

Future Earth: Research agenda Asia-Pacific Priorities

Nordin Hasan FASc

Director ICSU Regional Office for Asia and the Pacific



Research themes

1

 Dynamic planet: Observing, explaining, understanding, and projecting earth, environmental, and societal system trends, drivers and processes and their interactions; anticipating global thresholds and risks.

2

• **Global development:** Knowledge for the pressing challenges to provide sustainable, secure and fair stewardship of food, water, health, energy, materials, biodiversity and other ecosystem functions and services.

3

 Transformation towards sustainability: Understanding transformation processes and options, assessing how these relate to human values, emerging technologies and social and economic development pathways, and evaluating strategies for governing and managing the global environment across sectors and scales.

Fundamental questions

How and why the region is changing

- What are likely future changes
- What are the implications to human development and the diversity of life on earth
- What opportunities are there to reduce risks and vulnerabilities, enhance resilience, and create transformations to prosperous and equitable futures



Regional Workshop on Future Earth in Asia and the Pacific November 2012





51 participants; 21 countries

General priorities

- Natural characteristics of the region seismic risks, monsoons, cyclones and heat stress;
- Pressures of urbanization megacities, health, pollution;
- Coastal hazards, vulnerability and impacts on communities and new development plans;
- Climate variability and extremes;
- Key social pressures rapid economic growth, population, consumption, global connectivity;
- Water, energy, land and food security issues specific to the region;
- Emerging health issues;
- Green economy, new economic models.;
- Valuation of natural capital;
- Mountain and low land interactions trans-boundary issues.

Brain storming meeting Taipei (8 – 9 April 2013)

- Some social science and cross-cutting research topics
 - Human-environment relationships
 - Resilience and constraints
 - Transformations understanding why some societies successfully transform while others collapse
 - Transformation to stay within planetary boundaries while developing
 - Global sustainability indicators in the Asian context

Brainstorming meeting Taipei /2

3 focal areas

- Costal zones livelihoods of coastal communities;
 governance of coastal zones;
- Urbanization maintenance of Asian culture and values with rapid urbanization; building a network of urbanization research centres; contribute to city narratives on sustainability, equity and identity; creating new models of urbanization suited to Asian environments, resource flows and urban metabolism; Demography and core values.
- Energy distributed energy systems e.g. solar cells

Monsoon Asia Integrated Regional Study (MAIRS) Strategi Plan for Asia – 1 (31 July -2 Augus 2013)

Dynamic Planet

- Human system
- Geophysical system
- Ecosystems

Global Development

- Socio-economics
- Ecosystem drivers and pressures
- Human security
- Water, food, energy security, and health

Monsoon Asia Integrated Regional Study (MAIRS) Strategi Plan for Asia - 2

Transformation towards sustainability

- Asia in transition (gaps, challenges and examples)
- Asian style solutions and traditional knowledge
- Regional interactions
- Transformations with socio-economic development
- Asian urbanization
- Asian sustainability

Monsoon Asia Integrated Regional Study (MAIRS) Strategic Plan for Asia - 3

Crosscutting capabilities

- Observation and data
- Analysis and theory
- Integrated assessment modeling
- Communications
- Education and capacity building
- Networking and collaborative frameworks

ICSU-ROAP and ISIS Roundtable on Future Earth: Pathways to Sustainability 21 August 2013

Recommendations of Malaysian workshop

- Formulate a Common Vision on Sustainability
- Recamp Existing Coordinating Mechanisms
- Commit a society to a long-term engagement; Civil Society with persuasive powers
- Strengthen pool of environment and sustainability officials (technical nature of the sustainability domain)
- Fiscal measures to conserve environmentallysensitive and areas of conflict
 - Reposition the Department of Environment

What coordinating facility need to do?

1. Facilitate/pursue coordination and convergence

- Develop an understanding of what sustainability means at the national and sub-national levels taking into account cultural specificities and context;
- Develop sustainability indicators that can guide implementation at the national and sub-national levels;
- Create alliances of current integrated research projects and research groups upon which to build long-term strength;
- Foster networks for scientists across the country, disciplinary fields and with different stakeholders.

2. Create learning and capacity development opportunities

- Compile examples of best practices of transdisciplinary research on sustainability issues beginning with small and local scale projects that could be scaled up through programmes at the national and sub-national levels;
- Document case studies of successful integration and interdisciplinary work in the country and create guidelines on how to co-design and co-produce research;
- Increase human capacity development training programs (short-term workshops, graduate student exchange, brokering opportunities for research positions and Professorial Chairs, mentoring of young scientists)

3. Enhance understanding of science-policy and stakeholder interface

- Develop understanding of what the points of entry into the policy arena are;
- Develop approaches and programmes to bring into dialogue groups of people who do not normally talk to each other;
- Translate and share models on how to influence policymakers and businesses (wide range of political systems and cultural settings prevalent in the region) - and sustain successful science-policy dialogues;
- Create or identify science-policy platforms to effectively inform and engage decision- and policy-makers
- Engage local communities and local knowledge systems in the research process;

Concluding Remarks

- There is no magic wand in achieving the goal of sustainability
- Sustainability must be continuously assessed at a retooled to meet the changing exigencies of human development and planetary change.
 - Transition management, adaptive management
 - A continuous process of learning and understanding the issues is needed to ensure the best match between reality on the ground and the solutions we offer.



Future Earth: Research agenda Asia-Pacific Priorities

Thank you for your attention!

