African fisheries on brink of collapse
New Scientist vol 175 issue 2351 - 13 July 2002, page 5

THE waters off West Africa were once among the richest fishing grounds in the world. But fish stocks there have crashed by 80 per cent and the area is now as depleted as the North Atlantic. What's more, just a day before researchers raised the alarm at a meeting in Brussels, European Union fishery officials signed new deals allowing them to take more fish than before off the coast of Angola. Similar deals have also been recently struck with Senegal and Mauritania.

"Fisheries in West Africa will go the way of the Grand Banks if something doesn't change," says Daniel Pauly of the University of British Columbia, a member of the team. It is exactly 10 years since the Grand Banks cod fishery off Newfoundland, once the world's richest, was closed for two years to allow depleted stocks to recover. But the moratorium didn't work. The fishery today contains even fewer cod than it did in 1992.

Pauly and his team have devised a way to estimate the total biomass of commercial fish in a large region. First they take figures for the number of creatures at every level of the food web, from plankton to top predators, and how these numbers change over time. They then use detailed ecological models to recreate the total biomass of fish living across the whole area.

Their models have already shown that across the whole North Atlantic, the biomass of fish caught for eating fell by more than 80 per cent between 1950 and the late 1990s (New Scientist, 23 February, p 11). Now Pauly's colleague Villy Christensen has found a similar average drop in fish stocks off West Africa (see Graphic).

The EU is the biggest fisher in the region, and pledged to agree to fairer fishing deals with poor countries when it proposed its revised Common Fisheries Policy in May. But it seems that despite the dire situation in West Africa, it now plans to catch yet more fish.

Last week, the European Commission signed a deal with Angola increasing the tonnage of EU vessels allowed to catch valuable bottom-dwelling or "demersal" fish such as hake by 12 per cent for the next two years.

Last year, Mauritania, which owns the region's biggest fishery, agreed that between 2001 and 2006, the tonnage of EU squid boats in its waters could increase by 31 per cent, while the valuable black-hake fishery will remain the same as the previous five years.
Mauritania did force a slight drop in quotas for other bottom-dwelling fish. And in June, after a hard-fought battle, Senegal forced the EU to cut the tonnage of demersal fishing vessels in Senegal waters by 30 per cent.

But these agreements limit only the tonnage of fishing boats, not the actual amount of fish taken. A more powerful boat can catch more fish than a less powerful one, even though it weighs the same. So tonnage limits mean little. "It's like letting someone into the grocery store for an hour, and not charging for what he takes," says Pauly.

If the Grand Banks are anything to go by, the effect will be catastrophic. Ten years ago, cod stocks fell to 1 per cent of 1950 levels. At the same time, overall fish stocks in the North Atlantic fell to just 20 per cent of what they were. The same is now happening off West Africa. But that decline is only an average, and stocks of some species may already be as depleted as those of the North Atlantic cod.

The cod have not recovered, partly because limited fishing was resumed in 1999 under pressure from local Canadian fishers, says Jeff Hutchings of Dalhouise University in Halifax.

That bodes ill for West Africa, where a total ban on fishing depleted stocks would be even less likely. Even if the EU boats go home, the local people fish to survive. There are no government subsidies available and it will be almost impossible for them to give up subsistence fishing.

The big worry now, is that if the West African fisheries go the way of the Grand Banks, they may never come back.

Debora MacKenzie