Title: **The Need for Synergy in Small-Scale Fisheries and Aquaculture towards Sustainable Grouper Fisheries and Trade in the Coral Triangle Area: The Case of The Philippines**

Authors: Dianne Hope Tormon, Southeast Asian Fisheries Development Center Aquaculture Department (Philippines)
Joebert Toledo, Southeast Asian Fisheries Development Center Aquaculture Department (SEAFDEC/AQD) (Philippines)
Nerissa Salayo, Southeast Asian Fisheries Development Center Aquaculture Department (SEAFDEC/AQD) (Philippines)

Abstract: The Philippines, located within the Coral Triangle which represents the epicenter of marine life abundance and diversity, is the source of groupers traded in Hongkong, China, Singapore and other countries. Grouper production in the country (19.7 th mt), gross value (USD 5.8 mil) and trade value (USD 14.4 mil) is small, growing only at 1.5% annually from 1995-2007 in spite of high demand. Production remains dependent from wild fisheries (98%) primarily contributed by small-scale fishers. Low production (2%) from aquaculture is due to insufficient juvenile supply. The need for more seeds is emphasized with present government concerns to revolutionize fish production and create jobs. There is greater need to evaluate the implications of continuing exploitation of wild marketable groupers (14,500 t/year) and fry (2 gross tons) for grow-out culture on the sustainability of grouper fisheries.

An industry survey showed that a synergy between small-scale fisheries and aquaculture can secure grouper fisheries, fishing livelihoods and overall health of marine environment. Aquaculture could help reduce fishing pressure through improved broodstock management and hatchery productivity. This will address present problems: 1) limited investments in juvenile production due to high cost of maintaining broodstocks and long investment period; 2) erratic spawning and survival rates of juveniles; and 3) preference for wild-caught (e.g. Epinephelus leopardus) vs aquacultured groupers (E. coioides) which intensifies harvesting from the wild. Meanwhile, the maintenance of healthy fishery habitat through sustainable fishing practices among small-scale fishers provides viable environment for juveniles from aquaculture.