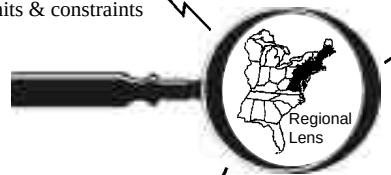
Policy Formulated for Ecosystem-oriented LME Fisheries Management

towards implementation

Region-specific limits & constraints



Biological, Ecosystem & Socioeconomic Limits act as filters:

- Historical/geographical context; Catch; Resource biomass (*B*); Spawning biomass (SB); Length frequency; Age frequency; Length or age-at-first capture (Lc_{50}, tc_{50}); Length or age-at-first-maturity (Lm_{50}, tm_{50});
- Biological diversity; Water quality; Critical habitats; Intrinsic value of environmental assets;
- Socio-cultural & socio-economic environment; Revenues; Rent; Profit or Benefits; Fisheries GDP Poverty; Health; Human Development Index; Employment; Age (A); Social cohesion; Equity; On-Board conditions; Wealth indicator Food insecurity
- Public beliefs / behavioral value judgements
- Formal legal and constitutional structure; Management capacity; Decision-support capacity; Legislation; Partnership / Participation; Monitoring, Control and Surveillance; Oversight; Dispute resolution;

Criterion "pressure-state-response-points" → **Analysis** → **Response Recommendations to deal with "pressure points"**

Region-specific analysis

1)Limited alternative economic resources → 1) Regionally appropriate technical solution, given border region

2) Highly divergent stakeholders involved → 2) Highly open and transparent institutional structure and process (i.e. NEFMC; MAFMC & ASMFC)

3)Highly intractable problem (function of limited carrying capacity for commercial fishery-resources in association with overall fishing capacity and effort as well as vessel investments and/or available subsidies; climate change variability - regime shifts. → 3) Incremental policy formulation and implementation and subsequent program evaluation - monitoring refinement and/or adjustment

4) Fishing mortality is the pressure indicator, the spawning stock size the state indicator and the projected Total Allowable Catch (TAC) the corresponding response indicator (see: Degnbol,2002).

4) Theoretically, "the ideal (regulatory) institution is adaptively efficient,accommodating an ability to respond to change"...though marine ecosystem management institutional design poses challenges (Hanna,1998).

General prescriptions for successful policy

1) Objectives consistent with problem definition and stated goals

2) Sound theory (hypothesis testing) between goals and policy

3) Transparent policy orientation stage(s) structure (see:Gable, 2003)

4) Adequate flexible leadership & management skills

5) Adaptive management tools and techniques

6) Public / policy maker conflict threshold

Increased likelihood for successful policy implementation, evaluation and refinement