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THREATS TO WETLANDS AND WETLAND CONSERVATION

Trainer's Booklet



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BIOLEARN-BSB142
ECO-CONSCIOUS MINDS TO STOP POLLUTION
IN THE VALUABLE WETLANDS OF BLACK SEA BASIN

THREATS TO WETLANDS AND WETLAND CONSERVATION

Trainer's Booklet

Target Audience: 14+ years old

District Government of Enez

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About The Project

BIOLEARN (Eco-Conscious Minds to Stop Pollution in the Valuable Wetlands of Black Sea Basin - BSB142), which was initiated on 01.01.2020 within the scope of the first call for proposals of “Joint Operational Programme Black Sea Basin 2014-2020” where the Directorate for EU Affairs is the national authority, is led by District Government of Enez.

Representatives of the following partners are as follows:

1. District Government of Enez-Turkey
2. Division Directorate of Edirne under First Regional Directorate under General Directorate of Nature Protection and Nature Parks of Ministry of Agriculture and Forestry - Turkey
3. Foundation Caucasus Environment - Georgia
4. Agricola NGO - Ukraine
5. Green Balkans / Stara Zagora NGO - Bulgaria
6. Management Body of Evros Delta and Samothraki Protected Areas - Greece

The overall objective of the project is to provide information, experience transfer and capacity building training between partners and develop a common environmental protection and education approach, methodology and organizing campaigns that will raise awareness in the society to reduce pollution in important wetlands in the Black Sea Basin.

The main activities to be carried out within the scope of the 26-month project are as follows:

1. Establishment of a total of 4 environmental protection and training centres, one of which is on the shores of Gala Lake, and providing environmental protection training to visitors and especially to students. By providing equipment for the other 6 existing centres, there will be a network of 10 activity and training centres.
2. Workshops to be held in Bulgaria and Greece, focusing on discussions about examples of

successful training and awareness-raising campaigns for the protection of wetlands, sharing experiences and preparing the materials to be used in training which will be applied in all centres. Capacity building training for trainers.

3. Organizing massive and synchronized cleaning campaigns to reduce pollution in wetlands.
4. Award-winning photo contest and exhibition focused on wetland protection.
5. Organizing a wetland pollution-based painting contest and exhibition in primary and secondary schools.

Outputs of the Project:

1. “Stop Pollution” and “Save Nature” environmental education and activity centres, one of which is mobile, will be established in 5 countries and will sustainably carry out training and awareness-raising activities.
2. A report will be prepared on the nature and rate of pollutants in 5 wetlands in the Black Sea Basin.
3. A guide with examples of good practices consisting of training and campaigns focused on protecting wetlands will be prepared.
4. A wetland protection training set consisting of 12 sections will be prepared especially for students. Training sets will also be shared on the internet.
5. After 10 people from 2 each partner country received trainer’s training, they will train 25 people in each region (totally 125 people) and the sustainability of training activities will be ensured in the established centres.
6. A painting competition on environmental protection will be held in at least 15 primary and secondary schools and paintings selected by the jury will be exhibited.
7. Pictures taken in 5 regions with the participation of professional photographers will be exhibited. With the mobile ‘Stop Pollution’ vehicle, the exhibition will travel to 5 countries.
8. An environmental cleaning campaign will be held simultaneously with the participation of 1500 people in 5 regions.
9. With the international conference to be held in Georgia, the outputs of the project and future action plans will be shared with the public.

For more information, you can visit the project website: www.bio-learn.org



About The Booklet

This training booklet is a part of the training set prepared under the “BIOLEARN-BSB142 / Eco-Conscious Minds to Stop Pollution in the Valuable Wetlands of Black Sea Basin” project. The booklet is prepared to attract the attention of the countries in the Black Sea basin to the importance of wetlands, to prevent pollution in wetlands and to develop ecological literacy of the participants accordingly.

This training material targets groups age 14 and older and consists of two parts which are the educator booklet and participant booklet. The trainer booklet has detailed activity application instructions, necessary information on the subject, assessment questions and recommendations to enrich the activity.

Application Notes

🌱 Before starting the activity, it is recommended to view the entire booklet and to get ready for the topic by using the information in the booklet.

🌱 At the beginning of the activity, necessary materials and worksheets should be distributed to the participants.

🌱 When activities are applied, it is important to undertake a facilitator/guide role and to ensure the active participation of the participants.

🌱 The activities in this booklet are planned to be completed in a short time. All of these activities can be applied consecutively or one or two of the activities can be applied in desired order depending on the development stages and interest levels of the participants.

🌱 Presenting the activities with a natural narrative rather than reading the information text in the instructions and keeping the interest of the participants with questions and answers would present positive benefits.

🌱 The activity instructions can be followed exactly or adapted based on participants' ages, development stages and interest levels without diverging from the activity purposes.



Threats to Wetlands and Wetland Conservation


Human activities and their negative consequences cause pollution, degradation and loss of wetlands.

Threats to Wetlands

Despite their great importance, wetlands have been severely damaged, especially in the last few centuries. Increasing human activities and their negative consequences cause pollution, degradation and loss of wetlands.

The main threats that the wetlands struggle with are unsustainable and non-eco friendly human activities. Studies show that 87% of the wetlands on our planet have been lost in the last 300 years. The main reason for this loss is to open land for settlement, industry and agricultural activities. The destruction of the wetlands means the displacement or extinction of all living beings in them. This situation, defined as **habitat loss**, causes a great threat to wildlife and especially to endangered species.



 The destruction of the coastal wetlands especially in Southeast Asia and China endangered the Spoon-billed Sandpiper species. Currently, it is estimated that there are only 100 pairs of Spoon-billed Sandpipers. (Illustration: Szabolcs Kókay)

Urbanisation, agriculture and industrial activities not only destroy wetlands but also keep the wetlands from doing their important tasks in the ecosystem. These activities reduce the water quality in the wetlands with the waste they generate, cause depletion of food resources and consequently threaten all living beings in this ecosystem. The interaction of agricultural and industrial activities with wetlands causes irregularity of the flow regimes of rivers and streams feeding wetlands, disruption of the water cycle of wetlands, the increase in the salinity level of water, the accumulation of chemicals such as pesticides and industrial waste. As a result, it causes poisoning of aquatic organisms and damage to other living beings interacting with the wetland.

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Agricultural irrigation from rivers and streams that feed the wetlands, dams for drinking water and generating electric energy are among the biggest human-caused damages. Controlling the water regime outside of its natural flow causes the wetlands to dry by not reaching a sufficient amount of water or to lose their wetland features by taking more water than the capacity. As a result, plant diversity is disappearing, wetland breeding birds leave the wetland and the migration and breeding cycles of the fish are disturbed.


Pollution is another important problem that wetlands are exposed to. On a global scale, 80% of wastewater is discharged into wetlands without any treatment. In fact, wetlands act as natural filters and can eliminate water pollution. They can clean 60% of metals from water and trap harmful gases and solid sediments up to 90%. Of course, all of this can be possible when the wetland ecosystem works healthy. Especially chemical pollution caused by industrial facilities and pesticides due to agricultural activities greatly damage the wetland ecosystem.

In recent years, another problem facing wetlands is invasive species. Especially the global wildlife trade, the increase in the number of captive animals and the

cultivation of various plant species outside of their natural habitat for landscape purposes pose a great threat to the natural inhabitants of wetlands. These species are distributed within wetlands in different forms, suppressing native species and damaging biodiversity. The various diseases due to invasive species and their pressure on native species in terms of land and food use cause the destruction of the natural ecosystem, the disruption of the natural genetic diversity and ultimately exclusion of native species from the food chain.

Urbanisation, agriculture and industrial activities not only destroy wetlands but also keep the wetlands from doing their important tasks in the ecosystem.



 *Coypu are large aquatic rodents originating from South American. They were brought to Europe for fur trade at the beginning of the 20th century and spread in natural habitats. Coypu are accepted as an invasive species and threaten the native species in wetlands.*



Lastly, there is a global climate change problem. Especially irregular precipitation regimes and sudden temperature changes damage the basic characteristics of the wetland ecosystem and adversely affect the living beings in the wetlands. When we consider the fact that wetlands act as sinks for carbon emission and greenhouse gases that cause climate change, eliminating the threats against these areas and protecting them is very important.

Wetland Conservation Efforts

Despite all these problems, efforts to protect and restore wetlands have increased significantly in the last 50 years. Although these efforts are mostly shaped based on the benefits and services provided by wetlands for people, their role in the ecosystem and their importance for the living beings start to play an important role in conservation efforts.

Numerous actors are working to combat the threats facing wetlands. Many people from international collaborations to local organizations and from institutional efforts to individual support are making efforts to protect wetlands.

When we consider the fact that wetlands act as sinks for carbon emission and greenhouse gases that cause climate change, eliminating the threats against these areas and protecting them is very important.





 *Increased urbanisation and human activities create enormous pressure on wetlands.*

From a large perspective, international conservation agreements, national policies of the countries, actions plan, projects and campaigns carried out by NGOs have been continued for many years to eliminate threats against the wetlands, to restore wetlands for a healthy ecosystem.



On the other hand, individual efforts play an important role in the protection of the wetlands. Voluntary support for conservation efforts of local organizations, financial contributions, conservation and cultivation of local plant species in order to prevent invasive plant spreading, and compliance with the rules during wetland visits are the first steps to be taken. Apart from these, some changes in our daily lives can contribute to the protection of wetlands. For example, choosing reusable products to reduce the wastes, using recyclable materials, properly dispos-

Many people from international collaborations to local organizations and from institutional efforts to individual support are making efforts to protect wetlands.



ing of oil and chemical cleaning products which might cause water pollution and not using pesticides in agricultural activities can create significant changes. Lastly, contributing to the policy-making process with active citizenship awareness and taking responsibilities can greatly contribute to the protection and restoration of wetlands.





Actors in Conservation Efforts

Tackling threats to wetlands requires collaboration. Just like in many other environmental problems, these threats that go beyond the borders require cross-border cooperation. In this sense, the Ramsar Convention put into effect in 1971 plays an important role as an international convention on the protection of wetlands, the promotion of conservation efforts and the wise use of wetlands. Under the Convention, more than 2300 wetlands in 171 countries are defined as important wetlands at an international level with a total of 2.5 million km² area. Although some countries such as the US and Canada have very few Ramsar sites, wetlands are protected under other national policies.


Ramsar Convention plays an important role as an international convention on the protection of wetlands, the promotion of conservation efforts and the wise use of wetlands.

WETLANDS IN THE BLACK SEA BASIN

While there are numerous wetlands in the Black Sea, more than 30 of them have been identified as Ramsar Sites. These wetlands, which are mostly formed at the point where rivers and streams from inner regions meet the sea, make a significant contribution to the biodiversity of the Black Sea. Some important wetlands in the Black Sea basin are as follows:

- ❑ Pomorie Wetland Complex - **Bulgaria**
- ❑ Danube Biosphere Reserve - **Ukraine**
- ❑ Evros Delta - **Greece**
- ❑ Evros River Basin - **Turkey**
- ❑ Wetlands of Central Kolkheti - **Georgia**



 *The Danube Delta is one of the largest wetlands in the Black Sea. There are numerous breeding bird species in the Delta, but the White Pelicans (*Pelecanus onocrotalus*) are the flagship species.*



Although the countries signing this convention are the primary actors to protect the wetlands with their national policies, international NGOs are among the important actors in conservation efforts. In this sense, the Ramsar Convention is coordinated by six different organisations. These are BirdLife International, The International Union for Conservation of Nature (IUCN), International Water Management Institute (IWMI), Wetlands International, World Wide Fund for Nature (WWF) and Wildfowl & Wetlands Trust (WWT). These organizations support Ramsar Convention by sharing expertise, technical assistance in field studies and financial support. Ramsar Convention is also recognized by United Nations and it cooperates with certain other internation-



Also, international NGOs are among the important actors in conservation efforts.

al conservation agreements such as the Convention of Biological Diversity (CBD), United Nations Convention to Combat Desertification (UNCCD), Convention on the Conservation of Migratory Species (CMS) and the Convention on International Trade in Endangered Species (CITES).

Still, when we consider the rich wetland ecosystems on our planet, only 10% of all wetlands, except coastal wetlands, are defined as Ramsar sites or other protected areas. Although 171 countries have signed the agreement, only 73 of these countries apply national policies to protect wetlands. A wider scale and effective conservation efforts are necessary for the wetlands and all living beings in these wetlands to have a healthy future.





Activities



Make Our Voices Heard



Objective

To create a campaign to raise awareness for a problem, to share ideas with a large audience.



Duration

50 min.



Method

Brainstorming



Learning Outcomes

- ✎ S/he will discuss the problems that the wetland exposed to.
- ✎ S/he will take steps to solve problems.



Materials

Campaign Creation Steps
Worksheet, computer with internet access, projector, pencil



Target Audience

14+ years old



Preparation

Before the activity, visit
<https://www.change.org/>
to view the “start a campaign”
section.

Application

1. Talk to participants about problems in wetlands in your area. Is the problem caused by plastic pollution, drying of the wetland due to agricultural activities, an invasive species or wastewater contamination from industrial activities? Take everyone's views and identify the problems that need urgent action.
2. Then, tell that you will start a campaign to encourage people to stop this problem. Divide the participants into 4-5 groups and give the Campaign Creation


Steps Worksheet to the groups. Ask them to complete the worksheet by brainstorming.



3. When the groups have completed their work, ask them to present them. Identify the favourite titles of each group.
4. Then, open the website: <https://www.change.org/> Click on the “Start A Campaign” section. Fill this section with the help of all groups. If you want, you can choose volunteers among the participants and ask whether

they can follow this campaign and make a real campaign. Or you can complete the campaign steps as an example and do not create the campaign at the end. This important thing here is to show the steps to start an online campaign.

5. If you created a campaign, you can ask everyone to sing this campaign and spread it on social media. You can talk about what else you can do to reach the campaign to more people.





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What kind of issue are you petitioning on?


Selecting a topic allows Change.org to recommend your petition to interested supporters.




Animals




Human rights




Health




Environment




Politics



Local



Economic equality



Women's rights

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Assessment Questions

You can ask the following questions to the participants during or at the end of the activity.

- ▶ Does preparing such a campaign help you communicate the problem to the authorized person? How?
- ▶ Is a campaign important to make our voices heard to lots of people?
- ▶ Does your campaign have a slogan? What?
- ▶ What else can you do about this problem other than creating a campaign?

Extensions

- ▶ You can do additional work to support your online campaign. You can design a mascot to draw attention to this campaign. You can design an invitation, invite your local community to the campaign and organise a public event. You can contact a local reporter to announce your event.

CAMPAIGN CREATION STEPS WORKSHEET

What is your campaign about?

Environment, animals, sustainable agriculture, food, etc.

Write your campaign title.

Keep it short, clear and understandable.

Identify the addressee(s) of the campaign.

Company, ministry, municipality, politician, etc.

Describe the problem you want to solve.

Describe the problems, who and what is affected by these problems and solution suggestions with sincere and respectful language.

You can prepare a 1000-word text.

Which image best describes your campaign?

Choose an effective image or video that will help you to get more signatures.

Active Citizenship



Objective

To perceive the decision-making processes for wetlands.



Duration

50 min.



Method

Role-playing



Learning Outcomes

- ✎ S/he will get to know the active citizenship concept.
- ✎ S/he will discuss the problems in his/her environment.
- ✎ S/he will realise the local decision-making processes.



Target Audience

14+ years old



Materials

Paper, pencil



Application

1. Talk to the participants about the decision-making processes in the city they live in and the roles of citizens in these processes. Then, you can explain the active citizenship concept.
2. Tell them that you will play the role-playing game to represent this process.

3. Divide the participants into groups and give some of the following roles to match your scenario: Local authority (municipality officer, governor, agricultural city directorate officer, etc.), journalist, NGO officer, local citizen, farmer, fisher, construction company officer, tourism industry personnel. Then, tell one of the scenarios below (or you can create a scenario about an urgent problem in your area) and ask the participants to play their roles depending on the scenario.

Scenario 1: *There are intense agricultural activities around the wetlands. During these activities, irrigation water was drained to the wetland and the chemical fertilisers and pesticides mixed with the wetland with irrigation water. In the end, the water quality has deteriorated, the number of fish has decreased and this has negatively affected the healthy ecosystem structure and food chain flow.*

Scenario 2: *A hydropower plant was built to generate energy on a river which is an important resource that feeds the wetland. Since the amount of water in the river decreased after the establishment of the plant, the wetland could not be fed enough. This caused the wetland to dry.*

4. Give time to the groups to think about their roles. You can give a pencil and paper to the groups to take notes. Ask them to share how their roles are affected by these problems and to suggest solutions. Guide them to approach the problem from economic, social, environmental and political aspects. Additionally, remind the participants that they need to reflect the ideas of the roles they represent rather than their ideas. Then, ask them to choose a spokesperson to give the speech.
5. Summarise the ideas, common recommendations and views of the group and finish the activity.

Assessment Questions

You can ask the following questions to the participants during or at the end of the activity.

- ▶ Who do wetlands belong to? Or do wetlands have an owner?
- ▶ Who has a role in combating this problem? Does everyone have equal responsibilities? Why?
- ▶ If we do not find a solution to these problems on-time, can it lead to irrecoverable or larger problems? How?
- ▶ How do you expect decision-makers (such as local authorities) to approach these problems?
- ▶ Have you ever participated in a decision-making process?

Extensions

- ▶ You can invite local authorities or individuals directly benefiting from wetlands (farmer, fisher, etc.) to your activity. You can listen to them about the problems and efforts and exchange ideas.



Notes

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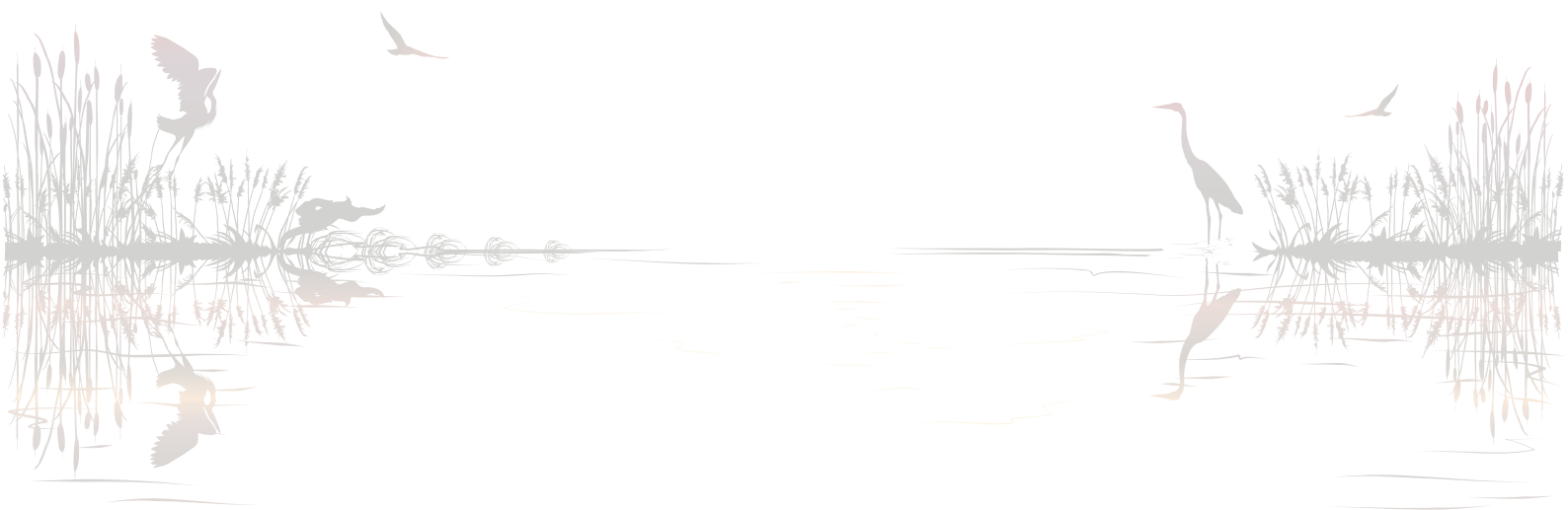
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