Restoring Europe's Rivers

RESTORE Events: Reporting

Workshop: Sharing River Restoration Knowledge and Experience in Europe

9-11 May 2012

IASI

Romania

LIFE 09INF/UK/000032

The RESTORE project is made possible with the contribution of the LIFE+ financial instrument of the European Community

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Event Details

The National Institute of Hydrology and Water Management (NIHWM), Romania organized the International Workshop „***Sharing River Restoration Knowledge and Experience in Europe"*** in the framework of the *RESTORE Project* (*Rivers: Engaging, Supporting and Transferring knOwledge for Restoration in Europe*) application no. LIFE09 INF/UK/000032.

The workshop was organized with the support of the Service for Land and Water Management, The Netherlands between 9 -11 May 2012, and was held in Iasi, Romania.

Within the Workshop a Round Table – ***How can RESTORE help to share experience in different areas of Europe and especially in the Eastern European Region*** took place.
The program also provided a *Training Session* on river habitat and geomorphology.

Invited speakers from UK, The Netherlands, Austria, Romania and Bulgaria presented workshops and presentations on RR and there was a field-trip to Ciobarciu Wetland etc.

The workshop was a sector specific engagement event directed to the Main Target Audience of the RESTORE project in East European region. Attendees were mainly River Basin Planners and practitioners from Romania (appendix A: List of attendees).

Objectives of the Event:

To provide information and knowledge that:

- Improves the understanding of the importance of River Restoration (RR) and the potential benefits (economical and social) of it;
- Provide guidelines with best practices in RR activities;
- Convince the constructors that they should follow strictly the design of the RR project in order to achieve the RR objectives (to be a successful implementation);
- Improves the understanding of the river as a whole from upstream to downstream and of the necessity to plan the water management in accordance with EU Directives and Nature 2000

Promotion of an effectiveness knowledge in river restoration field;

Dissemination of the best good practices on river restoration.

Programme of the Event:

The event had a mixture of workshops and presentations and a field-trip. The detailed programme can be seen in the event programme (see **Appendix B**).
The event started with an introduction of NIHWM and its relation to river restoration and RESTORE-project. This was followed by a workshop on RESTORE-project and several presentations and trainings on RR in The Netherlands, Austria, Romania and Bulgaria and a field-trip s to Ciobarciu Wetlands.

Key Issues from Event

Key issue and outcomes of the Round table on the RESTORE-project

The Round Table was presented by ms Antonia Scarr, RESTORE-project manager from UK and mrs. Annelies Koningsveld, RESTORE-project-partner from the Netherlands, Their key-issue was to make sure that all attendees learned to know the wiki-tool that will be an important instrument to share knowledge on RR in all European Regions. The wiki is not ready to be used yet, but will be in a couple of months. To make it as valuable as RESTORE wants it to be, it must be populated with many case studies on RR-projects all over Europe.

The following questions were asked and answered to in the Round Table:

Question 1

What do you regard as the principal policy drivers for river restoration in your country and why? E.g. WFD, Habitats and Birds, Floods Directive; Land Use Planning, CAP.

Romania

1. There is not only one of these the principle policy driver.
2. WFD is the main one, because it is multidisciplinary.
3. Land use planning (drivers change but not always positive in river restoration terms).
4. Habitats and birds Directive.

Bulgaria

1. Similar to Romania – but their main driver is the habitats and birds directive as 30% of Bulgaria's surface is designated protective **areas**.

Question 2

In general what do you regard as the main obstacles, to delivering river restoration?

1. Conflict of interest/aims/goals.
2. Landownership and land use. People don't like changes. When there are a lot of owners and different uses, it takes many years to come to an agreement.
3. Flood risk measures that have been taken can not be broken away. **T**here has been massive deforestation since the end of communism. We need to show people what are the impacts from this. We also need to discuss with people how cutting all the trees is unsustainable; they will have more long-term business if they manage their woods, rather than remove them all. This would ensure their children have the same advantages and the land is still valuable.

4. Protected areas: You cannot take measures in these areas, even if the environment/-nature should benefit from them in the long term. You cannot undo measures taken to prevent flood risk.

5. There is a lack of understanding – may be Romania needs a law?

6. Corruption can stop a project in its tracks.

7. Flood risk normally drives management in the wrong direction. Engineers need persuading to design the project in a more environmentally sensitive manner.

8. Environment is low on the policy agenda.

9. Lack of knowledge on what is river restoration.

10. The other directives are in conflict with, or at least divergent from WFD. Not an integrated approach.

11. Lack of standards to design waterworks and of best practises.

12. The old way (engineering/designing for 1 directive) and the new way more integrated (various aspects) need to be connected.

Question 3

And what are the opportunities to support you delivering river restoration?

1. WFD and Floods Directive can be an opportunity. It asks for an integrated approach.

2. Changing in agricultural legislation. Flood directive will be an opportunity.

Question 4

What would you like to see on a Website relating to the RESTORE Themes?

Apart from the **best practises**, the participants want:

1. Funding sources and programmes.

2. Economic info – organisation that can help fund works; what consultants can help with funding; funding programmes.

3. Info on hydropower – risks and potential impacts; map of their stations; information on wind turbines impact on birds.

4. Guide for protected species and river works.

5. Information on sources of pollution and land use in Romania.

6. Information on RBMPs and status in Romania.

7. Social pages – a link to the project Sigma for water.

8. A page per country where you can find all kinds of information for a particular country.
9. Spatial planning – case studies on things that have worked; how to design river works near housing and protect them from flooding.
10. Social benefits Learn (for instance from best practises) how you can calculate the gain of social benefits. How to measure them and make them recognisable. Social benefits ask for the use of social media.

The way information is presented: must be appealing / convincing for different audiences: (the politician must become aware that RR can help him win the next elections.)

Questions on WIKI tool

What kind of case studies would you like to find on the WIKI database?

What questions would you like the WIKI to answer for you?

Do you have any case studies to add to the database? (please list)

The workshop at least added to the 5 already existing case studies an extra 6 Danube/Romanian case studies and 5/6 Bulgarian case studies to be uploaded on the WIKI.

Key issue and outcomes of the Training by Hendrik Havinga

Mr. ir. Hendrik Havinga Ass. Professor Delft University – The Netherlands trained the participants on ***"Morphological challenges: morphological impact resulting from the demands of the individual interests. Some Dutch examples – River restoration topics".*** The key issues tackled are itemed below:

- Goals (increase bio-diversity, WFD);
- River functions;
- Current situation (natural river, regulated river, physics);
- Restoration measures problems (challenges);
- Mitigating measures;
- Monitoring;
- Maintenance;
- Administration processes.

Some outcomes of the training by Mr. ir. Hendrik Havinga Ass. Professor Delft University – The Netherlands are mentioned below:

- **Concept of cyclic rejuvenation in the floodplains**

- Measures are taken to restore the discharge capacity and increase natural diversity. These measures “rejuvenate” the area, e.g. silted up floodplains are excavated, on the bare ground pioneer vegetation will start to develop, thus restarting vegetation succession

- Cyclic sediment- and vegetation management: solution to combine flood protection and ecological rehabilitation

- Measures to restore the discharge capacity and to increase natural diversity “rejuvenate” the area, e.g. excavation of silted up floodplains. On the bare ground pioneer vegetation will start to develop, thus restarting vegetation succession

- Tailor-made approaches

- Demands: Expertise of hydraulics + morphology, ecological processes, flexibility

- **Design of Cyclic rejuvenation measures**

- Knowledge of ecological processes
- Knowledge of river engineering
- Socio-economic factors
- Success factors
  - Legislation: Flood protection, dike stability, flora and fauna, forestry, bird- and habitat, environment, soil management, water pollution, Water Framework Directive (WFD).
  - Small environmental impact
  - Reduced maintenance. Innovative techniques are important: Precise dealing with (contaminated) soil; Sub-suction of sand (leaving the top layer intact); Complete removal of trees (including roots).

- **Examples of measures for ecological improvement for fish, macro-fauna and water plants**

Theme	Measure
Restoration of habitats and natural dynamics • Shallow areas, low flow velocity • Protected from waves from ships • Variation in conditions (substrate, flow velocity, water depth) • Sandy banks with a gradual slope	Ecological banks Connecting lakes to rivers Construction of secondary channels Lowering of floodplains
Remove barriers for fish migration • Connect rivers and brooks • Connect fresh and marine waters	Construction of fish passages Rehabilitation of mouth of brooks
Clear and clean water	Introduction of seeds of water plants Creation of shelter by e.g. a dam

Key issues on Austrian and Bulgarian presentation

Mr. Albert Schwingshandl - Consulting engineer for water management and environmental engineering, RIOCOM – Austria trained the participants on river habitat and geomorphology - "Restoration measures at Austrian-Slovakian border section of river Morava: concepts, experience and outlook." Several measures have been applied within the project as follows:

A. improvement of river course development
B. variability of cross section morphology
C. lateral connectivity
D. meander reconnection
E. improvements of low water structures in river course
F. new types of river bank stabilization
G. design of river banks in urban areas

Mr. Vasil Uzunov gave a talk on “Protection and restoration of water ecosystems in Bulgaria”. 5 examples of river restoration have been presented as follows:

- Restoration of Veselina River meander near the Mindya Village, Bulgaria;
- Restoration of the Russenski Lom River near Ivanovo Rock Monasteries;
- Restoration of the link between the Danube River and the wetlands of Persin Island;
- Restoration, protection and sustainable development of Zlato pole;
- Restoration and conservation of riparian forests - habitats of European conservation importance on the territory of Dimitrovgrad municipality.

Within the workshop, a poster Session took place. Contribution of our Hungarian colleagues within the RESTORE project has been presented as a poster - *Experiences on River Restoration in Hungary* – by Mrs. Ágnes Irma György, from „VITUKI” Environmental and Water Management Research Institute Non-Profit Public Utility LLC, Hungary.

Key issues on field trip

Within the field trip on the Ciobarciu Wetland the restored old meander (figure 1), the connections between polders and the channels between polders (figure 2) have been observed. The restored site is big compare to the restored sites in Europe.

Figure 1 The restored old meander

Figure 2 The channels between polders

Key Outcomes

The most important outcomes are

- RESTORE project is a partnership for sharing and transferring knowledge.
- The RESTORE-events (36, of which this workshop is 1) are meant to be opportunities to share knowledge, but also to learning to know each other.
- Triple the amount of known case studies from East Europe is a goal of this event.
- Sharing information about RESTORE project: how website and WIKI tool can help the participants to improve their knowledge in River Restoration and their work, in general.
- A very good opportunity is the **testing period** for the WIKI that was to be started this week, but is postponed. The User acceptance test will be announced to all attendees of the workshop and hopefully they will all help testing.
- The answers from the Feedback Forms: RESTORE Workshop can be considered **as second round to the questions asked during the workshop**. A synthesis of the answers is shown in the Annex.

Attendance

26 People attended the workshop from river basin planners, practitioners and scientists.

Support for restoration Practices

The event support RR practice across Europe, mainly Central and East part, in a great extend. The participants to the workshop were mainly River Basin Planners from almost all over Romania which took home:

- Better understanding of RR concept and practices and the potential benefits of it
- Greater strategic thinking at the river basin level having in mind environmental aspects.

Building on Network Capacity

The workshop it was a good opportunity for new contacts.

Promoting effective Knowledge Transfer

The event promoted an effective River Restoration knowledge transfer within Romania.

Dissemination of Event Outcomes

The power point presentations will be posted on RESTORE project web side. The attendees will disseminate the lessons learned to their colleagues from their organizations.

Follow Up

Follow up pf the event will be web disseminations and articles, in the next periods.

Annexes

Annex A: List of Attendees

Surname	First Name	Company	Country
		Environment Agency	UK
Scarr	Antonia	UK	
Koningsveld den – Ouden	Annelies	DLG	The Netherlands
Havinga	Hendrik	Delft – University	The Netherlands
		East Aegean Sea	Bulgaria
Uzunov	Vasil	Basin Directorate	
		East Aegean Sea	Bulgaria
Angelov	Mladen	Basin Directorate	
Schwingshandl	Albert	RIOCOM	Austria
Craciun	Floare	ANAR	Romania
Popovici	Felicia	ANAR	Romania
Galie	Andreea	INHGA	Romania
Cserwid	Elisabeta	INHGA	Romania
Luca	Ecaterina	INHGA	Romania
Gînsca	Ioana	ABA Somes-Tisa	Romania
Negrea	Livia	ABA Somes-Tisa	Romania
Buda	Valer	ABA Somes-Tisa	Romania
Naphegyi	Daniel	ABA Crisuri	Romania
Nagy	Catalin Mihai	ABA Banat	Romania
Bold	Gabriel	ABA Jiu	Romania
Toma	Alexandrina Adi	ABA Arges-Vedea	Romania
Chihaia	Andrei	ABA Ialomita-Buzau	Romania
Lucavetchi	Irina	ABA Siret	Romania
Prisecaru	Florin	ABA Siret	Romania
Ilie	Andonie	ABA Siret	Romania
Manolescu	Cristina	ABA Siret	Romania
Savin	Anca	ABA Prut-Barlad	Romania
Ibram	Orhan	INCDD Tulcea	Romania
Radu	Gina Alina	ARPM Galati	Romania

Annex B

A synthesis of the answers to the questions asked in Feedback Forms: RESTORE Workshop

17 participants answered to the Feedback Forms: RESTORE Workshop.

How will the workshop change your river restoration working practices?

Knowledge about RR in UK, Netherlands and Romania; more examples to the institutions which prepare RR projects

RR is very important for Good Ecological Potential

Better view of aspects involving RR

New ideas and tools in RR practices

The change in the working practices for RR

To see the engineering solutions according with ecosystems needs

To know new engineering solutions

To consult other RR case studies and good practice

To see the inter-linkages between hydro-morphology aspects and biological elements

By RESTORE website that will be used in future RR projects

Opportunity to benefit from the experience of other institutions in-charge of RR in other Member States

Which River Restoration networks or organisations delivering river restoration are you linked with?

NGO Green Balcans, Bulgaria

National Institute for Research and Development Danube Delta

ECRR

WWF

FORECASTER

RIZA

Society for Ecological Restoration

National Administration “Apele Romane”, Politehnica University - Timisoara

From attending the workshop have you gained new river restoration contacts? Y/N

If Yes, How many? The answers vary from **3** to **8** contacts.

How do you think you will find these contacts useful in the future?

Contacts for sharing knowledge and best practices for RR

Communication; experience sharing

Collaborating in projects

By web-side

By email contact

For collaboration and promoting existing and new RR projects

What new knowledge have you gained from attending the workshop?

If after the proposals done within the workshop, we will find on the project’s website the required information, it will be useful for improving my working practices

Re-connectivity of old meanders; sedimentation after reconnection of meanders; restore old fishponds

Wiki tool existence, useful presentations, database RR projects

Aspects of RR practices

The fact that there is an important experience in Europe

Measures for longitudinal and lateral connectivity

Knowledge regarding RR practises

New methods of RR

Information about hydro morphology, other country experience, problems during the projects

Some solutions linkage biology - hydro morphology

Restoration measures

Morphological impact

Lessons learned from the implementation of other RR projects

Are you willing to help disseminate information gained at the workshop Y/N

If so how would you do it and to what type of organisation?

By email to NGOs

By email

By sharing information with colleagues from my home organization and by directing them to www.restorerivers.eu

Send project site to colleagues

River Basin planners

Scientific community

Hydroelectrica – Romanian National Hydropower Company

Public institutions, NGO

Stakeholders located within the Prut River Basin

What information would you look for on the river restoration website?

- Good practice 14
- Contacts 11
- Case studies …16 (out of 17)

Please add further comments.

Many movies during execution solutions for the land owners (to see what happens)

Economical and social benefits

Cost/efficiently

Economics

Funding opportunities

Technical details

Constructive standards

Before/after restoration long term monitoring data with some ecological description:

- Habitat analysis
- List of species
- Biological, chemical status of water
- Riparian vegetation

Guide lines for construction of working fish aids.

Policy

Comments regarding RR

Do you think that some of the outcomes from this event should be included in policy? Y/N

If so which ones?

Necessity of ranking RR projects

Good practices

Assessment of environmental costs and benefits

River restoration measures can be linked with flood defence measures

Are there any themes or topics you would like to see presented at future workshops?

Hydropower stations and fish passes

Bottom weir made with natural material

Funding issues

Case studies

Fish migration aids

Longitudinal connectivity restored

Post-project efficiency analysis or results (efficiency case studies), problematic case studies and solutions to them

Positive and negative effects / results of RR projects

Ecological benefits

Linkage between hydro morphology and biological elements

Wetlands restoration

Solutions for landowners

Assessment of social benefits

What do you see as the biggest obstacle to river restoration in your country?

Conflicts of interests

Political will

“Old school” engineers

Flood protection and land use

Land use, policy

Land ownership (small parcels – many owners); lack of solutions for the land owners

Lack of strategy and appropriate design and financing

Mentality of people

Political decision

The poor collaboration among institutions, the lack of investments

Lack of financial resource

Lack of studies

Lack of people / politicians awareness about RR need

What do you see would result in the biggest win for river restoration in your country?

Good ecological potential of rivers

People to understand the benefits of RR

The change of human mentality

Regaining the habitats

Preservation of natural habitats

Habitats development

Improving ecosystems

Good management and best preservation of water quality and quantity

Biodiversity – tourism

Social benefits e.g. landscape for owners

Nature, fish and birds, ecosystems resulting in benefit for people (enhancement of wellbeing)

A better "design strategy" of river management, oriented to sustainable development

Are you interested in being involved with future RESTORE activities/events? Y/N

Can we send you our news and event updates? Y/N

16 answered yes and 1 maybe.

Any further comments?

A welcome initiative for the success of future RR projects!

Good organization of the event!

Very interesting the field trip!

A good change of experience among experts!

Good opportunity to establish contacts with persons involved in RR activities.

Annex C

Wednesday, 9 May

12.00 – 13.00	Participants registration
13.00 – 13.10	Opening of the Workshop on behalf of Romania - *Mrs. Dr. eng. Andreea Gălie, Regional Communications Manager for Eastern European Region within RESTORE project, NIHWM, Romania*
13.10 – 13.20	Welcome on behalf of the Prut – Barlad River Basin Authority – *Director, The Prut – Barlad River Basin Administration, Iasi, Romania*
13.20 – 13.40	Brief presentation of National Institute of Hydrology and Water Management and involvement in RESTORE project – *Mrs. Andreea Gălie & Elisabeta Cserwid – NIHWM, Bucharest*, Romania
13.40 – 15.10	"Presentation of the International project RESTORE, a partnership for sharing knowledge and promoting best practice on river restoration in Europe" - *Ms. Antonia Scarr - Project manager – Environment Agency, UK & Mrs. Annelies Koningsveld-den Ouden, Project Partner, Government Service for Land and Watermanagement – The Netherlands*
15.10 – 15.20	Coffee – break
15.20 –15.40	"Protection and restoration of water ecosystems in Bulgaria" – *Mr. Mladen Angelov & Vasil Uzunov*, *Bulgaria*
15.40 – 16.00	"Ecological Restoration of the Lower Prut Floodplain Natural Park" – *Mrs. Gina Radu, Regional Protection Environment Agency, Galati, Romania.*
16.00 - 17.00	Round Table – *How can RESTORE help to share experience in different areas of Europe and especially in the Eastern European Region?*
17.00 – 17.10	Poster Session - Experiences on River Restoration in Hungary – Mrs. Ágnes Irma György, „VITUKI" Environmental and Water Management Research Institute Non-Profit Public Utility LLC, Hungary
17.10 - 18.00	Discussions
18.00 - 18.30	Romanian participants from National Administration "Romanian Waters" - meeting
19.30	Dinner

Thursday, 10 May

9.00 – 10.00	Training on river habitat and geomorphology - "Restoration measures at Austrian-Slovakian border section of river Morava: concepts, experience and outlook." – *Mr. Albert Schwingshandl - Consulting engineer for water management and environmental engineering, RIOCOM – Austria*
10.00 – 11.00	Training. Morphological challenges: morphological impact resulting from the demands of the individual interests. Some Dutch examples. – *Mr. ir Hendrik Havinga Ass. Professor Delft University – The Netherlands*
11.00 – 11.30	Coffee - break
11.30 –12.30	"River restoration project – *Ciobarciu wetland" – Mrs. dr. eng. Anca Savin – The Prut - Barlad River Basin Administration - Romania*
12.30 – 18.30	Field visit – *Ciobarciu wetland*
19.00	Official Dinner

Friday, 11 May

9.00 – 9.30	"River restoration project in Danube Delta – Babina & Cernovca" - *Mr. Orhan Ibram- The Danube Delta National Institute for Research & Development – Tulcea, Romania*
9.30 – 9.45	WIKI Data base – Romanian projects – *Mrs. Andreea Gălie – NIHWM, Bucharest, Romania*
9.45 - 11.00	Training. Morphological challenges: morphological impact resulting from the demands of the individual interests. Some Dutch examples – *Mr. ir. Hendrik Havinga Ass. Professor Delft University – The Netherlands*
11.00 – 11.15	Coffee – break
11.15 - 11.45	Morphological challenges Training – *Mr. Hendrik Havinga Professor Delft University – The Netherlands*
11.45 – 12.15	Conclusions of Round Table

12.15 – 13.00	Discussions
13.00 – 13.30	Conclusions and Closure of the Workshop