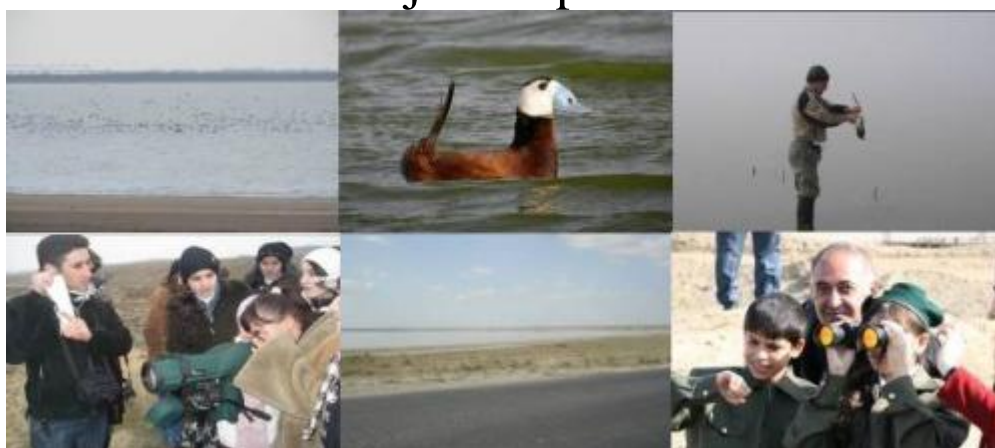


Conservation of White headed Duck at Lake Hajigabul in Azerbaijan, Azerbaijan

Project Report



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1. Brief background and summary of project

Azerbaijan is located along the Eurasian-African Migratory Bird Flyway connecting Central Asia to the Middle East and Africa and used by many threatened birds; among them the White headed Duck (*Oxyura leucocephala*). Lake Hajigabul regularly hosts internationally important numbers (up to 1,000 i.e. >10% of the global population) of this species during migration and over winter. So Lake Hajigabul has exclusive importance for conservation of White-headed Duck in the World.

Hajigabul Lake is one of the largest and most important wetlands in the Kura-Araz lowlands in Azerbaijan and is of key importance as wintering site for 15,000 to 25,000 waterbirds every year. Besides it regularly support during migration period (middle February- middle April and October-November) the same number of migratory waterbirds. The lake lies on the migration way of waterbirds from Caspian Sea coast to inland wetlands (lakes Aggol, Sarisu et c.). The conservation of the lake is therefore an important step in the conservation of the network of sites important for the White-headed Duck and for important numbers of other migratory and breeding birds.

The drainage system established during Soviet time has been collapsed during the past 5-10 years and the management of water resources is almost non existent nowadays. Most wetlands suffer severely from this development and are prone to drying out periodically. Water level changes of 2 meters or more occur regularly at Lake Hajigabul. The large system of fishponds, with their intense reed beds the most important breeding sites and adjacent to large open body of the lake is drying out regularly and are quickly losing their habitat and ecological functions. These changes are affecting the capacity of the lake to support White headed Ducks during migration and winter as well as other waterbirds.

The site is surrounded by 2 larger settlements, the catchments area is populated with about 100,000 people. The severe economical situation and the lack of conservation management lead to intense and uncontrolled hunting and fishing

Project aim to understand the root causes of the current threats and their impact on the migratory waterfowl and improve conservation management of Lake Hajigabul based on a stakeholder-involvement approach. Also we want to increase public awareness and understanding of the site peculiarity by including key local stakeholders into project implementation and informing broader public with press work and production and dissemination of a site information poster.

2. Objectives are:

1. To establish multi-stakeholder working group for developing the implementation plan for improving the conservation of threatened species and their habitats
2. To establish the regular monitoring of White-Head Duck and other birds also ecological situation at the Lake by involving and training of the local people
3. To collect, evaluate and publish data and information to provide a basis for prioritizing and improving conservation action
4. To promote awareness among the local population and to enhance them to take over responsibility for safeguarding biodiversity

3. Expected results of the project are:

- Detailed and updated information about birds and scientific data about the physical and chemical properties of the Lake as well the problems of the area is studied and collected as database
- Standardized and comprehensive scientific methods is applied by local scientists, data is professionally and well managed
- Sustainability of monitoring activities in the project site is promoted by training and supporting of local stakeholders
- Recommendations for proper management of the area is prepared and introduced to the relevant bodies

4. Achievements during the project implementation – Activities

4.1. Setting up a multi-stakeholder working group and agree on meeting schedule (at least quarterly)

Project implementation started with creation of working group. The working group was consisting of from 9 people. The aim was the effective implementation of project and establishment of group which will carry out the all necessary activities for improving the situation of Hajigabul Lake. Group members met several times during the project implementation according to the agreed schedule at the beginning of the project. All information gathered during the project discussed with group members. Names of group members listed below:

1. Elchin Sultanov – Ornithologists, Azerbaijan Ornithological Society
2. Tahir Kerimov- Ornithologists, Azerbaijan Ornithological Society; National Academy of Sciences of Azerbaijan
3. Shahin Isayev- Ornithologists, Azerbaijan Ornithological Society

4. Sahib Dadashov- Head of Regional Environmental Education Centre, Ali-Bayramli (now Shirvan)
5. Ilham Jabbarov - Head of Hajigabul Fishing Company, Renter of the Lake, Hajigabul
6. Yadulla Eyvazov- Deputy director of Regional Committee of Ecology, Ali Bayramli (now Shirvan), Ministry of Ecology and Natural Resources of Azerbaijan Republic
7. Irada Gasimova - School teacher, Ali-Bayramli
8. Saleh Aliyev - Hydrobiologist, Baku, National Academy of Sciences of Azerbaijan
9. Vagif Mammadov- Hydrologist, Baku, National Academy of Sciences of Azerbaijan

4.2. Prepare and conduct scientific baseline study to collate necessary basic information and data (for avifauna and especially for White-headed Duck cover site at least 3 times)

Site has been visited regularly during the project implementation. Regular fresh data about presence of Globally Threatened Species collected and added to the database of AOS, BirdLife International and Wetlands International. Site has been visited 16 times with totally 53 days by team members.



4.3. Carry out literature review

All literature about ornithology, hydrology and hydrobiology of Lake have been reviewed and collected as a data base and published at the end of the project in brochure.

4.4. Add to fresh data collated at activity 4.2 to prepare a baseline report

Data collected within project implementation by scientists involved to the project have been prepared as a 134 pages brochure and will be introduced to main stakeholders and to public during July-August 2008: 1) Ali-Bayramli



(Shirvan) Regional Environmental Education Centre; 2) Regional Committee of Ecology, Ali Bayramli (now Shirvan), Ministry of Ecology and Natural resources of Azerbaijan Republic; 3) To minister of Ecology and Natural Resources, prof.

Hussein Bagirov; 4) To Central Library of National Academy of Sciences of AR, libraries of Institutes of Geography and Zoology of National Acad. Sic. of AR, Baku State University, Central Public Library of Azerbaijan Republic and others; 5) International Organizations: BirdLife International, Wetlands International, IUCN et c.

4.5. Held inception meeting to inform about management planning principles and assess situation at Hajigabul

At the beginning of the project working group did inception meeting and discussed the situation of Lake and as well the activities before, during and after the project implementation



4.6. Start hydrological survey based on national and expertise to maximise coverage and high quality outcomes

Starting from the March experts involved for the project started the surveys on the Lake. Samples of water and ground from the bottom have been taken from the Lake regularly during the year and sent to laboratories of Institute of Geography and Zoology of National Acad. Sci. of AR and Caspian Ecological Centre of Ministry of Ecology and natural Resources of AR for analyzes. The results have been studied with comparing the old data from literature for seeing the difference not only during the different seasons and as well difference of present and past situations. Lake has been studied in two different directions: 1) the hydrology of the Lake has been studied – the physical, chemical properties of the Lake, radiation also studied because of the possibility of pollution by radioactive matters; 2) the influence of hydrological contents of the Lake to the organisms living at and around the Lake, so invertebrates, algae and fishes studied separately by hydrobiologist involved to the project. Birds have been

studied separately by the ornithologists from Azerbaijan Ornithological Society and National Acad. Sci. of AR.



Scientific experts are taking different samples for analyzes

4.7. Draft recommendations prepared and discuss at stakeholder meeting

After comprehensive scientific researches of the Lake the draft recommendation have been prepared for improving the situation of the Lake. The draft plans have been discussed with working groups and their comments and ideas added to the recommendations and published at the end of the project



Discussion of draft recommendations with stakeholders group

4.8. Held meetings with key stakeholders (water management bodies) to discuss immediate low cost action to ease situation



Two meetings were done for introducing of recommendations for improving the water regime of the Lake at Regional Committee of Ecology of Ministry of Environment and Natural Recourses.

Meeting at regional Committee of Ecology of Ministry of Environment and Natural Recourses for introducing work done during the project and recommendations for improving the water regime of the Lake

4.9. Develop basic monitoring (key species and fixed itineraries) and train local committed conservationists. Equip locals with optic and other field equipment)

Trainings were organized for people (schoolchildren, students, hunters, fishermen) on bird identification, simple monitoring methods, bird counting for regular monitoring of the site by locals. As well the binoculars, field guides were distributed among the locals.



Training on bird identification at Ecological school Hajigabul district



Field training for local Children – Police organization members

4.9. Prepare 2 local and 2 national press releases on project

Press conference was held on 20 July and the press-release was sent to the news agencies, information was published (see below):

1. Newsletter Echo – 23 July 2007, see attachment
2. Turan news Agency – On the web site, August 2007 (see attachment).

Press-release about results of project was distributed among main news agencies, TV canals and newspapers of Azerbaijan on 22 July by e-mail.

4.10. Prepare and disseminate site information poster on the site and the WHD (during meetings, at schools etc.)

Informational poster for public awareness activities prepared and distributed among the locals, schoolchildren, hunters, fishermen and etc. during the meetings

5. Conclusion and Recommendations

The scientific research on the Lake provide possibility to identify the main problems, present and potential threats and as well the ways of solution.

The main problems of the Lake are:

- ▶ Very high salinity of the Lake- salinity increased up to the ocean level (30-35 ppm) while the normal salinity for fishes to live at lakes is 11-13 ppm for Azerbaijan.
- ▶ Oxygen is decreased at the Lake and level is lower than the normal.
- ▶ Water temperature increased and is not suitable for fishery- it causes the less productivity of the fishes as the weight, length of the fishes decreases and fishes lost their real importance as food.
- ▶ Water level of the Lake sharply decreased during the last years. Especially the fishponds which are very important as breeding place for birds are dry during summer and dry winter.
- ▶ Water supplying systems of the Lake are not working and managing properly and it causes the problems written above.

Comparing of the literature information with results of modern research showed that:

- ▶ Number of species of zooplankton decreased from 54(1972) to 33(1996) and to 28 (2007). Population of endemic molluscs living at the Lake is under threat!
- ▶ Changes of the properties of the Lake during last years cause the mass decrease of population of water rodent nutria. And now the population at the Lake is under threat!



- ▶ Number of fish species decreased from: 16(1938) to 10(1977) and to 9(1996). No fish species were found during 2005-2007!
- ▶ Number of bird species decreased from 75(1996) to 59(2007). Number of White-Headed Duck was quit low during last 2 winters (2006-2007, 2007-2008).

All these problems have been discussed with multi-stakeholder group and following recommendations have been decided:

- ▶ The lake is rented by Hajigabul Fishing Company. It gives opportunity to improve the conservation actions of biodiversity of the Lake. But lack of management planning causes the problems. So the first and important thing is to produce management plan for Lake. It needs the funding. The AOS and as well local stakeholders will try to find funding for this.
- ▶ The Lake urgently needs improvement of water supplying system. The Lake needs fresh water to gather its importance as habitat for many species including the Globally Threatened Species.
- ▶ Public awareness activities must be done regularly among the local people.
- ▶ There is big potential for ecotourism on the lake as it is situated in the middle of 2 settlements and on the highway from East to West of the Azerbaijan and it holds significant number of interesting birds including the Globally Threatened Species.
- ▶ The hunting must be strongly controlled for avoiding even occasional shooting of birds such as White headed duck, Marbled teal, Dalmatian Pelican, Ferruginous Duck, Pygmy Cormorant and others.
- ▶ Developing the fishery economy on the lake will provide funding for conservation of other elements of biodiversity. So the studied problems of Lake must be paid attention during the actions taken on this direction.
- ▶ All this moments must be shown during the preparation of management plan for the Lake.



Problems of Lake Hajigabul

Azerbaijan Ornithological Society implemented project “Conservation of White-headed Duck at the Lake Hajigabul” from February 2007. It was planned scientific research of Hacıqabul Lake, identification of ecological problems and potential and real threats and preparation of recommendations for solving of ecological problems. So representatives of Azerbaijan Ornithological Society, Institutes of Zoology and Geography of national Academy of Sciences of Azerbaijan Republic with help of other stakeholders conducted researches of lake.

In result of researches and their analysis and discussions the brochure “Current ecological condition of Lake Hajigabul” were prepared and published. It is noted in brochure, that Lake has not protection status, but giving lake for rent to one organisation give some perspectives for conservation of waterbirds at the Lake, but insufficient water supply, so decrease of water level, existence of hunting at the lake, drying of fish ponds and shallow waters around the lake are main problems.

So we can say about real Ecological Catastrophe which occurs at the lake Hajigabul throughout of insufficient water supply which create absolute majority of threats and ecological problems at the Lake. So we need urgently repair water supply of Lake from Kura River, Governmental and environmental Non-Governmental organisations need to organise workshops and trainings for tenant of the lake and for people of local community of Shirvan city and Hajigabul district. Lake has great social and cultural value for ecological education and public awareness of people also for rest of local people. Lake has great tourist and recreation value throughout location just very close to main motor road of Azerbaijan (West-East or Silk Way) where it is quit perspective to develop tourism and recreation in scale of all country including birdwatching in international scale.

Azerbaijan Ornithological Society

Press Release

“Conservation of White headed Duck at Lake Hajigabul in Azerbaijan”

Azerbaijan Ornithological Society (AOS) on the support of Rufford Maurice Laing foundation is conducting the “Conservation of White headed Duck at Lake Hajigabul in Azerbaijan” project from January of 2007.

As experts PhD in Geography Vagif Mammadov, PhD in Biology Salech Aliyev, chief scientific worker of Azerbaijan National Academy of Science of Institute of Zoology Tahir Kerimov is attracting to project work.

We aim to understand the root causes of the current threats and their impact on the migratory waterfowl and improve conservation management of Lake Hajigabul based on a stakeholder-involvement approach. Also we want to increase public awareness and understanding of the site peculiarity by including key local stakeholders into project implementation and informing broader public with press work and production and dissemination of a site information poster.

Azerbaijan is located along the Eurasian-African Migratory Bird Flyway connecting Central Asia to the Middle East and Africa and used by many threatened birds; among them the White headed Duck (*Oxyra leucocephala*). Lake Hajigabul regularly hosts internationally important numbers (up to 1,000 i.e. >10% of the global population) of this species during migration and over winter. So Lake Hajigabul has exclusive importance for conservation of White-headed Duck in the World.

The conservation of the lake is therefore an important step in the conservation of the network of sites important for the White-headed Duck and for important numbers of other migratory and breeding birds.

The irrigation system established during Soviet time has been collapsed during the past 5-10 years and the management of water resources is almost non existent nowadays. Most wetlands suffer severely from this development and are prone to drying out periodically. Water level changes of 2 meters or more occur regularly at Lake Hajigabul. The large system of fishponds, with their intense reed beds the most important breeding sites and adjacent to large open body of the lake is drying out regularly and are quickly losing their habitat and ecological functions. These changes are affecting the capacity of the lake to support White headed Ducks during migration and winter as well as other waterbirds.

During the implementation of project baseline information on habitat status, ecology of the site and hydrological system will be collected, processed and evaluated. Public awareness activity will be done with the help of key local stakeholders and media. Then we will have enough material and support for giving recommendations and draft implementation plans for improving the situation of conservation management at Lake Hajigabul. An implementation plan will be set up and further projects will be developed and submitted to further donors.

In present time these works have been conducted:

- inception meeting to inform about management planning principles and assess situation at Hajigabul was held;

- periodical monitoring have been conducted during wintering and spring migration;
- scientific baseline study to collate necessary basic information and data of bird species variety during wintering, spring and autumn migration was prepared and conducted;
- literature on Hajigabul lake was analyzed;
- hydrological survey based on national and expertise to maximize coverage and high quality outcomes were started;
- poster on White-Headed Duck was published and distributed through population;
- setting up a multi-stakeholder working group and agree on meeting schedule.

In the present time AOS is conducting the целенаправленную activity on future implementation of project.

And as a result we think with the example of Lake Hajigabul we can improve the situations at other wetland IBAs which are not under governmental protection.