



National Development Strategy

By Kenneth King

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Fisheries

The NDS states that, for several reasons the fisheries sector is of critical importance to Guyana's economy. First, fish is the major source of animal protein in the country. Indeed, Guyanese consume about 60 kilograms of fish each year, which is more than four times the average consumption in the rest of the world. Second, fisheries contribute more than 6 percent of the country's GDP. Third, the sector earns on average about US\$50 million in foreign exchange each year. Fourth, the fishing industry employs more than 10,000 people in harvesting and processing, and many more citizens benefit indirectly from fishing-related occupations, such as boat-building and boat maintenance activities. And fifth, the fisheries sector is a significant contributor to the Government's revenue.

The fisheries sector of Guyana comprises three primary components; marine fisheries, inland fisheries, and aquaculture. Guyana has a coastline of 432km, and a continental shelf area of 48,665 sq km, in the relatively shallow waters of which most of the country's fishing occurs. The marine resources that are exploited are mainly demersal fishery and, to a much more limited extent pelagic fish which are found both over the continental shelf and towards the continental slope. Unfortunately some of the demersal species, particularly prawns and shark, are showing clear signs that they are being exploited at an unsustainable rate. On the other hand, some deep slope demersal and pelagic species are under-exploited in spite of their greater potential. From a commercial point of view, the most important stocks may be the cross-boundary species. The NDS explains that inland freshwater fishing is undertaken in rivers, creeks, lakes, reservoirs, canals, and in savanna areas where the seasonal increase in rainfall gives rise to large expanses of seasonally flooded lands. Most inland fishing is carried out by Amerindians, although non-Amerindians fish in inland waters near the coast, and in the vicinity of logging and mining communities in the interior of the country. At present, their efforts are largely directed at subsistence fishing, although a few fishermen participate in small-scale commercial inland fisheries. The authors of the NDS explain that because the waters of the rivers that drain the rainforests are characterised by an acid or very acid reaction, and a low level of dissolved material, it is more than probable that these inland resources cannot sustainably support a yield much above that which meets subsistence requirements. They hasten to add, however, that areas that seasonally alternate between dry savanna grasslands and shallow floodplains caused by heavy rainfall, and by rivers overlapping their banks, usually produce a great quantity of fish. There are about fifty thousand square kilometers of these seasonally

inundated floodplains in the south-western areas of Guyana, and a potential harvest of 100 tonnes per square kilometers can be achieved.

The inland waters are also the source of a small but active trade in ornamental fish which the authors of the NDS believe may be considerably expanded if suppliers move into pond production, and if exports are made directly to Japan and the EEC. The NDS states that two forms of aquaculture are practised in Guyana: traditional brackish water farms which operate as extensive polyculture systems utilising the existing sluices and dams from the sea defence structures which control the exchange of water at high tide; and fresh water ponds that are mostly found in empoldered areas, where farmers often construct their own dikes and sluices to regulate the flow and exchange of water within individual ponds. The average size of a farm is eleven hectares. The authors of the NDS are most enthusiastic about the future of aquaculture in Guyana. Indeed, they claim that aquaculture is the sub-sector of fisheries with the greatest potential for the expansion of production, the creation of employment, and the generation of foreign exchange and they assert that development options include the more intensive use of creeks, canals and polder lands for food production for local markets, the introduction of new species (particularly shrimp), and the use of aqua cultural techniques to produce ornamental fish for exports.

Why then is the fisheries sector not making an even greater contribution to the country's development than it now does? Several causes for this failure to optimize our fish production are adduced in the NDS. First, the inadequacy of processing and cold storage facilities and existing deficiencies in quality assurance are a major constraint. Second, the authorities appear to be unwilling to encourage inland fisheries at this stage because, as has been already mentioned, while freshwater stocks are relatively abundant in many areas, the indications are that their reproductive capabilities are limited. Accordingly, the authors of the NDS warn that "no effort should therefore be made to expand harvesting levels before the facts concerning their stocking and rates of reproduction are ascertained." The third area of worry is the sustainability of the fisheries resources in the Atlantic Ocean where, it is said, some major commercial stocks are already being exploited near or above maximum sustainable yields. It is therefore necessary to evaluate with greater precision the extent of the resource that is available in our territorial waters, and to establish and enforce regulatory systems to ensure that there is no over-catching. Fourth is the poor capacity of our institutions. As the authors of the NDS explain, the compelling paradox of Guyana's fisheries is that during the period of strong industrial growth in the sector, in the past, the Government's capacity to regulate and manage the industry was sharply reduced. As a result, qualified personnel currently occupy only 9 of the 32 professional and technical positions that are available in the Department of Fisheries.

Fifth in the list of woes, which beset the fisheries sector is the lack of available information and expertise in Guyana in respect of international fish markets. Sixth is the fact that industrial fishermen utilise obsolescent technologies, and are high-cost operators who find it difficult to be competitive. Sixth, potential operators in aquaculture are unable to obtain freehold land, or to secure leases of long duration. Seventh, there is no coherent policy to promote investment in the sector. Eighth, the structure of the Department of Fisheries is archaic. And ninth, there is a dearth of qualified personnel to undertake research and extension activities in the country. Against this background, the authors of the NDS have formulated a strategy which seeks to encourage greater utilisation of our fisheries resources while, at one and the same time, ensuring their sustainability. To these ends they recommend, inter alia, that shrimp trawling in waters shallower than 18

fathoms should be prohibited in order to reduce the damage to the juvenilism, increase the total sustainable yield, and minimize conflicts with artisanal fishermen; that a programme of seasonal closures of the prawn fishery should be instituted during the approximately three months of the most intensive recruitment of species; that a regional approach to the management of the prawn resource should be encouraged and promoted; that the annual fees for trawler licences should be significantly increased to reflect the true value of the resource and discourage its over-exploitation; that mesh size controls should be introduced in order to reduce the catch of juveniles; and that an economic study of the industrial fishery should be undertaken to facilitate the establishment of an economic database for use in bio-economic modeling and the continuous determination of suitable licence and voyage fees.

The authors also strongly advocate, in regard to artisanal fishery, that the general strategy which has been adumbrated in the NDS to make investment funds available for micro-enterprises should embrace fishermen who are not owners of their boats, but wish to purchase them; that controls should be established over Chinese seines which damage juveniles; and that a mangrove protection and management plan should be formulated, in consultation with concerned coastal communities, and implemented with their cooperation. The NDS further proposes that incentives should be provided to those who invest in fish meal processing and marketing, and in the establishment of cold storage facilities and other processing plant; that access to freehold land for cottage processing facilities should be improved through the land tenure strategies that have been put forward in the NDS; that market intelligence services for the fishing industry should be expanded and supported by government; that trade missions should be undertaken to selected export markets, for all types of fish, including ornamental fish; and that a joint commission, comprising the department of Fisheries, the Guyana Geology and Mines Commission, the Environmental Protection Agency, Amerindian representatives, and concerned Non-Governmental Organisations should be established to develop regulations and procedures for controlling and mitigating the impact of mining on inland fisheries.

In regard to aquaculture, the NDS recommends that suitable areas of land should be set aside, and either transferred in freehold or leased for periods of 99; that special research stations for aquaculture should be established, along with demonstration farms; and that they should all be staffed by competent researchers and extension workers. And finally, the NDS feels strongly that the Department of Fisheries should be reorganized and reconstituted as an autonomous Guyana National Fisheries Commission, along the lines of the Forestry and Geology Commissions, those other guardians of our natural resources.