



CONFERENCE 2004:



**FISH, AQUACULTURE AND FOOD SECURITY:
Sustaining Fish as a Food Supply**

OPINION PIECE

Partnerships that produce a win-win-win for Australia, its neighbours and our marine environments

By Barney Smith, Fisheries Research Program Manager at the Australian Centre for International Agricultural Research, who is speaking at the international development conference in Parliament House on 11 August entitled "Fish, Aquaculture and Food Security: Sustaining Fish as a Food Supply".

There is a tendency here in Australia to treat seafood as somewhat of a luxury, the term conjuring up images of lobster, prawns and other delicacies.

But in many parts of the world, particularly in our own backyard in the Asia-Pacific region, seafood is a staple food, albeit not necessarily lobsters and the like. The main foods consumed from the sea are fish, not crustaceans.

For many coastal communities fishing is not a way of life, it is life. Without the sea's bounty many of these villages would not survive. Increasingly though these communities are coming under pressure to take catches that go beyond meeting their basic needs.

Rising global seafood demand is resulting in more fishing, both by commercial and village fisher folk. For many coastal communities fishing has become a means of creating additional income as a way out of poverty.

The common theme is rising pressures on fish populations, that threaten long-term sustainability, of fisheries and the communities that depend on them.

But just when it appears the seas of the Asia-Pacific may have reached their production limits Australian research is applying many of the lessons learnt, both successful and otherwise, from past investments. These are providing solutions, ensuring fish remains on the menu in our region.

Commercial fishing is not, as some would imagine, a free-for-all. In commercial fishing ports quotas on fish catches are set, and strict monitoring is put in place. Of course these limits are not always applied.

But in many of our neighbouring countries a lack of resources and expertise have hampered the ability of fishing authorities to monitor catches. And this begins with a clear understanding of the fisheries themselves, the type of fish that spawn and feed in such areas, population levels and species biology.

Australia has developed a high level of expertise in the science needed to assess fisheries, to monitor catches and to ensure long-term sustainability.

If we are to successfully overcome this global threat, we can't afford to be selfish. We share the oceans, and their resources, with our neighbours. Fishing nations from as far away as Japan also send their fleets to our region. To ensure fish and marine environments survive we and our neighbours need solutions that are fair to all and protect the livelihoods of poor fishing communities in our region, as well as benefiting Australian industry and consumers.

If overfishing is allowed, stocks of many high-value species may be depleted to the point of no return.

This is why Australia is sharing its expertise in fisheries research and development in research partnerships across the Asia-Pacific region.

Through a number of Australian Government agencies, such as the Australian Centre for International Agricultural Research and AusAID collaborative initiatives to share our scientific expertise with Indonesia, the Philippines, East Timor, Papua New Guinea and Pacific island countries is underway.

These partnerships are also building cooperative links, some for the first time, for the management of other fisheries shared between countries in the region.

Indonesia and the Philippines have agreed to cooperate in tackling the problems created by illegal, unreported and unregulated fishing in the Sulawesi Sea. If left unaddressed it is likely that fish populations will collapse, and the Sulawesi Sea will be fished out. Australian policy researchers are assisting their counterparts in these countries to formulate a joint management plan, ensuring a more sustainable approach to management and one that may help recoup much of the estimated US\$5b a year in losses.

Australia is also developing strong bilateral partnerships, including with Indonesia, to manage shared fishing grounds.

For more than a decade, Indonesian and Australian experts have been working together to improve understanding of stocks and the impact of fishing on high-value species in the Arafura and Timor Seas. These waters are breeding and feeding grounds of many fish. The needs and interests of small-scale fishers as well as larger fleet owners from Australia and Indonesia are being listened to, ensuring that mutual interests are accommodated in future management plans.

The health of Australia's southern bluefish tuna industry depends on the health of spawning grounds in the north-eastern Indian Ocean. Australian scientists have worked with Indonesian and Japanese partners to help Indonesia increase its ability to assess and manage these stocks.

These research partnerships are also examining ways to improve fish-farming to alleviate the pressures global demand is creating.

To date fish-farming has been a 'hit-or-miss' industry. Score a hit and the income can come streaming in, but miss and this income, and the necessary investment, can be washed away faster than the tide.

Research to address the problems of marine and freshwater fish farming is starting to lift the number of hits being scored. Successful farming of marine finfish and other high-value species such as mud crabs presents many challenges –finding the right feeds, managing disease outbreaks and ensuring local environments don't suffer.

Australia, Indonesia and the Philippines have worked together to develop production systems for raising juveniles of several high-value grouper species, as well as mud crabs. The work is already helping poor communities in Bali, where over 600 backyard hatcheries are producing healthy fish for sale, locally and increasingly to the lucrative live-fish markets of Asia.

Re-stocking of depleted coral species is helping indigenous rural communities in northern Australia, eastern Indonesia and the Pacific, who have traditionally lived off coral reefs.

Aboriginal communities in the Kimberley region have established hatcheries to raise young topshell (a species of trochus), the conical shell of which is valued by the fashion trade. Local communities have taken the initiative and are working with fisheries authorities to reseed nearby reefs, in an effort to restore the local industry.

So the odds are good that the result of sharing Australian research will be plenty of fish in the sea, and on the menu, for villages and communities throughout the Asia-Pacific region, for a long time to come.