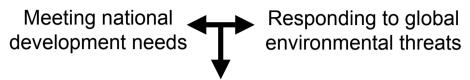
# Key Elements of Increased Adaptive Capacity and Resilience in the Asia-Pacific

#### Rizaldi Boer

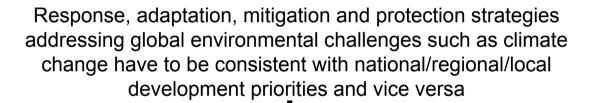
Climatology Laboratory
Department of Geophysics and Meteorology
Faculty of Mathematics and Natural Sciences
Bogor Agricultural University

E-mail: rizaldiboer@gmail.com

#### **RIO MANDATE**



Poverty, environment and socio-economic development should be addressed simultaneously to achieve sustainable development



This requires integrating global environmental strategies such as climate change) into the national/regional/local development agenda



This appear to be the main key element of increased adaptive capacity and resilience to climate change. The questions how local national/regional/local authorities incorporated the issues of climate change impacts and adaptation into their planning activities thus capacity of local stakeholder to choose actions that will ensure sustainable development can be established

### What capacities that need to be developed?

Capacity to take these knowledge into adaptation planning horizon development and actions

Capacity to evaluate the vulnerabilities and potential risks posed by climate change

Capacity to evaluate and monitor outcomes of past interventions and encourage reflection followed by changes in practices



Predicting Possible Changes, Impacts& Adaptation, and mitigation



Detecting Changes and Historical Impacts



#### Current conditions in Asia Pacific Countries

Too few regional and metropolitan authorities have incorporated the issues of climate change impacts and adaptation into their planning activities

Limited understanding how future climate will behave under elevated CO<sub>2</sub> (high uncertainty)

Limited capacity of community cope with changing climates

Limited skill of climate prediction particularly in the tropic

Poor historical climate data record and socio-economic impact of ECE and past practices





Predicting Possible Changes, and local & national institutions to Impacts & Adaptation, and mitigation



Detecting Changes and Historical *Impacts* 

How to drive communities, stakeholders and institutions to change their practices in order to increase their adaptive capacity and resilience?



Predicting Possible Changes, Impacts& Adaptation, and mitigation

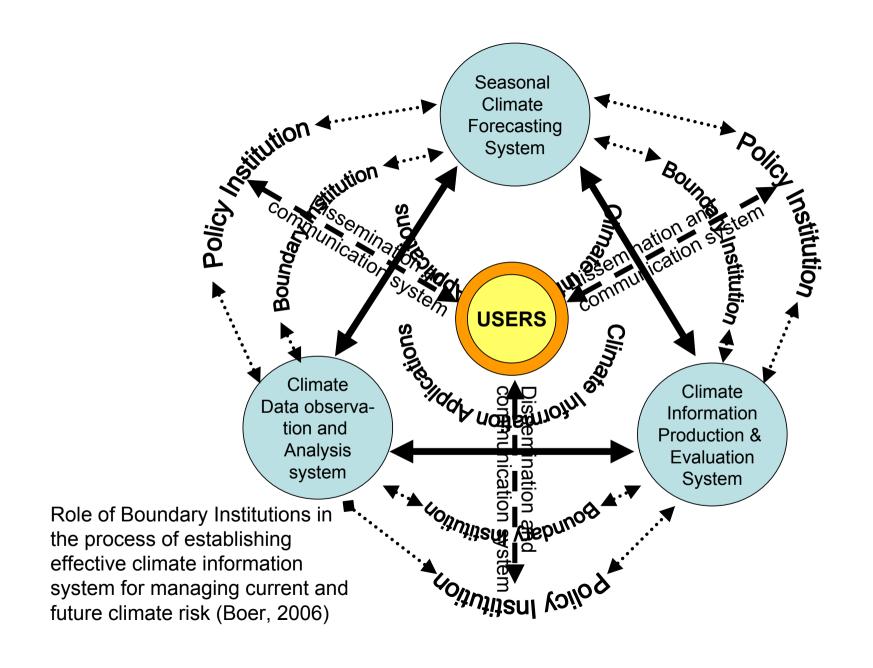


Detecting Changes and Historical Impacts

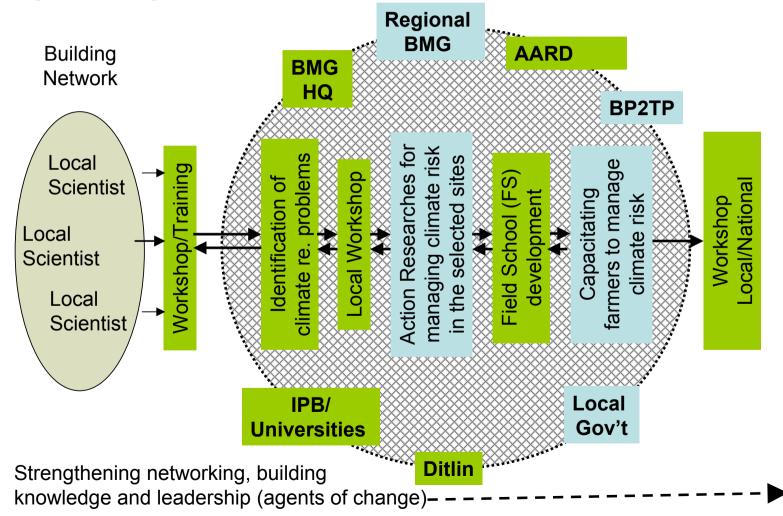
PAST CLIMATE

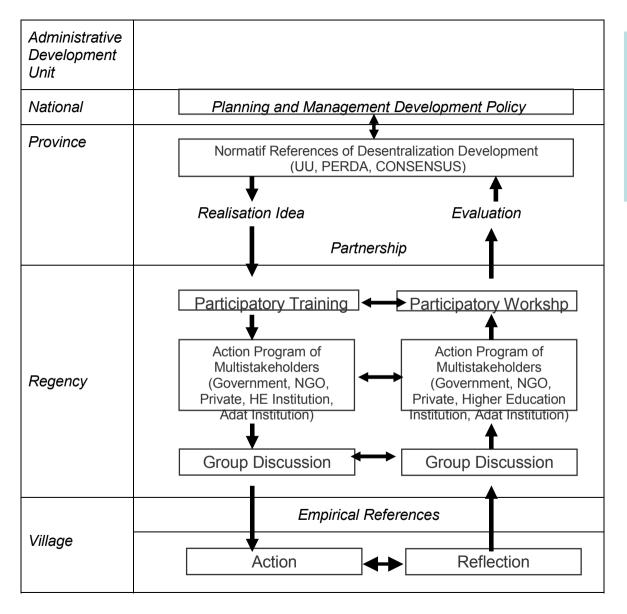
## Needs for Boundary Institutions?

- Term of Boundary Institution was introduced at International Conference on Living With Climate Variability and Change: Understanding the Uncertainties and Managing The Risks (Finland 17 21 July 2006)
- Boundary institutions act as institutions that bridge science community, policy makers and communities (end users) to produce *attractive* and *relevance* climate information applications (CIA) for managing current and future climate risks, and to assist the process of integrating climate change issues into national development policies.
- Boundary Institutions could be
  - key leaders and shadow networks that prepare a system for change
  - can recognize and use or create windows of opportunity and navigate transitions toward adaptive governance.
- Boundary institutions functions include the ability to span scales of governance, orchestrate networks, integrate and communicate understanding, and reconcile different problem domains.



APN-CAPaBLE Process: Indonesian Case - Process of enhancing scientific capacity in developing countries to improve decision-making in focus areas of global change and sustainable development (Source: Boer, 2006)





Process for streamlining climate change issues into national development (Source: Boer and Kolopaking, 2006)

Program is started with study or reflection of empirical experience on adaptation to climate hazards and changes, bring to multi stakeholder forum for discussion and create and implement pilot actions

