

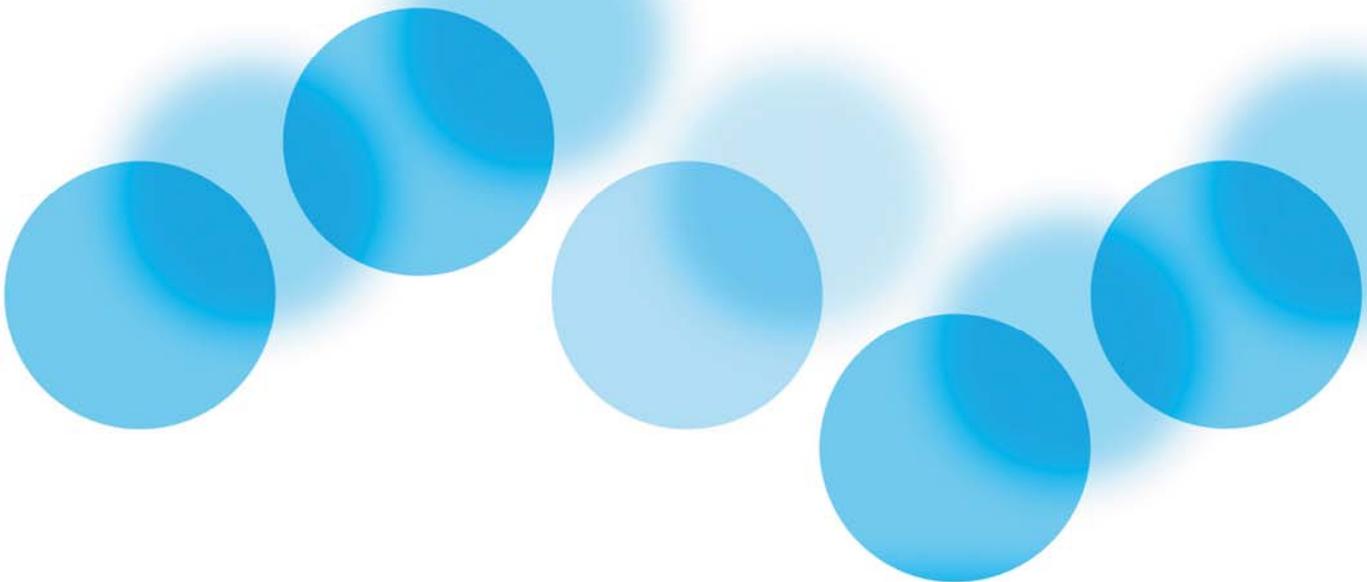


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# Protection of Drava Wetlands and the Rivers of Bednja and Plitvica in North-West Croatia – final report

## DEF Pilot Campaign in Croatia



WORKING FOR THE DANUBE AND ITS PEOPLE

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## PREFACE

The inventory of the existing Drava wetlands and especially the confluences of the Bednja and Plitvica Rivers revealed the great value of these areas for the region's biodiversity.

The Bednja River tributaries and riverbed are habitats for otter, river crab, wild trout and other rare and protected species.

The Plitvica riverbed has a number of beaver habitats, while rare and protected plant species are found on the riverbanks.

A number of changes have taken place along the Drava and its floodplains in the last decades. These changes have had an impact not only on the region's biodiversity but also on local people's attitudes and activities. The construction of a series of accumulation reservoirs and the release of very small quantities of water into the old Drava riverbed has put under threat the very existence of many oxbows, ponds and meanders, which have been cut off or left without adequate water supply. There has been a continuous fall of groundwater and river water levels leading to drying up of surrounding forest stands and agricultural lands, and frequent mass deaths of fish.

After the riverbed regulation of the upper streams of the Plitvica and Bednja Rivers, spring floods started to occur along downstream stretches which had never flooded before. Arable lands turned into wet meadows where crops could no longer be grown.

Local discontent with the above problems escalated to a series of protest demonstrations and heated discussions in the spring and summer of 2006. Many local stakeholders were demanding further hydrological interventions to deal with the consequences of previous ones. If implemented, such interventions would destroy the still preserved landscape features and biodiversity of the region.

Urgent measures were needed in order to raise local awareness about the values of local natural heritage and the opportunities for less damaging solutions to environmental problems; as well as to initiate a dialogue among key stakeholders toward a sustainable development vision for their area.



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## ABBREVIATIONS

DRB	Danube River Basin
DRP	Danube Regional Project
EG	Expert Group
EU	European Union
EU WFD	EU Water Framework Directive
GEF	Global Environment Facility
ICPDR	International Commission for the Protection of the Danube River
UNDP	United Nations Development Programme
WB	World Bank

## EXECUTIVE SUMMARY

The overall goal of the campaign was to raise the awareness of key local community groups about the value of river habitats and species, and initiate a stakeholder dialogue towards a sustainable development vision and framework for the project area.

A survey at the start of the campaign helped us identify a small number of key target groups for educational and awareness raising activities. The survey and some of the campaign activities (media outreach, round table discussions, children education) targeted a broader range of stakeholders:

- > Local communities including local youth (*children have been chosen as a target group in order to address future attitudes; in addition, children are open to learn about life and nature, and they can bring home messages to their family members who are in position to influence current decisions*)
- > Local and regional authorities
- > Farmers and farmer associations
- > Fishers and hunters
- > Tourism services providers
- > Businesses

All activities have raised awareness among key community groups and in particular among the youth about the value of river and wetland habitats, plant and animal species.

The primary result of workshops, radio and TV educational activities was the improvement of the dialogue among all development actors on the local level (business sector, local government, civil sector). The next achieved result was cooperative work of all target citizens, experts and local government in one team together.

A vision for local sustainable development in the conditions of preserved natural heritage developed in cooperation among local stakeholders, and a common agreement on a process towards joint planning of a sustainable development framework for the region including nature protection measures, low-impact tourism, business and agriculture.

## 1. OPINION SURVEY AMONG LOCAL DEVELOPMENT ACTORS

**Opinion survey among local development actors** covered associations, tourist offices, local authorities and self-government, the chamber of commerce, etc. The objective of the survey was to identify one or two key stakeholder groups to target through the campaign and their problems concerning the use and protection of natural resources in the area; determining attitudes and awareness of sustainable development options; we used these findings to fine-tune the campaign and facilitate a dialogue among actors on sustainable development of the area.

The NGO "FRANJO KOŠČEC" made a questionnaire for the opinion survey and distributed it among NGOs, tourist offices, local governments and the Chamber of Commerce and the Chamber of Craftsman. Until today we received 72% of the filled-in questionnaires.



Picture 1 - Preparation of activities

Processing the data of the returned questionnaires we noticed a significant difference between rural areas and small communities in comparison to Varaždin, regarding the level of knowledge, education and the relation towards natural resources protection and sustainable development.

After processing all received questionnaires we started the workshops with Stakeholder in most endangered parts of areas near Drava, Bednja and Plitvica rivers.

## 2. WORKSHOPS FOR STAKEHOLDERS

Workshops for stakeholders were held in three problem areas on priority issue/s/ identified through the opinion survey (Activity 1.)

Based on the questionnaires that were processed, we held the workshops in Ivanec, Ludbreg and Međimurje County in Donja Dubrava.

### 2.1. 1<sup>st</sup> Workshop in Ivanec

The 1st workshop in Ivanec (with PPP "Ljepa naša grana Ivanec"- member of the EKO-network of the Varaždin County) was held on the 21 November 2006.

The problem of the frequent flooding of the River Bednja after the regulation of its riverbed has significantly influenced on the answers of the surveyed persons; therefore we find that a workshop on their area represented a priority.

On the workshop we discussed about the possibilities of tourism, alternative agriculture, and sustainable development of this area.



Picture 2 – Workshop in Ivanec

### 2.2. 2<sup>nd</sup> Workshop in Ludbreg

The 2<sup>nd</sup> workshop was held in Ludbreg (with "Vidra"- Ludbreg, Association of the Varaždin County) on the 30 November 2006.

The problem of the river Plitvica – draining of wastewater from farms for intensive stock breeding as well as community wastewaters affect the quality of the water in the river, and the felling of

surrounding vegetation and the “regulation” of the riverbed additionally deteriorate the water quality. All this endangers the survival of the beaver, river crabs and autochthonous fish stock, and it is essential to protect the estuary of the river into the Drava, as it represents an important bird habitat. The sustainable development of this area, as it was concluded at the workshop, is essential for the further development of tourism, craftsmanship and whole economy in the city and surrounding municipalities.

### **2.3. 3<sup>rd</sup> Workshop in Međimurje County in Donja Dubrava**

The 3<sup>rd</sup> workshop based on the questionnaires we held in Međimurje County in Donja Dubrava.

The main theme and problem that we discussed was the influence of the accumulation lakes on the flow of the river Drava and the preservation of an optimal river flow in the riverbed. We concluded that the determination of the “biological minimum” of the river Drava is essential for all habitats in this area. As on other workshops we realized the connection of water quantity and water quality with the situation in the respective river and biodiversity, we decided to prepare and hold a round table on this topic in December 2006.



Picture 3 – Workshop in Donja Dubrava

### 3. A SERIES OF SHORT RADIO PROGRAMMES AND ONE TV PROGRAMME

**A series of short radio programmes and one TV programme** was produced about DEF, the campaign goals, problems, development opportunities and reasons for the protection of this part of the Danube Basin.

#### 3.1. Radio Broadcasts on Radio Varaždin, Radio Ludbreg and Radio Ivanec

Till the 15 of November we have made and broadcasted 3 of the 5 planed radio-broadcasts

- > - on Radio Varaždin (11 October 2006),
- > - on Radio Ludbreg (20 October 2006)
- > - on Radio Ivanec (09 November 2006).

In each broadcast we talked about the goals of our Campaign, the DEF, natural resources and why to protect the marshland and the swamps on the respective areas. We also announced the events that followed (in Ludbreg – the educational workshop for the youth, in Varaždin – the educational workshop for the youth and in Ivanec – also an announcement of a workshop for the stakeholders).

#### 3.2. Radio Broadcasts on Radio Novi Marof, Radio Sjeverozapad

The last 2 of the 5 planed radio broadcasts we have made:

- > on Radio Novi Marof (20.November 2006), we announced a 3rd workshop for stakeholders, we talked about the results of our educational workshops and about the opportunities for sustainable development of this area.
- > On Radio Sjeverozapad (07 December 2006) we announced the round table and TV broadcast, also we answered some interesting questions about drying up of surrounding forests and changes of agricultural lands. We talked about the goals of Campaign and the members of EKO-network of Varaždin County briefly explained our common work.

#### 3.3. TV Broadcast

The **TV-broadcast** was produced in first half of December. The first time the TV-broadcast was on the program of Regional TV on 11 and second time on 21 December 2006.

This educational-informative broadcast showed the Drava and the river mouth of Bednja and Plitvica. The participants in the workshops and the round table, recognized experts and representatives of responsible institutions talked about the value of this area and the reasons for its protection (attached a DVD with the broadcast).

## 4. «TRAŽILICA» (“THE SEARCH”)

«Tražilica» (“The Search”) –was a field educational game for the young: finding a certain plant or animal and capturing it on the participant’s camera.

We planed and finished the production of a poster with photographs made by the children, raising awareness for the protection of the Drava natural heritage.

This activity was implemented along the River Drava, and along the rivers Bednja and Plitvica. The poster will be sent to Schools, Kindergartens and other public places.

All the photos are of Wetlands near Drava, Plitvica and Bednja river, making an ask for the protection of the river area. (Poster attached)

The best pictures were made by children from a School in Varaždin (I osnovna škola), and schools in Šemovec and Ludbreg. The children got awards and educational toys. The poster was completed on 23 December 2006.



Picture 4 – “The search”



Picture 5 – “The search”

## 5. EDUCATIONAL WORKSHOPS AND PLAYROOMS FOR THE YOUNGEST

**The Educational workshops and playrooms for the youngest** on two subjects: "Who lives in wetlands?" and "The role of wetlands in water purification" were very successful. We held the workshops at sites where the most serious problems have been identified, one along each river.

We held 2 educational workshops in Sv. Đurđ (near Plitvica river) and Varaždin (near Drava river) in cooperation with NGOs members of the Network.

The workshop and playroom for the youngest we held on 07.December 2006 in Lepoglava (near Bednja).

### 5.1. 1<sup>st</sup> Workshop in Sv.Đurđ

The 1st workshop in Sv.Đurđ (-October 2006.)- "Who lives in wetlands?" -School Sv.Đurđ - with "Vulinec"-Association whose members participated also in workshop



Picture 6 – Workshop in Sv. Đurđ

### 5.2. 2<sup>nd</sup> Workshop in Varaždin

The 2nd workshop in Varaždin (-November 2006.)- "The role of wetlands in water purification" - IV Primary School in Varaždin with "Franjo Koščec" Association

In the workshop also participated children from the School's ecological group



Picture 7 – Workshop in Varaždin

### 5.3. Workshop in Lepoglava

The 3rd workshop in Lepoglava (- December 2006)-“Who lives in wetlands?” Local Kindergarten - with PPP“Lijepa naša” Association



Picture 8 – Workshop in Lepoglava

## 6. ROUND TABLE DISCUSSION FOR STAKEHOLDERS

**Round Table discussion** for stakeholders took place on 11. December 2006. in Varaždin:

- > We discussed the results from the campaign and evaluated all activities
- > We made an expert –team for developing a vision for the area’s sustainable development based on biological minimum of water level and quality.
- > We agreed on a further cooperation process toward a local sustainable development concept and Space plan, and how it can be incorporated into local strategic planning documents.
- > Symbolic awards were given to the most active young participants in “The Search”

Participants were representatives of local authorities and self-government, institutions, local associations of farmers, fishers, water authorities, electricity producers, businesses, tourist services providers, nature protection experts , DEF representatives, other NGOs and the media.



Picture 9 – Round table in Varaždin

The expert–team, which is composed by representatives from all interested parts and experts, will continue with its work also after the End of the Campaign in order to find the best solution for protection of the rivers and all target area for all stakeholders and citizens. (The list of participants is attached)

## 7. THE RESULTS

The eco-network of the Varaždin County, whose activities were coordinated by the NGO "Franjo Koščec" finished till the 30 December 2006 all foreseen activities.

New activities that will evolve from the conclusions of the round table will depend on the work of the expert team and external experts, and we will continue with them as a part of a new project that should commence in 2007.

During the campaign we collected and processed existing data from publications, scientific articles, expert publications, web-sites of relevant ministries, catalogues, registers, analytic lists, graphs and from photo documentation and other data sources.

All in connection with the campaign, we contacted several authorities, such as: The Croatian water authority (Hrvatske vode), Public health authority, Environmental protection agency, State agency for protection of nature, Ministry of agriculture, forestry and water management, Ministry of culture, Croatian electric power authority – Elektroprivreda HE Varaždin, Croatian forest authority (Hrvatske šume), Sport fishing club Varaždin, The Cadastre of emissions of the Varaždin county, the city of Varaždin, Varaždin communal organization (Varkom), Museum of the city Varaždin, the city's tourist board and other stakeholders.

The workshops were realised with partners and stakeholders.

We successfully prepared and held a round table with the presence of representatives of all partners, invited guests, experts and members of the eco-network (The Croatian water authority, Croatian electric power authority, Environmental protection agency, State agency for protection of nature, The Varaždin county, The city of Varaždin, Agency for development, the tourist board of Varaždin, The public institution for the administration of protected natural values on the area of the Varaždin county, Eco-monitoring Business company and many NGOs- "The Drava League", PD Drava Association from Virovitica, Croatian forester's Association - Varaždin, ZEO Nobilis Association from Čakovec, Vulinec Association from Sv. Đurđ, from The Green action Association – Zagreb a representative of the WWF for Croatia, Sport fishing club Varaždin, Franjo Koščec Association, and media (radio Varaždin, radio Ludbreg and VTV – Varaždin television).

From the institutions that were present experts were selected that will continue the work in an expert team, because the main goal of the campaign was to preserve the biodiversity and the natural heritage of the area near the rivers Plitvica, Bednja and Drava.

The material for field investigations - a proposition- was prepared, and the expert team will complete it. Prof. ph. D. Vesna Dušak prepared on the round table the presentation of the existing mathematical model and the simulation of possible changes of the water quality in the river Drava, concerning the fact that water quality and water quantity are important for the biological minimum. These materials, with the scientific and expert papers, will serve for the preparation of a new mathematical model. The simulation of the conditions in the river will serve for the determination of the biological minimum in the monitored area in 2007.

The representatives of the Varaždin County stated that according to the "Space plan of special features of the river Drava and the river mouth of the rivers Bednja and Plitvica", they would participate more actively in the making of the planned Strategy.

The representatives of the Development agency and the Council for European integrations from Varaždin County stated their willingness to continue the work actively after the expert team in order to obtain financial means for the continuation of the planned activities from the EU-accession funds.

Implementing the project, we promoted it on our web-site and the web-sites of the NGO-network, where we are members. We also made an e-mail list for faster communication among all interested experts and partners, as well as a little address book of experts and interested subjects.

During the whole campaign, we assured quality media coverage and media support, in order to inform the interested citizens and the population near the rivers on our activities, the goals we were trying to achieve, on our partners and co-funding of the project.

In order to do this, we made live-broadcasts on radio stations, and TV-broadcasts on news and a special show on the regional (whole north western Croatia) TV-network VTV, that can also be watched in neighbouring countries.

This network also broadcasted some "Green info pages".

When the expert team finishes its work, we can continue the work, making a Strategy for sustainable development of this area, because this part of Croatia (Drava River and tributaries) is listed in the Emerald network and is foreseen for protection in the category Natura 2000.

## **ANNEXES**

- ANNEX 1            **Campaign Budget Report with all Documents**
  
- ANNEX 2            **Produced Outcomes (TV broadcast-DVD and Poster)**
  
- ANNEX 3            **Materials from the round table in Varaždin**

## CAMPAIGN BUDGET

ACTIVITIES	COSTS, \$	
	Planned	Actuals
<b>1. Public opinion survey</b>		
Telephone, mobile phone and Internet	250	292
Photo copying, mail, office materials	220	229
Questionnaire development, distribution, processing, reporting	530	x530
Site visits travel costs: Vž-Bednja-Vž- 80 km, Vž-M.Bukovec-Vž-90 km, Vž-D.Dubrava-Vž- 70 km,Vž-Zavrč-Ormož-Vž-60 km = 300 km	150	112
<b>Subtotal Activity 1.</b>	<b>1150</b>	<b>1163</b>
<b>2. Three Stakeholder Workshops</b>		
Preparation and running of events	900	x900
Travel costs for leaders and participants	200	202
Materials (flip charts, markers etc.)	100	122
<b>Subtotal Activity 2.</b>	<b>1200</b>	<b>1224</b>
<b>3. Series of short radio and one TV information emission</b>		
Programmes at the beginning and at the end of the campaign: costs of radio programmes (Ludbreg, Ivanec, Novi Marof, Radio Sjeverozapad, Radio Varaždin 5x130 USD	650	492
Varaždin television, one emission 10-15 minutes	1150	1178
<b>Subtotal Activity 3.</b>	<b>1800</b>	<b>1670</b>
<b>4. "Tražilica": "The Search Game"</b>		
Field trip: transportation, snacks, photo materials	250	257
Awards	150	151
Poster	1300	1405
<b>Subtotal Activity 4.</b>	<b>1700</b>	<b>1813</b>
<b>5. Three educational workshops and playrooms for the young</b>		
3x3 playroom leaders (preparation and running of events)	900	x975
Materials, toys, markers, glue etc.	400	376
<b>Subtotal Activity 5.</b>	<b>1300</b>	<b>1351</b>
<b>6. Round Table discussion</b>		
Development of working materials, joint report and media announcements	300	x320
Travel costs for invited participants (about 25 people)	450	450
Photo copying of working materials (about 100 folders)	320	
Meeting room with presentation facilities	260	578
Drinks	100	
<b>Subtotal Activity 6.</b>	<b>1430</b>	<b>1358</b>
<i>Campaign Coordination (32 person-days) Includes coordination of network activities and direct work on project activities by "Franjo Košćec" Association</i>	1120	1120
<i>Financial management costs (10 person-days)</i>	280	280
<b>TOTAL</b>	<b>9,980</b>	<b>9,979</b>

X only a part of the costs

"FRANJO KOŠĆEC" ASSOCIATION

WORKING FOR THE DANUBE AND ITS PEOPLE

[www.undp-drp.org](http://www.undp-drp.org)