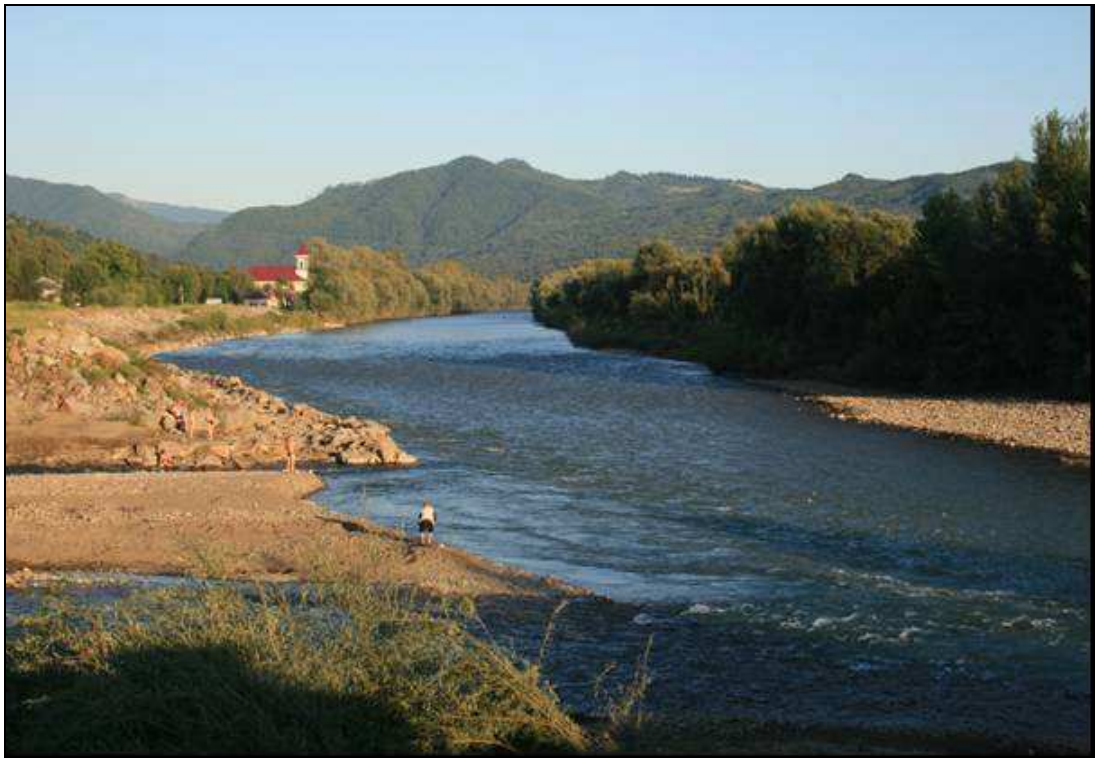
DEMONSTRATION PROJECT

Selected Measures Towards Integrated Land and Water Management in Upper Tisza, Ukraine

VELYKY BYCHKIV (UKRAINE) – BOCICOIU-MARE (ROMANIA)



PROJECT PROPOSAL OUTLINE

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ACRONYMS

BM	Bocicoiu Mare
GEF	Global Environmental Facility
ICPDR	International Commission on Danube River basin Protection
RO	Romania
VB	Velyky Bychkiv
UA	Ukraine
UNDP	United Nations Development Programme

1. Executive summary

1.1 Applicant and project partners information

Applicant / Lead partner

Name of applicant	**Zakarpattya Oblast organization of All-Ukrainian Ecological League**
Type of organization	Non-governmental organization
Brief description of organization mission	It is one of the most famous NGOs in Ukraine, established in 1997 with branches, covering all territory of Ukraine. Its main mission is to improve environmental situation in the country and to increase the level of ecological education and culture of Ukrainian citizens. Projects: 2003-2006 National partner of Project of European Union *"Flood Risk Assessment in Zakarpatska Oblast, Ukraine"*. Main goal of the project: to improve the security of people and property against floods in the Tisza river basin by putting in place better assessment, warning and response systems, 2004-2006 National partner of the Project of European Union *"Management of the Bug, Latorica and Uzh basins***"** Main goal of the project: to enable a common management approach to be adopted across all parts of each international river basin 2007-2008 Project partner of INTERREG project *"Improvement of Flood Management System***".** Main goal of the project: to decrease damage done by the floods, to improve efficiency of flood management
Contact person Name: Address: Phone: Fax: e-mail: web-site:	 Vasyl Manivchuk Slovyanska naberezhna, 5 Uzhgorod, Zakarpattya Oblast 88018, Ukraine +380 50 432 70 60 +380 312 61 71 23 blu-rivers@utel.net.ua http://ecoleague.net/

Project Partner # 1

Organization name	**Velyky Bychkiv village council**
Type of organization	Self-government
Organization mission and activities	Management of social, economic environmental issues of the village
Contact person **Name:** **Address:** **Phone:** **Fax:** **e-mail:** **web-site:**	 Odarka Zelenko Velyky Buchkiv, Rakhiv rayon, Zakarpatska Oblast +380 67 312-44-20 +380 31 323-32-38 http://www.bychkiv.com.ua/

Project Partner # 2

Organization name	**Bocicoiu Mare village council**
Type of organization	Self-government
Organization mission and activities	Management of social, economic and environmental issues of the village
Contact person Name: Address: Phone: Fax: e-mail: web-site:	 Livio Lazarchuk Bocicoiu Mare, in Maramureş County, Romania +407 6-660-94-99 +402 6-236-02-01 liviulazarchuk@gmail.com http://www.primariabocicoiumare.ro/

Project Partner # 3

Organization name	**Rakhiv Rayon State Administration**
Type of organization	Local governmental body
Organization mission and activities	Management of the whole Rakhiv rayon, where the project area is located, implementation of Ukrainian national policy locally.
Contact person Name: Address: Phone: Fax: e-mail: web-site:	 Firka Mykchajlo Myru, 1, Rakhiv, Zakarpatska Oblast +380 96-235-36-15 +380 31-322-16-73 http://www.rakhiv.adm.org.ua/

Project Partner # 4

Organization name	**Association of schools of commune of villages Bocicoiu Mare, Tisa, Crăciuneşti and Lunca la Tisa**
Type of organization	NGO
Organization mission and activities	Joint environmental and educational activities for the commune
Contact person Name: Address: Phone: Fax: e-mail: web-site:	 Gheorghe Malearciuc Pricipala St., 149, Bocicoiu Mare , Maramureş County, Romania +407 5-105-98-42 +402 6-236-00-38 scoalabocicoiumare@yahoo.com

Project Partner # 5

Organization name	**Tyachiv rayon water management unit of Zakarpattya Water Management Board**
Type of organization	Local body of Zakarpattya Water Management Board
Organization mission and activities	Responsible for water resources management, irrigation and flood protection in Rakhiv and Tyachiv rayons
Contact person Name: Address:	 Roman Popadynec Lazivska, 48, Tyachiv, Zakarpattya Oblast , 90500

Phone: Fax: e-mail: web-site:	+380 67-900-20-59 +380 31-342-12-89 tisa@tyachiv.com http://vodhosp.uzhgorod.ua/muvg_tyachevo.html

Project Partner # 6

Organization name	**Zakarpattya Center for Hydrometeorology**
Type of organization	State organization, representative of State Hydrometerological Service in Zakarpattya oblast
Organization mission and activities	Operation of water gauging and meteorological stations, weather forecast Projects: 2007-2008 Project partner of INTERREG project *"Improvement of Flood Management System***".** Main goal of the project: to decrease damage done by the floods, to improve efficiency of flood management 2004-2006 National partner of the Project of European Union *"Management of the Bug, Latorica and Uzh basins***"** Main goal of the project: to enable a common management approach to be adopted across all parts of each international river basin 2003-2006 National partner of Project of European Union *"Flood Risk Assessment in Zakarpatska Oblast, Ukraine"*. Main goal of the project: to improve the security of people and property against floods in the Tisza river basin by putting in place better assessment, warning and response systems
Contact person Name: Address: Phone: Fax: e-mail: web-site:	 Mykhaylo Danylyuk Slovyanska naberezhna 5, Uzhgorod, Zakarpatska oblast +380 312 61 27 66 +380 312 61 71 23 wasko@gmc.uzhgorod.ua http://gmc.ushgorod.ua

Project Partner # 7

Organization name	**Institute of Hydrobiology of NANU**
Type of organization	Research institute of National Academy of Science of Ukraine
Organization mission and activities	Leading institute in hydrobiological investigation and assessment Projects: 2007-2008 Project partner of INTERREG project *"Improvement of Flood Management System***".** Main goal of the project: to decrease damage done by the floods, to improve efficiency of flood management 2006-2008 Implementer of the pilot project on riverbed restoration in frame of Project of European Union "Transboundary River Basin Management, 2 phase for Pripyat river" 2004-2006 National partner of the Project of European Union *"Management of the Bug, Latorica and Uzh basins***"** Main goal of the project: to enable a common management approach to be adopted across all parts of each international river basin
Contact person Name: Address:	 Sergey Afanasiev

Phone: Fax: e-mail: web-site:	Geroyiv Stalingrada prospect, 12, Kyiv-210 +380 67 727 52 22 +380 44 418 22 32 river@ibc.com.ua http://igb.ibc.com.ua/manag.html

Project Partner # 8

Organization name	**Kyiv National University of Taras Shevchenko, Georgraphic Faculty**
Type of organization	State University,
Organization mission and activities	Leading research institution in field of hydrology, ecology and tourism 2007-2008 Project partner of INTERREG project *"Improvement of Flood Management System***".** Main goal of the project: to decrease damage done by the floods, to improve efficiency of flood management 2006-2008 Implementer of the pilot project on riverbed restoration in frame of Project of European Union "Transboundary River Basin Management, 2 phase for Pripyat river" 2004-2006 National partner of the Project of European Union *"Management of the Bug, Latorica and Uzh basins***"** Main goal of the project: to enable a common management approach to be adopted across all parts of each international river basin
Contact person Name: Address: Phone: Fax: e-mail: web-site:	 Prof. Olexandr Obodovsky Volodymyrska St, 64, Kyiv +380 44 521 33 84 +380 44 521 32 70 obodovskiy@univ.kiev.ua http://www.geo.univ.kiev.ua/english

Project Partner # 9

Organization name	**Velyky Bychkiv State Forest Enterprise**
Type of organization	State organization, local branch of State Forest Committee of Ukraine
Organization mission and activities	Conduct forest management activities, such as tree cutting, planting and protection
Contact person Name: Address: Phone: Fax: e-mail: web-site:	 Vasyl Pukman Promyslova, 39, Velyky Buchkiv, Rakhiv rayon, Zakarpatska Oblast +380 67-312-02-02 +380 31-323-33-04

1.2 Problem definition and strategy

Problem is unsustainable water and land management practices in Upper Tisza, Ukraine and Romania, causing higher flood risk, organic and nutrient pollution, pollution by solid waste of transboundary part of Tisza river and deterioration of quality of life of its citizens. Strategy is identification of cost effective and practical solutions to the most typical problems for Upper Tisza region including active cross border cooperation at communal level. Measures and their implementation are developed in close cooperation with local governments, village councils and regional management units of water and forest sectors.

1.3 Project objectives and outputs

Output 1. Communal waste utilization system for Velyky Bychkiv and Bocicoiu Mare is improved
Objective: to improve communal waste management system in Velykyy Bychkiv and Bocicoiu Mare for preservation of floodplain ecosystems and sustainable use of environmental services:

- to decrease the total amount of garbage of the Tisza floodplain at its source by the means of environmental campaigning and establishing garbage collection facilities (both for VB and BM);
- to introduce separate plastic waste collection in VB.

Output 2. Management plan of streams within Velyky Bychkiv with practical measures on flood mitigation and reduction of nutrient and organic pollution is developed and implemented
Objective: to reduce flooding, nutrient and organic pollution of Mlynivka and other streams within Velyky Bychkiv by means of development of management plan and mitigation and restoration measures

Output 3. Riverbed, floodplain and habitat at selected mountainous streams in UA and RO are restored
Objective: to develop methodology of stream (biotope) restoration after unsustainable forest management and practically implement it for selected mountainous streams in UA and RO

Output 4. Water gauging station in Dilove village, Tisza river is re-opened
Objective: to re-establish one of the eldest water gauging station for improvement of flood forecast, water balance assessment of Tisa mountain catchments and effective flood management for flood mitigation purposes

Output 5. Waste water facilities for district of Velyky Bychkiv are designed and constructed
Objective: to support the construction of waste water treatment facilities for parts of Velyky Bychkiv village to improve local livelihoods and reduce water pollution in upper Tisza river sections

1.4 Logical framework matrix

Goal:	to demonstrate innovative and cost-effective solutions to the typical environmental problems faced in Upper Tisza floodplains with guide for their further replication				
Project Objective	**Indicator**	**Baseline**	**Target**	**Sources of verification**	**Risks and Assumptions**
To promote sustainable patterns of land and water management	*Waste management, separate plastic collection*	absent	Introduced and sustainably functions	Site visit to VB and BM	Close community involvement and desire to accept new practices
	Flood protection from local stream	absent	Studied and practically implemented (via construction work)	Site visit to VB	Obtaining of all needed permits for the flood mitigation construction
	State of mountainous streams after wood cutting	deteriorated	Restored and biologically stable	Site visit to VB and RO, work of Dilove State forest enterprise	Close cooperation with local forest managers and school association in RO
	Presence of water gauging station in Dilove	absent	Reconstructed and re-opened. Data are available for UA and RO sides	Site visit to VB, Zakarpatya Hydrometerological Service reports on its network	Cofinancing from the side of Zakarpatya Hydromet, its including in the general network
	Sewage water facilities and network in VB	absent	Designed and constructed	Site visit to VB	Co-financing from the side of VB, time limits for construction works

Project Objective	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Project Outputs					
Output 1 **Improved communal waste utilization system functions**	*State of Tisza floodplain*	Polluted with the garbage	Cleaned and kept cleaned	Site visit to VB and BM	Close community involvement and desire to follow waste collection rules
	Containers and press purchased	No	Present and operational	Site visit to VB	VB provision of man/power to operate the press and separate plastic collection
	Plastic collected and sold	no	Separate plastic collection system functions	Volume of sold plastic	Wiliness of the third parties to buy pressed plastic
Output 2 **Management plan of streams elaborated and implemented**	*Flow and retention capacity of the streams*	Due to sedimentation and poor management the flow capacity is decreased	Stream flow capacity increased	Hydrological and hydraulic data	Need to be co-ordinated with the General Construction scheme of VB
	Level of nutrient and organic pollution	High due to household activities	Low due to water protection zones identified	Water quality analysis in streams	Close work with local population, their wiliness to accept the conclusions due to identified water protective zones
	Construction works	No	Done according to the program of measures	Site visits	Need to be agreed with many organizations
Output 3 **Mountainous stream restored**	*Water quality in the stream*	Bad	Good for biota	Chemical analysis	Unsustainable forest management practices in future at the same spot
	Number of invertebrates	0	In number corresponding to natural conditions	Hydrological sampling	
	Cascades	no	built	Site visit	

Project Objective	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Output 4 **Water gauging station in Dilove is re-opened**	*Presence of water gauging station*	no	Operational on regular basis	Site visit	All needed agreements for the new station are obtained
	Monitoring data from Dilove	no	Regularly sent to Zakarpattya Hydromet and RO counterparts	Zakarpattya Hydromet data	
Output 5 **Sewage water treatment facilities**	*Presence of sewage water facilities*	No	Operational on regular basis	Reports of VB village council	Co-financing of the construction of designed facilities

1.5 Simplified workplan and budget

Outputs and activities	WORKPLAN						BUDGET (USD)
	1-3	4-6	7-9	10-12	13-15	16-18	
Output 1							
Activity 1.1	X						1000
Activity 1.2		X					16000
Activity 1.3		X					6000
Activity 1.4		X	X		X		5000
Activity 1.5		X	X				3000
Activity 1.6				X		X	0
Activity 1.7		X		X		X	1000
Subtotal 1	**1000**	**26500**	**3000**	**0**	**1000**	**0**	**31500**
Output 2							
Activity 2.1	X	X	X				5000
Activity 2.2		X	X				3000
Activity 2.3		X	X				3000
Activity 2.4				X			2000
Activity 2.5					X	X	10000
Subtotal 2	**1000**	**4500**	**5500**	**2000**	**5000**	**5000**	**23000**
Output 3							
Activity 3.1		X					3000
Activity 3.2		X					3500
Activity 3.3		X					3500
Activity 3.4			X				0
Activity 3.5		X	X				3500
Subtotal 3	**0**	**12000**	**1500**	**0**	**0**	**0**	**13500**
Output 4							
Activity 4.1		X					3000
Activity 4.2			X				0
Activity 4.3				X			0
Subtotal 4	**0**	**3000**	**0**	**0**	**0**	**0**	**3000**
Output 5							
Activity 5.1	X						2000
Activity 5.2		X	X				10000
Activity 5.3				X	X	X	0
Subtotal 5	**2000**	**5000**	**5000**	**0**	**0**	**0**	**12000**
Project management, monitoring and reporting							
Project management and coordination, reporting	X	X	X	X	X	X	9600
Workshops	X			X		X	4200
Local travel	X	X	X	X	X	X	3000
International travel	X		X	X	X	X	3200
Communication	X	X	X	X	X	X	900
External implementation review **			X			X	
Financial Audit			X			X	1500
Subtotal PM	**4650**	**2650**	**3650**	**3450**	**3450**	**5150**	**23000**
TOTAL							**106000**

Expenditure accounts		Amount (USD)
Project Staff	Project staff and experts (external or those of partners) contracted on project substance	9600
Travel & workshops	Local, international travel tickets, fuel, DSA, meeting rooms etc.	10400
Service contracts	Contracts with companies on different types of services	30500
Materials / equipment	Purchase of equipment required to undertake demonstration project	52500
Communication	Mobile and land telephone charges, postage and courier	900
Audit costs	Financial audit costs	1500
Printing costs	Printing, copying, translation	600
TOTAL		**106000**

1.6 Simplified co-financing plan

Source*	Amount in USD	Type **	Purpose***
Velyky Bychkiv village council	111,000	Cash, in-kind	Activities 1.3, 1.6, 2.5, 5.3
Bocicoiu Mare village council	1,000	in-kind	Activities 1.6
Association of schools of commune of villages Bocicoiu Mare, Tisa, Crăciuneşti and Lunca la Tisa	700	in-kind	Activities 3.5
Tyachiv rayon water management unit of Zakarpattya Water Management Board	2,000	In-kind (equipment rent)	Activities 2.5
Zakarpattya Center for Hydrometeorology	12,600	Cash, in-kind	Activities 4.1-4.3, office rent
Institute of Hydrobiology of NANU	8,000	In-kind (expertise)	Activities 3.4
Kyiv National University of Taras Shevchenko, Georgraphic Faculty	1,500	In-kind (expertise)	Activities 2.2
Velyky Bychkiv State Forest Enterprise	1,500	In-kind (equipment rent)	Activities 3.1

** project partners or stakeholders*
*** cash or in-kind (if both types come from one source, please indicate separately)*
**** please also indicate relevant project outcome*

1.7 Sustainability

All planned activities have support of local authorities, including their financial contribution. It shows their high interest in planned results and assures sustainability of project results. Also the project will develop methodologies of the improved waste, water and land management and will provide on-job training for the local organizations, responsible for day-to-day operation, which also stimulates sustainability of the results. Also the project will involve large public and local communities, interested in the positive changes. Their control over the further implementation of the project strategies will also support long term effects of the project.

1.8 Replication strategy

As far as the project will deal with typical Upper Tisza problems, the best practice developed will be disseminated to other settlements (by public meetings, brochures, media reports etc.). Rakhiv rayon State Administration as well as Zakarpattya Water Management Board and Zakarpattya Center of Hydrometeorology will assist in replication and project results dissemination. So results of the project will be disseminated at the regional level, which will stimulate its replication with the support of local and environmental authorities in other villages.

A special movie covering all the results achieved will be developed and broadcasted at local and national TV.

Another opportunity for project results dissemination will be provided in collaboration with international association "Dynamo Solidaire" (www.dynamosolidaire.fr), whose main idea is to travel 10 000 km by bike in Eurasia meeting the key players in local sustainable development. They are going to report on 20 initiatives in local sustainable development during their bike travel from France to India. At present, Velyky Bychkiv is also included in their agenda.

2. JUSTIFICATION

2.1 Problem definition

Unsustainable water and land management practices in Upper Tisza, Ukraine and Romania, causing higher flood risk, organic and nutrient pollution, pollution by solid waste in transboundary section of Tisza river and deterioration of quality of life of its citizens.

2.2 Project areas and baseline situation

The project area includes Upper Tisza river basin with special focus on:

- Velyky Bychkiv village, Rakhiv rayon, Zakarpattya Oblast, Ukraine and
- Bocicoiu Mare village, Maramureş County, Romania.

Picture 1. Project location

Historically these villages were one village, split into two parts after World War I. Despite of almost hundred years being split, the villages are culturally and mentally united.

Velykyy Bychkiv village is a second largest settlement in Ukrainian part of Upper Tisza, located on right side bank of Tisza in 95 km from source of Black Tisza. There are about 9,500 people living in the village (around 3,000 households). The village covers a large area on Tisza floodplain and slopes of surrounding mountains.

At present, the main economic activity in the village is timber processing, operated by Western investors. Nevertheless, just in the center of the village close to river Shopurka (tributary of Tisza), one of the oldest wood-processing plant is located. The plant does not work since the crush of Soviet Union. More than 1000 tons of toxic wood residues are still kept in dangerous conditions on the territory of the plant.

Ground on the territory of plant and near by is saturated by the toxic residue, which causes the on-going pollution of groundwater. The water from wells located near-by is not drinkable because of pollution by phenols and other pollutants.

Tree cutting for the plants is done in the forest surrounding Velyky Bychkiv. Existing practices of wood cutting allow heavy trucks to move in mountain riverbeds and, after harvesting, tree remains are dumped on site (branches, bark, needles etc.). As result, habitats of the streams are deteriorated, and biodiversity is decreased. Recultivation (mitigation) works done by the forestry enterprises do not have much positive effect.

Communal infrastructure of the village is very basic and needs a lot of development. The centralized water supply system is poor, and covers just a small part of the village. There is no communal sewage water network and plant. Centralized sewage system design prepared during the Soviet time is not economically feasible first of all because of very long network. The village council considers construction of several treatment plants in different parts of the village with possibility of their extension. The garbage collection system provides collection of unsorted garbage from the population only in the central part twice a month. Such situation leads to heavy pollution by solid waste (mainly plastic and packaging) all around the village and especially on the river banks.

Bocicoiu Mare (Hungarian: Nagybocskó or Újbocskó) is a village in Maramureş County, Romania. It lies 9 kilometres east of Sighetu Marmației; across the Tisza River from Velyky Bychkiv, Ukraine. It is a communal centre, forming a commune with Tisa, Crăciuneşti and Lunca la Tisa. Bocicoiu Mare commune has around 4,500 residents.

Concerning communal infrastructure, Bocicoiu Mare has better situation with drinking water supply. However, at the moment, it is being reconstructed to a more economically viable one. However, the problem of waste management is very urgent for the village. The village has some elements of separate waste collection (special containers for plastic), but no general waste containers. This situation leads to the littering of the Tisza floodplain and in the commune. Next year, two solid waste utilization units will be arranged in the Maramureş County, so development of the waste management issue is considered very urgent.

Both villages are located in mountainous section of the Tisza river, where 3 extreme floods during last 10 years: 1998, 2001, 2008 took place. Most of the damages are caused by Tisza and Shopurka, but during the last flood – mainly by small streams within the village (Mlynivka and others). These small and most of time dry streams become powerful after rainstorms and cause the flooding of the area beyond the Tisza dike. During July 2008 flood, 29 houses from 37 affected by flood were damaged because of these small streams. The streams are poorly maintained, littered and there is not hydrological information about them (catchment, runoff etc.).

Since 2001, a number of automatic water-level gauging stations was installed in the Tisza basin catchment both in Ukraine and Romania. Nevertheless, the upstream gauging station on Tisza located in Rakhiv but distance to Velyky Bychkiv station is about 45 km. On this rapid reach of Tisza 3 large tributaries enter Tisza: Kisva, Shopurka and the biggest one - Viseu. For better flood protection and modeling it is necessary to develop water level gauging station network by installation of the new stations or reconstruction of closed ones.

2.3 Strategy

From the number of problems faced by the Upper Tisza area and the villages mentioned above, the following problems area selected:

- Insufficient municipal solid waste management in both Belyky Bychkiv and Bocicoui Mare, which lead to significant pollution of the floodplains of Tisza and its tributaries by the solid waste, mainly plastic;
- Flooding by Tisza and local streams;
- Unsustainable forest management practices at mountains;

- Lack of measured hydrological data for water level forecast;
- Pollution of Tisza and its tributaries by untreated sewage waters.

It is worth of mentioning that these problems are typical for Upper Tisza region in general, so identification of cost effective and practical solutions is good for replication and useful for the whole area.

The project will propose the solutions of the problems which will be

- cost effective;
- scientifically grounded and based on the best available techniques and considering European directives/guidelines
- practically easy for implementation.

This will provide sound basis for their easy replication in other parts of Upper Tisza basin both in Ukraine and Romania.

2.4 Stakeholder Identification and Assessment

Stakeholder and basic characteristics	Interests and how affected by the problem(s)	Capacity and motivation to bring about change	Possible actions to address stakeholder interests
Village community of Velyky Bychkiv Village community of Bocicoui Mare	Interested in better water and land management at their area, directly affected	Their unsustainable actions is the main cause of the problems mainly due to absence of sustainable ways to deal with waste and flood problems, they are direct recipients of the project outputs	Village council meetings, large environmental campaign devoted to change in waste and land management polices
Rakhiv Rayon administration and Zakarpattya Oblast Administration	Interested in best available methods to solve typical environmental problems for Upper Tisza, directly affected by unsustainable patterns	As far as they are responsible for the state policy and budgeting at rayon and oblast level, they can include available best practices into the state policy for the next year	Close involvement of their representatives into the project activities by nomination them into the Steering Committee meeting

3. PROJECT DESIGN

3.1 Project objective

The main objective of the project – to demonstrate innovative and cost-effective solutions to the typical environmental problems faced in Upper Tisza floodplains with guidelines for their further replication. Such problem identification fits into the main theme of UNDP-GEF project, namely *Integrating multiple benefits of wetlands and floodplains into improved trans-boundary management for the Tisza River Basin* because it concerns the typical problems of floodplains and rivers in Upper Tisza (pollution by communal waste, untreated sewage waters, wooden residues and flood mitigation).

3.2 Project outputs and activities

Output 1. Communal waste utilization system for Velyky Bychkiv and Bocicoiu Mare is improved

There are communal services in both villages, responsible for waste collection and its utilization at controlled landfill sites . In Bocicoiu Mare garbage is collected more often (once a week) and the system of separate plastic collection is introduced, in Velyky Bychkiv it is done rarer and no separate waste collection is introduced. Due to poor services management and low environmental awareness, many villagers throw their garbage directly in the river or the floodplain. “The water will take away all the garbage” is a common public approach to waste management. As result, the Tisza floodplain, where the villages are located, is covered by the waste. Besides loose of aesthetic value of floodplain, plastic items (bottles, bags etc) disturb life in riverbed and floodplain ecosystem and as result lead to biodiversity degradation.

For Bocicoiu Mare in the next year, waste utilization system will be developed due to opening of separate waste recycling centers, common for several settlements in this region. However, the issue of waste collection from individual households and floodplain pollution remains urgent.

The idea of separate plastic collection was positively accepted by VB village council. At the moment, there are few companies ready to buy pressed plastic sorted by colours. The project will support to establish trade relations between the village council and the companies buying the plastic. The plastic will be collected from individual households as well as from the shops and bars. For this, the project will support purchasing of bags and constructions of large baskets, made of metal net Rabitz, like the ones used in Romania. They can be produced locally.

Change of waste management practices requires the change in people's minds. Therefore it is planned to conduct 2 large environmental campaigns on separate plastic collection and floodplain cleaning in general. The areas of the campaigns will cover not just the two villages, but a large Bocicoiu Mare community (Tisa, Crăciuneşti, Lunca la Tisa villages) from Romanian side, and Dilove, Lug villages at Ukrainian side. The presentation of the results of the campaign will be combined with the ***Danube Day*** celebration in Tisza basin.

The in-kind contributions of the VB include the premises of the press as well as operational costs of its functioning (staff salary, maintenance costs). They also plan to purchase the garbage truck to support all waste initiative. BM’s in-kind contribution will include operational costs of management of garbage containers. Both villages will also contribute to educational campaigns.

Picture 2. Waste disposals at Tisza river banks

Objective: to improve communal waste management system in Velykyy Bychkiv and Bocicoiu Mare for floodplain ecological potential preservation:

- to decrease the total amount of garbage of the Tisza floodplain by the means of environmental campaign and garbage containers purchasing (both for VB and BM);
- to introduce separate plastic collection in VB.

Activities:

1.1 Review of the present waste management system in VB and MB, identification of the spots for garbage containers and metal baskets for plastic;
1.2 Purchasing of garbage containers for VB and MB, manufacturing and purchasing metal nets for plastic collection;
1.3 Purchasing of press installation to decrease the volume of the plastic and to make it a product for sale; trainings on use of press and additional sorting of plastic before pressing;
1.4 Joint Ukrainian-Romanian environmental campaign "Two Banks – One Clean Tisza" aimed at cleaning Tisza floodplain from the garbage;
1.5 Educational campaign on separate waste collection in VB (e.g. the competition between school children on biggest amount of plastic collected)
1.6 Selling of plastic to the companies. It is worth to mention that it is profitable for the company to come to pay for the plastic, if 2 tons of plastic is collected. Therefore, this figure is considered like a milestone for the project.
1.7 Production of the TV-programme (30 min) concerning the waste and plastic collection campaign as well as other outputs of the project (baseline scenario, actions taken, methodology used) for wide public in Ukraine and Romania and their broadcasting.

Output 2. Management plan of streams within Velyky Bychkiv with practical measures on flood mitigation and reduction of nutrient and organic pollution is developed and implemented

Historically most of flood damages is caused by Tisza and Shopurka, but during the last flood – mainly by small streams within the village (Mlynivka and others). These small and most of time dry streams became powerful after storms and cause the flooding the area beyond the Tisza dike. During July 2008 flood, 29 houses from 37 affected by flood were damaged because of these small streams. The streams are poorly maintained, littered and there is not hydrological information about them (catchment, runoff etc.).

In the frame of the project it is proposed to study the hydrological characteristics of the streams and to develop Management plan for them. The main recommendations of the Management plan will be practically implemented in frame of construction works like making the river road safer against erosion using special pavement or stone armoring layer or widening flat riverbed part upstream to leave most of the sediments in case of flash floods or to built small dry pond. These works will be co-financed by the VB village council (around 40%), who confirmed its high interest for this output.

Picture 3. The stream at Duhnovich Street in Velyky Bychkiv

Objective: to reduce flooding, nutrient and organic pollution of Mlynivka and other streams within Velyky Bychkiv by means of development of management plan and construction measures

Activities:

2.1 Determination of hydrographical, hydrometerological characteristics of streams, hydraulic calculations
2.2 Elaboration of programme of measures for reduction of nutrient and organic pollution;
2.3 Identification of water protective zone along the streams (according to Water Code of Ukraine) with concrete action plan for each household in the protective zone. It should become an integral part of the General Development Plan of Velykyy Bychkiv;
2.4 Elaboration of different scenarios of stream flood management depending on water level in Tisza;
2.5 Construction works for flood mitigation caused by streams, e.g. riverbed cleaning and enforcement, construction of water and sediment retention ponds.

Picture 4. July 2008 flood level marks at the wall of a household in Velyky Bychkiv

Output 3. Riverbed, floodplain and habitat at selected mountainous streams in UA and RO are restored

Intensive unsustainable forest management in the basins of small rivers in Carpathians leads to destruction of biotic communities in river and stream ecosystems. They cannot survive under conditions of increased acidity of water due to decay of wooden residues, high turbidity and change of the riverbed due to wood transportation.

Loschansky creek, right-side tributary of Tisza located upstream Dilove village was selected by Institute of Hydrobiology of National Academy of Sciences of Ukraine for riverbed, floodplain and habitat restoration in UA. It was chosen as a model because intensive forest cutting activities in its catchment were finished in the end of 2008 and according to Action plan of forest cutting of Dilove State Forest Enterprise will not be conducted during the next 8 years.

Analysis of water quality, conducted in winter 2008 in Loschansky creek showed the high level of organic river pollution due to decay of wooden residues left after forest cutting activities. The natural riverbed of the creek and its hydrological regime are changed almost on all its length. There was no macrozoobethoc, except algae in the riverbed due to destruction of cascades of stones and pollution of the riverbed with wooded residue. Chemical analysis showed that despite of winter period water pH was 5,5, NH_4 – 0,358 mg/dm^3, NO_3 – 0,021 mg/dm^3, NO_2 – 0,008 mg/dm^3, oxygen – saturation was 85% (while in Tisza it is 120-125%). High concentrations of phenols >20, which showed water quality deterioration down to 5th class (very polluted water). Such state of many streams is typical for this region.

After discussion with the Dilove State forest enterprise, responsible for the forest management, it was identified that there is lack of methodology how to restore the streams after forest cutting activities are finished (for e.g. state forest enterprise would use wooden constructions for restoration of cascades in the rivers, which would have adverse affect due to their decay and acidification of water).

The biotope-friendly restoration methodology will be developed by Institute of Hydrobiology, and implemented by Dilove state forest enterprise under the supervision of the Institute. So this component contains on-job training for the local forest managers, which give additional value for the project sustainability.

River habitat restoration will include introduction of invertebrates in the riverbed from the undisturbed rivers. National Academy of Hydrobiology will arrange a special field survey to catch invertebrates and introduce them in the sources of the stream.

In RO, the issue of small rivers conservation is also very urgent due to their pollution not only from wooden residues, but also nutrients. Project Partner in RO, Association of schools of commune of villages Bocicoiu Mare, Tisa, Crăciuneşti and Lunca la Tisa plans to conduct a number of practical actions to restore river streams and drinking sources out from them, using the developed methodology.

Picture 5. Destructed Loschansky torrent after wood cutting

Objective: to develop methodology of stream (biotope) restoration after unsustainable forest management and practically implement it for selected mountainous streams in UA and RO

Activities:
3.1 Physical cleaning of wooded residues from the riverbed
3.2 Development of the methodology and restoration of biotope structure of the river by creating of artificial cascades from local stone (not less than 10 cascades) and increase of sinuosity of the stream by creating of side inlets (not less than 10 side inlets)
3.3 Introduction of invertebrates in the riverbed from the undisturbed rivers. It will be done by catching of invertebrates and their re-introduction in the sources of the stream.
3.4 Supervision of the riverbed restoration.
3.5 Restoration of the mountainous creek and drinking water sources on it in RO.

Output 4. **Water gauging station on Tisza river in Dilove villageis re-opened**

The water gauging station on Tisza river in Dilove was opened in 1913 (one of the eldest stations in Upper Tisza). This water gauging station was the first transboundary water gauging station between Ukraine and Romania (2 km downstream Tisza, Ukrainian-Romanian border starts). The work of the station was not stopped even during the World War II. During financial crisis in the mid of 90s of last century, the station was closed. The following parameters were measured at the station: precipitation, water level and discharge, discharge of suspended solids.

At present, there are 5 water gauging stations along the Ukrainian-Romanian section of Tisza river (total length is 220 km), but water discharge measurements are done only at 2 stations. Such a situation is totally insufficient for flood forecasting and mitigation at this mountainous part of the Tisza. Data of water volumes until the confluence with Viseu (5 km downstream the station), available by this reconstructed water gauging station is very important for proper flood forecasting in general and for the selected villages Velyky Bychkiv and Bocicoui Mare, located downstream.

The station belongs to the network of Zakarpattya Hydrometerological Center, Project partner. This organization will provide 60% of total budget of this station re-opening and maintenance, including installation of an automatic station, which underlines its need at this location and approves its sustainability.

Picture 6. Present state of the water gauging station in Dilove

Objective: to re-open the water gauging station for improvement of flood forecast and flood management with flood mitigation purposes

Activities:

4.1 To purchase equipment for the water gauging station and to conduct construction works for its re-opening (construction of the steps to the river, wall protection etc.)

4.2 To calibrate the equipment to order to use the old database from this station and to conduct trainings for its stuff;

4.3 To re-open the station with data transmission for the Ukrainian and Romanian organizations.

Output 5. **Waste water facilities for district of Velyky Bychkiv are designed and constructed**

Velyky Bychkiv with a population of 9,000, as many other settlements in Upper Tisza has no municipal sewage system at all. The results of water quality analysis show that the water quality downstream such villages worsened. Taking into account economic situation in Ukraine, construction of single village

sewage network and treatment facilities are not feasible. The approach is to construct a number of separate, decentralized treatment facilities, using the best available techniques.
According to Analysis of Tisza River Basin 2007 report, chemical status of this part of Tisza river (water body) is assessed as water body possibly at risk due to nutrient and organic pollution. Waste water treatment in Velyky Bychkiv will contribute to achievement of good chemical and ecological status as the main goal of EU Water Framework Directive.

The district selected includes multyflat blocks, school, kindergarten. At present, the sewage water from these buildings flows underground to river Shopurka (tributary of Tisza) and causes nutrient pollution.

This is the most risky output of the demo project, because 90 % of this project component is depending on 90 % co-funding by state of Ukraine. The project plans to pay for the design of the wastewater facilities, but their construction is within financial responsibility of Velyky Bychkiv council and Rakhiv rayon administration. But such situation has some advantages, namely the project by investing 10% into design can fundraise the rest 90% of needed investments.

The issue of financial commitment from the side of VB and Rakhiv rayon administration was largely discussed at the first stakeholder workshop. The village council already promised 20% of the co-finding needed for construction of the wastewater treatment facilities. Rakhiv rayon administration is ready to sign Commitment letter with the project that it will insert the need of construction in its 2009 budget.

However, if during the inception period, the funding of construction of the wastewater treatment facilities is not fully allocated, the project will choose another strategy of dealing with the sewage waters problem, namely local constructed wetland system for group of houses or improvement of septic tanks.

Objective: to support in construction of water sewage treatment facilities for district in Velyky Bychkiv village

Activities:
5.1. To prepare detailed analysis of the selected area (topographic and leveling investigations),
5.2. To prepare design for construction sewage network and wastewater treatment facilities based on best available techniques
5.3. To construct the designed wastewater treatment facilities and the network.

LOGICAL FRAMEWORK MATRIX

Goal:	to demonstrate innovative and cost-effective solutions to the typical environmental problems faced in Upper Tisza floodplains with guide for their further replication				
Project Objective	**Indicator**	**Baseline**	**Target**	**Sources of verification**	**Risks and Assumptions**
To promote sustainable patterns of land and water management	*Waste management, separate plastic collection*	absent	Introduced and sustainably functions	Site visit to VB and BM	Close community involvement and desire to accept new practices
	Flood protection from local stream	absent	Studied and practically implemented (via construction work)	Site visit to VB	Obtaining of all needed permits for the flood mitigation construction
	State of mountainous streams after wood cutting	deteriorated	Restored and biologically stable	Site visit to VB and RO, work of Dilove State forest enterprise	Close cooperation with local forest managers and school association in RO
	Presence of water gauging station in Dilove	absent	Reconstructed and re-opened. Data are available for UA and RO sides	Site visit to VB, Zakarpatya Hydrometerological Service reports on its network	Cofinancing from the side of Zakarpatya Hydromet, its including in the general network
	Sewage water facilities and network in VB	absent	Designed and constructed	Site visit to VB	Co-financing from the side of VB, time limits for construction works

Project Objective	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Project Outputs					
Output 1 **Improved communal waste utilization system functions**	*State of Tisza floodplain*	Polluted with the garbage	Cleaned and kept cleaned	Site visit to VB and BM	Close community involvement and desire to follow waste collection rules
	Containers and press purchased	No	Present and operational	Site visit to VB	VB provision of man/power to operate the press and separate plastic collection
	Plastic collected and sold	no	Separate plastic collection system functions	Volume of sold plastic	Wiliness of the third parties to buy pressed plastic
Output 2 **Management plan of streams elaborated and implemented**	*Flow and retention capacity of the streams*	Due to sedimentation and poor management the flow capacity is decreased	Stream flow capacity increased	Hydrological and hydraulic data	Need to be co-ordinated with the General Construction scheme of VB
	Level of nutrient and organic pollution	High due to household activities	Low due to water protection zones identified	Water quality analysis in streams	Close work with local population, their wiliness to accept the conclusions due to identified water protective zones
	Construction works	No	Done according to the program of measures	Site visits	Need to be agreed with many organizations
Output 3 **Mountainous stream restored**	*Water quality in the stream*	Bad	Good for biota	Chemical analysis	Unsustainable forest management practices in future at the same spot
	Number of invertebrates	0	In number corresponding to natural conditions	Hydrological sampling	
	Cascades	no	built	Site visit	

Project Objective	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Output 4 **Water gauging station in Dilove is re-opened**	*Presence of water gauging station*	no	Operational on regular basis	Site visit	All needed agreements for the new station are obtained
	Monitoring data from Dilove	no	Regularly sent to Zakarpattya Hydromet and RO counterparts	Zakarpattya Hydromet data	
Output 5 **Sewage water treatment facilities**	*Presence of sewage water facilities*	No	Operational on regular basis	Reports of VB village council	Co-financing of the construction of designed facilities

3.3 Implementation arrangements

Project team

The project team will include

- Vasyl Manivchuk, Director of the project , Zakarpattya Oblast branch of All-Ukrainian Ecological league - generally responsible for the project implementation
- Olena Marushevska, his Deputy, Zakarpattya Oblast branch of All-Ukrainian Ecological league – responsible for reporting and contacts with UNDP-GEF
- For each output there is a person assigned, responsible for timely delivery of the output

Outputs	**Responsible**	**Organization**
1. Communal waste utilization system for VB and BM improved	Olena Marushevska	Zakarpattya Oblast branch of All-Ukrainian Ecological league
2. Management plan of streams is developed and implemented	Eduard Osiysky	Zakarpattya Oblast Water Management Board
3. Riverbed, floodplain and habitat on Dovgarivnya are restored	Sergey Afanasiev	Institute of Hydrobiology of National Academy of Sciences
4. Water gauging station in Dilove village, Tisza river is re-opened	Vasyl Manivchuk	Zakarpattya Oblast branch of All-Ukrainian Ecological league
5. Waste water facilities for district of Velyky Bychkiv are designed and constructed	Vasyl Manivchuk	Zakarpattya Oblast branch of All-Ukrainian Ecological league

The Project team will closely cooperate with Alexei Iarochevitch, National expert in Ukraine and relevant national expert in Romania as well as with other demonstration UNDP-GEF projects and on-going projects in the region, like INTERREG.

Project supervisory bodies

During the Inception phase, the project supervisory board will be established. It will include

- head of Velyky Bychkiv village, Ukraine
- head of Bocicoiu Mare village, Ukraine
- representative of Rakhiv rayon administration as the main policy maker in the region
- Ukrainian ICPDR expert
- Romanian ICPDR expert
- representative of Zakarpattya Water Management Board as the main water managing body in the region
- project director.

If needed, project output leaders and other partners will be invited for the Steering Committee meetings for reporting. The committee will gather 3 times a year to guide the process of the project implementation and to solve potential risks. The location of the meetings will be in VB due to visa constrains to make it in BC.

Roles and responsibilities of partners and stakeholders

Name: Role in the project:	**Velyky Bychkiv village council (PP1)** Main beneficiary and partner of the project in Ukraine • Output 1 (waste) - support in environmental raising campaign, provision of the space and manpower for the stable press operation • Output 2 (flood) - co-financing of the construction measures on the stream, law enforcement related to identified water protective zones • Output 5 (waste waters) – construction of wastewater facilities according to the construction scheme developed by the project
Name: Role in the project:	**Bocicoui Mare community (PP2)** • Output 1 (waste) - support in environmental raising campaign, provision of the space and manpower for the improved waste management system operation
Name: Role in the project:	**Rakhiv Rayon State Administration (PP3)** • For all outputs - including the project recommendation in local development policy within Rakhiv rayon, support in project replication for other areas of the rayon. co-financing
Name: Role in the project:	**Association of schools of commune of villages Bocicoiu Mare, Tisa, Crăciunești and Lunca la Tisa (PP4)** • Output 3 (stream restoration) – co-ordinator of this output achievement at RO side.
Name: Role in the project:	**Tyachiv rayon water management unit of Zakarpattya Water Management Board (PP5)** • Output 2 (flood) - provision of all necessary data and conduction of the construction works for flood mitigation. Its in-kind contribution is staff, machines, equipment
Name: Role in the project:	**Zakarpattya Center for Hydrometeorology (PP6)** • Output 4 (water gauging station) – co-financing of construction and covering of its operational costs (staff, communication costs) and will provide received data at national and international levels.
Name: Role in the project:	**Institute of Hydrobiology National Academy of Science of Ukraine (PP7)** • Output 3 (stream restoration) – co-ordinator of this output achievement. It will provide expertise, transport and sampling as in-kind contribution.
Name: Role in the project:	**Kyiv National University of Taras Shevchenko, Georgraphic Faculty (PP8)** • Output 2 (flood) – calculation of hydraulic characteristics of the streams, preparation of different flood scenarios.
Name: Role in the project:	**Dilove State Forest Enterprise (PP9)** • Output 3 (stream restoration) – practical implementation of the stream renaturalization as on-job trainings in the new methodology.

3.4 Workplan

Outputs and Activities	Month																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Output 1																		
Activity 1.1	►	►	►															
Activity 1.2				►	►	►												
Activity 1.3					►	►												
Activity 1.4				►	►			►	►					►	►			
Activity 1.5				►	►			►										
Activity 1.6												►						►
Activity 1.7					►							►						►
Output 2																		
Activity 2.1	►	►	►	►	►	►	►	►										
Activity 2.2					►	►	►	►										
Activity 2.3					►	►	►	►	►									
Activity 2.4										►	►	►						
Activity 2.5													►	►	►	►	►	
Output 3																		
Activity 3.1				►	►													
Activity 3.2					►	►												
Activity 3.3						►												
Activity 3.4							►	►										
Activity 3.5				►	►	►	►	►	►									
Output 4																		
Activity 4.1				►	►	►												
Activity 4.2							►	►	►									
Activity 4.3										►								
Output 5																		
Activity 5.1	►	►	►															
Activity 5.2				►	►	►	►	►	►									
Activity 5.3										►	►	►	►	►	►	►	►	
Project management, monitoring and reporting *																		
Inception Period	►	►	**1**															
Establishment of project team	►	**2**																
Project management and coordination	►	►	►	►	►	**3**	►	►	**3**	►	►	**3**	►	►	**3**	►	►	**3**
Project supervision	►	►	**4**	►	►	►	►	►	**4**	►	►	►	►	►	►	►	►	**4**
Reporting			**5**			**5**			**5**			**5**			**5**			**5**
External implementation review **									**6**									**6**
Financial Audit																		**7**

Key

Ongoing activity	►
Milestones	**x**
Inception Workshop and Report	**1**
Project team established	**2**
Coordination meetings of partners	**3**
Establishment and meetings of the Project Supervisory Body (Steering Committee)	**4**
Quarterly Progress Reports and Final Report	**5**
Mid-term and Final Review	**6**
Financial Audit	**7**

* Minimum requirements indicated

** Costs to be covered from UNDP support

3.5 Budget

Outputs and activities	Expenditure account	Month						TOTAL
		1-3	4-6	7-9	10-12	13-15	16-18	
Output 1								
Activity 1.1	external experts	1000						**1000**
Activity 1.2	Materials /equipment		16000					**16000**
Activity 1.3	Equipment		6000					**6000**
Activity 1.4	Materials		2000	2000		1000		**5000**
Activity 1.5	Materials and printing		2000	1000				**3000**
Activity 1.6								**0**
Activity 1.7	Service contract		500				500	**1000**
Subtotal 1		**1000**	**26500**	**3000**	**0**	**1000**	**0**	**31500**
Output 2								
Activity 2.1	External experts	1000	2000	2000				**5000**
Activity 2.2	External experts		1000	2000				**3000**
Activity 2.3	Service contract		1500	1500				**3000**
Activity 2.4	External experts				2000			**2000**
Activity 2.5	Materials					5000	5000	**10000**
Subtotal 2		**1000**	**4500**	**5500**	**2000**	**5000**	**5000**	**23000**
Output 3								
Activity 3.1	Materials		3000					**3000**
Activity 3.2	Service contract		3500					**3500**
Activity 3.3	External experts		3500					**3500**
Activity 3.4	External experts							**0**
Activity 3.5	Materials		2000	1500				**3500**
Subtotal 3		**0**	**12000**	**1500**	**0**	**0**	**0**	**13500**
Output 4								
Activity 4.1	Equipment		3000					**3000**
Activity 4.2	Service contract							**0**
Activity 4.3	External experts							**0**
Subtotal 4		**0**	**3000**	**0**	**0**	**0**	**0**	**3000**
Output 5								
Activity 5.1	Service contract	2000						**2000**
Activity 5.2	Service contract		5000	5000				**10000**
Activity 5.3	Service contract							**0**
Subtotal 5		**2000**	**5000**	**5000**	**0**	**0**	**0**	**12000**
Project management, monitoring and reporting								
Management Outputs 1-5	Project staff	1600	1600	1600	1600	1600	1600	**9600**
Workshops	Hospitality, printing costs	1500	300	300	300	300	1500	**4200**
Local travel costs	Travel	500	500	500	500	500	500	**3000**
International travel (4 Tisza group meetings)	Travel	800			800	800	800	**3200**
Audit	Audit			1000			500	**1500**
Office suplies, printing	Office supply, printing	100	100	100	100	100	100	**600**
Communication costs	Communications	150	150	150	150	150	150	**900**
Subtotal PM		**4650**	**2650**	**3650**	**3450**	**3450**	**5150**	**23000**
TOTAL		**8650**	**53650**	**18650**	**5450**	**9450**	**10150**	**106000**

Expenditure accounts		Amount (USD)
Project Staff	Project staff and experts (external or those of partners) contracted on project substance	9600
Travel & workshops	Local, international travel tickets, fuel, DSA, meeting rooms etc.	10400
Service contracts	Contracts with companies on different types of services	30500
Materials / equipment	Purchase of equipment required to undertake demonstration project	52500
Communication	Mobile and land telephone charges, postage and courier	900
Audit costs	Financial audit costs	1500
Printing costs	Printing, copying, translation	600

Co-financing plan

Type of costs *	Partner / Stakeholder								TOTAL
	PP1	PP2	PP4	PP5	PP6	PP7	PP8	PP9	
salary of press operator	2000								2000
educational materials, organizational support	1000	1000							2000
	3000	**1000**	**0**	**0**	**0**	**0**	**0**	**0**	**4000**
Expertise							1500		1500
Co-financing of construction	8000								8000
Equipment				2000					2000
	8000	**0**	**0**	**2000**	**0**	**0**	**1500**	**0**	**11500**
Equipment								1500	1500
Expertise and transport						8000			8000
assessment			700						700
	0	**0**	**700**	**0**	**0**	**8000**	**0**	**1500**	**10200**
Equipment					5000				5000
Expertise					1000				1000
Operational costs					3000				3000
	0	**0**	**0**	**0**	**9000**	**0**	**0**	**0**	**9000**
Construction works	100000								100000
	100000	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100000**
Office costs					3600				**3600**
	0	**0**	**0**	**0**	**3600**	**0**	**0**	**0**	**3600**
TOTAL	**111000**	**1000**	**700**	**2000**	**12600**	**8000**	**1500**	**1500**	**138300**

Reporting, monitoring and indicators

Following the requirements of ICPDR and UNDP GEF the following reports will be prepared

- **Inception report:** The project will hold an inception workshop to further present, discuss and refine the work programme involving key stakeholders of the project. The results of this workshop, together with any other issues, will be presented to the ICPDR in an 'Inception Report'.
- **Quarterly Reports:** Brief progress reports giving details of the work undertaken in the last quarter, planned for the next quarter, problems encountered (and recommended solutions), meetings and a financial summary should be submitted every 3 months. These reports will highlight progress with reference to the project logframe. After 9 month an Interim Financial Report will be delivered.
- **Draft and Final Technical and Financial Reports:** The technical reports should present a clear account of the activities undertaken, outputs achieved, outcomes expected, lessons learnt, opportunities for replication etc. The Final Financial Report shall contain eligible expenditures and payments received.
- **Workshops and meetings:** A representative of the demonstration project will be expected to participate at the ICPDR's Tisza Group meeting held jointly with the UNDP/GEF Tisza workshops to present progress and to give examples of how the demonstration project can best assist the river basin management process. In addition, two regional stakeholder meetings will be organised by UNDP within the Tisza River Basin and these meetings will serve as important opportunities to present the activities and results of the demonstration projects. These stakeholder workshops will coincide with the mid-point and the end of the demonstration projects work and will provide input to the mid and final evaluation of the projects.
- **Independent Mid-term and Final Evaluation:** A review of the progress of the project will be made after 9 months. This will closely examine the activities undertaken, the achieved (or planned results) and make recommendations for any mid-term corrections needed to the work programme. A final evaluation will be undertaken following completion of the project and will examine the overall impact of the project against the project logical framework.

The indicators of achievement are described in the ToR.

Risks and management response

#	Description	Category	Impact & Probability	Countermeasures / Mngt response
1	Lack of support from the side of local citizens	Political	P = 1	Environmental campaigns
2	Lack of funds from the side of local partners	Financial	P =2	Commitment letters with the partners, especially concerning the Output 5
3	Organizational difficulties related to construction of flood mitigation measures and wastewater facilities construction	Political	P =2	Early start of construction
4	Problems with RO counterparts due to border and customs problems	Political	P =2	Visa arrangements and support from the side of ICPDR