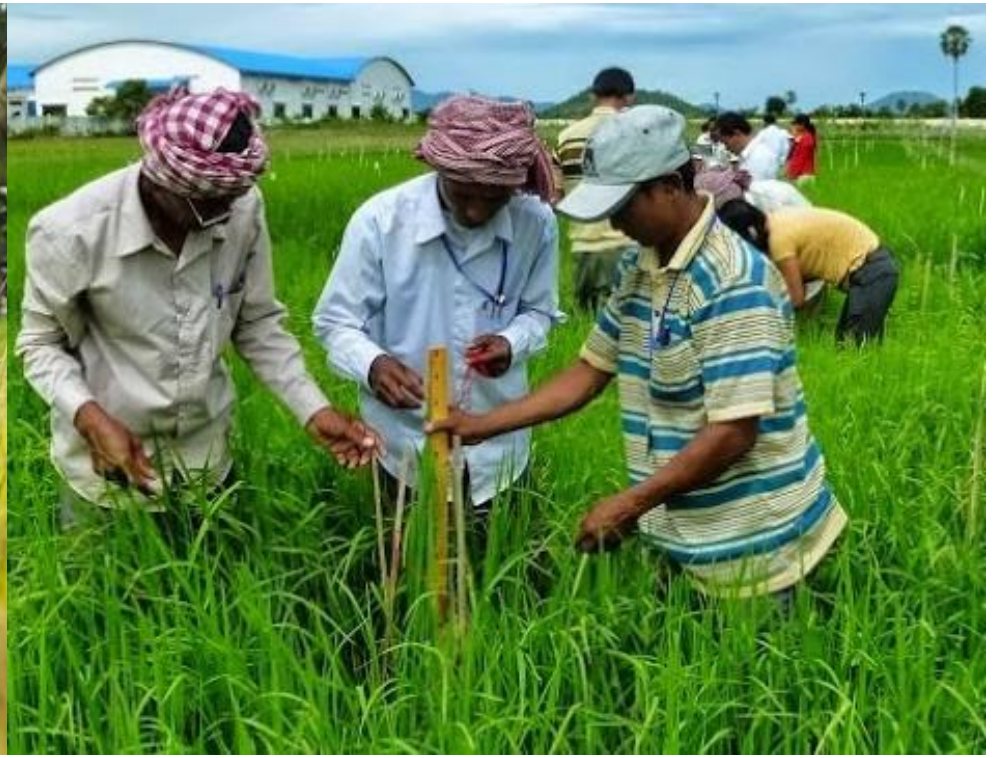
S4-P1

Traditional/indigenous adaptation practices



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What are traditional/indigenous knowledge and practices ?

- **Diversity of knowledge systems and practices** once empirical and symbolic, pragmatic and intellectual, traditional and adaptive (ICSU, 2002; Berkes, 2012)
- Based on **experience** and accumulated across **generations**
- Practiced over **long periods** of time
- Transmission is not only **oral,** but also in the context of **doing**
- Basic information available to local people for community preparedness through peer learning and informed decision making

Traditional/indigenous practices and climate change adaptation

- Emerged from **high exposure & sensitivity** of local communities to changes in weather and climate
- High dependence on **resource-based livelihoods** and **location** of homelands in climate vulnerable habitats
- Help communities minimize disaster risks and formulate cost-effective and participatory adaptation measures to prepare them to respond better to disasters

Intrinsic resilience is the outcome of indigenous adaptation practices (Prakash, 2013).

Importance of indigenous local knowledge and information in CCA

To predict and cope with changes in weather, communities have developed a unique body of knowledge through detailed observations of:

- Seasons
- Historical storm patterns
- Color of rain-bearing clouds
- Wind patterns, direction and types

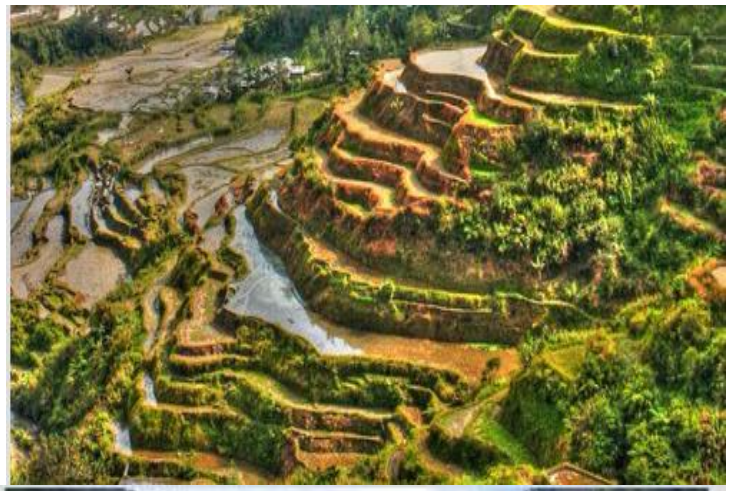
Enables people to develop effective responses to climate change because the knowledge system is embedded in local culture and norms

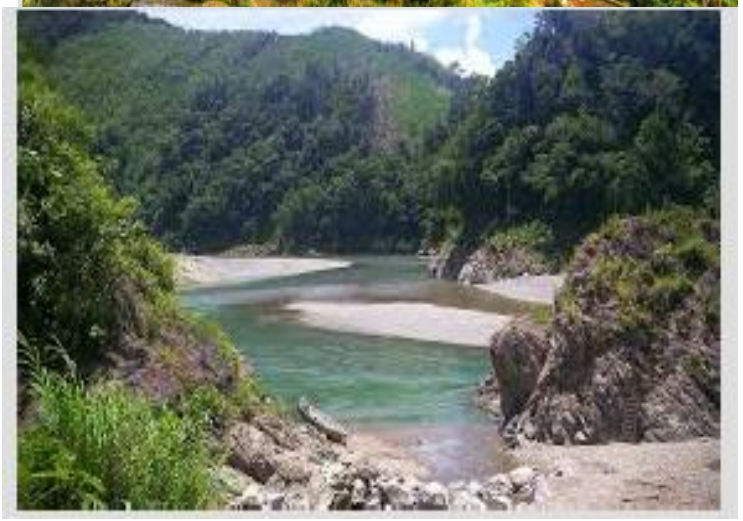
International recognition of local knowledge in climate change adaptation

- 1992 (Rio Earth Summit): Agenda 21 mentioned local knowledge as many as 166 times
- 1998 (COP4, Argentina): 1st formal declaration emphasizing the need for **respecting indigenous cultures and learning** from their knowledge of CC
- 2002 (Scientific and Technical Advisory Panel of the Global Environment Facility): stressed the importance of **indigenous knowledge and local participation**
- 2010 (COP16, Mexico) Cancun Adaptation Framework affirms that enhanced action on adaptation should be based on and guided by the best available science and as appropriate, **traditional and indigenous knowledge**, to integrate adaptation into relevant social, economic and environment policies and actions
- 2014 (Nairobi work programme on impacts, vulnerability and adaptation to climate change): recommendations for **advancing the use of indigenous and traditional knowledge and practices for adaptation** and address the needs of local communities

Lampisa practice of communal water management in times of drought, Philippines

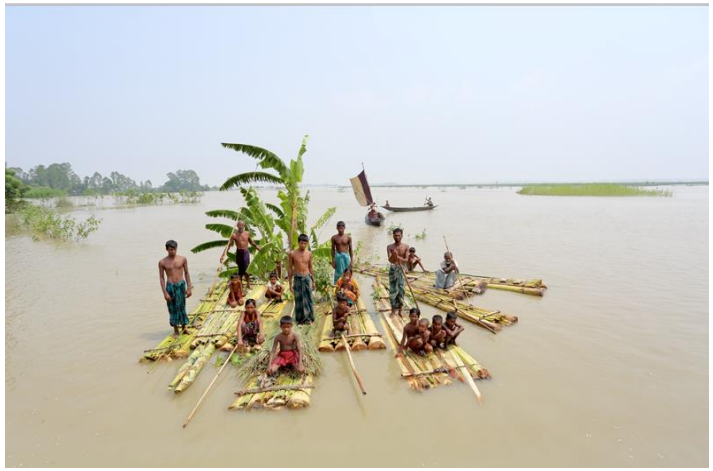
- Agriculture - primary source of livelihood in mountainous Cordillera Region
- Prolonged **drought** and water scarcity are major constraints in rice production
- Need effective water management system to control and regulate water distribution
- *Lampisa* system - practice of water distribution developed by the Pidlisan tribe
- Strong communal participation in developing, maintaining and managing irrigation systems





Using local knowledge for disaster management, Bangladesh

- Flooding is main concern in coastal Bangladesh
- Improvement in housing condition (raising the plinth of homes, constructing "manchans" – hanging bamboo platforms inside houses)
- Banana plantation
- Bamboo propagation used as floating platforms and rafts for movement
- Planting catkin reed to prevent erosion of chars



Restoring farm biodiversity to cope with climate variability and droughts in Medak, India

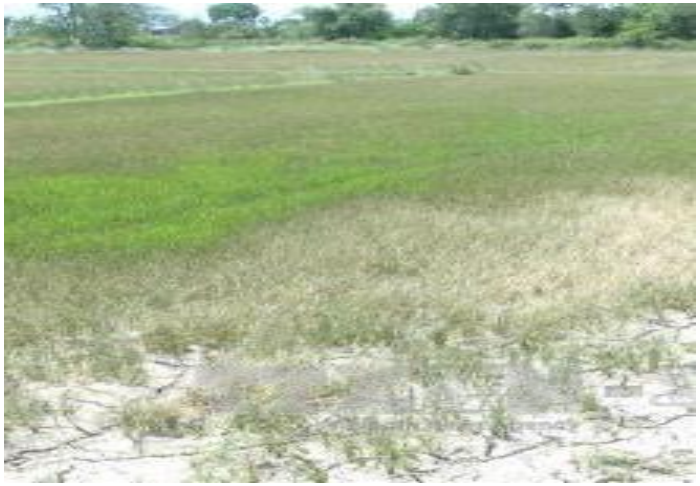
- Traditional crops, i.e. millet and sorghum, are used by farmers during periods of severe drought
- Maintaining crop diversity for local small-scale farmers an important strategy for drought

Soil and Water Conservation through Bamboo Plantation in Assam, India

- Land of plains and river valleys
- Livelihoods depend on the land and agro-based activities
- Experience severe floods
- Bamboo plantation protected embankments from being breached by floods
- Prevented rapid run off from the river channel when the river overflows during heavy rainy days
- Prevented soil erosion

Weather Forecasting through Indigenous Knowledge for Crop Cultivation, Viet Nam

- Coastal
- Agriculture is main livelihood
- Main problem is lack of water (prolonged drought) for crop cultivation
- Farmers cultivated crops based on moon observation and by watching habit of insects
- Indigenous knowledge was used as empirical means of weather forecasting before meteorology was developed.



Living with Floods in Singas, Papua New Guinea

- Singas village - situated along the banks of one of PNG's major rivers
- Building methods: build houses on stilts, build large mounds (covered with soil and stabilized with plants) under the houses to stem the rising flood water, uses light and easy- to-dismantle bush materials to limit loss during floods
- Social Linkages: community cohesiveness
- Land Use Planning: land use and planting times are planned to minimize disruption and damage, plants are planted to protect and stabilize the soil
- Food strategies: developed hazard resistant varieties of crops (banana, taro, yum)
- Environmental strategies: developed a vast amount of knowledge enabling it to identify signs of impending trouble

Concluding Remarks

- Climate change impacts are likely to be severe in the Asia-Pacific region while adaptive capacity is weak.
- Adaptation is site-specific and has to be developed at individual and community level.
- Successful adaptation activities are often built upon traditional/indigenous knowledge & practices.
- There is enormous potential in using traditional/indigenous knowledge to enhance our understanding of adaptation strategies in different sectors.
- Optimal integration of local knowledge into climate change adaptation plans might also result in more culturally appropriate options, and present a more holistic and integrated perspective.

Thank You!