

Shocking fishing

The Quang Thai Commune has woken up to the problems of using electricity and dynamite for fishing

At the very centre of Vietnam, in the province of Thua Thien Hue, lies the Tam Giang lagoon, which has two openings to the sea. Actually a system of lagoons formed by three large rivers and powerful sea currents, it produces three main basins and a narrow channel separated from the sea by sand dunes.

The total surface area of the lagoon is 21,600 sq km. In the rainy season, the water is fresh and floods prevail. But, normally, the lagoon is shallow, with an average depth of 15 m, and is becoming increasingly so. Both the mouths of the lagoon are unstable. The southern mouth has been closed on and off for several years. Its closure affects the salinity and species composition in that section of the lagoon. A more permanent, carefully engineered, opening was completed in September 1995.

Aquatic resources found in the lagoon include seaweeds (used to produce agar), sea grasses (used as soil and animal feed), crustaceans (crabs and shrimp of many species), molluscs (clams and mussels), and fish, both freshwater and salt-water species—depending on the season.

A population of about 220,000 lives around the lagoon, depending on its resources, as well as on agriculture in the sandy soils around the lagoon, and from fishing in the sea. One of the biggest problems they face is the intense overexploitation of aquatic resources. According to data compiled by the Department of Fisheries, the number of fishers in the lagoon rose from 5,575 in 1982 to 9,120 in 1993, while the total production dropped from 4,042 tonnes in 1966 to 1,973 tonnes in 1994.

Although statistics on artisanal fisheries are most often unreliable, this data,

nevertheless, does give some indication of the status of the lagoon fishery. Personal observations indeed confirm the high rate of exploitation of aquatic resources from the lagoon. Cruising through a small three-hectare section of the lagoon, one could observe dozens of bottom-nets and fish corrals using mesh sizes of five to seven sq mm and even smaller, although the legal size is nine sq mm.

There were six motorized boats raking the lagoon bottom for eels (two to four rakes per boat), while a couple of dozen women and men waded in chest-deep water using strong bamboo push-nets, which can also collect sea grasses. Also observed were 12 boats engaged in 'electric fishing' using batteries and transformers to generate 220 volts of electric power which stuns all marine life within a one-metre radius. Simultaneously, seven men on foot, carrying their equipment in backpacks, were also seen using electricity to fish in a nearby marsh.

Fixed fishing gear, such as fish corrals, bottom-nets, lift-nets, fish aggregating devices (FADs) and other fish traps are scattered throughout the lagoon. Closer to the shores are net enclosures, shrimp/fish cages and shrimp/fish ponds. Approaching Hue airport and observing the lagoon from the sky, one gets the impression that not a single sq m of water surface is left unused. Mobile fishing gear operators (using gill-nets, rods, push-nets, drag-nets, etc.) are spread throughout the available surface—which is growing smaller and less accessible each year.

Two-year project

Now, a two-year project aims to research the management of the biological resources of the Tam Giang Lagoon. Funded by the International Development Research Centre (IDRC), Canada and the

The ban appeal

Quang Thai People's Committee Socialist
Republic of Vietnam

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To : The people of our commune and
neighbouring communes

Regulation to Protect the Environment

This regulation complies with Article No. 01/CTUB of Thua Thien Hue Province on the banning of dynamite and electric fishing in aquatic exploitation (dated 9 January 1996) and with the Quang Dien People's Committee programme of banning electric fishing.

Recently, in the lagoon and in the rice fields bordering the lagoon in our commune, fish and

shrimp are decreasing, while the environment and the local economy are badly affected. The main reason for this is the use of electric.

The whole commune has disapproved of this practice for a long time. Some resolutions regarding the problem have been sent to the concerned authorities. However, nothing has been done. Electric fishing continues, which makes the damage all the more serious.

Now, with the assistance of the concerned bodies and organizations, the local government has announced this ban on dynamite and electric fishing. This programme aims at restoring our local aquatic resources and improving the local economy and the environment.

In the past Quang Thai Commune investigated the use of electric fishing. It was found that more than half of the people in Quang Lot Phong Chuong, Dir Hos and Dien Loc Communes use this destructive gear. Rice fields close to the lagoon are damaged, aquatic resources exhausted and not allowed to develop. If this continues, our aquatic resources will soon run out, affecting the economy of fishers. Considering these problems Quang Thai People's Committee has issued the following regulations:

1. The order No. 1 ct/ub of the Provincial People's Committee on the banning of dynamite and electric fishing applies to the local community.

II. Loudspeaker communication is used to announce the regulation to families using electric fishing. Along with this, the signatures of all electric fishers will be obtained on a letter of agreement to abandon electric fishing. This applies not only to the people of Quang Thai Communes but also to the people of neighbouring communes.

III. Every person using electric fishing must comply with this regulation and communicate to, and mobilize others to comply with this regulation.

IV. After four days of communication and encouraging people to comply with the regulation (16 to 19 March 1996), the communes will strictly impose fines on people who do not comply.

V. Anybody caught electric fishing will be taken to the Commune by the Guards of the fishing Environment.

VI. For a first offence, the transformer and electric equipment of the fisher will be confiscated, and the fine will be 70 percent of the value of the battery and the boat.

VII. For a second offence, the commune will confiscate all the equipment and each person will be fined 200,000 VND. Those refusing to pay will be sent to the District People's Court.

VIII. Every person must comply with the regulations. The commune will not tolerate any exceptions and will not be responsible for any losses.

IX. As enforcers of the programme, the heads of self-managed groups and the guards must carry out their assignment radically and correctly to ensure fairness to all.

X. This notice appeals to the people of this commune and neighbouring communes to strictly comply with the Provincial Order and the regulation of Quang Thai, in order to gradually get rid of dynamite and electric fishing gear that destroy the environment to improve the local ecology.

(Signed and approved by the Chairman of the People's Committee of Quang Thai)

Vietnam Sustainable Economic Development agency (VISED), which is an IDRC-CIDA Joint Aid Programme for Vietnam, the project is being carried out by the Hue University of Agriculture and Forestry (HUAFF), Hue University of Sciences (HUS) and the Provincial Department of Fisheries (DF). Nineteen researchers from the three institutions are grappling to understand the status of resource exploitation in the lagoon.

As IDRC's main objective is to introduce new research techniques—principally using interdisciplinary and participatory approaches—the researchers spend a lot of time in the villages around the lagoon, talking and discussing with fishers, farmers, aqua-culturists, traders and anyone else connected with the exploitation of biological resources. The project focuses its activities on three communes which are somewhat representative of the lagoon system. Inevitably, since the research is conducted with the participation of local people, the researchers often feel they should do more than just study.

In the village of Trung Lang in the Quang Thai Commune, the six researchers (an aquatic biologist, a farming systems researcher, a sociologist, a crop scientist and a staff member of the DF) were confronted with the fishers' plea to help protect their aquatic resources. The main

complaint was against the 'electric' fishers, who are mainly farmers looking for alternative sources of income in slack employment periods. Although this activity is illegal by government decree, the law is not enforced.

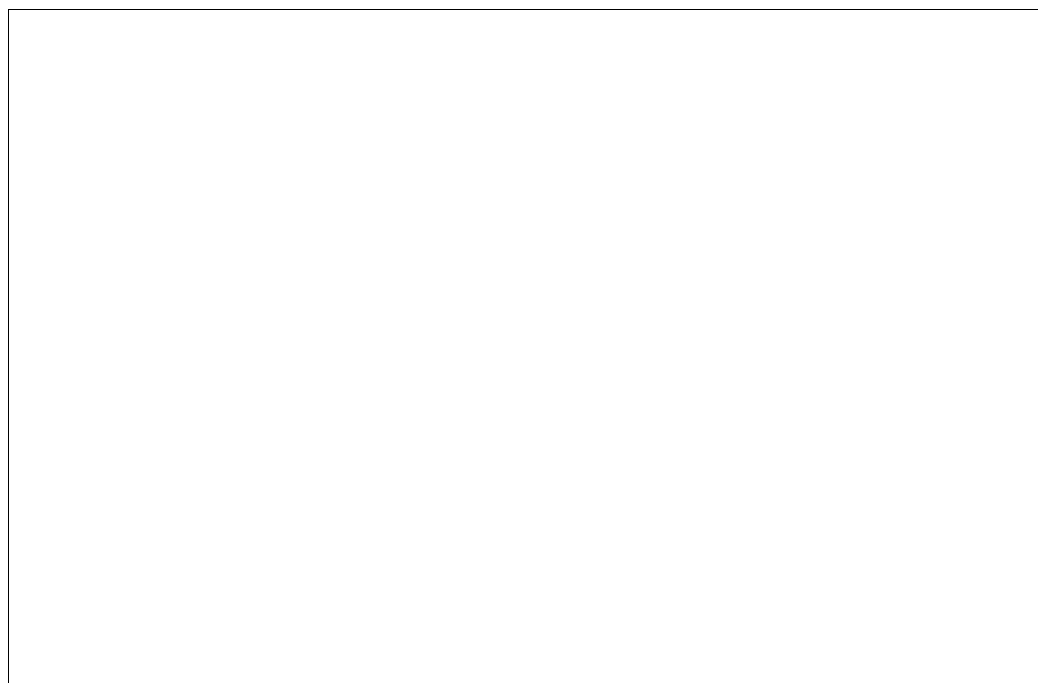
Putting aside their research agenda, the researchers began to help the villagers get organized, approach the leaders of the commune and the district, and design an effective patrolling schedule for the commune waters.

The fishers set up a committee, elected a leader, and then began discussions with the commune leaders. This process was facilitated by the researchers. The commune instituted a system of fines and penalties on all fishers disobeying the ruling. However, a four-day grace period gave the 'electric' fishers a chance to get used to the new ruling. In those four days, the committee and its leader patrolled the waters and informed fishers of the new rules.

A notice (see box), written by the commune's official guard, in collaboration with the fishers' Committee for the Protection of the Environment, was read out over a loudspeaker from the patrol boat.

Current situation

What is the current situation in the Tam Giang lagoon? 'Electric' fishing during



daylight hours has virtually stopped and it has decreased at night too.

The fishers have established a system of guard duty and they patrol the area at random on boats. At night, they find it difficult to apprehend the illegal fishers, particularly those who exploit the marsh area on foot.

However, neighbouring farming villages are joining in the action. They are supporting the ban by expanding the activities of their night watchmen (who patrol the fields at night against theft of crops) to include patrolling of rice fields and marshes to drive off 'electric' fishers. Villagers throughout the commune are contributing funds for increased surveillance. Now, even neighbouring communes are showing interest and 'electric' fishing may soon become obsolete.

What about the 'electric' fishers themselves? Can they afford to give up this source of income? The researchers are trying to find ways to help them find alternative employment. Already, an international NGO working in the area has offered support by extending credit to those voluntarily abandoning 'electric' fishing.

Meanwhile, the research group is struggling with other issues. The fishing village, though wealthier than the

neighbouring farming villages, has less of infrastructure and access to schools and health clinics. They thus appear much poorer. Perhaps one reason for this could be that fishers, who compete on water, tend not to be organized on land. In contrast, the neighbouring farming community has mobilized and organized its members to get electricity connection.

The road leading from the commune headquarters to the fishing village is a single lane, with only a few planks of wood serving as a bridge. Since the establishment of the programme banning 'electric' fishing, the fishers have started contemplating other projects.

The first is for the construction of a proper road that can withstand floods. The fishers themselves have drafted a proposal, got it approved by the commune's People's Committee and delivered it to the research project office—with a kg of shrimp they had caught the previous night.

Community movement

This proposal asks for only a part of the costs, namely, for the materials to construct the bridge and two culverts. The materials for the road, as well as all the manual labour needed, would be provided by the villagers themselves.

Though this activity is not directly related to the management of aquatic resources, it is the beginning of an organized

community movement which will not only improve the social and economic lives of the fishers but will also teach them how to manage their resources.

Another group of six researchers are doing similar work on another section of the lagoon, but with a different approach.

Their research goal is to collect fishery data on lagoon resources. These include catch, fishing effort, mean size of the catch, species and marketing.

Phu Tan, the centre of this activity, is located near the northern mouth of the lagoon. The research will be extremely valuable as it will identify migration patterns of aquatic species.

Although their activities are mainly centred in one commune, the fishers have enlisted the participation of five neighbouring communes to get a more comprehensive picture of the fishery.

The data of catch is recorded by the fishers themselves. To avoid imposing an impossible task on them, the fishers were made instrumental in the design of the data collection sheet and they are encouraged to modify it as they think necessary.

The monthly meeting is a venue for the fishers to discuss improvements to the data collection activity, validate the data collected and address issues related to the management of lagoon resources.

The 30 'fisher-co-researchers' (a term coined by the research group leader) are very keen participants, and discussions are often quite heated and emotional. The research activity is also used as a tool to build awareness on lagoon resources, and to bring fishers together to talk and discuss. It hopes to be a forum for the building of a future organization focused on community-based coastal resources management.

The fishers are certainly aware of the dwindling state of the resources, and most say they are participating in the research for their children's sake. This activity might just turn out to be the right catalyst for action.

Further information can be obtained from:

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