

The Dubna Wetlands: Homeland of the Crane

Elena Smirnova
Biodiversity Conservation Center

THE CONTEXT

The Dubna wetland and the surrounding area called the “Homeland of the Crane” is composed of 40,000 hectares in the northern part of Moscow region, Russia. Geographically, the Homeland of the Crane is located in the southern part of the upper Volga lowland of the Russian plain, and belongs to the temperate continental climatic zone. Its origin is in the last glacial period around 8,000 years ago. Botanically, the area contains a complex of older-birch swamps, raised pine-moss and transitional bogs, mixed coniferous forests and farmlands.

The major ecosystem products, functions, and attributes of Dubna wetland include water quality enhancement; water retention and regulation of hydrological regime; wildlife habitat; migratory bird flyway; and berry production. Extensive moss bogs of the Dubna wetland store rain and melted water and feed local rivers and springs. Filtered through peat (4-5m thick) and sand layers water is cleaned, which replenishes the groundwater – the main drinking resource for people in the area.

The Dubna wetland provides wildlife habitat for many rare species of plant and animals in the Moscow region and central Russia. About 20,500 ha were preserved in the Dubna lowland for conservation objectives. The list of protected species includes *Orchises*, *Cypripedium calceolus*, *Lycopodiums*, *Nymphaea candida*, *Gammarbia*, and species of the post glacial relics *Betula nana*, *Rhubus*, etc. The area contains nine of the 15 bird of prey in the Moscow region. Osprey, great spotted eagle, Azure tit, merlin, curlew, beavers, bear, elk, and lynx inhabit the Dubna wetland. The area provides stopover place for migratory birds, including Bean Goose, White-fronted Goose, ducks, swans, and waders. This is one of most important areas for the conservation of Great Spotted Eagle in European Russia. It is also of great importance for the European Cranes as breeding ground and fall gathering place in Central European Russia.

The ecosystem needs to be maintained because it supports a healthy environment for people, and one characterized by high biodiversity. The parallel evolution and relationship of nature and people has own historical, cultural and ecological value. Some of conservation objectives depend on both natural and anthropogenic factors and needs in specific management.

The Human-Environment Relationship

It is known that 7,000-8,000 years ago people influenced natural processes in the Dubna wetland. Tribes were hunting and fishing, cutting forests for firewood and implements. Probably, their damage to the ecosystems was not very import, excepting the human-induced extinction of mammoth and its consequences. Serious human-induced ecological damage is relatively recent. Since the 1920s drainage has been at a large scale, especially at the edge area of wetland. Drained land had been used for peat mining and then for farming. The natural channel of the Dubna River has been straightened in addition to drainage of parts of the

wetland. One more ecological damage is induced by irregular fires that occur most often in the summer. These underground-peat and wood fires are caused by carelessness of people or grass burning.

Some of wetland resource are used by people unsustainably. In this aspect the most problems caused by current peat mining and hunting especially in the Spring. Some threats to the wetland communities proceed from fall cranberry picking when too many people visit the cranberry bogs.

A planned project for ground water pumping to supply Moscow presents the greatest current threat to the wetland. As a recent EIA shows, if this project moves forward, it would significantly change hydrological regime in the area. Certain threats could also be expected in deal as tourism develops in the area. At the same time there is no harm caused by the wetland and its wildlife to local communities. Although some crop depredation by cranes during the gathering period exists, it has never been a big problem for former Soviet collective farms.

The area is predominately rural. The largest settlement here is the district center Taldom, a town inhabited by 30,000 people. A number of villages of a few hundred people surround the wetland. In the 20th century the population density decreased as well as number of villages. In the vicinity of the wetland the population density was 54.8 people per sq.km in 1774 and 22,4 people per sq.km in 1996. There are basic infrastructure: roads, schools, health centers, and libraries. The major source of livelihood for local people is growing corn, vegetable culture and cattle. The local population could be considered as a mix of well-off inhabitants and poor, though the latter predominates. They usually have a small house or apartment and a kitchen garden. Their salary usually is not higher US\$100 per month. From the soviet period education and health are still available free for everybody. At the same time there are available paid services. The local population characterized by low birth-rate, stable/decreasing population size and migration of the younger generation to cities. In the summer population usually increases in several times by citizens on vacation and those having summer houses and gardens.

As mentioned above the Dubna lowland includes 20,500 ha of preserved wetland which belong to eight protected areas. The status of protected areas is the State Natural Zakaznik (or sanctuary), which means that the land is in state ownership and land and resource use are strictly limited to certain types or prohibited altogether. Specifically, woodcutting is prohibited, as is hunting. For each of the eight protected areas a specific set of land-use restrictions is prescribed. Therefore there are a number of land users who still have rights to use wetland resources, within the limits prescribed by the protection regime. On the territory of wetlands themselves we have several land users: forestry units and collective farms (agribusiness), peat mining enterprises, and hunting associations. All these land-users agreed to restrict their use rights at the time when a given Zakaznik was established, in a negotiation procedure with governmental conservation authorities.

There are some negative and positive consequences of land-use practices on adjacent lands. Drainage of neighboring farmland and use of mineral fertilizers affect the edge plant communities. Vicinity of cowsheds is also leading to pollution of surface and ground water by the waste. Because of the large cropland many animals inhabited wetland are attracted by good feeding conditions in fields. This is favourable for granivorous birds and birds of prey feeding on mice.

Substantive management decisions both for wetlands and surrounding areas today are taken by the government of the Moscow region and Taldom or Sergiev Posad district administrations in agreement with landowners: Leskhoz for wetlands covered by forest, agricultural organizations for agricultural lands. Within limits of their land-use rights, decisions are taken by land users mentioned above. Although all these participants would be involved in decision-making related to nature conservation, in recent years we see that the initiative for such decision-making shifts from Moscow-based officials and conservation NGOs to local authorities. For instance, local authorities requested the Moscow regional government to set up the Nature Park “Homeland of the Crane.” Unlike all presently existing protected areas, the Nature Park will have special staff. Local people will be employed for as managers, rangers and educators. Additional funds will be raised from the regional and district government.

Some decisions by higher Moscow regional authorities are disapproved and eventually blocked by Taldom District Administration, such as the Moscow water supply project and land allocation for a big number of summer houses for Moscovites. In these cases municipal authorities were greatly influenced by wide local popular opposition to these plans.

The wetland management was significantly changed after the Revolution in 1917 when private land property was replaced by state property. One hundred years ago the Dubna wetland was divided between several (20-40) independent landowners . At this time the land was used for the benefit of local community and predominantly by the local community. From the 1940s until recently the wetland was not really controlled by the local and regional government. Large-scale drainage and major “agricultural improvement” was undertaken on the initiative of national government, using finances, machinery and workers coming from outside of the immediate locality. Presently, land-use in the area is once again more locally-driven, with little investment and intervention from outside in agriculture and forestry. According to historical maps and economic descriptions of the area, management prior to 1900 was more sustainable than during the last century. The area of untouched wetland was much higher, there was no extensive drainage, and hunting and fishing were less intensive and were regulated by customary practices.

In the past there was a customary resource management system in the area which was closely connected with the religious calendar, which means that the beginning and end of certain activities depended on the relevant holidays. This resulted in clear calendar of resource use. Existed rules of behavior in nature, superstitions, popular beliefs also promoted a restricted and sustainable use of natural resources. Unfortunately, this customary system has almost died out during the Soviet period.

LOCAL PARTICIPATION

Community involvement in wetland management started in 1978-79, as a necessary part of conservation measures developed by the Druzhina (a student Group for Nature Conservation at Moscow State University and the oldest modern environmental NGO, founded in 1960) to preserve the Dubna wetland. However there was no specific objective “to involve local community,” and no measures designed specifically for that.

The new stage of involvement of local communities began in 1994 with the special international project of the International Crane Foundation (USA), Community Conservation Consultants (USA) and Druzhina (Russia). After the collapse of the Soviet Union led by the

Communist Party, the current political system in Russia is a parliamentary democracy with emphasis on direct citizen participation. Different kinds of communities (e.g., villages, cities, districts) have got a degree of autonomy from the national government with the establishment of municipal authorities. Local authorities, selected by local peoples, cooperate with representatives of the national government. Surely, this democratic change was enjoyed by local people, who experienced democratic rights for the first time. They are no more fearful in expressing their opinions. Everyone can participate in elections.

The concept of involving local communities in land management is relatively new in Russia and popular only in limited circle of conservationists. This important concept unfortunately is not used by most government authorities/agencies charged with conservation and management, and there are no specifically designed policies and government projects at the national level. Nevertheless, some positive steps in the process of involvement are made by local governments in partnership with government agencies and NGOs as a part of conservation work for the individual important natural areas. "Homeland of the Crane" is an example of such work.

The attitude of the local government administration towards conservation tasks of the Dubna wetland evolved from rather negative to positive during almost 20 years. Now local (Taldom District) administration actively undertakes certain conservation/management measures, however it still hardly recognizes the need to involve local people in these activities. In many other cases, the necessity to include the population with its interests and concerns is more obvious for the local administration.

The Stakeholders

The people and groups affected by and/or concerned about the management of the wetland are:

- collective farms (agribusiness);
- forestry management units;
- the peat-mining companies;
- historic occupants and long-term settlers represented by rural population of the area;
- non-resident users of resources (owners of country-houses, cranberry collectors);
- government agencies (e.g., the Moscow Committee for Nature Protection);
- local authorities;
- interested NGOs (e.g., the Druzhina for Nature Conservation, the Biodiversity Conservation Center, the Russian Bird Conservation Union, etc.);
- research institutions (e.g., Moscow State University archeology and biology departments, the Forestry Institution); and
- the hunting association.

Excluding the environmental value of the Dubna wetland, its applied meaning for local communities consists of water, food (cranberries), medicinal plants, and recreation. The peat mining industry, wood, and silt have been the major economic value for other stakeholders. Probably, the people most dependent on the resource at stake the peat miners because of economic advantage. The others are not dependent on the wetland resource for livelihoods. The following interests and concerns can be identified:

1. economic (income from the resource use by enterprises and individuals as well);
2. ecology (providing the health environment in the area);

3. conservation (habitat for populations of rare species of plants and animals, large undamaged natural communities);
4. education;
5. cultural (original history of coexistence of people and nature, existence of poems devoted to the area and a novel by a popular author-naturalist and philosopher Mikhail Prishvin); and
6. ethic and aesthetic (pride and love by local people for wetland, cranes, and wilderness).

According to specific political and socio-economic conditions in Russia, the involvement of local people in conservation is composed of parallel work with local and regional officials and a wide range of public. Private landowners still have not such an outstanding role as in other countries. Therefore much attention is paid to contact and cooperate with district administrations, nature protection committees, departments of agriculture, culture and education.

Usually, interests and concerns of different stakeholders overlap. Although, the main “stake” can be predominant. For example, in 1979, in order to restrict peat-mining and organize the first nature reserve a special meeting of stakeholders was organized at Taldom District Administration at the request of the Druzhina for Nature Conservation. This meeting was necessary to establish urgently agreements with each land-user and governmental agency in the area. Such a meeting was an unusual measure, organized because it was necessary to stop immediately further conversion of the wetland into agricultural land, and previous attempts to reach agreement in individual negotiations with state farms dependant on that converted land were unsuccessful. So, in that meeting each stakeholder expressed his opinion according to his own set of interests and concerns. It was revealed at the meeting that conservation measures do not contradict the interests of the majority of existing land-users, and continuation of agriculture on surrounding lands will not be threatened by establishment of protected areas. And since all stakeholders gathering together were actually local people, their desire to preserve their environment, their love for cranes became one of the decisive factors in the agreement to establish the protected area. Destruction of the wetland was stopped despite the potential for economic advantage in further conversion for some important stakeholders.

Stakeholders differ from each other by their organizations. Municipal authorities, organizations of land users and government agencies are well organized and have legitimate representation at any official decision-making process. The “general public” (local residents) is not well organized (apart from the aforementioned conservation NGOs), and have no legitimate representation in decision-making. The main tools for them to stand up for their interests are discussions and negotiations reflected in local newspaper, violation of imposed restrictions, and causing damage to warning signs.

There are major events and trends currently affecting the stakeholders, including land reforms with possible land privatization, and creation of the Nature Park.

The active process of involving local people in the management of the Dubna wetland is at an early stage of development. Recognition of the importance of involvement came with idea that nobody can conserve the wetland without cooperation and support from local people. During many years there was some conflict between conservationists from outside the area and local communities. Therefore, environmental education became a priority for the

involvement of people in conservation and sustainable management. The most important role in facilitating the process was played by NGOs.

Thanks to the Druzhina for Nature Conservation, after many meetings and negotiations, in 1979 the different stakeholders representing government and municipal bodies agreed to restrict resource use. This meant an end to the wetland conversion into farmland, prohibition of spring and fall hunting, and permission for cranberry picking after the first of October. Rangers from the Forestry Unit and the Hunting Association have taken responsibility to enforce these rules. Every year the Head of Taldom Administration signed the decree about protective measures for Dubna wetland during the crane gathering.

There was an attempt from NGOs to develop the preliminary management plan for the area in 1995. It was carried out by an international working group including Druzhina, Biodiversity Conservation Center, and the Community Conservation Consultants. But its creation was not actively supported by authorities/stakeholders due to the unwillingness of stakeholders and initiators of the project to follow it. This attempt revealed the absence of bodies that could be responsible for implementation, monitoring, and evaluation of the plan. Therefore up to date the management plan exercise has not been completed. Nevertheless, some aspects of the ecological monitoring of the wetland are being done by biologists from the Duzhina, Biodiversity Conservation Centre, and Russian Bird Conservation Union.

There are several crucial factors that promoted the involvement of local communities in sound wetland management:

- the existence of a dedicated project, NGOs and support organizations;
- public awareness and environmental education;
- rules which are appropriate to local conditions;
- financial support;
- sound technical advice and technical capacity of various involved individuals;
- supportive policy and regulations about the use of natural resources.

The modern conservation status and the initiation of involvement local peoples into sustainable management of the Dubna wetland are due to the activity of the Druzhina for Nature Conservation. In the last three years a dedicated project in cooperation with the International Crane Foundation (USA) and Community Conservation Consultants (USA) has become a logical outcome of the previous conservation work done by Druzhina. Since 1994 the Dubna wetland has received international attention. Repeatedly it has been threatened by ecologically harmful projects, such as allocation of country houses, and thanks to the joint efforts of NGOs and support organizations, the Dubna wetland escaped danger.

In most cases the initiative and awareness-raising activities to stop harmful projects came from Moscow-based NGOs, and some-times supported by regional and/or district authorities. Protest against the construction of ground water-supply for Moscow was the only case, when initial awareness-raising by NGOs was followed by an outburst of independent local protests coming from local citizens, rather than from the official district authority. Actually the Taldom District Administration tried to suppress organizers of protest actions. However, subsequently it had to oppose the water-supply construction quite officially. Presently (Fall 1997) planning for water-supply construction is delayed, but it can reemerge in near future.

The permanent work in the area such as meeting with authorities, international meetings, visits by outsiders, articles in the local newspaper, lectures at schools have changed the

attitude the local people towards wetland and cranes. Peoples accustomed to the surrounding nature became to understand the importance of the area and to value its natural heritage.

Definitely, the achievements of the last years (a Crane Exhibit, a Crane Festival, the guidebook entitled “Homeland of the Crane: stories about nature and people,” and other efforts) were undertaken with the participation of many local peoples. With the improved ecological knowledge, it is hoped that this assistance and involvement will grow. Financial support has been the crucial factor to start up the project in 1994. The enthusiastic activity of NGOs would not be so effective without funds provided by the ISAR/USAID, the Dutch Embassy, and the MacArthur Foundation.

RESULTS

As the main result of local participation in conservation measures, the current wetland management is successful in maintaining the ecosystem and its functions. The status of the State Nature Zakaznik (refuge) provides some conditions for saving biodiversity which are definitely insufficient and should be improved. Destruction of the wetland was stopped, but restoration of the peat mines and further drainage of thousands of hectares still remains as a future risk.

Participation in conservation management of the wetland excluded intensive resource use. However, it reduced economic benefit for the stakeholders. Aside from moral encouragement, they have not been compensated.

The conservation history of the Dubna wetland has become significant in many aspects for the government authority involved in wetland management. Experience in different kinds of activity (protection, work with stakeholders, education, and research) prepared the ground for the improvement of wetland management. In the Moscow region there will be the first Nature park in the place of Dubna wetland as a model subject in the light of last federal (1996) legislation about natural protected areas.

According to the growing knowledge of people about the meaning of Dubna wetland there has been an increase in public support. An increase in the management costs are expected with establishing real staff responsible for the control and monitoring of the wetland management. These elements could be strengthened, as well as education and ecotourism. The Crane Exhibit dedicated to the Dubna wetland, European Crane and connection between nature and people was opened in 1996 at the local Museum of Klyitchkov. At the same time the Crane festival consisted of crane watching, wetland tour and visit to the exhibit, has being conducted since 1995 for the local school children. These successful beginnings could be developed to attract more visitors and hopefully would increase income for local people. Revival of old attitude and traditions which are still alive in mind of some elders (which were gathered by interviewing of elders in 1995-96) should be initiated for the better sustainability. And surely administrative measures could be strengthened and local institution should be set up.

RECOMMENDATIONS

The participation of local communities in sustainable wetland management is necessary in the case of centralized management of the resource by the state. Federal government in Russia by

law has broad rights to manage land and resources use without consulting the local community. When local peoples, stakeholders are conscious about their possible losses, and if they are well-organized and active, it is possible to oppose undesirable projects and to stand up for their interests. Surely, this requires that people should be well-informed. Therefore good environmental education is essential for the involvement.

Success of involvement depends on many factors. According to our experience, the following conditions and forms of support are very important to involve resident communities:

- positive attitude of local authorities;
- existence at least 2-3 persons from local people interested in such kind of work who have joined the process;
- detailed explanation of the position and what could be done by one or more persons;
- assistance of local media;
- feeling of participation in globally important problem, communication and cooperation with other experienced organization; and
- financing.