

Knowledge sharing on weather and climate in support of adaption by the communities of northeast Bangladesh

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Local climate adaptation



- We already face the impacts of a rapidly changing climate
- These impacts are experienced at the local 'lived' scale
- These experiences are contingent to each unique locality with different 'meanings' for communities
- specificity demands co-production between scientific and local communities



Shared themes in co-production

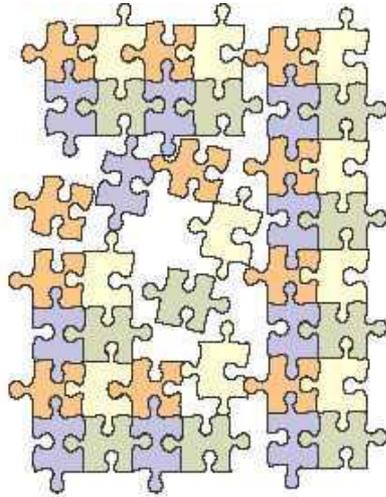


Sense of place



Weather vs Climate

**Uncertainty
and
mudding
forward**

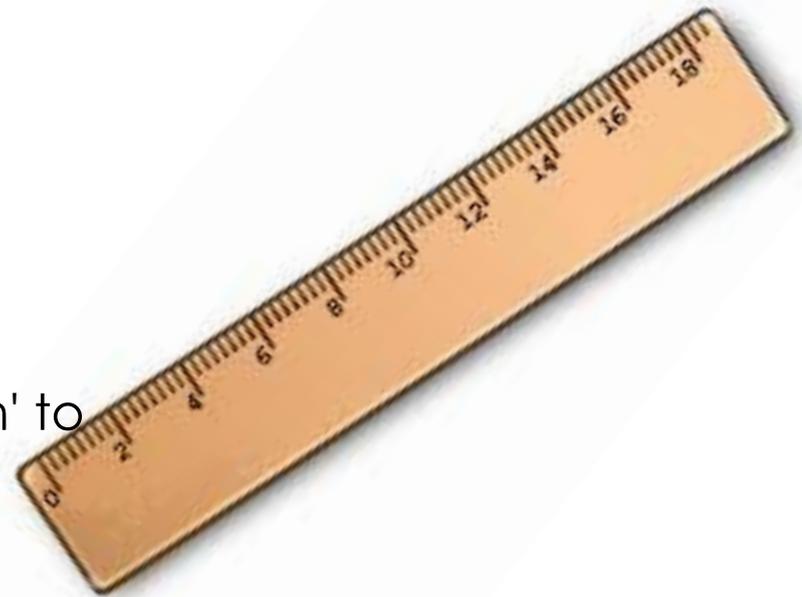


Inclusive

A 'post-normal science' approach



- Inclusive of all knowledge holders (an extended peer community)
- Encouraging dialogue between knowledge holders...
- ... BUT with an emphasis on quality control
- Which knowledge is 'fit for function' to support local adaptation?



Narratives: a broad scholarship



A long tradition fragmented over disciplines, but sharing some themes:

- A story that sequences events in a defined place and time, often according to a beginning-middle-end.
- Depicts characters acting and interacting, revealing their intentions and how this translates into action
- Told from the narrator's perspective, and what they consider compelling.
- Infers a normative moral or meaning, and seeks to evoke emotions.



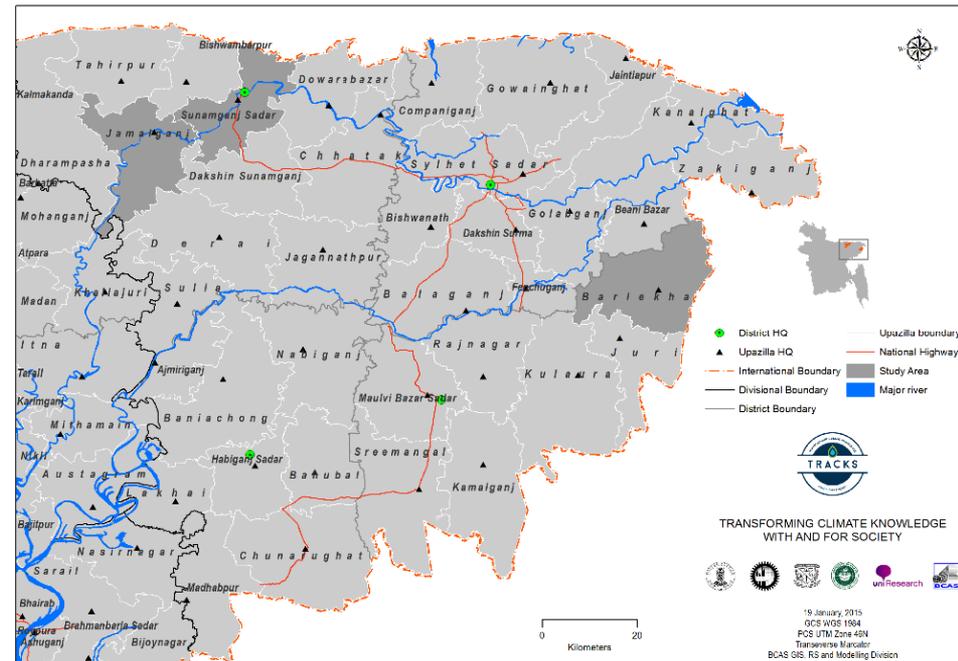
Aesop's Fable: The ant and the grasshopper

Study Area



The study was conducted in four communities in the North-East Bangladesh.

- Jamalganj as agricultural based low land
- Sunamganj Sadar as a urban area
- Barlekha High land as tea dominant area
- Barlekha around Hakaluki haor



Narrative interview survey



Narrative presents a promising theoretical and methodological lens for understanding climate and adaptation as locally experienced, socio-cultural phenomena.

- A survey of the extended peer community
- Semi-structured, narrative-based interviews framework
- 235 individual actors of both influential and affected stakeholders were interviewed



Communities experiencing changes in local weather conditions



- Disappearing seasons; from six seasons to three, even just two
- More irregular and intense rainfall
- Reduced total rainfall, related to a shortened monsoon
- More intense thunderstorms, hail-storms and tornados
- Cold snaps and heat waves
- Heavy fog



Shawon – Flickr Creative Commons

Desire for information



...a common desire for accurate weather forecasts that are calibrated to the local scale, and transmitted directly to affected communities in a timely way such that they can prepare.

- Flood
- Rainfall
- Storm
- Temperature



Information community draw on



- Local and traditional knowledge of weather
- Trust in knowledge sources, including climate science
- Persistent changes experienced in weather patterns
- Professed to go beyond their own knowledge and observations and seek out weather information



Trust as credible and legitimate



Most respondent (78%) placed their trust on weather forecast on TV as credible and reliable.

- Television
- Knowledgeable elder community members
- Radio, News paper
- Local government
- Friends and colleagues



"Henry, all of that is on the Weather Channel."



"On the positive side, our forecast for today's sunrise was accurate, just you couldn't see it for all the rain."

Sharing weather information



A large majority of respondent (94%) reported discussing and sharing weather information with other people in the community.

- Mostly in an informal manner
- Neighbors and others in the community
- Similar age group
- Common areas (bazar/tea stole)



Local knowledge for adaptation



Access to and wider sharing of knowledge and information help reduce climate risks and inequalities within a society.

- Depart from 'universal' science to more 'contingent' knowledge
- Opening up opportunities for vulnerable members
- Clarify indigenous knowledge
- Integrating indigenous knowledge and climate risk science
- Build a more comprehensive knowledge base
- Explore relationship between actors' knowledge, values, principles and action



In a changing political, economic and technological climate

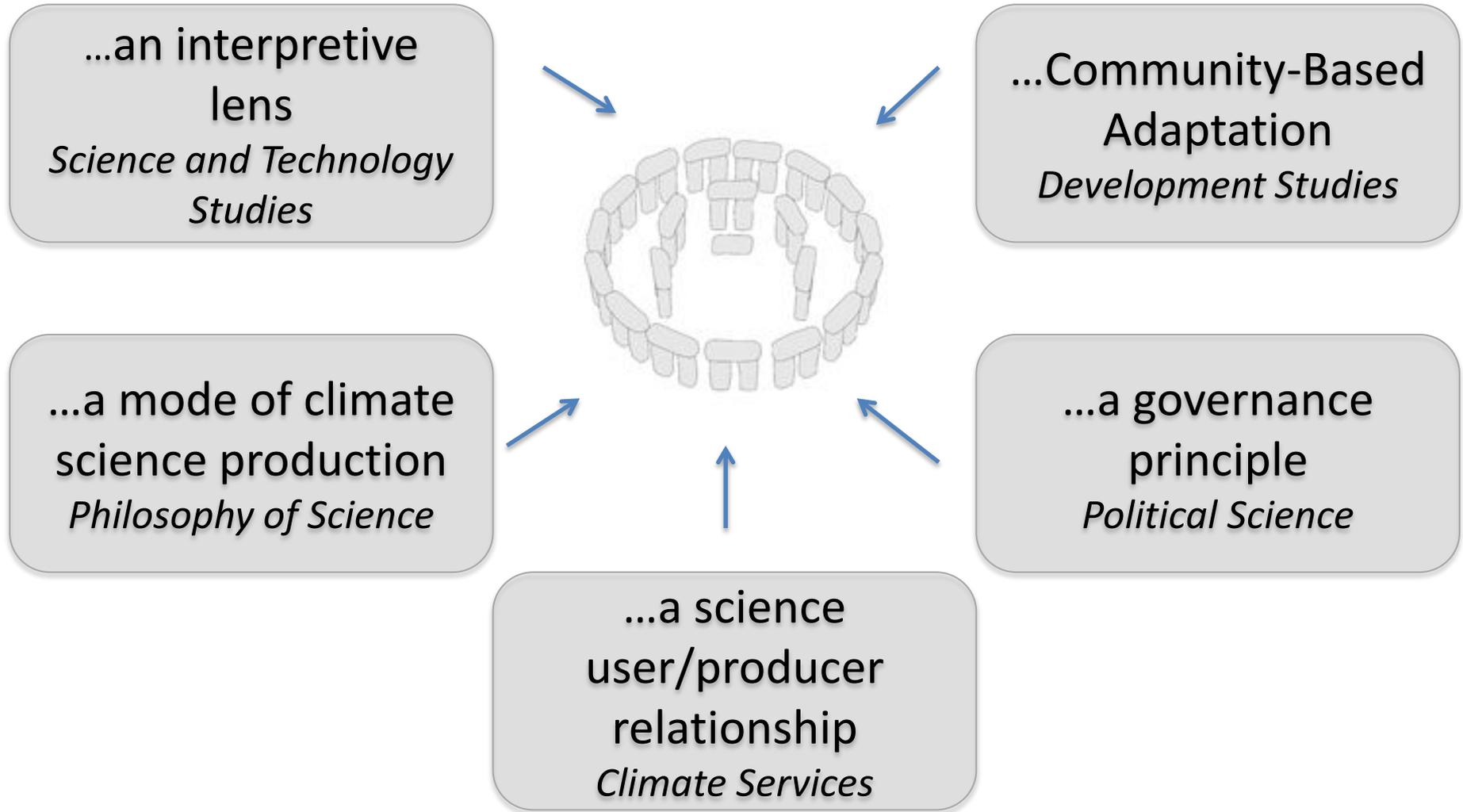


- Improved livelihoods and food security through modern agri/aquaculture
- Environmental change
- Demographic changes; Bangladeshis as a global workforce
- Political unrest at the Indian border; Indian dams



Maithon Dam, India; Soumya Sen – Flickr

Climate knowledge co-production as...





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