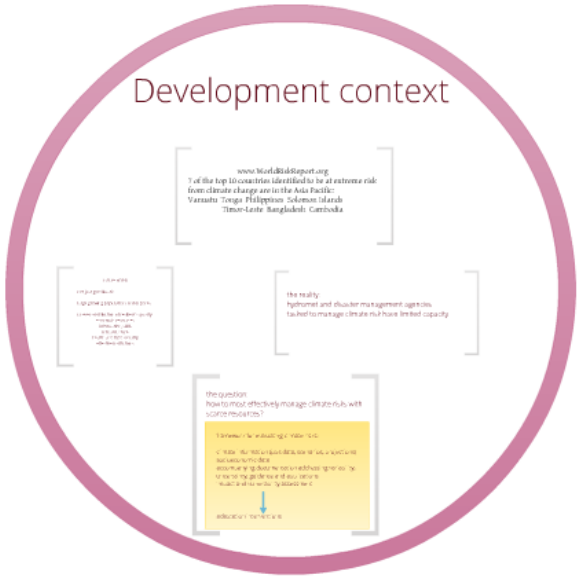
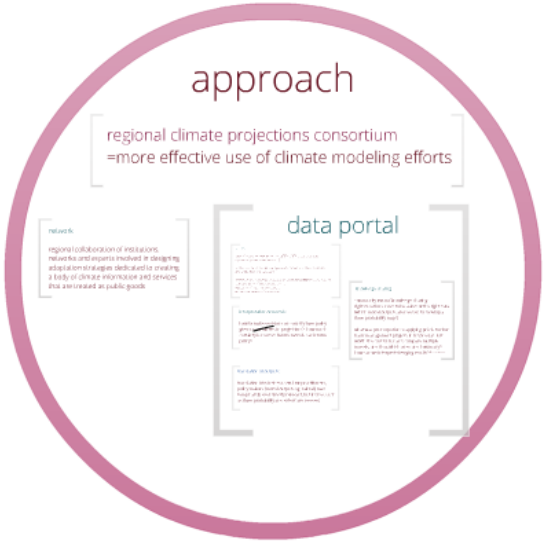
Community needs towards a regional climate consortium and data platform

Christine Chan, Asian Development Bank

CORDEX S. Asia, IITM, Pune Oct 20, 2012





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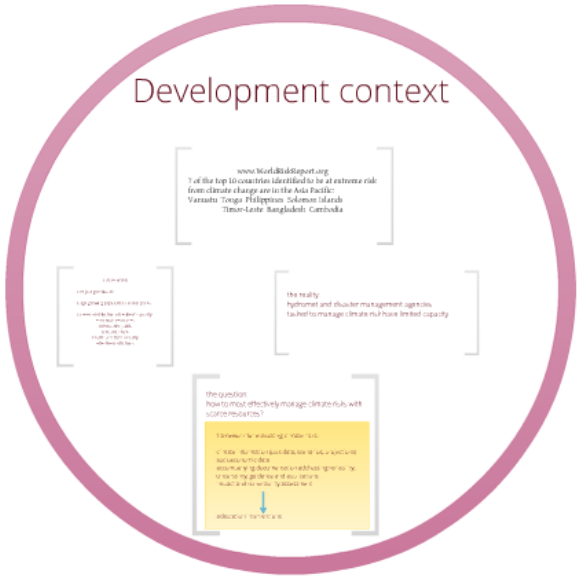

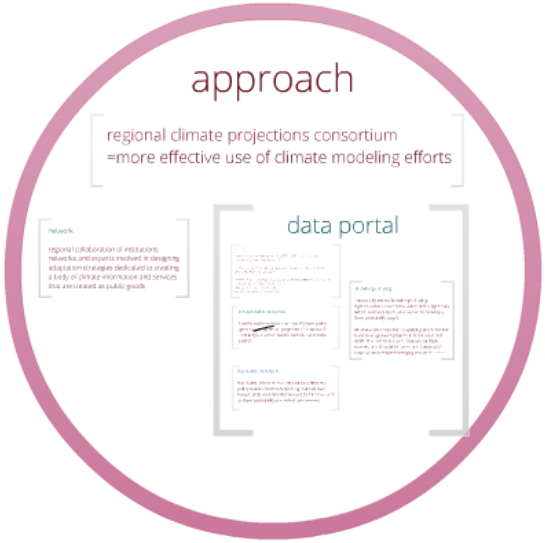

Development context

www.WorldRiskReport.org
7 of the top 10 countries identified to be at extreme risk from climate change are in the Asia Pacific:
Vanuatu Tonga Philippines Solomon Islands
Timor-Leste Bangladesh Cambodia

nature of risk

not just geoclimatic

large growing populations in risk zones

uneven distribution of resilient capacity:
economic resources
information, skills
infrastructure
health and food security
effective institutions

the reality:
hydromet and disaster management agencies tasked to manage climate risk have limited capacity

the question:
how to most effectively manage climate risks with scarce resources?

framework for evaluating climate risks:

climate information (obs data, scenarios, projections)
socioeconomic data
accompanying documentation addressing variability, uncertainty, guidance and applications
impact and vulnerability assessment

adaptation interventions

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rationale

consultations since AR4 2007 reveal:

need for regional cooperation to leverage country adaptation efforts
credible climate projections at high resolution
clear guidelines for interpretation and use

ADB projects have relied on:

specially commissioned climate projections;
incomplete representation of uncertainties;
insufficient spatiotemporal resolution;
inadequate documentation and evaluation of scientific rigor, and suitability for task

regional partners report fragmented, uncoordinated efforts to develop and apply climate projections

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approach

regional climate projections consortium
=more effective use of climate modeling efforts

network

regional collaboration of institutions, networks and experts involved in designing adaptation strategies dedicated to creating a body of climate information and services that are treated as public goods

data portal

utilities:

search for and retrieve projections (GCMs, RCMs, statistically and dynamically downscaled products)

scripts, tutorials for downloading data from main distribution centers (CMIP 3/5, CORDEX standard)

reference set of observational data sets (need WMO/WCRP coordination)
standardization of basic analysis tools
evaluation of multi-model outputs
will require network of data nodes

interpretation of models:

how to make decisions on country food policy given uncertainties in projections? how much certainty is needed before models can inform policy?

translation of outputs:

translation into indices useful for practitioners, policy makers (model outputs eg. rainfall, max temp hardly ever directly relevant, but indices such as flood probability and extent are needed)

knowledge sharing

community forum/ knowledge sharing:
right questions need to be asked of the right data (which model outputs are needed to develop a flood probability map?)

what was your experience applying précis to river basin management projects in Indonesia? is it worth the cost to run and compare multiple models, and if so, which ones and how many? how can we interpret diverging results?

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