



## First Regional Training: "Assessing Costs and Benefits of Adaptation: Methods and Data"

### Date: March 11-14 Place: Vie Hotel, Bangkok

8:30 AM	Registration
	Introductory Session
	(Chair: Robert Dobias, ADAPT Asia-Pacific)
9:00 AM	
	Welcome and Opening Remarks, Alfred Nakatsuma (Director,
	Regional Environment Office, USAID)
9:15 AM	Objectives of the Capacity Building Programme and Expected
	Outputs from this week, Pradeep Kurukulasuriya (UNDP)
	Session 1: Measuring Climate Damages in Agriculture
	Lead Discussant: Robert Mendelsohn, Yale
9.45 AM	Topics to be covered:
	Ricardian Method
	Methodology, Data, Analysis, and Results
	Q&A
11:00 AM	Coffee/Tea Break
	Session 2: Measuring Adaptation in Agriculture
	Lead Discussant: Emanuele Massetti, FEEM
11:15 AM	Topics to be covered:
	Cross sectional choice models
	China crop choice case study
	Methodology and Data
	Q&A
12:30 PM	Lunch





	Session 3: Benefits and Costs (Chair: Robert Mendelsohn, Yale)
	(Chair. Robert Wendersonn, rule)
1:30 PM	Lead Discussant: Emanuele Massetti, FEEM
	Topics to be covered:
	Choice-Conditional Income Models
	Irrigation
	Methodology, Data, Analysis, and Results
	Q&A
2:30 PM	Session 4: Overview of Expected Work Plan at the Country level
	Lead Discussant: Pradeep Kurukulasuriya, UNDP
	Overview of Country Priorities for Planned Analytical work
	Lead Discussant: Country Teams
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3:30 PM	Break
3:45 PM	Overview of Country Priorities for Planned Analytical work
	Lead Discussant: Country Teams
5.30 PM	Close
6:00 PM	Reception hosted by ADAPT Asia-Pacific (Vie Hotel)

	Session 5: Evaluating the Costs and Benefit of Adaptation Projects
	(Chair: Pradeep Kurukulasuriya, UNDP)
8:30 AM	
	Lead Discussant: Benoit Laplante, Asian Development Bank
	Topics to be covered:
	Basic Approach
	Methodology and Data
	Problems: Nonmarket goods, externalities, time
	Q&A





	Session 6: Example in Agriculture
9:30 AM	
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	Topics to be covered:
	Cost Benefit Analysis of Irrigation Project
	Methodology, Data, Analysis, and Results
	Q&A
10:30 AM	Coffee/Tea Break
	Session 7: Example in Agriculture
10:45 AM	
	Lead Discussant: Robert Mendelsohn, Yale
	Topics to be covered:
	Cost Benefit Analysis of High Yield Varieties
	Methodology, Data, Analysis, and Results
	Q&A
12:00 PM	Lunch
1:00 PM	Session 8: Linking Economic Analysis to the Articulation of Climate
	Change Financing Framework: An Example on Cambodia
	(Chair: Robert Dobias, ADAPT Asia-Pacific)
	Lead Discussant: Thomas Beloe (UNDP)
2:00 PM	Session 9: Example in Water
	Lead Discussant: Robert Mendelsohn, Yale
	Topics to be covered:
	Cost Benefit Analysis of a Dam
	Methodology, Data, Analysis, and Results
	Q&A
3:00 PM	Session 10: Interactive Discussion with Countries on materials
	presented to-date
	Lead Discussant: Robert Mendelsohn, Yale and Benoit Laplante, ADB
4:00 PM	Break
4:15 PM	Discussion of Planned Country Level Analytical Work
	Topics to be covered:
	What adaptation benefits will be measure?
	What adaptation costs will be measured?





	What data is needed? etc
	Q&A
6:00 PM	Close

8:30 AM	Session 11: Modeling Water Systems
	(Chair: Robert Mendelsohn, Yale)
	Lead Discussant: Brian Hurd, New Mexico State University
	Topics to be covered:
	Hydrological Model of Watershed
	Capture dams and reservoirs
	Q&A
9:30 AM	Session 12: Economic Model of Watershed
	Lead Discussant: Brian Hurd, New Mexico State University
	Topics to be covered:
	Capturing Demand for Withdrawal Uses and In-stream Uses
	Q&A
10:30 AM	Coffee Break
	Session 13: Example of Watershed Model
10:45 AM	Lead Discussant: Dr. Dilip Kumar Gautam, Regional Integrated Multi-
	Hazard Early Warning System for Africa and Asia (RIMES), Asian
	Institute of Technology
	Topics to be covered:
	Hydrological modelling for Upper Chaophraya River basin Using
	HEC-HMS (covering reservoirs and dams).
	Q&A
12:00 PM	Lunch
1:00 PM	Session 14: Linking Analysis to Policy Change for Poverty Reduction
	and Social Protection
	(Chair: Robert Dobias, ADAPT Asia-Pacific)
	Lead discussant: Taimur Khilji (UNDP)
2:00 PM	Session 15: Example: Water Reallocation
	Lead Discussant: Brian Hurd, New Mexico State University





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	<i>Topics to be covered:</i> Climate change alters supply and/or demand Reallocate water to highest use Measure net benefit
	Q&A
3:00 PM	Session 16: Example: Dam Lead Discussant: Brian Hurd, New Mexico State University
	Topics to be covered:
	Climate change alters timing of flows
	Dams move water over time
	Measure net benefit
	Q&A
4:00 PM	Break
4:15 PM	Excel Water Training Example (Interactive)
	Robert Mendelsohn, Yale
	Topics to be covered:
	Climate change reduces flows
	Reallocate water across users
	Improve water efficiency of irrigation
	Measure Net Benefit
6:00 PM	Close

	Session 17: Agricultural Data
	(Chair: Pradeep Kurukulasuriya, UNDP)
8:30 AM	
	Lead Discussant: Emanuele Massetti, FEEM
	Topics to be covered:
	What data is needed to understand agriculture?
	Collecting comparable survey data
	Sampling Design





9:45 AM	Session 18: Sampling and Non-Sampling Errors- Issues to Consider
	Lead Discussant: Bishwa Tiwari (UNDP)
10:15 AM	Coffee/Tea Break
10:30 AM	Session 19: Agriculture and Water Survey
	Lead Discussant: Robert Mendelsohn
	Topics to be covered:
	Survey Design
	Sampling
12:00 PM	Lunch
1:00 PM	Session 20: Building Sustained Capacities to Supporting Climate
	Resilient Sectoral Planning
	Lead Discussant: Ashley Palmer (UNDP)
2:00 PM	Session 21: Next Steps
	(Chair: Robert Dobias, ADAPT Asia-Pacific and Pradeep Kurukulasuriya, UNDP)
	UNDP)
	Work Plan between March and August/ Software requirements for next training
	Linking to ongoing LDCF/SCCF/AF/NAPs projects
	Technical Support available from Bangkok
	Communities of Practice
6:00 PM	Closing





#### **Resource Persons' Biographies**

#### Dr. Robert Mendelsohn Yale University

Dr. Mendelsohn is an economist at Yale University who specializes in valuing the environment. He has developed methods to value air pollution emissions, hazardous waste pollution, wildlife populations, recreation, oil spills, timber, and non-timber forest products from tropical forests. For the last 20 years, Dr. Mendelsohn has measured the impacts of climate change around the world to agriculture, forests, energy, coastal resources, and water. A theme of this research is including adaptation.

Contact: robert.mendelsohn@yale.edu

#### Dr. Emanuele Massetti

#### Yale School of Forestry & Environmental Studies

Emanuele Massetti is Postdoctoral Fellow at the Yale School of Forestry & Environmental Studies, Senior Researcher at the Sustainable Development Unit of Fondazione Eni Enrico Mattei (FEEM) and Research affiliate at the Euro-Mediterranean Centre for Climate Change (CMCC). He is Lead Author for the Working Group III of the Fifth Assessment Report of the IPCC. He holds a PhD in Economics from Catholic University of Milan, a MSc in Economics from University College London and a MA in Economics from Brown University. He worked as consultant for the EBRD, the OECD, the UNDP and the UNEP. His main research interests are in Environmental Economics. He is one of the authors of WITCH, an Integrated Assessment Model to study optimal climate mitigation policies. Emanuele is now working at methods to estimate impacts of climate change and adaptation, especially in agriculture. Contact: emanuele.massetti@yale.edu

#### Dr. Brian Hurd

#### New Mexico State University

Brian H. Hurd is Professor of Agricultural Economics and Agricultural Business at New Mexico State University in Las Cruces, New Mexico. He earned MS and PhD degrees in Agricultural Economics from the University of California, Davis, and graduated magna cum laude from the University of Colorado, Boulder with a BA degree in Economics and in Environmental Conservation. Dr. Hurd is distinguished for his research and teaching on the economic assessment of climate change impacts and adaptation, non-market valuation of natural resources, and the economics of water resources and agro-environmental systems. His works are published in leading scientific journals including the Journal of the American Water Resources Association, Journal of Agricultural and Resource Economics, Climate Research, Climatic Change, and the American Journal of Agricultural Economics. Contact: bhurd@nmsu.edu





## Ms. Olivia Montecillo Farm Management Economist

Olivia Montecillo is from Australia and has been with the Department of Primary Industries in Victoria since 1991. She is a Farm Management Economist. Her work is mainly on natural resource management, conducting economic analysis of government programs and projects in the irrigation areas of Northern Victoria. She has previously worked in the Philippines - at the National Economic and Development Authority (Region IV) and Fiber Industry Development Authority. Olivia graduated from the University of the Philippines at Los Baños with Bachelor and Master's degrees in Agribusiness Management and from the Asian Institute of Technology (Thailand) with MS in Rural-Regional Planning.

Contact: Olive.Montecillo@dpi.vic.gov.au

## Dr. Benoit Laplante

#### **Asian Development Bank**

Dr. Laplante holds a Ph.D. in environmental economics from Queen's University, Kingston, Ontario, Canada. He has 25 years of experience in the field of environmental policies, environmental economics, environmental financing, and in the conduct of economic valuation of environmental impacts of development projects. In South East Asia, Dr. Laplante was actively involved in a large number of projects in Cambodia, China, Indonesia, Lao PDR, Malaysia, Philippines, Thailand, and Viet Nam. He was worked on projects funded by multilateral institutions (such as ADB, UNDP, and World Bank) as well as bilaterals such as Canada, Denmark, Sweden, and the United States. Among other relevant and recent activities, Dr. Laplante was an active member of the World Bank study, The Economics of Adaptation to Climate Change, and is currently working with the Asian Development Bank on the economics of adaptation to climate change, in particular preparing technical guidelines to assess options to climate-proof development projects.

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### Dr. Dilip Kumar Gautam

### Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES)

Dr. Gautam holds a Doctorate degree in Hydroinformatics from Brandenburg University of Technology. He has been trained on tracer hydrology, flood risk analysis and mapping, hydroinformatics systems; world-wide-web based collaborative engineering in hydroscience, GIS and RS for integrated water resources management, Urban Flood Modelling and Disaster Management, Extreme Flood Modeling and climate risk management. As a Senior Hydrologist at RIMES, Dr. Gautam has been involved in developing hydrologic/ hydraulic model for flood forecasting and warning in the South Asian and Pacific region, flood risk analysis and mapping, quantitative assessment of climate





change impacts on water-related activities at the basin scale and conducting training courses on flood forecast modeling. <u>Contact: dilip.gautam@rimes.int</u>