

WD-NACE

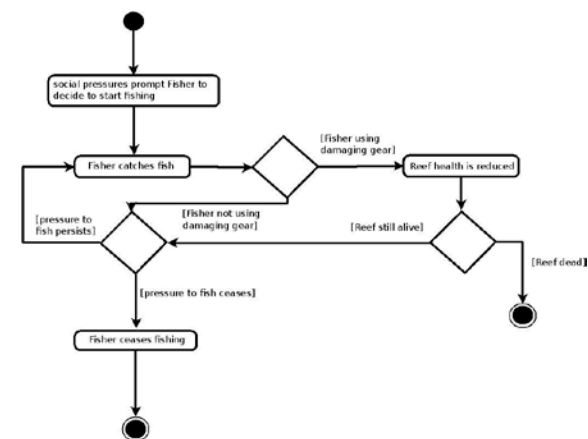
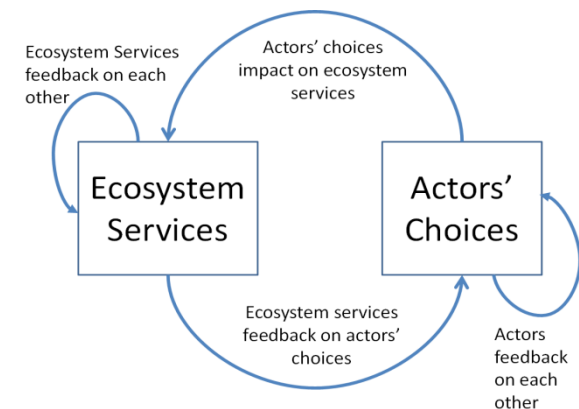
Whole Decision-Network Analysis of Coastal Ecosystems



Models are very useful for communicating and explaining linked SES

They also help us understand which data we do not have, and which feedbacks of the linked system we understand least.

Models help us meaningfully explore a set of desired outcome states for a future system.



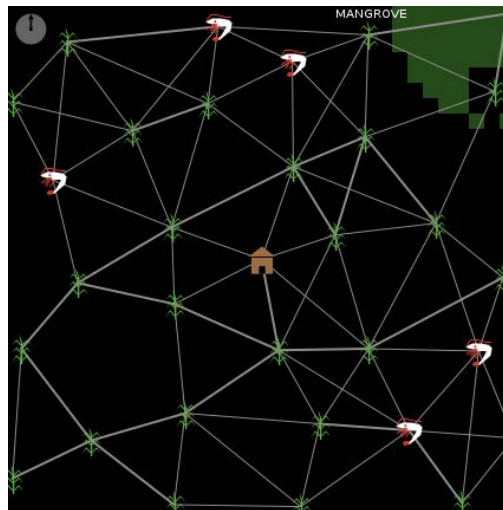
Bangladesh Case Study

Trade-off between shrimp and paddy production systems, ecosystems and livelihoods

- market vs. subsistence means
- incompatibility due to different hydrological regime, salinity requirements, etc

The modelling work focused on

- exploring interactions between paddy and shrimp farming
- comparing scenarios with different initial numbers of shrimp farms
- modelling how land-use transitions may happen
- applying parameters gained in Munshiganj (through Shushilan)
- developing a food poverty indicator



Kenya Case Study

Open fisheries' trade off between improved distribution of ES benefits and increased risks

- common pool resource system governance – role of Beach Management Units
- private owners take onboard risk whilst they get large share of profit
- use of fishing gears that reflects power relations to some extent

The modelling work focused on

- linking the ecological with the social system in the model
- simulations comparing private ownership and collective (BMU) ownership
- configuring different vessels and available gear
- developing utility of models for discussing different outcomes, eg. sustainability

