

## Effort rights-based management

### ABSTRACT

Effort rights-based fisheries management (RBM) is less widely used than catch rights, whether for groups or individuals. Because RBM on catch or effort necessarily requires a total allowable catch (TAC) or total allowable effort (TAE), RBM is discussed in conjunction with issues in assessing fish populations and providing TACs or TAEs. Both approaches have advantages and disadvantages, and there are trade-offs between the two approaches. In a narrow economic sense, catch rights are superior because of the type of incentives created, but once the costs of research to improve stock assessments and the associated risks of determining the TAC and costs of monitoring, control, surveillance and enforcement are taken into consideration, the choice between catch or effort RBM becomes more complex and less clear. The results will be case specific. Hybrid systems based on both catch and effort are increasingly employed to manage marine fisheries to capture the advantages of both approaches. In hybrid systems, catch or effort RBM dominates and controls on the other supplements. RBM using either catch or effort by itself addresses only the target species stock externality and not the remaining externalities associated with by-catch and the ecosystem.

**Keyword:** Catch rights; Effort rights; Fisheries management; Total allowable catch; Total allowable effort