

SANDEE-ICIMOD

# Karl-Göran Mäler Memorial Lecture

SUMMER 2023

20 June 2023 | 09:00–11:00 (Nepal Standard Time)  
Hybrid (ICIMOD, Kathmandu and Zoom)

## Integrating environment with the national account: The need for cooperation between environmental economists and natural scientists



**A. K. Enamul Haque**  
Professor of Economics  
East West University

**Abstract:** The Gross Domestic Product (GDP), as the main indicator of measuring our progress, has several limitations as it cannot be used for accounting the contribution of nature as well as the harm we inflict on nature. In the absence of a comprehensive measure of our progress, the environment is strained leading to triple planetary crisis – climate change, biodiversity loss, and pollution. Several countries are now switching to create their environmental accounts in line with the SEEA (system of environmental-economic accounting) framework. While statisticians are generating the data set for adopting the framework, there is a need for environmental economists to estimate the value of

different ecosystem services that are not traded in the markets and integrate them with Geographic Information Systems (GIS) and other information systems. The first part of the lecture covers the methodology for integrating the environmental accounts with traditional national accounts, identifies the gaps in current research, and discusses why environmental economists should work together with natural scientists to implement the SEEA framework for measuring our progress more comprehensively.

A.K. Enamul Haque is Professor of Economics at East West University, Bangladesh; Director of the Economic Research Group; Executive Director of Asian Center for Development; member of SANDEE's Steering and Advisory Committees, and member of the South Asian Network for Environmental Law and Policy. Haque is an environmental economist with extensive research and teaching experience in climate change, agriculture, and urban issues in developing countries with a focus on South Asia and Bangladesh. Haque has MSc and PhD degrees in resource and environmental economics from the University of Guelph, Canada.

## Impacts of climate change on disasters in the Hindu Kush Himalaya region: Challenges and solutions



**Arun Bhakta Shrestha**  
Senior Climate Change Specialist  
Strategic Group Lead,  
Reducing Climate and  
Environmental Risks  
ICIMOD

**Abstract:** The Hindu Kush Himalaya (HKH) region, known for its majestic mountains, diverse ecosystems, and unique cultural heritage, is currently undergoing rapid climate pattern changes, with warming occurring at a rate higher than the global average. Through comprehensive quantitative analyses, the second part of the lecture sheds light on the consequences of these climatic shifts. It explores a range of factors, including glacial retreat, changing precipitation patterns, altered river flows, and an increased occurrence of extreme events leading to increased frequency of severe disasters

such as floods, landslides, droughts, and glacial lake outburst floods with disproportionate impacts on vulnerable communities. It also highlights ongoing initiatives and potential pathways for enhancing resilience and the importance of integrated approach to develop effective and sustainable solutions.

Arun Bhakta Shrestha is a Senior Climate Change Specialist and Strategic Group Lead for Reducing Climate and Environmental Risks at ICIMOD. Shrestha previously served as the Regional Programme Manager for River Basins and Cryosphere. Shrestha's areas of expertise encompass climate change, glaciers and glacial hazards, glacial lake risk mitigation, atmospheric environment, and hydrological modelling. Before joining ICIMOD, he worked for the Department of Hydrology and Meteorology in Nepal. Shrestha was one of the editors of the Hindu Kush Himalaya Assessment, and he leads the Disaster Task Force at ICIMOD. Shrestha has a master's degree in hydraulic engineering from Byelorussian Polytechnic University (former USSR) and PhD in Earth Sciences from the University of New Hampshire, USA.

### MODERATOR



**Pranab Mukhopadhyay**  
Professor of Economics  
Vice-Dean (Research)  
Goa Business School

Pranab Mukhopadhyay is Professor of Economics and Vice-Dean (Research) at the Goa Business School, Goa University, India. He is a fellow at SANDEE and INSEE and was the President of the Indian Society for Ecological

Economics INSEE (2016–18). Earlier, he worked as an environmental economist for IUCN Nepal. He is currently the co-editor of the journal 'Ecology, Economy, and Society – the INSEE Journal'. His research interests include managing commons, nature and society, sustainable development, ecosystem services, and economic growth. Mukhopadhyay studied economics at Presidency College, Calcutta and Jawaharlal Nehru University, India.

This lecture series is part of the [45th Biannual research and training workshop](#) organised by SANDEE-ICIMOD.

If you would like to attend these lectures, please register [here](#).

SANDEE is a research capacity and academic leadership development programme of the International Centre for Integrated Mountain Development (ICIMOD). SANDEE supports ICIMOD's programmatic work and strengthens the Centre's economic and policy analysis.

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