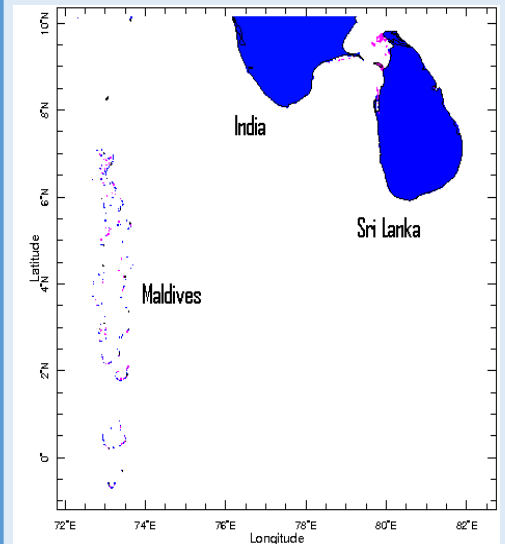


Figure: Maldives, India and Sri Lanka

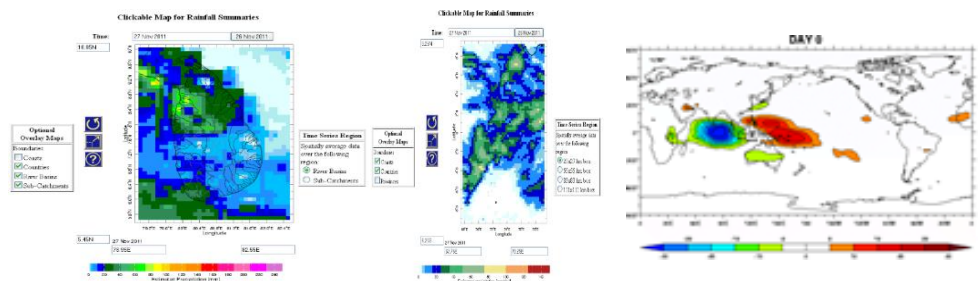
Anticipated Development Outcomes

- Gains from improved Water Management – Confidence in IS forecasts can lead to anticipatory management that improves irrigation, hydropower, flood and drought risk management.
- Expertise in Generation and Use of Climate Information – Demonstration of the use of IS climate predictions, and its translation into formats needed for water resources decision making.
- Development of expertise, infrastructure, and IT resources for climate modeling.
- Align the proposed work with USAID programmatic priority of climate directly and to food security and other priorities (renewable energy, and disaster risk management).

What has been done?

Climate Analysis & Tools

- Analysis of El Nino, Madden Julian Oscillation by Season and Region
- Developed tools for rainfall monitoring from Satellite data
- Prediction systems from Satellite data systems
- Weekly & Monthly Reports



Figures L-R: Online rainfall monitoring tool developed for Sri Lanka & Maldives, and Right: Map showing fluctuating influence of Madden Julian Oscillation

Water Resources

- Decision support for water management in Sri Lanka
- Pinga Oya flood & environment Assessment
- Greater Male' water scarcity



An artisanal well in Maldives



Key Note Address by L. Zubair at MDP Launch Workshop



Map of Pinga-Oya catchment

Training, Education & Outreach

- In-house training of Junior Scientists
- Contribution to University Education through teaching in Sri Lanka & Maldives
- Web & Social Media dissemination of products
- Workshops, Media outreach



P. Agalawatte, at the training workshop on Climate Change Downscaling Approaches and Applications.

Scientific Conferences & Publications

- Conference contribution
- Book publications
- Journal publications



Sewwandhi Chandrasekara presenting on "Experimental Climate Services for Water Management in Sri Lanka & Maldives" at the Sri Lanka Water Convention



PI at awareness program organized by USAID in Kandy



Symposium on Pinga-Oya.

Principal Investigator

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Further Information

<http://www.climate.lk/peer/>
<http://fectmv.blogspot.com>
<http://fectsl.blogspot.com>
<http://www.tropicalclimate.org/maldives>

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