TEEB Country Studies

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What are the key characteristics of the TEEB process and content?

- National policy link
- Iterative scope – both thematic and spatial scope; identified through multiple workshops in-country
- Scenario based assessments
- Capacity building, particularly on modeling and valuation
- Strong modeling and spatial components (VENSIM, InVEST, SWAT, CROPWAT, SEM)
- Processes vary widely across countries, but overall
  - Identify policy with nodal ministry
  - Identify technical agency – ALL Institutes are national
  - Further scope the work/ research questions after initial scoping workshop
  - Biophysical modeling
  - Valuation of ESS
  - Synthesis, incl policy recommendations (TBC)

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What is the issue, research question, and policy link

Philippines – issue

- ESS assessment of Las Pinas-Paranaque Critical Habitat and Ecotourism Area (LPPCHEA) to inform land reclamation

(BMB, WorldBank, NEDA, PRA, …)

Research question for the study

- What are the trade-offs of reclamation of LPPCHEA
- Inform ESIA

National policy link

Philippines reclamation Policy

What is the issue, research question, and policy link

Bhutan - issue

- Inform hydropower development
- Benefit-sharing mechanism for communities

(MoAF, WWF Bhutan, Druk Green Power Corporation, WMD..)

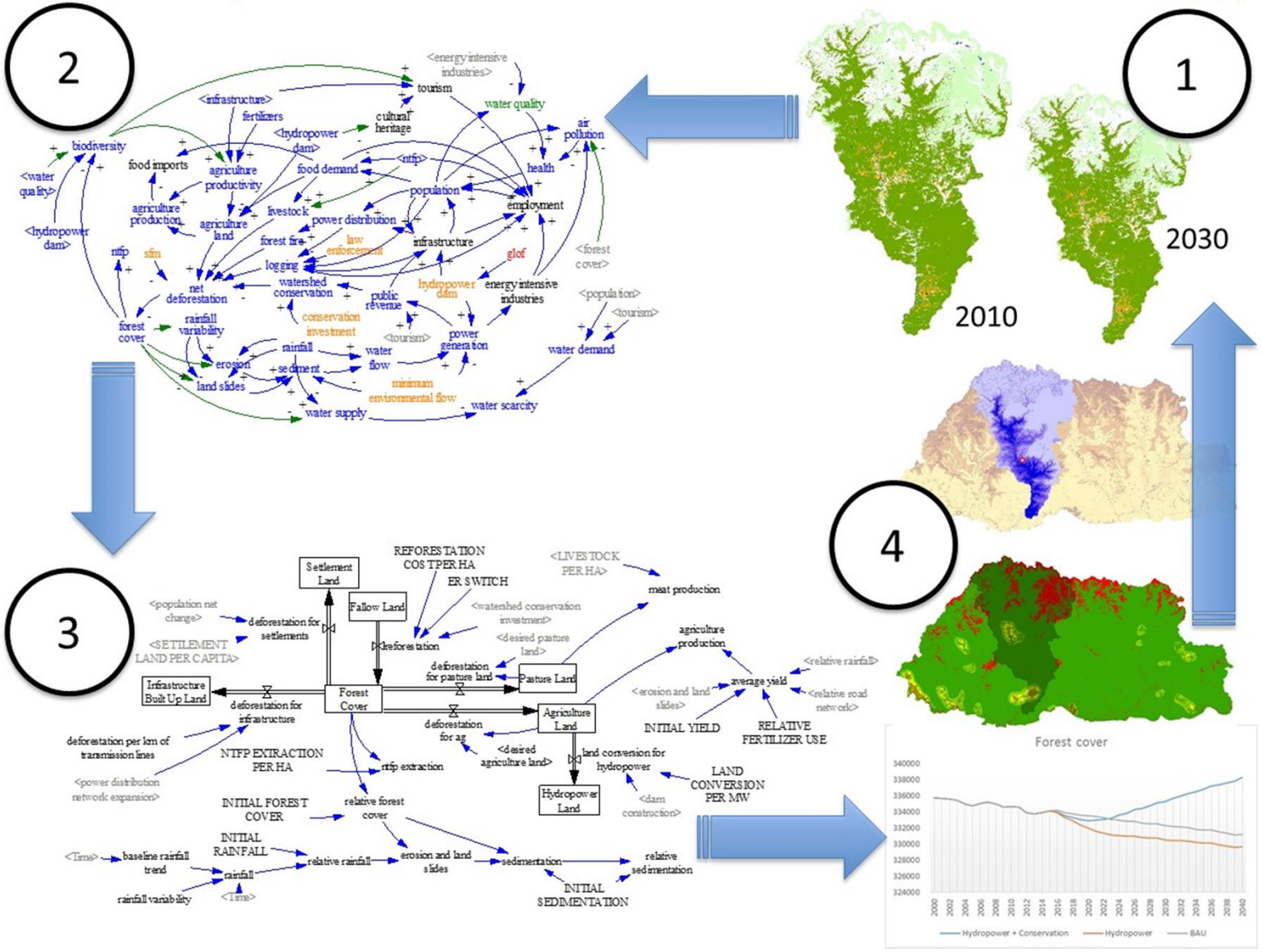
Research question for the study

- How does hydropower impact the watershed?
- How does hydropower depend on upstream land management? (Scenario setting)
- Inform ESIA

National Policy link

Hydropower policy, 2008

Country example - Bhutan



Country example - Bhutan

- Biophysical modeling (InVEST)

- Systems model (Vensim)

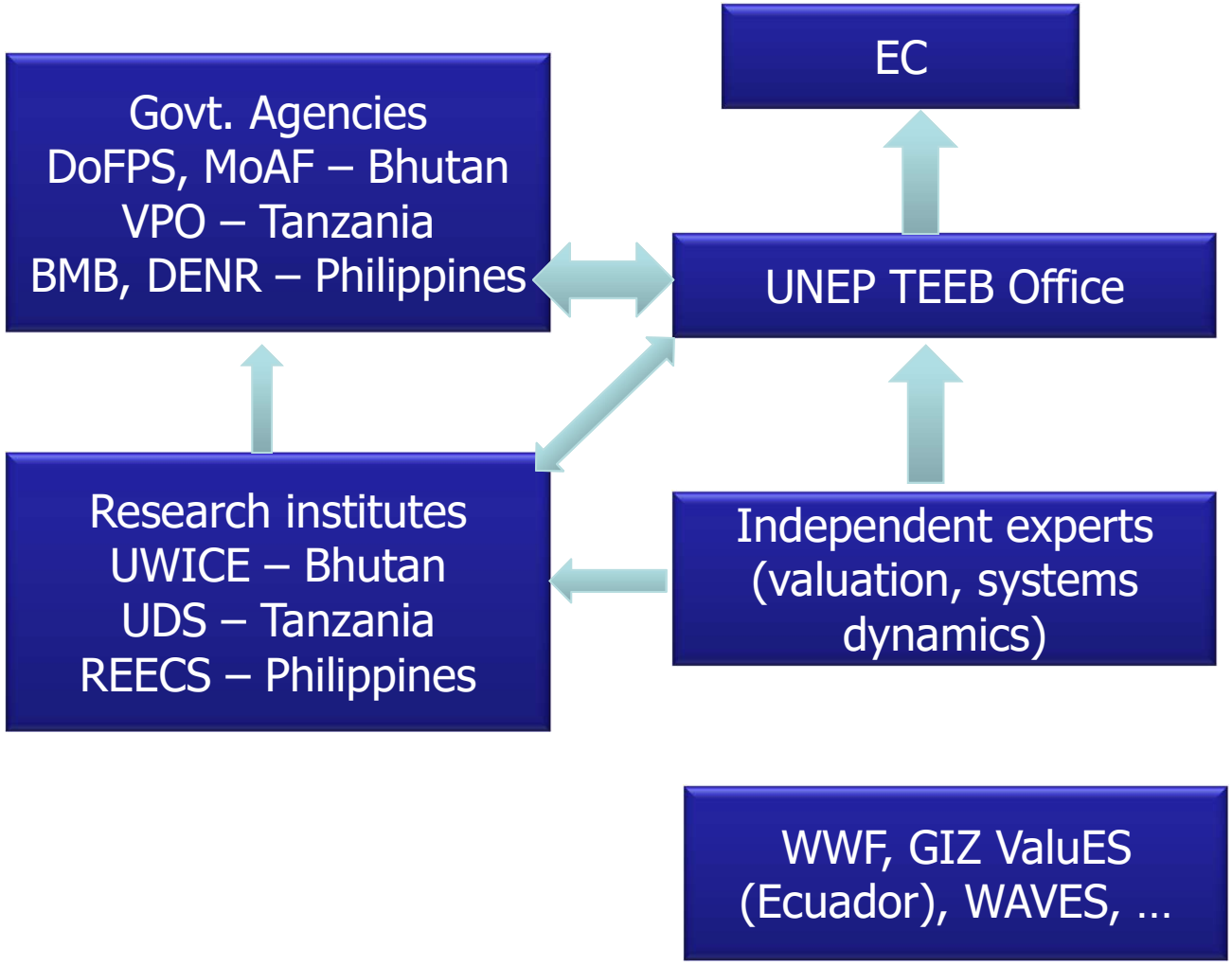
Habitat Quality	Carbon	Annual Water Yield (Hydropower)	Nutrient Retention (Water Purification)	Sediment Retention (Erosion Control)	InVEST (v3.3.0) Data Inventory	
Models					Data requirements	Type
X	X	X	X	X	Land use/land cover (LULC)	map
			X	X	DEM (topography)	map
X					Threat impact distance	table
X					Threat impact weights	table
X					Form of decay function	table
X					Threat maps	map
X					Habitat sensitivity to threats	table
X					Half saturation constant	table
	X				Carbon in aboveground biomass	table
	X				Carbon in belowground biomass	table
	X				Carbon in dead organic matter	table
	X				Carbon in soil	table
		X	X	X	Annual average precipitation	map
		X	X		Annual average reference evapotranspiration	map
		X	X		Plant available water content	map
		X	X		Etk/Crop Coefficient (by LULC)	table
		X	X		Root depth (by LULC)	table
		X	X		Effective soil depth	map

Agriculture	**Agriculture Production (total)**		Ranking based on crop national production, not at the Dzongkhag level	
	Paddy	Million ton/year	Sum of crop production across relevant Dzongkhag affected by plant	Cultivated Area, Production and Yield of Major Crops by Dzongkhag, Bhutan
	Maize	Million ton/year	Sum of crop production across relevant Dzongkhag affected by plant	Cultivated Area, Production and Yield of Major Crops by Dzongkhag, Bhutan
	Wheat	Million ton/year	Sum of crop production across relevant Dzongkhag affected by plant	Cultivated Area, Production and Yield of Major Crops by Dzongkhag, Bhutan
	share of paddy		Estimated	
	share of maize		Estimated	
	share of wheat		Estimated	
	Agricultural Yield	ton/ha	Agricultural yield of the three main crops of agricultural production	
	Paddy	ton/ha	Sum of crop yield across relevant Dzongkhag affected by plant	Cultivated Area, Production and Yield of Major Crops by Dzongkhag, Bhutan
	Maize	ton/ha	Sum of crop yield across relevant Dzongkhag affected by plant	Cultivated Area, Production and Yield of Major Crops by Dzongkhag, Bhutan
			Sum of crop yield across relevant Dzongkhag affected by	Cultivated Area, Production and Yield of

Bhutan - National water seminar

- Sedimentation can be improved by upstream restoration efforts and can save O&M costs for DGPC
- Prime Minister, Minister Economic Affairs, Secretary - National Environmental Commission, **DGPC**

What are the key features of the TCS' governance structure?



What are the major challenges? How did you respond to them? With hindsight what would you do differently next time?

- Capacity constraints
- "Found it relatively straightforward to synthesize data and information in biophysical and economic interim reports, but carrying out scenario analysis was considered much more challenging."
- **Spend more time to develop the research question and scenarios**
- **(Balancing process and content) - Focus a lot more on process**
- Deeper country engagement
- **Core review group at the country level**
- Better communication
- **Link to statistics**

Concluding Messages

- Purpose of valuation determines content and methodologies (ESIA, Spatial planning, Macroeconomic accounting, etc.)
- Scoping the study right
  - Ministry engagement is key, especially for the scope
- Process almost as important (if not more) than results
- Engaging cross-sectorally
- Inclusion of socio-economic variables is challenging but essential, particularly for policy purposes
- Institutionalizing the process and content

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