

CONSERVATION VERSUS LIVELIHOOD IN THE DANUBE DELTA

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As the Danube approaches the last stage of its long journey to the Black Sea it forks into two branches the Chilia (120km) and the Tulcea (17-km). The Tulcea branch further divides to the Sulina channel (63.7km) and the Gheorghe channel (109-km). These channels, together with 400 freshwater lakes of varying size and a network of interconnecting waterways, form the largest delta in Europe and sustain a unique pattern of closely tied habitats and ecosystems.

The Danube Delta Biosphere Reserve Authority was established by the Romanian government in 1990 to manage 5800 square kilometers of wetland. Around the same time the government also signed on to the Ramsar convention, which placed the Danube Delta on a list of wetlands of international importance and acknowledged the role of its reed beds as a filter for the Black Sea. The delta is a site of great concern to the world's ornithologists because it lies at the intersection of the main European migration routes for 325 species of birds.

The function of the DDBRA is to implement and influence a range of conservation policies issuing from the state government. However, in the preceding nine years the management of conservation has led to tensions between the DDBRA and inhabitants of the eighteen scattered and often inaccessible villages of the delta. These tensions center on the regulation of fishing, hunting and other economic activities, the imposition of restricted areas, local taxation and transport policies and attempts to eliminate poaching.

The freshwater lakes and channels of the delta contain seventy-six species of fish. Fishing is a vital mainstay of economic subsistence for the delta's population and the most important commercial species are carp, bream, perch, sturgeon and shad. There are eighteen strictly protected areas within the borders of the reserve, two of which are rare oak/ash forests. The other sixteen areas cover channels and lakes that were previously available as fishing grounds, but are now strictly off limits to fishermen and protected by DDBRA wardens. Another bone of contention between the delta fishermen and those whom they

lump together as "the ecologists" is the protection that is given to fish eating birds, especially the migratory pelicans who breed in the delta during the summer months and the non-migratory cormorants.

All of the delta villages have a shrinking population. The population of the delta fell from an estimated 21,000 in 1970 to 15,000 in 1992. Those who are left form a predominantly elderly population. There is an increasing tendency for young people to leave the delta villages. This has been exacerbated in recent years by some parents sending their brightest young children to live with relatives in Tulcea, the nearby town of 100,000 inhabitants, where the schools are considered to be superior to the village schools (though this is not necessarily true in every case). By the time they reach fourteen all delta children should attend high school in Tulcea or in the smaller and much diminished coastal town of Sulina, but not all families can afford to pay the boarding fees.

Many of those who have left the delta villages during the past ten years have relocated to Tulcea where they try to retain contact with their native village and often send their older children back for the long summer vacation to help grandparents with animal husbandry and horticulture. Since 1990 levels of unemployment in Tulcea have increased considerably and there is some anecdotal evidence that urban unemployment is causing a trickle of returnees to the villages. Planners link Tulcea's future economic prosperity with its position as an urban "gateway" to the riverine delta and the development of tourism.

During the last fifteen years of the communist regime the practice of tourists being hosted in the homes of delta villagers declined leading to the loss of an important source of supplementary income. The DDBRA attributes this decline to the fact that ornithologists from abroad could not find guides, but additional problems were caused by the regulations that severely restricted Romanians from associating with foreigners. Nevertheless, there is evidence to suggest that some delta villages did continue to receive visitors from abroad. Several inhabitants of

the coastal village of Sfintu Gheorghe claim to have a long and unbroken tradition of letting rooms to intrepid foreign tourists.

Today passenger boats from Tulcea continue to be the main form of transport to and from the villages. Some villages have a daily service, others only every other day with services often being restricted in winter. Other villages have no passenger services. For example at the village of Caraorman the channel is too shallow for large boats. No roads cross the delta, although roads skirt the southern and western edges and a road now stretches a few miles from Tulcea to Partizani on the Tulcea channel. As everywhere in Romania, people use small horses and carts, but some villages occupy such a small amount of continuous landfall that there is not much call for carts. People must get about in the traditional flat-bottomed fishing boats. A few boats have inboard or outboard engines, but their spread is limited because transport problems make it difficult to distribute fuel in the delta and so inflates the price to consumers. Because motorised boats cause erosion to banks their lack assists conservation goals, but does not suit the fishermen, who often row long distances to fishing grounds. In winter the smaller lakes and channels freeze over, causing the fishermen to pursue their catch through holes in the ice.

Water transport is also required to reach distant gardens and grazing ground for livestock. Most households have small amounts of land adjacent to the house that are used for growing vegetables. In some instances a distant garden may be the only one that is cultivated, while in other cases it forms an additional garden. Men and women cultivate the gardens, which may require irrigation in summer, but women do much of the work. A typical garden is planted with potatoes, onions, garlic, peppers, greens, tomatoes, small cucumbers, plum trees, beans, maize and sunflowers. Pests threaten the yields of foods that are stored for consumption during the winter, especially the all-important potato harvest that is prone to attack by eelworm or Colorado beetle. Villagers keep cattle, sheep, pigs, geese, chickens, turkeys and ducks. Cattle herding for meat, rather than dairy produce, is the second most important economic activity after fishing, but not all households have access to land for grazing and the collection of winter fodder. Most households have at least one milch cow and cheese is made in summer and stored for the winter. A few villagers keep bees and trade honey with their neighbors. In

the villages on the edge of the delta bee keeping is more intensive and commercial.

Two Delta Villages

Crisan and Mila 23 are two villages that, together with Caraorman, form the administrative district of Crisan. There are eight administrative districts that are completely contained within the territory of the Biosphere Reserve Authority, each with an elected mayor. Crisan, with a population of 468, is the administrative center for Crisan district and so possesses the Mayor's office, a police post and the office of the district's agricultural agent. Crisan lies along a strait canal that runs between Tulcea and Sulina on the Black Sea coast. Mila 23, with a population of 408, is less well placed, being situated along a winding branch that connects to the canal at its eastern and western extremities.

One major difference between the identities of the two villages is that Crisan has the reputation of being a Ukrainian village, while Mila 23 has the reputation of being a Lipovan (Russian) village. The inhabitants of Crisan and Mila 23 thus represent themselves, and are identified by outsiders, as connected to one of two main ethnic groups that dwell alongside those people who consider themselves to be ethnically Romanian. In the course of everyday life most of the inhabitants of Crisan village speak Ukrainian, although all the villagers also speak Romanian. Village surnames such as Ivanov, Iacovici and Trofimov function locally as markers of Ukrainian ethnicity, even though for a philologist these names may suggest nothing more than a shared Slavic origin. The village supports a women's choir, Rebalka (the name means fisherfolk), that performs Ukrainian folk songs. However, in keeping with other delta villages that are identified as Ukrainian, for example Caraorman, Crisan is also home to those who claim Lipovan or Romanian ethnic origins and marriages across ethnic boundaries are fairly common. However in the case of mixed marriages it is usual that children will accept the ethnic identity of the male parent whose surname they bear.

Much to the chagrin of its mayor Crisan does not possess a church, but should the mayor be successful in his campaign to build one it would be a Romanian Orthodox Church. In delta villages Ukrainians do not mark their identity by maintaining separate religious congregations and have been absorbed into the Romanian church. This is in contrast to the Lipovan villages like Mila where religious and ethnic identity overlap. Other

important marks of identity for the Lipovan inhabitants of the delta are the use of an archaic form of the Russian language and the appearance of the villages. Villages are easily identified as predominantly Lipovan because of the ubiquity of a distinctive shade of bright blue paint applied to the exteriors and interiors of houses, churches and on garden fences.

The Lipovan villagers claim descent from groups who fled religious persecution ensuing from reforms of the Russian Orthodox Church that began in the middle of the seventeenth century and set off the great church schism known as *raskol*. The movement against the reforms came to be known as the Old Believers. Because the movement lacked centralised ecclesiastical authority, the Old Believers fragmented into numerous sects all of whom opposed the state supported, reformed church. Sects created by the schism were persecuted and this led to the creation of a geographical diaspora of communities of Old Believers. In the early period the strongholds of the Old Believers were often located along the borders of the Russian Empire furthest away from the central administration. But as Robert Crummey points out: "The frontier, moreover, offered the possibility of escape to a foreign state if persecution overtook the Old Believers in their refuges inside Russian's borders" (Crummey 1970:23).

Mila 23 has a brand new church because the village suffered flooding in 1970. The old Church, which still stands, was badly damaged. The money for the new church was raised by donations from the wider Lipovan community within the delta, despite the fact that according to Mila's elderly priest there is a notable decline in church attendance among the younger generation. Nevertheless, the new church stands as a source of pride, a highly visible and self-conscious symbol of the village's Lipovan identity and its reciprocal links with the wider Lipovan community.

Crisan, on the other hand, has no church to boast of. Services are held by a visiting Romanian Orthodox priest in the village hall. The Mayor represents a detectable, but not necessarily unanimous, strand of feeling in the village that views the lack of a church as an unacceptable detraction from Crisan's secular importance as an administrative center. Its role as an administrative centre and its position on a main channel do give Crisan a minor economic advantage over Mila 23. There are a small number of salaried jobs associated with the Mayor's office and the police post at Crisan, which also confer the advantage of a properly maintained telephone link that usually

works, while ferries to and from Sulina and Tulcea are more frequent.

All of the delta villages have suffered from decades of fisheries mismanagement that threaten the viability of what should be a sustainable local industry. Fish catches are in decline due to a range of problems. These include factors such as an increase in the quantity and number of polluting discharges; increased nutrient loading in the river waters; canalization of the river, margins and sections of the delta; as well as the effects of polarization for purposes of aquaculture (Crean and Haywood 1998). However, despite the decline in the abundance of fish across a number of species, fishing continues to be a significant economic activity. Freshwater fish capture accounts for the generation of around 5.2 million US dollars per annum within the territory of the Biosphere Reserve Authority.

Among the total number of inhabitants of Mila 23 and Crisan thirteen per cent describe themselves as dependent on fishing for an income. A further nine per cent describe themselves as laborers (*muncitor*) of which number some work in the collection and distribution of fish catches. Of the remaining percentage of workers thirteen per cent are teachers, civil servants or managers while twenty per cent work as skilled laborers for example as mechanics and as technicians in the pumping stations. A further fourteen per cent are pensioners while thirty-one per cent describe themselves as housewives.

Those villagers who are not full time fishermen are likely to have access to a boat and to catch enough fish for consumption within their own households and to allow them to participate in village networks of exchange. In addition to the predominance of fish at every meal, visitors to both Crisan and Mila are likely to be struck by the ceaseless talk about fishing together with the daily rhythms that are associated with it. Hence in these various ways village life approximates what McCay (1978:397) describe as "a wet and fishy productive regime that defines the social, cultural, and economic life of fishing communities." The degree of homogeneity that emerges from such a distinctive way of life seems for the time being at least, to outweigh the differences in ethnic and religious affiliations that characterize the two villages. The fishermen appear to share a large measure of occupational solidarity that depends on the shared mastery of unique skills and specialist systems of local knowledge, together with the much admired and necessary characteristics of hardiness and courage. Fishermen perceiving their livelihood as under pressure from the massed

ranks of conservationists personified by the DDBRA further increase such solidarity.

A Special Species of Place

The issues discussed above raise questions about how members of the educated elite responsible for the management and economic exploitation of the reserve perceive its significance. Most, including those who do not originate from this part of Romania, declare their admiration for the delta and pride in the part they play in its conservation. They see themselves as the guardians of a rare and valuable ecosystem, a source of regional and national pride. Similar attitudes can be found when talking to people from non-professional sections of the population in Tulcea. Even people who never venture into the delta (known in local parlance as the *balta*) speak eagerly of their belief in its preservation as a local asset.

These perceptions are influenced not only by the Romanian government's creation of the biosphere reserve, but also by the recognition of the delta as a special environment by global organisations such as UNESCO, the World Bank, the World Wide Fund for Nature, and the International Union for the Conservation of Nature. In September 1990 the delta was listed as a wetland of international importance especially as a wildfowl habitat under the Ramsar Convention and in December 1990 it was included as a strictly protected area in the World Heritage List under the World Heritage Convention.

The delta's designation as worthy of conservation and requiring protection evokes pseudo-religious sensibilities concerning the idea of landscape as a sanctuary for the protection of biodiversity. Viewed as a special place where wildlife is to be rendered safe from the effects of human activity a biosphere reserve is somewhere set apart and hedged around with rules and taboos. In this sense there are parallels to be drawn with sacred spaces dedicated to religious purposes, even though the purpose of the biosphere reserve is entirely secular.

Clearly there are national and global pressures on the personnel of the DDBRA to focus on conservation and the maintenance of biodiversity and to view the human population as a potential impediment to these goals. The DDBRA is committed to influencing and transforming the ways of thinking of the delta's people. However, there is no indication of this having been addressed in specific ways. Nor is it clear exactly how the

DDBRA is supposed to influence people and towards what goals - apart from getting them to behave as the ecologists want them to.

There are plenty of indications that the people of the delta feel themselves to have taken second place to the wildlife that the conservationists so earnestly hope they will assist in preserving. A fisherman from Crisan displays typical disdain for 'ecologists' when he says: "We know more [about the ecology of the delta] than what is written on paper. If we do according to what is written on paper then we will end up eating fish that is drawn on paper...At Portita, where the grey mullet used to go what did they do? Somebody thought to control the situation there because there were so many fish that they were breaking the barrier that had been erected in the water. They said 'let's control it'. They blocked the way so that the fish had to go in another direction which they thought would be better. But the fish did not go there. The fish want to circulate where they always circulate."

The villagers assert that they have just as much interest in protecting the environment and preserving the delta's resources as do the ecologists, although they feel that the ecologists fail to recognize this fact: "Here in our delta, if a man goes to cut a willow, he will look for a tree with a dry top so that he can cut the dry wood for his fire. He knows that next year he will need another willow for the fire so he will not cut down the tree. I remember thirty years ago, a fisherman from Rosu came from Caraorman with a carp weighing about 8 kg. He threw it onto the ground at the fish collection point and said: 'Take it to the Research Institute at Tulcea to see why the carp in the delta are dying.' He was a simple fisherman who only knew enough to sign his name for his salary, but he is the real conservationist in the delta."

Part of the problem lies in the different values that are placed on fish-eating species by the fishermen and the ecologists. For example, cormorants, which live exclusively on fish, are universally disdained by the fishermen, but valued by the ecologists. Scientists carrying out fieldwork recently discovered a colony of cormorants where almost two hundred unfledged chicks had been slaughtered in what was presumed to be an attempt by local fishermen to control the numbers of a species they regard as a serious competitor.

In addition to restrictions and tensions surrounding conservation the fishermen are also facing privatization of the marketing system. During the communist regime fish distribution and marketing was in the hands of the state owned

Piscicola organizations. Fishermen delivered their catches to fish collection points for weighing and recording. Fishermen received a salary and were supplied with fishing gear, including boats. But all this has changed and the fish collection points are in the process of being privatized: "Now you are on your own. You have to buy boats, gear, everything. You can sell the fish or you can deliver it to the fish collection point." Collectivization made it easier for fish catches to be controlled and taxed, but privatization has led to an expansion in black market trading and hence to over fishing of certain species. The introduction of mobile phones has also led to an increase in the black marketing of fish. Young men have taken up the new technology to trade directly with restaurants or with middlemen in Tulcea and in the resort town of Constanza, which lies along the coast.

The number of stakeholder institutions and confusion surrounding their conflicting roles further aggravates hostility towards the institutionalized management of the delta and its resources. The DDBRA is generally seen as a kind of supra-administration, but certain responsibilities also fall to Tulcea County Council and to the County Board for Agriculture, as well as Piscicola. This latter organisation continues to own and oversee certain areas. One example is the island known as Ceamurlia close to the village of Crisan. Ceamurlia consists of good arable land that is not exploited by the administrative office of Piscicola in distant Sulina and the villagers, who are short of land, resent their inability to plant gardens there. To them the island's uncultivated state represents a wasted opportunity caused by intransigent bureaucracy. From the villager's point of view they have, on one hand, the DDBRA claiming that it wants to support human productivity that is in keeping with conservation, as would be the case with cultivating the island. On the other hand, Piscicola are seen as preventing cultivation for no good reason. As one villager put it: "There is a terrible void. There are regulations that collide." The result is frustration and a stifling of initiatives for self-help at district and village levels: "Any time when the Mayorality of Crisan tries to make an important decision those from the County Council and further on invoke procedural reasons and, of course, we are not allowed to do what we want."

In the short term it is likely that conflict between the delta's inhabitants and institutions charged with the implementation of conservation measures will continue. Efforts towards change require a detailed understanding of the relationship between the villagers and the wider ecosystem of

which they are a part. Only then will it be possible to address how the maintenance of biodiversity can be reconciled with socio-economic development. These are the goals of a new initiative involving collaboration between researchers from the Danube Delta National Institute for Research and Development and researchers from the University of Durham in Britain. This initiative is intended to address these issues. The research is part of a larger European Union funded comparative program entitled Integrated Management of European Wetlands (IMEW), which will take place simultaneously over the next three years in the Danube Delta, the Saimaa lakes in Finland, the Nemunas Delta in Lithuania and Kerkini Lake in northern Greece. A multi-disciplinary approach is intended to provide an analysis of how people view their fisheries ecology and how such views fit with scientific observations. Researchers will then be able to assess how the experience of formal education and other formative experiences influence traditional knowledge and beliefs about the environment. Part of the research program will be aimed at assessing the extent to which efforts to manage resources at the institutional level impact on behaviors and attitudes towards environmental factors and how such behaviors affect the capacity for the development of responsible tourism.

Readers interested in the progress of the IMEW program in Romania and Lithuania should write to the Project Coordinator at the Department of Anthropology, University of Durham, 43 Old Elvet, Durham, DH1 3HN or via email at sandra.bell@durham.ac.uk.

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