

WORKSHOP : 8-Networking river and watershed BRs

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Number of participants: 36

Format of the workshop: background, brief presentations by several participants, debate on a project of common declaration on major problems linked to water and aquatic environments to share between the Reserves

INTRODUCTION

Dordogne BRs had the wish to launch a working group on water in MAB and EuroMAB. There is a working group on forest, mountain, but there is no working group on water. Nevertheless, the issue is so important in many discussions and for development of territories and human that it seems important to talk together and try to create a working group at Unesco.

According to Meriem Bouamrane, if we have a consensus on the need to work together on water issues, Unesco will support a water group. We'll have to demonstrate all together and explain why and how biosphere reserves should discuss the water issue. A water network should allow us to talk together about our problems, solutions and sticking points in order to solve them. We have a wide range to work in an efficient and very interesting way.

EXPECTED RESULTS

- Problems and solutions shared between watersheds in BRs.
- Design a common declaration on major problems linked to water and aquatic environments

PRESENTATIONS

- **Borut Peric and Darja Kranjc** (Slovenia), Karst (and Reka River Basin) biosphere Reserve
- **Carina Wettemark** (Sweden), Kristianstads Vattenrike Biosphere reserve
- **Charlotta Heimeirsson** (Sweden), Nedre Daläven river landscape
- **Dejan Panovski** (Republic of Macedonia), River Drin Basin - Ohrid-Prespa Transboundary Biosphere
- **Guy Pustelnik and Olivier Guerri (France)**, Dordogne basin Biosphere reserve
- **Miroslav Hátle and Eva Jelínková** (Czech Republic), Třeboň basin Biosphere reserve
- **Nabiha Ben M'Barek** (Tunisie), Ichkeul Biosphere reserve
- **Sanna Kipinä-Salokannel** (Finland), Archipelago Sea Area Biosphere Reserve
- **Siniša Golub** (Croatia), Mura-Drava-Danube - Transboundary Biosphere Reserve
- **Valery Neronov** (Russian federation), biosphere Reserves of the Volga River Basin

Biosphere Reserve	Country	Main issues and problems	Main solutions	Main deadlock points and difficulties
Karst (and Reka River Basin) biosphere Reserve	Slovenia	Collecting and cleaning of waste water illegal releases, mostly from industrial plants and certain entrepreneurs Non-properly equipped and regulated parking lots Traffic Illegal waste dumps Industrial plants Disappearing of „water cultural heritage“	Strengthening the nature conservation surveillance Talks with companies that are in charge of Reka River and dumps monitoring on behalf of the industry firms etc. Chemical analysis of water Rescuing equipment in case of hazardous substances spillage Cleanup actions Public and local authorities awareness rising Funds search for the renaturalization of hazardous dumps Encourage the use of the UNESCO status by local authorities for gaining funds for the building of sewerage system Professional help availability, feedbacks and partnership for inhabitants and local authorities on concrete issues	Strong lobby Small political will for problem solving on the state level Ineffective inspectorates Lack of funds Inefficiency of individual municipalities with applications for international funds for the building of sewerage systems Local disagreements Uneducated inhabitants
Kristianstads Vattenrike Biosphere reserve	Sweden	Eutrophication due to leakage of nutrients (nitrogen and phosphorus) agriculture and forestry (sea, lakes, rivers). Brownification caused by leakage of TOC, Fe and humus (sea, lakes, rivers, drinking water). Fragmentation of stream habitats due to hydropower (recent and historical). Destroying ecosystemservices.	Dialogue and cooperation with landowners Re-/constructing wetlands Information and networking Inventory studies Cooperation with researchers Highlight the ecosystemservices in the biosphere reserve	Economical Financial Political
Nedre Daläven river landscape	Sweden	hydropower plants : the regulation of the water level has a great impact on the biological life in the waters and affects the whole river landscape	Restoration programs (rivers beds and salmonid population) Fishery management plan	Agreeing on what to do and how to do it Financing Regulation
River Drin Basin - Ohrid-Prespa Transboundary Biosphere	Republic of Macedonia	Governance	Sustainable use of natural resources Conservation of Biodiversity enhanced Functions and Services of ecosystems stabilized and enhanced Awareness and education improved Research coordinated	

Dordogne basin Biosphere reserve	France	Threats to water quality and diffuse pollution. Loss of natural areas and weakening of biodiversity caused by land uses and activities affecting water resources (hydroelectricity, water treatment plants... Aggravation caused by excessive exploitation of water resources and climate change	Dialogue and consultation. Coordination and organisation. Programs and contracts. Operational works Research.	Political Financial Weaknesses of contractual approaches Complexity of Issues Institutional Limitations
Třeboň basin Biosphere reserve	Czech Republic	Conflicts between the intensive fish-farming and the nature conservation. Threats to water quality and diffuse pollution (eutrophication, cyanobacteria, ...) Extinction of sensitive plant species Large-scale extraction of peat	Conservation measures Financial instruments (in particular compensation) in addition to traditional administrative (legislative) instruments Revitalisation of abandoned river oxbows. Restoration of wetlands	
Ichkeul Biosphere reserve	Tunisie	hydropower plants and ecological imbalance	water exchanges control scientific monitoring scientific research programs	
Archipelago Sea Area Biosphere Reserve	Finland	Eutrophication [Nutrient load from the catchment area (mainland and islands) and from elsewhere sea area "Inner load" from the anoxic sea bottom] Hazardous substances Marine litter (especially microplastics) Invasive species	Environmental education: In schools and kindergartens For tourists (at boat harbours, markets etc.) For locals (on events, markets, in blog etc.) Household wastewater treatment Fund for designing the system Consulting Encouraging to build shared systems with two or more households	Most of the nutrient load coming from the mainland and from the sea area outside the BR area. Eutrofication is a national and international problem, solutions require political decision making. Improvement in the water quality is slow. Targeting the measures has been deficient (not enough right measures in the right places). There are not enough technical solutions and effective measures yet. Challenges of the climate change.
Mura-Drava-Danube - Transboundary Biosphere Reserve	Croatia	No tradition of institutional nature protection in region Mechanical" river management during 1945-1995 No sufficient funds and human resource for joint management The permanent idea of hydropower as sustainable option	Joint projects of institutions responsible for management of parts of TBR Branding needed : based on joint vision of what TBR should be (for local people, not just in theory) randing needed > based on joint vision of what TBR should be (for local people, not just in theory)	Language and cultural barriers: Croatia and Hungary Low recognition of the TBR Variety of environment label and difficult to choose for communication with general public

RESTITUTION/CONCLUSIONS

Pollution, climate change, land use, habitat loss, economic use, many problems are shared by participants of the workshop. Coordination, dialogue, collaboration, research, education, living laboratory, large scale strategy are the main solutions to foster. Engaging local people. Better connection between water management, authorities and biosphere reserves.

Bases of the network:

- sharing problems and solutions (positive experience),
- exchange information and scientific knowledge,
- make investment in research (respond to project proposals on shared themes or issues),
- engage joint actions and show BRs as demonstration and experimentation sites for sustainability,
- Work more with other Unesco programs or initiatives like IHP, flood initiative, disaster risks reduction.

Conclusion

Exchanges between those participating led to design a common declaration (attached document). All participating are requested to complete and amend this document.

EPIDOR, coordinator of Dordogne basin biosphere Reserve is going to create a website for the network.



DRAFT

DECLARATION

EUROMAB 2017 – SARLAT (FRANCE)

CONTINENTAL AQUATIC ECOSYSTEMS WORKSHOP



Whereas global water challenges as well the links between good water management, the health of aquatic ecosystems and the happiness of human societies have been highlighted in international meetings such as the World Water Forum;

Whereas Biosphere Reserves recognize that these linkages are present in each of their territories, in a wide variety of contexts, and reaffirm the importance to human populations of having available water resources in sufficient quantity and quality while conserving healthy aquatic ecosystems;

Whereas Biosphere Reserves respect the close links between water management, the health of aquatic ecosystems, land uses and practices, and management of water uses;

Whereas Biosphere Reserves have a mandate to promote - and to exchange information and experiences concerning - the development of sustainable interactions between social and ecological systems, including aquatic ecosystems;

Whereas the Biosphere Reserves represent a unique opportunity to test interdisciplinary approaches and to develop and exchange scientific and managerial information to promote sustainable social-hydrological relations;

The Biosphere Reserves represented at EuroMAB 2017 meeting in Sarlat (France) on April 5, 2017,

Having identified several common problems and concerns, including

- pollution of water (eutrophication, toxic substances),
- morphological deterioration of river beds,
- biodiversity loss,
- loss of flooding areas,
- hydropower impacts,
- conflicts in water and land use,
- invasive species,

Having identified certain approaches and solutions to these problems which they hold to be promising, including

- promotion of dialogue and coordination,
- restoration works (wetlands, oxbows,...),
- research and monitoring,
- use of the UNESCO-BR designation to gain means for action,

Having identified common obstacles to fully implementing these approaches and solutions, such as

- the development of a network connecting the UNESCO-BR concerned by continental aquatic ecosystems (regular meetings)
- the implementation of an online platform to support the exchange of information and best practices among biosphere reserve (scientific knowledge, positive experiences and exemplary actions, projects proposals, ...)
- the development of joint communications.
- the implementation of joint actions to improve recognition of the MAB and RB programs by the different decision-making authorities
- the organization of study tours
- the connection of biosphere reserves to promote intercultural exchanges

Wish to contribute to international reflections on the future of the aquatic ecosystems.

For this reason, wish to bring to the forefront their concerns about continental aquatic ecosystems and to take concrete steps to exchange information and to collaborate on approaches and actions that favour sustainable and harmonious social-hydrological relations, including

- the development of a network connecting the UNESCO-BR concerned by continental aquatic ecosystems (regular meetings)
- the implementation of an online platform to support the exchange of information and best practices among biosphere reserve (scientific knowledge, positive experiences and exemplary actions, projects proposals, ...)
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PROJET

DECLARATION

EUROMAB 2017 – SARLAT (FRANCE)



ATELIER ECOSYSTEMES AQUATIQUES CONTINENTAUX

Attendu que les liens existant entre de la gestion de l'eau, la santé des milieux aquatiques et le bonheur des sociétés humaines ont été mis en évidence à l'occasion de rencontres internationales telles que le Forum Mondial de l'Eau

Attendu que les Réserves de Biosphère reconnaissent que ces liens s'expriment sur chacun de leur territoire, dans une grande diversité de contextes et réaffirment l'importance qui existe pour les populations de disposer de ressources en eau disponibles en quantité et en qualité et de conserver des milieux aquatiques vivants et en bonne santé.

Attendu que les Réserves de Biosphère soulignent les liens étroits qui existent entre la gestion de l'eau et des milieux aquatiques, l'aménagement du territoire et la gestion des usages ;

Attendu que les Réserves de Biosphère ont un mandat de travailler au développement harmonieux des sociétés humaines dans un environnement préservé, incluant les milieux aquatiques ;

Attendu que les Réserves de Biosphère présentent des opportunités pour expérimenter des approches interdisciplinaires et pour développer les échanges d'information dans les domaines de la connaissance scientifique et de la gestion durable des milieux aquatiques ;

Les représentants des Réserves de Biosphère participants à la rencontre EuroMAB 2017 à Sarlat (France), le 5 avril 2017,

Ayant identifié plusieurs préoccupations et problèmes communs, notamment :

- la pollution de l'eau (eutrophisation, substances toxiques)
- la dégradation morphologique des lits des rivières,
- la perte de biodiversité,
- la réduction des zones naturelles d'expansion des crues
- les impacts de l'hydroélectricité
- les conflits liés à l'utilisation de l'eau et des sols,
- les espèces envahissantes,

Ayant développé certaines approches et solutions à ces problèmes qu'ils estiment prometteurs, notamment :

- La promotion du dialogue et les démarches de coordination,
- Les travaux de restauration (zones humides, bras morts, ...)
- La recherche et l'observation scientifique,
- L'utilisation de la désignation Réserve de biosphère UNESCO pour développer des moyens d'action,

Ayant identifié des obstacles communs à la mise en œuvre de ces approches et solutions, tels que :

- Des divergences avec les intérêts économiques et l'influence des lobbies,
- Des difficultés à intervenir sur des problèmes dont l'origine est extérieure à la Réserve de biosphère,
- Le statut international des bassins versants transfrontaliers,
- La faible reconnaissance des Réserves de biosphère de l'UNESCO dans les programmes concernant l'eau,
- La confusion causée par les nombreuses désignations environnementales et parfois leur superposition,

Souhaitent contribuer aux réflexions internationales sur le devenir des écosystèmes aquatiques.

Et à ce titre, souhaitent mettre en avant leurs préoccupations communes sur les écosystèmes aquatiques continentaux et prendre des mesures concrètes afin de pouvoir échanger des informations et collaborer autour d'approches et d'actions en faveur de relations socio-hydrologiques durables et harmonieuses, notamment :

- le développement d'un réseau des Réserves de biosphère de l'UNESCO concernées par les écosystèmes aquatiques continentaux (des rencontres régulières).
- La mise en œuvre d'une plateforme en ligne pour favoriser l'échange d'informations et le partage de bonnes pratiques (connaissances scientifiques, expériences positives et exemplaires, appels à projet...)
- le développement de démarches de communication communes.
- La mise en œuvre d'actions communes pour une meilleure reconnaissance du programme MAB et des RB par les différentes instances décisionnaires
- L'organisation de voyages d'études avec un objectif de formation
- Le développement de liens pour favoriser les échanges interculturels

