Balancing Carrots and Sticks for Fisheries Management: The case of hilsa management in Bangladesh

Challenging new frontiers in the global seafood sector – a Northern Enlightenment

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Benefits and threats to marine and coastal ecosystems

- Major source of food: the main or only source of animal protein in some poor communities
- Some 45 million directly employed
- Up to 200 million indirectly
- The most traded food commodity
Fisheries in crisis

The majority of commercially important fish species are under stress.
Fisheries management regimes

- Allowable catches
- Limited licensing
- Fishing gear restriction
- Off season
- No take zones
Short-term economic loss

Socioeconomic and ecological gains

Management regimes (t)

How to overcome this short-term economic loss??
Ways that economic incentives can be added to existing regulatory schemes

- Restore coastal habitats
- Conserve endangered species
- Promote sustainable fishing practices
- Compensate for lost earnings
Case study: *Payments for Hilsa conservation in Bangladesh*

- Anadromous fish
- Bangladesh accounts for about 60% of total hilsa catch in the Bay of Bengal
- 11% of total fish catch in Bangladesh
- 1% of GDP
- Up to 2.5 mill people along the supply chain (processing, marketing, transporting)
Hilsa fishery is under threat

- Overfishing
- Damming and river diversion
- Pollution
- Climate change
Incenitve-based management of hilsa (*T. Ilsha*) fishery

‘Hilsa fisheries management action plan’ 2003
- juvenile hilsa protection
- Conservation of gravid hilsa
- 5 hilsa sanctuaries
- No take season
- 40kg rice/HH and AIGAs provided
5 design essentials
1- understanding the ecology and biology of the fishery

- Enhanced understanding on spawning seasonality, migratory routes, feeding behaviour, etc.

- Science based fisheries management. E.g. breeding season, sanctuaries, etc.
  - Ban period (11 days to 22 days)
  - Marine Fisheries Ordinance (marine sanctuaries)
2- technical and institutional capacities

- Lack of capacity for enforcement
  - Shifting towards ‘co-management’ by empowering local communities
- Data deficiency and lack of technical capacities to collect data
- Poor governance? Yes but…
- Work within a given technical and institutional capacity.
3- equitable benefit sharing mechanism

• Key to achieving local/national/international legitimacy and supporting management activities
• Mistargeting: exclusion and inclusion errors
• Convergence between preferred & actual compensation packages
• Agree on ‘principles of benefit sharing’
4- Sustainable financing

• How to insulate the scheme from political and economic shocks?
• What happens when government priorities shift?
• ‘hilsa conservation fund’
  • A legally independent fund management system
  • Encourages private sector investment
  • Less prone to embezzlement or misuse of fund
5- think 3 dimensionally (net political gain)
Where next?

1) Identify non-fishing related threats
   • Habitat change (siltation, pollution, etc.)
   • Financial exclusion

1) Transboundary fisheries management system
   • Regional cooperation (Myanmar, India and Bangladesh)

2) Employ low-cost method to monitoring and evaluation
   • Using remotesensing data?
THANK YOU

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