☐ A DEVELOPING COUNTRY PUTS A HALT TO FOREIGN OVERFISHING

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Foreign fishing fleets drastically overfished the waters off Namibia before that country gained independence in 1990, according to Paul Nichols, special adviser to the Namibian Ministry of Fisheries and Marine Resources. Since then, the government has taken strong regulatory actions that have brought overfishing under control and allowed depleted fish stocks to rebuild while gaining strong support for the policy among Namibia's commercial fishers.

The history of Namibia's fisheries is characterized by massive and uncontrolled fishing, primarily by European and Eastern bloc fleets, followed by near collapse of many stocks. This period was followed by a dramatic recovery of the resources following independence in 1990 and the implementation of a resource-management system that incorporates a highly effective, cost-efficient system of monitoring, control and surveillance. Namibia's successful post-independence track record bears testimony to what a young developing nation can achieve if sufficient resources and political will are provided in support of fisheries management.

Largely as a result of up-welling of the nutrient-rich Benguela Current, Namibia's waters are highly productive. Prior to Namibian independence in 1990, uncontrolled fishing on a massive scale — perpetrated mainly by Spanish and Soviet vessels, and to a lesser extent vessels from Portugal, South Africa, Romania, Poland, Bulgaria, and Cuba — greatly reduced the abundance of all the major fish stocks.

During the 1960s South African factory ships undertook fish processing at sea outside the then-22-kilometer jurisdiction of Namibia's fisheries administration. First over-exploitation caused pilchard catches to plummet; when the ships turned to anchovy, that stock also plummeted.

From 1964 foreign interest in Namibia's offshore fishing grounds grew rapidly with the advent of long-distance freezer trawlers. For example, in 1964 a mere 47,600 metric tons of hake were caught, but by 1972 hake catches were reported to be 820,000 metric tons although

the true catch figure was probably much higher.

The International Commission for Southeast Atlantic Fisheries (ICSEAF), established in 1969 with the intent of good management, was in reality used by many of its 17 member states to legitimize plundering of fish stocks in the southeast Atlantic, and particularly in Namibian waters. Namibia declined to become a member of ICSEAF at independence, and the organization is now in the process of being formally disbanded.

BUILDING A MANAGEMENT REGIME

Finding itself at independence with a heritage of systematically depleted fish stocks, the newly elected government moved quickly to establish a fisheries administration — the Ministry of Fisheries and Marine Resources — and to develop policy goals and broad strategies in order to rebuild the fish stocks and build a national fishing and processing industry with real involvement of Namibians.

One of the first acts of Parliament was the Territorial Sea and Exclusive Economic Zone of Namibia Act of 1990, underlining the importance attached to fisheries. In 1992 Parliament passed the Sea Fisheries Act. Namibia subsequently signed a number of international fisheries conventions, agreements and arrangements. These new international obligations prompted a revision of the 1992 Act, which was replaced in 2001 by the Marine Resources Act. Key elements of the management system defined in the Act are outlined below.

MANAGEMENT MEASURES

• Fishing rights, or rights of exploitation, are the central element of the fisheries management regime. Fishing rights limit entry to the fisheries so as to protect the fisheries resources and maintain sustainable operations. Currently there are 152 right holders. Fishing rights are granted for a period of 7, 10, 15 or 20 years depending on various factors, in particular the level of investment and the level of Namibian ownership. Fishing rights are not freely transferable in Namibia in line with the

government's goals of Namibianisation and empowerment within the sector.

- All vessels are required to obtain a license in order to fish commercially within Namibia's 200-mile exclusive economic zone (EEZ). A Namibian flag vessel must also have a specific license to harvest any marine resources in waters outside of the Namibian EEZ.
- To ensure sustainable fishing, a total allowable catch (TAC) is set for each of the major species, based on recommendations made by fisheries scientists employed by the ministry.
- To give companies enough information to plan for the fishing season, a TAC is distributed among the right holders in each fishery in the form of quotas. Quotas are not permanently transferable.
- Fees earn revenue for the government and create incentives for achieving goals of both conservation and Namibianisation. The most important fees are those payable on allocated quota. By-catch fees are used to discourage capture of non-target species but are not set so high as to encourage dumping a certain percentage of by-catch is not levied because a reasonable amount of by-catch cannot be avoided. A Marine Resources Fund levy is imposed per ton of landed catch to finance fisheries research and training initiatives. Also, owners of fishing vessels pay license fees to fish legally within Namibia's waters; each year between 300 and 350 vessels are licensed.
- The Namibian fishing industry is not subsidized. Namibia strongly opposes the use of subsidies by other countries, which cause overcapitalization, distort trade unfairly, and ultimately lead to overfishing and encourage illegal, unreported and unregulated (IUU) fishing practices. Instead Namibia's rights-based system and associated quota fees have led to healthier stocks, improved compliance and an efficient industry that supports responsible fisheries management and earns healthy profits.
- Namibia implements its obligations to international fisheries organizations, arrangements and conventions by publishing them in the national Gazette.

MONITORING, CONTROL AND SURVEILLANCE

On the day in 1990 that Namibia's 200-mile EEZ was declared, more than 100 foreign vessels were fishing illegally in Namibian waters. When other small coastal states had found it impossible to effectively control such operations in their EEZs, they faced little real alternative than to sanction continuation of the foreign operations through licensing arrangements that did not leave them in real control.

Namibia, however, decided to put in place measures to reap the gains from sustainable utilization of its fisheries. During 1990 and 1991, 11 Spanish trawlers and one Congolese trawler were arrested for illegal fishing and successfully prosecuted; most of them were forfeited to Namibia by the Namibian courts. These actions sent a clear message to the international fishing community that Namibia was serious about establishing sovereignty over its new EEZ. There were a few further incidents of poaching after this, but effective monitoring, control and surveillance (MCS) and enforcement deterred poachers and improved compliance by licensed vessels.

Namibia's MCS system has evolved over the years into what is today widely regarded by the international community as a very effective system. A crucial element has been the financial, human and material support from the Namibian government. The costs to government and industry of MCS and other management activities have been kept commensurate with the value of the sector. From 1994 to 1997, the full cost to the Namibian government of fisheries management, including fisheries research and MCS, was about 6 percent of landed value; that fell to 4.9 percent in 1998 and 3.6 percent in 1999, due to the increasing value of landed catch. This cost is appropriate to the economic value of the fisheries sector and reasonable when compared with the cost of other comprehensive and effective fisheries management systems elsewhere in the world.

An integrated program of inspection and patrols at sea, on land, and in the air ensures continuing compliance with Namibia's fisheries laws. The major features of the program are described below:

• Virtually complete coverage of larger vessels by onboard observers serves both to ensure compliance and collection of scientific data. The establishment of the

new Fisheries Observer Agency under the Marine Resources Act will improve current capacities in this regard.

- Systematic sea patrols aim to ensure compliance with fishing conditions by licensed vessels through regular atsea inspections. Air patrols detect and deter unlicensed fishing vessels and monitor the movement and operations of the licensed fleet. Shore patrols ensure compliance by both recreational and commercial fishers with conservation measures for inshore resources.
- Complete monitoring of all landings at the two commercial fishing ports, Walvis Bay and Luderitz, by onshore inspectors ensure compliance with quota limits and fee payments.
- All vessels are required to supply EEZ exit and entry reports as well as daily catch and effort reports in the form of vessel log-sheets.
- Namibia is well advanced in implementing a national satellite-based vessel monitoring system (VMS). Once fully operational the system will benefit fisheries management in real-time monitoring of vessel movement and activities. The system that has been chosen is already in use in the United Kingdom, Germany, United States, Morocco, and, closer to home, South Africa and Mozambique. Namibia is fully supportive of collaborating in the development of a cost-effective, regional VMS.

REGIONAL AND INTERNATIONAL COOPERATION

Regional co-operation in fisheries management is enhanced through a number of mechanisms. The Southern African Development Community (SADC) is implementing two regional programs of particular relevance: the Regional Fisheries Information System Program, which aims to capture and disseminate timely, relevant, accessible, useable and cost-effective information to improve the management of marine fisheries resources in the SADC region; and the Regional Fisheries MCS Program, which aims to improve national capacity for efficient, cost-effective and sustainable MCS and to enhance regional co-operation on MCS and fisheries management.

A recent initiative is the SADC Protocol on Fisheries, which aims to promote responsible and sustainable use of

the living aquatic resources and aquatic ecosystems within the SADC region.

A convention to establish the South-East Atlantic Fisheries Organization (SEAFO) was signed by nine states in Namibia on 20 April 2001, the first such convention to be signed following the establishment of the 1995 UN Fish Stocks Agreement. SEAFO establishes a management regime for conservation and sustainable utilization of fish, molluscs, crustaceans and other sedentary species in the high-seas portion of what is essentially FAO Statistical Area 47. It excludes those sedentary species that are subject to the fishery jurisdiction of coastal states and tuna and tuna-like species that fall under the jurisdiction of the International Commission for the Conservation of Atlantic Tunas (ICCAT). Namibia joined ICCAT in 1999 and abides by its comprehensive management tools to curb IUU fishing targeting tunas.

As a member of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), Namibia complies fully with the CCAMLR catch documentation scheme to reduce IUU fishing in Antarctic waters.

CONCLUSION

Since independence, Namibia has successfully put in place a policy, legal and management framework for its marine fisheries that has worked well. The sector contributed US\$221.1 million to gross domestic product in 2000. The value of fish exports was US\$354 million in 2001. The number of whitefish-processing plants has grown from zero in 1991 to more than 20 in 2002, and employment in the sector has grown to about 14,000 people. Total capital investment in vessels and shore infrastructure, including new fish-processing factories, has exceeded US\$200 million since 1990.

Namibia's rights-based fisheries management system incorporates an effective MCS system at a cost that is commensurate with the socio-economic value of the sector. As a result, Namibia enjoys very high levels of compliance by its fishing industry, a situation very different from 1990. \square

Note: The opinions expressed in this article do not necessarily reflect the views or policies of the U.S. government or of the government of Namibia.