National Institute for Environmental Studies

Carbon Management in Cities: Gaps in Policy Discussions and Scientific Understanding

- **This session addresses the following questions**
  - ❖ **Why is carbon management in urban areas an essential component of addressing global climate change?**
  - ❖ **What are the major gaps in scientific understanding and lessons in relation to urban carbon management?**
  - ❖ **What are the knowledge and information that city planners need from science to support them for managing carbon?**

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Carbon Management in Cities: Gaps in Policy Discussions and Scientific Understanding

Welcome: Dr. Shobhakar Dhakal (GCP), Professor S. Kumar (AIT), Dr. Yasuhiro Sasano (NIES)

Presentations: Moderated by Professor S. Kumar (AIT)

- Dr. Shobhakar Dhakal, Global Carbon Project, Japan: Importance of urban carbon management in the context of global carbon management
- Professor Ram M. Shrestha, Asian Institute of Technology, Thailand: Carbon emissions and mitigations: Lessons from cross-city analyses in Asia
- Dr. Richard Dawson, Tyndall Center, University of Newcastle upon Tyne, United Kingdom: Beyond emissions: Scientific challenges in understanding cities and climate change
- Dr. Debra Roberts, EThekwini Municipality, South Africa: Challenges for city planners for carbon management and how science can help

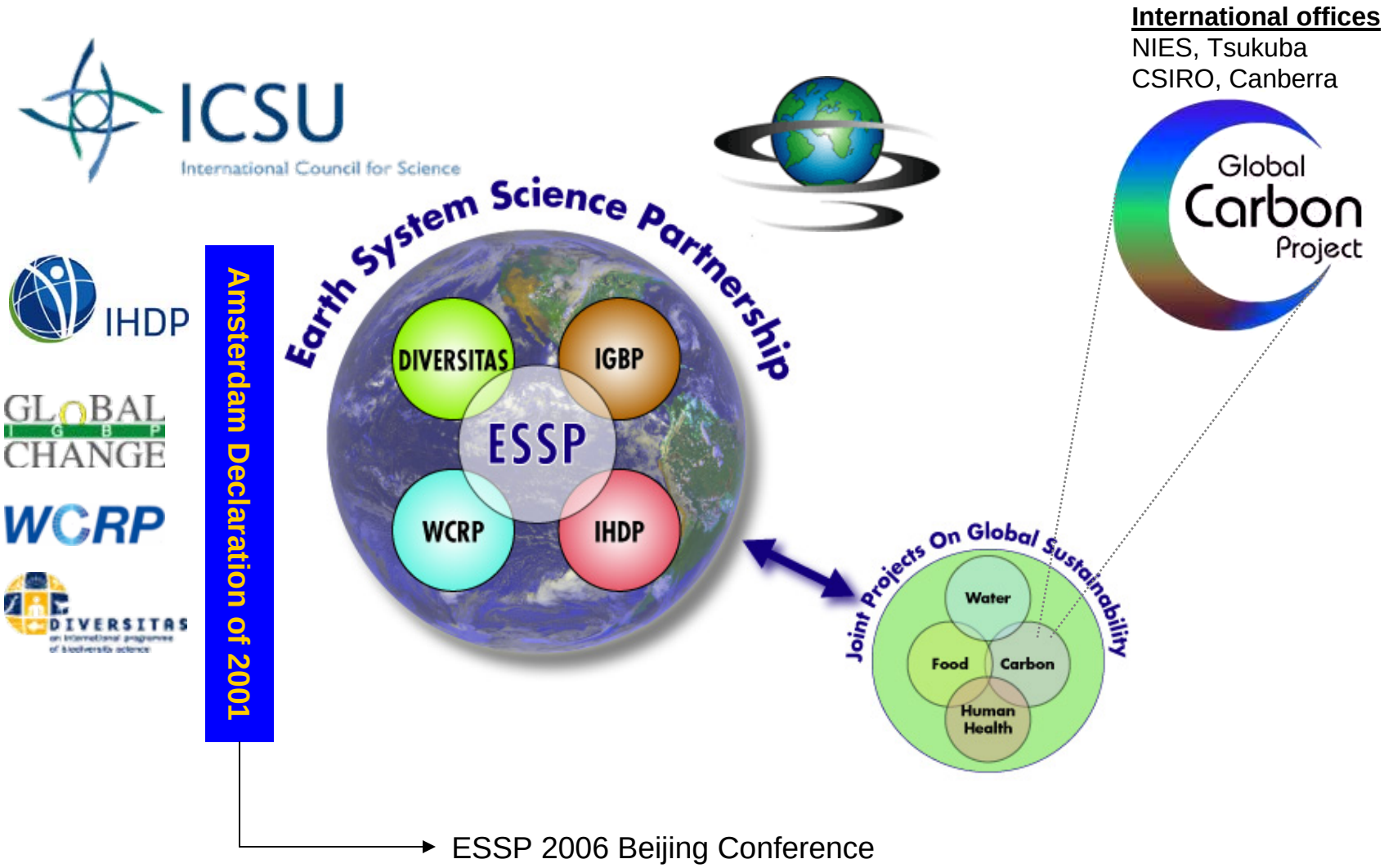
Summary and closing: Professor S. Kumar (AIT)

With participation from Tyndall Centre for Climate Change Research

- Welcome from the

- Global Carbon Project !!

International Scientific Landscape of Global Environmental Change



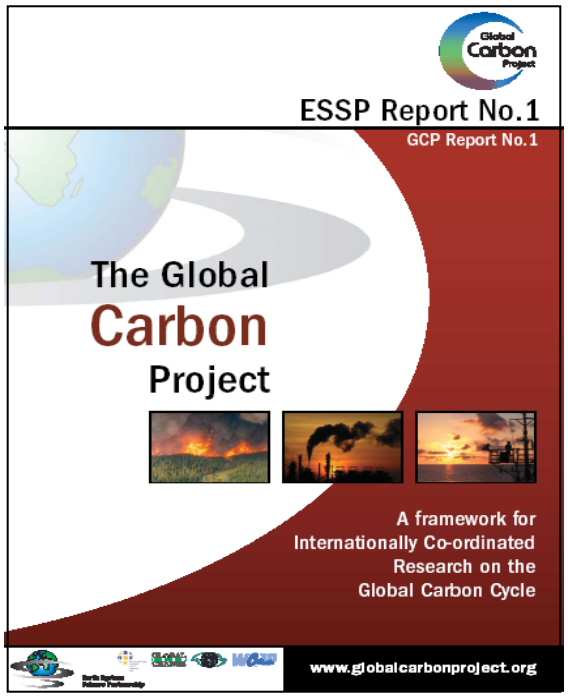
Global Carbon Project

www.globalcarbonproject.org

Goal

- To develop comprehensive, policy-relevant understanding of the global carbon cycle (encompassing its natural and human dimensions) and their interactions and management

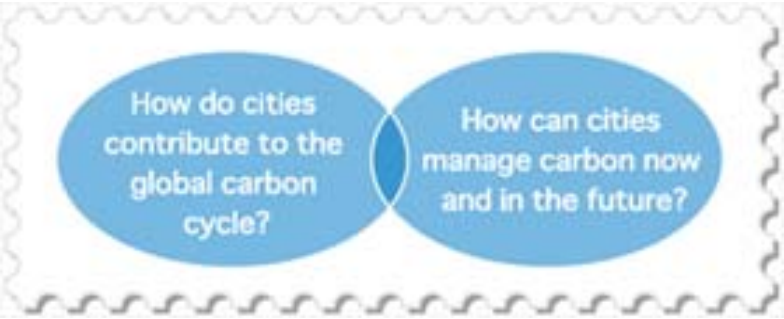
Science Plan



Theme 3. Carbon Management

- Urban and regional carbon management
- Bio-energy and the earth systems
- Deforestation avoidance

Urban and Regional Carbon Management (URCM) Initiative



A. Large (Global) spatial scales

B. Smaller (urban and regional) spatial scales

Diagnostic approach

Solution-seeking approach

1. Understanding global urbanization trends and their implications for the carbon cycle

2. Understanding urban/regional development pathways and carbon consequences

3. Clarifying avenues of interventions, instruments and tradeoffs for carbon management inside cities

Drivers and mechanisms - population, energy and others

Historical carbon accounting, configuration of drivers, future scenarios

Local trade-offs, multi-scale governance and co-benefits

2006-2007 activity highlights

- International conference "Managing Carbon at Urban and Regional Levels: Connecting Development Decisions with the Global Issues" on 4-8 September 2006 in Mexico City
- Thematic workshops
  - Institutional dimensions (with IHDP) on 5th December 2006 in Bali
  - Urbanization and urban development pathways (with IIASA) on 28-30th March 2007 in Tsukuba
- Science Policy interfacing
  - UNFCCC COP-12 side-event (with ECN Policy Studies Netherlands) on 15th November 2006 in Nairobi
  - UNFCCC COP-13 side-event (with Asian Institute of Technology) on 6th December 2007 in Bali
- Urban energy-emission modeling
  - A workshop on modeling low-carbon society (with Asia Energy-Environment Modeling Forum) on 30-31 May 2007 in Beijing
  - A symposium and workshop on urban carbon management and modeling on Feb 4-6, 2008 at Bangkok with Asian Institute of Technology

Our activities

- **Scientific syntheses and communication**
- **New research**
- **Clarifying science policy interface issues**
- **Web-based science-policy resource center**
- **Community building in this area**