

# Spatial management approaches in fisheries and environmental conservation: Experiences from selected Asian countries

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Exploring the Role of MPAs in Reconciling Fisheries

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## Spatial mgmt approaches



- Commonly used by traditional communities harvesting fisheries resources in India and other parts of Asia, such as Indonesia, Maldives, Sri Lanka
- Served to deal with and resolve conflicts around resource use and, in cases, to ensure equitable and sustainable resource use.
- Enjoyed social legitimacy
- Many such customary regulations, norms and practices, and the social institutions that were their proponents not recognized.



#### **Current practices**

- Fisheries management and environmental conservation in India and several other Asian countries (Bangladesh, Sri Lanka, Thailand....) are handled by different ministries/ department, with different mandates
- Both use spatial management approaches, with other tools



#### **SM** approaches: Fisheries

- Artisanal trawl-free zones declared in several countries (India, Philippines, Thailand, Malaysia...)
- Several spatial-temporal approaches such as closed seasons and areas (monsoon ban in India, closed seasons for protecting hilsa and shrimp in Bangladesh)
- Some measures, such as closed seasons, have proved effective. Some not well enforced (eg. artisanal zones)



## **SM** approaches: Conservation

- Establishment of MPAs preferred by environment ministries, for conservation of habitats/ species.
- Often under general environmental legislation—may be influenced by terrestrial models of conservation (design issues)
- Implementation often top down. Level of effectiveness variable



## Gahirmatha sanctuary, India



#### **GAHIRMATHA MARINE SANCTUARY** N 20º 46 58 E 87° 08' 05" N 20° 43' 51" E 87º 02 45" N 20° 44' 0" N 20° 42' 49" E 87º 04º 15º E 87º 17 36 N 20 E 87 ଗହିରମଥା ସାମୁଦ୍ରିକ ଅଭୟାରଣ୍ୟ ସମୁଦ୍ Buffer zone କି.ମି. ସମୁଦ୍ ଭିତରକ Core zone N 20° 25 0" E 87° 0' 0" nik siya s ଉଉର ଖରନାସ N 20° 20' 50" E 86º 46 23 N 20° 171 32" -6219 E 86º 56 14"



#### Gahirmatha sanctuary, India

- Orissa is one of India's poorest states, with 47.5 per cent population below the poverty line.
- About 50,000 fishermen affected by the sanctuary and associated regulations
- No compensation or livelihood support provided
- Trawling, that is in any case prohibited under fisheries legislation, is the primary cause of turtle mortality
- Many debates on design of the sanctuary...
- Other development (eg ports) not regulated



#### **Key issues**

- Often coordination between departments/ ministries weak, though jurisdictions overlapping
- Measures sometimes poorly designed in relation to proposed objectives
- Weak on participatory and consultative processes
- Do not pay adequate attention to socioeconomic issues/ issues of equity/ social legitimacy/ traditional knowledge



#### **Key issues**

- Legal frameworks
- Enforcement
- Often efforts cannot be considered effective from the perspective of conservation and sustainable use, or ensuring social justice and equity



#### Way forward

#### Need to recognize that:

- Better coordination between agencies responsible for fisheries management and environmental conservation essential (Debates and appreciation of respective mandates needed)
- Objectives of conservation and sustainable use can be achieved through a range of spatial mgmt and other tools
- What is most appropriate may differ in different contexts, for different objectives (design of measures)



#### Way forward

#### Need to recognize that:

- Measures are best decided through consultative processes that promote social acceptance and legitimacy, combining scientific and experiential/ traditional knowledge
- Measures need to be nested within broader ecosystem approaches
- It is essential to adopt a human rights approach—both as an end in itself and as an essential prerequisite for sustainable development, and of conservation and sustainable use of resources into the longer term.



## Thank you