



European Centre for River Restoration



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National Environmental Research Institute

Vejlsøvej 25

P.O.Box 314

DK-8600 Silkeborg

Denmark

Tel: +45 89 20 14 00 Fax: +45 89 20 14 14

E-mail: ECRR@ecrr.dk

WEB: www.ECRR.org

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EXECUTIVE SUMMARY

Project objective

The objective of this LIFE project (LIFE99 ENV/DK/000619) has been to develop the European Centre for River Restoration (ECRR) in order to collect and disseminate knowledge on river restoration methods and results in Europe. The objective of the LIFE project is to support cost-effective restoration of rivers and riparian areas by exchanging knowledge and experiences at a European level and in compliance with the Water Framework Directive to the benefit of biodiversity, flood defence and the use of rivers and riparian areas.

Description of ECRR

ECRR is an open European network of various stakeholders in river restoration. It is based on a framework of national networks connecting people and organisations working with river restoration.

ECRR supports the development of river restoration methods as an integral part of the environmental management of rivers in Europe with the aim to make projects cost-effective, targeted toward the specific objectives and able to meet multifunctional objectives. ECRR encourages the application of river restoration as a routine option to be considered in river management in parallel with the reduction in pollution loadings that is required to achieve the desired environmental quality of the river and the riparian areas. ECRR supports this objective by providing easy access to European experiences on river restoration.

The ECRR partners of this LIFE project are

National Environmental Research Institute (NERI), Denmark,

Institute for Inland Water Management and Waste Water Treatment (RIZA), the Netherlands,

River Restoration Centre (RRC), United Kingdom,

Environment Agency (EA), United Kingdom

German Association for Water Resources and Land Improvement (DVWK), Germany.

Major results of the LIFE project

Network, homepage and databases established

At the end of the LIFE project period, an international network with 350 individuals and institutions had been established, 307 participants from European countries and 43 from outside Europe. The network functions both as an international network for all participants and as national networks within each country. To promote national cooperation, ECRR will encourage an institution in each country to coordinate the national networking. So far, 4 national homepages have been established (DK, I, NL, UK). National networks have also been established in Romania, Russia, Spain and Norway.

The ECRR homepage (www.ECRR.org) was introduced at the conference in the Netherlands in May 2000 and provides information about e.g. members of the network, publications on river restoration, meeting and conferences.

The database on river restoration project is so far limited to Danish and British projects and can be found on the homepage of the Danish and the UK national networks

International conferences

A 5-day international conference with 103 invited participants was hosted by RIZA in May 2000 as part of this LIFE project. The main objectives of the conference were to develop the network and to exchange various experiences on river restoration in practice. The conference was evaluated as being very successful and the participants concluded with key messages on river restoration which were divided into general messages and messages targeted towards national and EU levels, towards the different geographical regions of Europe and towards future ECRR activities.

The next ECRR conference will take place in Croatia in spring 2004 and will focus on river restoration subjects with relevant to Eastern Europe.

Dissemination

During the LIFE project period about 40 ECRR-related publications have been disseminated, such as

- popular scientific articles,
- books,
- scientific articles and proceedings,
- presentations at conferences etc.,
- TV broadcasts,
- excursions.

This and further information is also available at the ECRR website and the national websites.

Future of the European Centre for River Restoration

The key future activities of the ECRR are planned to involve a development of the current activities: improvement of network access to information on river restoration, support and encouragement of the national networks, and arrangement of conferences, workshops and excursions.

A key element of the activities will be to work in accordance with and in support of the Water Framework Directive to ensure that due considerations are given to the restoration of the physically damaged rivers. In many regions, these physical damages are the main reasons for the present unsatisfactory conditions in our rivers.

The basic future activities of the ECRR are foreseen to rely upon national financing, but for special activities the ECRR will apply for international financing. From 2002, RIZA is hosting the ECRR secretariate.



BACKGROUND

European rivers and their floodplains are used for many purposes and are among the habitats most severely affected by human activity. The quality of both water and river habitats qualities has been seriously degraded in numerous European rivers due to pollution and as a result of poor physical conditions. However, the need for protection of our freshwater ecosystems has now been recognised. In general, this protection has two objectives: to secure access to clean water and to protect aquatic biodiversity.

During recent decades, intensified wastewater treatment has significantly improved the quality of water, and many European rivers are now once again fairly clean. Physical habitat degradation is now the most important remaining threat to aquatic and riparian biodiversity. Due to the poor physical conditions of many rivers, the improved water quality has often not been matched by an overall improvement in the quality of the river and its biodiversity.

Growing environmental awareness and concern for the loss of biodiversity and rivers and floodplain habitats have prepared the political route for river rehabilitation and restoration. Physical stream restoration is becoming a priority for many European local, regional, national and international authorities and an increasing number of river restoration projects are being introduced.

It is important to share the gathered knowledge and experiences relating to the subject, and to identify the areas where restoration measures will result in the desired physical, ecological and economic benefits. For this purpose, the European Centre for River Restoration (ECRR) was officially established in March 1999 at a constituting meeting held in Silkeborg, Denmark.

The Water Framework Directive (WFD) was adopted in late 2000. It will reform EU water legislation by introducing a new model for water management. It will have far reaching consequences for future management of water and aquatic ecosystems throughout Europe. The central feature of the WFD is the development of integrated river basin management plans. These plans will be instrumental in ensuring the environmental objective of the WFD, "good water status", is achieved and maintained for all Community waters by 2015. One of the objectives of establishing the ECRR was to promote the restoration of rivers and riparian areas in Europe in compliance with the ideas of the Water Framework Directive, which at that time was still a proposal. The result would be a cost-efficient improvement of biodiversity, flood defence and water quality, which would be achieved by means of information and exchange of knowledge and experiences.

River restoration is undoubtedly one of the measures required to obtain the goals of "good water status". River restoration can be costly, but could also be relatively cheap, all depending on the range of options that are selected. This is why it is important to share knowledge and experience on the subject, and to identify in which areas restoration measures will result in the desired physical, ecological and economic benefits. The ECRR will help to do that.

The success of the ECRR depends mainly on the possibility of the network participants to meet at international conferences and national meetings, study tours etc. The ECRR is anticipated to host an international conference on river restoration every third or fourth year. The founders (see later) of the ECRR hosted the first international ECRR conference in 1996 in Denmark. The second conference was held in 2000 in the Netherlands and the planning of the third international ECRR conference on river restoration is well on its way, and will take place in spring 2004 in Croatia.

History of the European Centre for River Restoration

In connection with an EU LIFE-funded demonstration project on river restoration in Denmark and the UK from 1994-97 (LIFE-project DK/93/2504), an embryonic centre for river restoration was

developed. It demonstrated the need for the establishment of a permanent Europe-wide focal centre with an extensive international contact network enabling easy information access.

The project ran for three years during which the Centre achieved the following:

- In September 1996 the Centre organised its first international conference 'River Restoration '96' in Silkeborg. 124 scientists from 21 countries participated in the conference. A special issue of the scientific journal *Aquatic Conservation* (Hansen *et al.*, 1998), two proceedings (Hansen & Madsen, 1997, 1998) and a number of papers were published on the basis of the conference.
- The Centre participated in two LIFE-supported river restoration demonstration projects: DK93/2504 (River Bredeå, DK; river Skerne, UK; Cole, UK) and DK94/A25/DK/462/VEJ (River Gudenå, DK).
- The Centre produced a technical handbook combining restoration and design techniques as well as a code of practice (in Danish, English and Spanish (Hansen, 1996a, 1996b, 1997).
- The Centre developed an international network and soon obtained participants from more than 30 countries. Publications and other communications from the Centre were distributed to the participants.
- The Centre produced a demonstration video showing the main river restoration methods used in Denmark (available in Danish, English and Italian) (Madsen, 1997). The video earned several international awards, including the Merit Award at the International Wildlife Film Festival in Montana ,USA in 1997.
- The Centre started distributing newsletters.

In September 1997, a meeting with participants from Denmark, the Netherlands, UK and Germany was arranged to discuss the future of the ECRR. At the meeting it was decided to continue with the establishment of the ECRR and making it truly international. The Danish National Environmental Research Institute (NERI) accepted to act as secretariat in the upstart period.

One of the first steps was to assess the interest of a continuation of the ECRR. In October 1998, the secretariat therefore distributed a questionnaire to potential participants and institutions in 38 European countries. The participants in the questionnaire were asked to indicate their personal or institutional interest in participating in the ECRR.

101 of the questionnaires distributed to 32 European countries were returned. 91 affirmed that they were interested and would participate in the ECRR.

As a consequence, the secretariat organised a constituting meeting in Silkeborg, Denmark in March 1999. 53 participants from 22 European countries took part in the constituting meeting and agreed on the official establishment of the European Centre for River Restoration.

The participants elected a management board of nine members who came from Denmark (chairman), the Netherlands, the UK, Germany, Romania, Russia, Spain, WWF-International and Wetlands International.

The 1st management board meeting was held in Silkeborg, Denmark immediately after the constituting meeting, during which NERI, Denmark was chosen to hold the secretariat obligations for the first period.

In November 1998, an application for funding was sent to EU-LIFE, and by decision of the Commission of 28 July 1999 funding was granted for the period 1 April 1999 -I 30 March 2002.



Structure of the ECRR

ECRR is a European Network that creates a platform covering the activities and projects of individual participants. ECRR supports the idea of including development and implementation of river restoration concepts in integrated river basin management within Europe.

Subgroups with certain common interests are encouraged to organise meetings; workshops or study tours to further develop their topics and ideas. In such cases, ECRR plays a facilitating role and may provide information for other participants of the network.

Management board

A management board is responsible for the general management and organisation of the ECRR. The management board activities include organisational and co-ordinating aspects and proposes structure and working practices, and organises meetings and conferences etc. The Board members come from institutions throughout the EU and from at least one TACIS and one PHARE country. The management board includes the following members:

- Torben Moth Iversen (chairman), National Environmental Research Institute (NERI), Denmark
- Bart Fokkens, Institute for Inland Water Management and Waste Water Treatment (RIZA), The Netherlands
- Nadezhda Prokhorova, Russian Research Institute for Integrated Water Management and Protection (RosNIIVKh), Russia
- Petru Serban, Romanian Waters, Romania
- Nigel Holmes, River Restoration Centre (RRC) / Environment agency (EA), UK
- Javier Cachón de Mesa, Centro de Estudios y Experimentación de Obras Públicas (CEDEX), Spain
- Mark Diamond, Environment agency (EA), UK
- Andreas Wurzer, World Wide Fund For Nature (WWF) – International Europe
- Marita Cals, Cals Consultancy - on behalf of RIZA, NL
- Ute Menke, RIZA, NL
- Secretariat: RIZA, NL

The management board meets twice a year. Meetings are held in different countries in order to obtain information on a wide range of geographic differences.

Since the initiation of the LIFE project the management board has met nine times:

- June 1999, Lelystad, the Netherlands
- October 1999, Bucharest, Romania
- March 2000, Madrid, Spain
- May 2000, Wageningen, the Netherlands prior to the international conference.
- May 2000, Wageningen, the Netherlands during the international conference.
- October 2000, Manchester, UK
- March 2001, Tarm, Denmark
- August 2001, Ekatarinaburg, Russia
- March 2002, Lelystad, the Netherlands.

Secretariat

The management board elects a secretariat for a period of 3-5 years. The secretariat represents the ECRR externally and functions as contact centre. NERI (Denmark) acted as secretariat throughout the LIFE –project period. From 1 April 2002 the secretariat obligations have been transferred to RIZA (the Netherlands) who will maintain the close contact with the participants of the ECRR.

The secretariat has had the primary contact with EU-LIFE and has provided LIFE with an inception report, four progress reports and one interim report.

Management of the LIFE-project

The LIFE project was proposed by the Danish National Environmental Research Institute (NERI) and the Dutch Institute for Inland Water Management and Waste Water Treatment (RIZA) in association with the British River Restoration Centre and Environment Agency, and the German Association for Water Resources and Land Improvement (DVWK).

Mr. Torben Moth Iversen, Deputy General Manager of NERI. was project leader.

NERI assumed the role of co-ordinator with the Commission and co-ordinated the project through the secretariat, ensuring the division of financial contributions, reporting on the progress of the project, and presenting the financial and technical reports to the Commission.

RIZA had the main responsibility for preparing and hosting the five-day international conference in May 2000.

The proposers and the proposing partners were elected for the ECRR management board together with members from Spain, Russia and Rumania. Representatives from WWF and Wetlands International have participated in management board meetings as observers. The German partner, DVWK terminated their membership and participation in the ECRR in March 2000, as DVWK merged with the ATV German Association for Water Environment in April 2000 and lost its self-government status. DVWK gave economic considerations as their main reason. The resignation of the German partner had no budgetary or other consequences.

As members of the board, the RRC and EA contributed with their expertise in river restoration. RRC has acted as the so-called “Other sources of financing” in the Finance Plan and has thus not been considered as a “partner” in line with NERI and RIZA. Being an “Other source of financing”, RRC has been included in the financial budget and the final report.

A request for permission to revise the budget items ‘Consumables’, ‘Outside assistance’ and ‘Travel’ was mailed to LIFE in January 2001 and subsequently accepted in March 2001. The proposed revision did not change the budget total.

Short presentations of the LIFE-project partners

National Environmental Research Institute, NERI, Denmark

The National Environmental Research Institute (NERI) was established in 1988 and is an independent research institute under the Danish Ministry of Environment. NERI's mission is to provide a sound and informed scientific basis for making environmental decisions at the political, administrative and commercial levels.



As a research institute, NERI is independent of the political/administrative system when undertaking research and monitoring and presenting its findings. NERI participates intensively in international research projects funded at the international level (EU, Nordic Council of Ministers, etc.), and is involved in the work of the EEA.

Institute for Inland Water Management and Waste Water Treatment, RIZA, the Netherlands

The Institute for Inland Water Management and Waste Water Treatment (RIZA) is the research and advisory body for the Directorate-General for Public Works and Water Management for inland water in the Netherlands and a leading international centre of knowledge for integrated water management.

The institute collects data on and conducts research into water quality and quantity. On the basis of these data the RIZA makes recommendations concerning the management of inland water in the Netherlands and abroad. This wide-ranging remit requires a multi-disciplinary approach. From biochemists and hydrologists to computer professionals and management experts, the RIZA's staff represent a wide variety of specialists.

RIZA acts as a consultant in large-scale nature development plans, particularly for wetlands. RIZA conducts detailed research into the dynamics of wetlands, and undertakes the co-ordination and implementation of research and establishes the link between its abiotic components, and biotic components in specific natural development areas.

The River Restoration Centre, RRC, United Kingdom

The River Restoration Centre (RRC) is a non-profit making Company established to promote the understanding and realisation of river restoration becoming an integral part of sustainable catchment management. It draws upon the expertise of river ecologists, engineers, planners, fisheries biologists and geomorphologists.

The Centre is backed by the UK's key national organisations. It aims to enable practitioners and others to benefit from, and contribute to, the wealth of developing expertise in river restoration. RRC holds the UK's only database and information network detailing river restoration schemes, techniques and contacts, and is the UK's focal point for advice and information.

The Centre is involved in river restoration partnership projects.

The Environment Agency, EA, United Kingdom

The Agency was established in England and Wales under the Environment Act 1995. The Agency is required to protect or enhance the environment towards achieving sustainable development. It is concerned primarily with pollution prevention and control, the regulation of waste disposal and the management of water in the environment. With a staff of over 9000 and an annual turnover of over £555m it is the most comprehensive environmental protection body in Europe.

The Agency manages river basins in an integrated way, ensures that waters are of sustainable quality for their different uses, delivers a continual improvement in overall water quality, increases the number of rivers capable of supporting viable fisheries and improve river habitat quality, wetland management and riverside landscapes. The Agency also researches into more efficient methods for the management of water, and investigates the potential risks for the aquatic environment arising from its mismanagement. The Agency uses and promotes the best environmental practices for the protection and restoration of river habitats and implements specific

projects to restore habitats in rivers. The Agency carries out research into the management of species in the aquatic environment in order to fully meet all biodiversity action plan targets.

The German Association for Water Resources and Land Improvement, DVWK, Germany

DVWK was a technical-scientific, non-profit association in Germany engaged in water and land management issues. It promoted water resource development and agricultural engineering under consideration of all environmental aspects.

The Association's work was supported and financed to a great extent by the Federal Government and the State Authorities. The DVWK collaborated with numerous water resource associations and related societies on both national and international levels.

In April 2000, DVWK merged with the ATV German Association for Water Environment. DVWK thereby lost its self-government status, and their membership and participation in the ECRR was thereby terminated.



TECHNICAL PROGRESS AND RESULTS

Establishment of network, homepage and databases (Task # 1)

ECRR network participants

At the end of the LIFE-period, 350 individuals or institutions participated in the ECRR network – including governmental, NGOs, private individuals etc. 307 participants came from European countries and 43 from international organisations or countries outside Europe (table 1).

Table 1: Number of ECRR-participants by the end of the LIFE project March 2002.

European participants of the ECRR	Non-European participants of the ECRR
Austria 12	Australia 6
Belgium 11	Brazil 1
Bulgaria 1	Canada 3
Croatia 5	China 2
Czech Republic 6	Colombia 1
Denmark 33	India 1
Estonia 2	Israel 1
Finland 10	Japan 6
France 7	New Zealand 1
Germany 17	South Africa 1
Greece 5	Turkmenistan 1
Hungary 7	USA 8
Iceland 1	
Ireland 3	<i>A total of 32 participants</i>
Italy 12	<i>from 12 non-European countries</i>
Latvia 1	
Lithuania 5	
Moldova, Republic of 2	
Netherlands 33	
Norway 14	International participants of the ECRR
Poland 9	
Portugal 9	International organisations 11
Romania 4	
Russia 10	
Slovakia 5	
Slovenia 2	
Spain 17	
Sweden 10	<i>A total of 350 participants</i>
Switzerland 12	<i>from 45 countries</i>
Turkey 1	<i>and 11 international organisations</i>
Ukraine 5	
United Kingdom 35	
Yugoslavia 1	
<i>Total 307 participants</i>	
<i>from 33 European countries</i>	

ECRR homepage

The ECRR Internet homepage at www.ECRR.org was officially introduced at the 2nd ECRR river restoration conference held in the Netherlands in May 2000. Since then, averagely 10 persons per day have visited the homepage.

The homepage provides information on the ECRR, the national networks, publications on river restoration, excursion guides to river restoration projects, possibilities for co-operation in projects, meetings and conferences on river restoration, addresses of participants and membership applications for the ECRR.

A number of links to the homepage have been included on several other internet sites dealing with rivers (see the dissemination report).

Databases

The establishment of the database on key-persons and institutions has been initiated. The database has not yet available on the internet, but addresses of people and institutions participating in the ECRR can be found on the ECRR homepage. The database is meant to will be published at the homepage within the next year.

Databases on Danish and UK river restoration projects have been created. These databases contain information on projects carried out according to a river restoration classification system created for the databases. The information from the databases is made partly public from the homepages of the Danish and UK national networks. A description of the classification system and the database can be found in Hansen (1996a,b,c, 2001).

NATIONAL NETWORKS

ECRR aims to be a European network based on a framework of national networks connecting people and institutions working with river restoration.

ECRR facilitates and encourages the establishment of national river restoration networks in all European countries. The (international) ECRR and the national networks co-operate and support one another.

The key objectives of the national networks are to identify best practices for implementing river restoration schemes, and thereby make them more efficient, effective and economic. The networks could also provide expert support to novices by playing a mentoring or parenting role.

All participants have the opportunity and responsibility of making both their national network and the ECRR work. A close contact between participants, both nationally and internationally, should be established for the exchange of information through newsletters, homepages and meetings.

There are no specified directions for the establishment and operation of the national networks. However, the ECRR has made some recommended guidelines, in which the Centre suggests directions on how to effectively establish and organise a national river restoration network.

Preferably, the national networks appoint a national representative who will be responsible for the network and act as official intermediary between the network and the ECRR. However, the national network representative should not act as the sole contact within the network and between the network and the ECRR; the representative should rather deal with the developmental and administrative areas of the network in a pro-active manner.

Anybody can contact the ECRR or other participating institutions directly, nationally or internationally, and should always be allowed to do so without having to go through the national network representative. There are no restrictions on the number of participating institutions within the national networks.

Funding of the networks

The operational development of the ECRR requires external funding. As the ECRR cannot provide grants or other funding, participants must seek national funding for their own internal activities and national networks.

The ECRR will, however, apply for funds from the EU COST programme to support and fund travel and meetings in connection with the river restoration networks, both national and international.

How to establish a National Network

In the LIFE-project application it was stated that: *"It is envisaged that at least 20 European countries will have institutions or river management authorities participating in the ECRR"*. At the end of the LIFE-project, eight national networks have been established or are in the process of being established. These are found in Denmark, Italy, the Netherlands, Norway, Romania, Russian Federation, Spain and the United Kingdom.

The relatively low number of functioning networks has been a consequence of the fact that national networks have to find funding for the establishment and running of the network. Firstly, the initiative to establish a national network has to be taken from a number of people or institutions. These usually have to promote the idea and obtain national support before an application for funding will be met. These processes often take a relatively long time. It is, however, still envisaged that at

least 20 national networks will have been established in the course of the next five years. This could be seen as a LIFE-project result, just somewhat delayed. The international conference held in May 2000 confirmed that many participants expressed their interest in initiating the work of establishing national networks, but also that it called for a substantial preparatory work before the networks could be officially established. It is important that the (international) ECRR continuously supports the establishment of the national centres. One of the most fruitful ways is the international conferences held with regularly intervals.

As previously mentioned there are no predetermined directions for the establishment and operation of national networks. ECRR cannot dictate the structure or working methods of the national networks, but may provide recommendations. However, the ECRR has issued some guidelines in which the Centre gives recommendations of how to effectively establish and organise a national river restoration network. The guidelines are found in annex D.

One or more institutions in each country will usually take the first initiative towards the establishment of the national network. The very first step will often be to examine whether there is a national interest for the establishment of a network. All potential participants (universities, research centres, local and governmental authorities, private companies, individuals etc.) should be given the opportunity to become participants and may be asked to provide information about their expectations, possible contributions, experiences etc.

Shortly hereafter, an introductory meeting for potential participants should be held. A consensus describing the organisation, responsibility and future expectations of the network could be discussed at this meeting.

It is recommended to approach the secretariat of the ECRR at an early stage as it may help with practical questions regarding the establishment of the national network.

It is furthermore important to stay in close and regular contact with the ECRR - also after the national network has been established. As mentioned above, ECRR is a European network of national networks that aim to make the experience and knowledge of the national networks available to all its participants.

In the guidelines issued by the ECRR, the Centre furthermore suggests a number of activities that the national centres could consider, namely:

Homepage

The national networks are encouraged to establish an Internet homepage providing participants with the latest news on river restoration and information on network contacts, meetings, workshops, newsletters, etc.

Currently, the following national networks have their own homepage:

- 'Danish Centre for River Restoration' (DCVR) at DCVR.dmu.dk
- 'Italian Centre for River Restoration' (CIRF) at www.CIRF.org
- 'Netherlands Centre for River Studies' (NCR) at www.NCR-web.org
- 'The River Restoration Centre' (RRC) (UK) at www.therrc.co.uk

The homepage of the European Centre for River Restoration can be found at www.ECRR.org

Newsletters

Information via newsletters is another way of keeping participants up-dated – either distributed as printed copies or by Internet access.



Literature

The national networks may provide information about literature on river restoration. Too many experiences, good as well as bad, are lost in internal reports that are not always publicly available.

Meetings, workshops etc.

Meetings and workshops are very important and effective ways of sharing experience and knowledge. Network participants should be encouraged to meet frequently to discuss subjects within the area of river restoration. The national networks could, for example, meet to describe the national strategies and actions taken in connection with the Water Framework Directive (WFD) and river restoration. The information obtained could be published on the network web-site.

Study tours, training courses etc.

Short or longer training courses and study tours to other national networks could be arranged in order to gain further experience. If relevant, such tours and courses could also be made available for participants of other national networks and/or of the ECRR. The Dutch river restoration network (NCR) has arranged the first international ECRR study tour. It will take place in September 2002 in the Netherlands focusing on the different scales and aspects within river restoration.

Databases

Databases with project descriptions could provide an overview of the river restorations undertaken in each country and provide guidance in connection with future projects. So far, the networks in Denmark and the UK have developed a river restoration classification system and a database on their river restoration projects. The databases are partly public at the homepages of the Danish and UK national networks. The Danish version has been described in Hansen, 1996a,b,c and 2001.

National networks

The UK River Restoration Centre (RRC)

The UK River Restoration Centre (RRC) was formally established in 1998 after having existed as a more informal group for six years.

From the very beginning, the RRC participated in the establishment of the ECRR and is one of the partners of this LIFE project.

The Centre provides a focal point for the exchange of information and expertise relating to river restoration and enhancement in the UK. The primary role is to disseminate information on river restoration and enhancement projects and to provide advice on site-specific technical issues through a network of experienced river restoration practitioners.

RRC is a non-profit making organisation providing independent advice for participants and clients so that they achieve maximum benefit from the available experiences.

In April each year a two-day river restoration network conference is arranged to further RRC's commitment to broadening the river restoration network and to provide a forum for river restoration practitioners to share their experiences. Three such conferences have been held to date.

The RRC also organises themed workshops in response to a recognised need to focus on a particular area of river restoration. The workshops aim to bring practitioners together to share and discuss their experiences. Three such workshops have been held to date.

Furthermore, the RRC arranges training workshops. These have so far provided a general introduction to the concepts of river restoration, rehabilitation and enhancement. Participants are provided with an overview of river restoration and examples of the range of works occurring in the UK. Discussion sessions and practical exercises on case studies give participants the opportunity to apply the information gained from presentations on the day. Five such training workshops have been held to date.

The River Restoration Centre issues quarterly newsletters containing features on river restoration projects around the UK (and abroad) as well as a news and events section to keep participants up to date on future and past events, new brochures etc. (Downloadable from the RRC homepage at: www.therrc.co.uk/newsletters.php).

The Centre published a 'Manual of River Restoration Techniques' in 1999.

A comprehensive description of how the UK Centre is managed and run can be found on the Centre homepage at: www.therrc.co.uk

The Danish Centre for River Restoration (DCVR)

The Danish network was established in 1995. The National Environmental Research Institute (NERI) acts as national network co-ordinator. From the very beginning NERI participated in the establishment of the ECRR and is one of the proposers of this LIFE project.

Since its establishment the centre has published newsletters and arranged workshops bringing the Danish participants together to share experiences and discuss future strategies. In October 1999, the Danish Centre arranged a two-day seminar on restoration and maintenance of streams with 87 participants from private companies, municipalities, counties, and governmental institutes. The 23 contributions have been gathered in proceedings (downloadable at www.dmu.dk/1_viden/2_Publikationer/3_arbrapporter/rapporter/AR114.pdf).

The Centre has also published a report describing Danish river restoration examples and experiences. The report is available in English, Spanish and Danish (downloadable from the ECRR homepage at: www.ECRR.org/sider/pulications.html#Other).

Furthermore, DCVR in co-operation with the Danish counties and the British River Restoration Centre, has developed a river restoration classification system and created a database on Danish river restoration projects. The database has been made partly public at the DCVR homepage.

The DCVR homepage can be found at: DCVR.dmu.dk

The Dutch river restoration network (NCR)

In the Netherlands a co-operation between the major developers and users of expertise in the area of rivers, 'The Netherlands Centre for River Studies (NCR)', already existed. The tasks of this network could easily be expanded to include the Dutch River Restoration Network as NCR aims to provide an open platform for all people interested in scientific research and communication on River issues.

Although different in some ways, the objectives of the NCR and the ECRR have many similarities. For instance, both networks focus on transboundary river systems, integrated river management and river basin approaches.

The combination of similarities and differences makes NCR and ECRR highly complementary. NCR therefore now also functions as the Dutch river restoration network under the ECRR umbrella facilitating the exchange of information between the Netherlands and other European countries. In

this way, NCR and ECRR support one another and create a win-win situation for integrated river basin management.

Using an already existing network can prove an advantage as many formal matters are already in place. For example, as the NCR already has a homepage (www.NCR-web.org), the Dutch national river restoration network need not establish their own homepage, as the NCR homepage will be used for dissemination of information.

By the end of the LIFE-project, the Dutch Institute for Inland Water Management and Waste Water Treatment (RIZA) has taken over the secretariat obligations of the ECRR. From the very beginning RIZA participated in the establishment of the ECRR and is one of the proposers of this LIFE project.

The Italian Centre for River Restoration (CIRF)

The Italian river restoration network was established in 1999. It has been structured along similar lines to the UK centre (RRC). As such CIRF is non-political, non-profit making company. After one year of activity, CIRF had 100 active professional members drawn from private and public organisations involved in river management and engineering.

CIRF's objectives are to promote the restoration of river and floodplain processes and raise professional awareness to the sensitivity needed in normal river maintenance, whether this be rural or urban areas. CIRF offers:

- a regular newsletter with information about ongoing actions and developments
- specific documentation of river restoration (In 2001 the Centre published a translated version of the English 'Manual of River Restoration Techniques')
- an updated website on news from Italy and abroad
- a database of experiences of river restoration activities
- a discussion forum
- guidelines for projects related to river restoration
- support for research or pilot projects
- design and direction of river restoration projects
- training courses

As part of CIRF's mission, the centre is developing a series of initiatives ranging from the creation of an Italian database on project and techniques to training seminars and workshops. The first centre workshop was held in July 2001.

CIRF has not received support from the LIFE project.

The Romanian Centre for River Restoration (RCRR)

The Romanian river restoration network was established in 1999.

The centre includes experts in the field of water resources management, environment protection, hydro-techniques, land reclamation and hydrology, working in research, education, design and operation units in the field of water resources management. The technical secretariat of the RCRR works under the National Company "Romanian Waters".

The RCRR will perform the following activities:

1. Initiate promotion and completion of regulation acts for river restoration;
2. Facilitate information exchange through:

- databases with experts and projects in the field of ecological river restoration;
 - disseminating information from the ECRR to the RCRR participants and vice versa;
3. Perform education and professional training including:
- a river restoration glossary;
 - textbook lectures;
 - organising lectures.
4. Organising seminars, symposiums, and conferences.

In October 2001, a training course on river restoration was arranged by the RCRR together with the National Company “Apele Romane” and in co-operation with experts from RIZA, the Netherlands and WWF.

The programme of the four-day course included theoretical lectures and a one-day field visits at Balta Greaca in the Danube Floodplain.

The themes of the course included:

- The main concepts and principles of ecological restoration;
- The objectives of ecological restoration;
- Ecological functions of rivers;
- The phases of ecological restoration projects;
- Study cases regarding ecological restoration in Romania and Europe;
- Presentation of the project ‘Green Corridor of the Lower Danube’.

As the Romanian Centre hold a place in the ECRR management board the centre has partly been supported with funds under the LIFE project.

The Russian River Restoration Network

The Russian river restoration network is well under way, but suffers from lack of funding. The network was established and is run under the auspices of the Russian Research Institute for Integrated Water Management and Protection (RosNIIVKh), who also holds a seat in the ECRR management board.

The Spanish River Restoration Network

The Spanish river restoration network is well under way. The network was established and is run under the auspices of Centro de Estudios y Experimentacion de Obras Públicas (CEDEX), who also holds a seat in the ECRR management board.

The Norwegian River Restoration Network

The Norwegian Water Resources and Energy Directorate (NVE) took the first steps to establish a Norwegian river restoration network in 2001. It is expected that the network will be officially established during 2002.

ECRR contacts and co-operation with other organisations

On behalf of ECRR the Dutch RIZA and Cals Consultancy in 2001 contacted and visited a selection of organisations operating in the field of river restoration to explore the possibilities for active exchange of information and co-operation between the organisations and ECRR.

Especially networking organisations on a European scale offer promising opportunities to strengthen the ECRR network. Several organisations appear to be complementary to ECRR; either because they operate on the same issue but at a different geographical scale (e.g. NCR – the Netherlands Centre for River Studies) or because they operate at a Pan-European scale but have a different niche (e.g. European Centre for Nature Conservation (ECNC)).

The organisations that seem most relevant for ECRR and the means of co-operation are presented in table 2.

Table 2. Organisations with potential ECRR-related co-operation possibilities.

Organisation	Proposed networking contact
EWMN	Source of experiences and inspiration for web based newsletters
ECNC, WWF	Project-based co-operation
WWF, Ramsar, IUCN, ECNC	Exchange of information via contact persons and connection of existing networks
NCR	Focal point and intermediate for the scientific part of ECRR's network in the Netherlands
EA / EIONET	Exchange of information (especially via NERI and CEDEX)
WWF, Ramsar, IUCN, ECNC, NCR, EA, EC, ERN, River Basin Commissions, WCD, etc. etc.	Exchange of information via the internet

The following questions, discussion points and recommendations for ECRR were raised during the visits:

- It is important for ECRR to find its niche in the very broad field of river restoration in Europe
- How is ECRR going to achieve an active way of networking instead of a passive one? How to deal with the conversion from a supply-oriented network into a supply *and* demand oriented one?
- In relation to the need of external funding it could be wise to consider the official status of the ECRR.

These issues have been dealt with in the management board in 2002 where it was agreed to include more international networks in the analysis and continue the management board discussions at the next MB meetings.

Conclusions from contacts with other organisations

The best strategy for maintaining ECRR as a network capable of enhancing knowledge on, and decision support for, river restoration seems to be to have a clear picture of the niche of ECRR on one hand and on the other hand to contribute actively to the other networks. The viability will depend on the ability of the network to convince the members that it is worth investing resources in networking.

For the moment the conclusions of the management board discussions can be summarized as follows:

- a clear picture of the ECRR niche is important
- active support, where relevant, of other networks is important
- links to other networks should be established (has been done)



INTERNATIONAL CONFERENCE (TASK # 2)

In September 1996, ECRR arranged its first international conference on river restoration. It was held in Silkeborg, Denmark with the title 'River Restoration '96 – The physical dimension'. The Danish NERI hosted the conference.

One of the tasks of this LIFE-project was to arrange and convene the second international ECRR conference on river restoration. The initial preparations of the conference started in 1999 and the first announcement was sent out the same year. The programme was pieced together from the abstracts received (these abstracts are available on the ECRR home-page www.ecrr.org/sider/abstracts.html)

The five-day conference with the title 'River Restoration 2000 – Practical approaches' was held in Wageningen, the Netherlands from 15-19 May 2000. The Dutch RIZA hosted the conference.

The main goal of the conference was to contribute to the development of a Pan European network on river restoration under the umbrella of the ECRR. Furthermore, the conference focused on the practical approaches to river restoration throughout Europe, and brought together all those involved in the fields of management, research and communication of river restoration in Europe. In other parts of the world, opinions and perspectives about river restoration may be different from those in Europe, and a few participants from outside Europe were therefore also invited. The organisers regarded it important to give the participants optimal opportunity to communicate intensively and to have representatives from all over Europe. Participation in the conference was therefore on invitation and was limited to approximately 100 participants. In total, 103 participants from 24 European and 4 non-European countries attended the conference and provided information on many aspects of river restoration from 61 presentations, 6 workshops and discussions, 6 keynote lectures and a poster session.

The conference was a unique opportunity to have representatives from all European regions present discussing the current issues on river restoration. During an inspiring week, highlights and failures in river restoration approach were discussed freely. It appeared that successful projects are always characterised by partnership and cooperation. Stimulating the sharing of knowledge on river restoration was an important part of these projects.

A number of general key messages on the way ahead in river restoration were concluded:

CONCLUSIONS - Some Key Messages

- There should be no regrets and no recriminations on how our rivers have been managed so far. However, it is necessary to act now if both the society and the river environment should win (a 'win win' situation);
- Space for the river - Recognise the need and share it;
- Integration of interests - Find alliances - at operational, functional and community levels;
- Understanding the benefits - Nature/biodiversity; Water quality and purification; Flood defence; Water resources; Fisheries/angling; Forestry; Agriculture; Hunting; Recreation; Economics (local, regional, national, international);
- Need to get the 'benefit' message across - We all have a role to play;
- Sustainability and processes - Solutions must be sustainable and restore elements of 'function';
- Commonality - ALL the above apply to east, south, north and west;
- Avoid disasters - Value more what we have, protect the best and do not wait for disasters to trigger projects;
- Priorities and needs do vary - Recognise this and help each other.

A set of priorities on how to enhance river restoration on a national and EU level was set down:

PRIORITIES - National and EU Level

Recognition	Have principles of river restoration officially adopted as an integral part of NATIONAL water management;
Sustainable actions	CAP and other EU funding rarely deliver sustainable solutions and destroy cultural and historic practices that evolved in harmony with nature;
Frameworks	Influence and use directives - e.g. Water Framework - Physical quality objectives as well as water quality;
Awareness	Ring alarm bells on losses; develop awareness and training to deliver integrated, sustainable and multi-use management practices and projects;
Trans-boundary	Further co-operation of national networks and trans-boundary initiatives important for whole of Europe.

Likewise, a number of priorities for the future work of the ECRR were outlined:

PRIORITIES – ECRR

Networks	<ul style="list-style-type: none">- Help existing Networks operate more effectively and help new ones develop- Encourage individuals and organisations
Demonstration sites	<ul style="list-style-type: none">- Promote more sites to raise awareness and learning- Facilitate better value for money from investments
Facilitate	<ul style="list-style-type: none">- Regional needs, e.g. dam management options for Southern Europe- Encourage adoption of water quality standards across Europe- Promote pilots in Eastern Europe
Promote	<ul style="list-style-type: none">- Integrated catchment approaches to problems and understanding of land-use influences- Public awareness of Benefits at local, national and eco-regional scales- Public awareness of Problems of dis-functioning systems
Inventories	<ul style="list-style-type: none">- Both of valuable rivers and floodplains requiring protection and priorities for rehabilitation
Documentation	<ul style="list-style-type: none">- Facilitate access to 'solutions', manuals of techniques, case studies (of negative and positive actions and pressures), reference conditions etc.

A regional workshop draw up a number of special considerations reflecting different trends, problems and solution options regarding river restoration in different European regions: the Southern, Eastern and Western regions of Europe:

SPECIAL CONSIDERATIONS - Southern Europe

- Climate** Leads to dry rivers and flash floods; land-use and irrigation
- Dams** Too common – Destroyed geomorphology/hydrological regime - restoration can only be partial; Destruction of riparian forest - make them work *for* nature
- Approaches** Philosophy is traditional ‘engineering’ - constraint to ecological alternatives
- Assets** Few unspoiled rivers and specialised species left; Pressures are great and protection is poor
- Priorities** Ring the alarm bells - Prevent further destruction; Promote positive use of funds; Promote restoration of dynamics; Use EIA and public awareness to save and restore natural values

SPECIAL CONSIDERATIONS - Eastern Europe

- Pressures** Unique, due to rapid economic adjustments and pressures
- Actions** Need small-scale approaches to foster wider adoption.
- Priorities** Still retains good/pristine examples on what most of Europe has destroyed - priority is protection in combination with socio-economic development
- Awareness** Stakeholder interest is growing and they are developing their own perspective. There is a need of demonstration projects to kick-start internal development of concepts and benefits
- Quality** Special need for co-ordination of European Water Quality Standards

SPECIAL CONSIDERATIONS - Western Europe

- Understanding** Need to improve measurement of effects of activities – ecological, hydrological/geomorphic processes, economic etc.
- Language** Much activity - but lack of common terms hinders understanding and sharing
- Information** Much information - but still poor exchange within same countries and across boundaries. Have better co-operation between organisations, publish more and then put theory into more practice
- Links** River restoration needs better funding and operational links to economics and water management

The conference excursion gave the opportunity to visit a number of Dutch restoration sites.

Last – but certainly not least – the conference closed with a request for personal action of the participants of the ECRR.

The conference proceedings (Nijland & Cals, 2001) were published June 2001 and distributed to all conference participants and were also made available on the ECRR homepage. The proceedings present five keynote papers, 14 papers regarding river restoration in Eastern Europe, 13 papers regarding river restoration in Western Europe, six papers regarding river restoration in Southern Europe and two papers regarding river restoration outside Europe. The proceedings are enclosed with this final report and are also downloadable from the ECRR homepage at: www.ECRR.org/pdf/proceedings2000.pdf.

Inquiry regarding results from the conference

One year after the conference, an inquiry was sent to the participants with two aims:

- To get insight in the contacts made and the nature of these
- To poll the users on how to improve the network and whether they would be willing to contribute actively to the ECRR by organising a workshop or study tour.

The conference had resulted in at least 150 contacts between 36 organisations. Although there is no standard available to exactly measure the rate of success, this is regarded to be a good score and the conference seems to have been rather successful with respect to networking.

The established contacts mostly concern the exchange of information. Besides, co-operation in joint projects (or the preparation of these) and bilateral visits, seminars or study tours were mentioned ten times. This means that the conference has resulted in ways of networking that suit the objectives of ECRR perfectly.

The interest in a follow-up conference was clear. Additional comments suggest either organising a similar conference for other participants or a thematic adjustment of the concept of the River Restoration 2000 conference for more or less the same group. It seems feasible to organise study tours and workshops, as 53% of the inquiry responders would be willing to organise such activities.

The suggestions on how to improve the functioning of the ECRR concerned aspects directly related to the ECRR objectives. In fact, they expressed that ECRR should improve on communication: concerning more regular and frequent exchange of information as well as the communication on how ECRR aims function. This also includes the suggestion to intensify communication between national networks and the international ECRR. These suggestions will be elaborated in the ECRR operational plan.

The detailed note on the inquiry has been enclosed as Annex C.

Coming international ECRR conference

The initial planning of the third international ECRR conference has started. It will take place in Croatia during spring 2004. It is expected that the conference will put special emphasis on river restoration subjects relevant to Eastern European countries.

FUTURE OF THE EUROPEAN CENTRE FOR RIVER RESTORATION

With the ending of the support from LIFE, the ECRR will not pass away quietly.

The immediate future visions for the ECRR include:

- ECRR will facilitate access to all participants of the network through a web-based matching service to encourage the exchange of experience on river restoration and building of ideas
- ECRR will reinforce the development of this learning community by organising conferences, workshops, seminars etc. and by distribution of newsletters
- ECRR will facilitate access to information on research, planning, implementation and monitoring of river restoration through the development of a website
- ECRR will facilitate establishment of national networks on river restoration
- ECRR will frequently poll the users to identify how the network can be improved.

The planning of the next international ECRR conference on river restoration is well on its way, and will take place in 2004 in Croatia. It is expected that the conference will put special emphasis on river restoration subjects relevant to Eastern European countries.

Furthermore, the first international ECRR study tour will take place in the Netherlands in September 2002.

The central feature of the WFD, the development of integrated river basin management plans, will be instrumental in ensuring the environmental objective of the WFD, "good water status", is achieved and maintained for all Community waters by 2015. To prevent the reinvention of the wheel regarding river restoration, an international network such as the ECRR will be indispensable. Through information and exchange of knowledge and experiences, the ECRR will continue to enhance restoration of rivers and riparian areas in Europe following the ideas of the Water Framework Directive to the benefit of the biodiversity, flood defence and water quality in a cost-efficient way.

PROJECT IMPACT ON THE IMPLEMENTATION OF THE WATER FRAMEWORK DIRECTIVE

The impacts of the project on the implementation of the Water Framework Directive have not been seen yet because the first steps in the practical implementation of the directive are to be taken in 2003 and the first planning period does not finish until 2009.

The main impact of the project is probably the focus on environmental consequences and the physical man-made changes in our rivers, such as canalisation, damming and diversion. There is more focus on the consequences of discharges of polluting substances to surface waters, but for rivers especially, the damage to the ecosystem from the physical impacts are very often more severe than the ecological consequences of the discharge of pollution substances, especially where an efficient waste water treatment is undertaken.

Without considering these physical damages, it may be impossible to meet the Water Framework Directive objective of a good ecological status, irrespective of the level of pollution reductions. Therefore, the ECRR activities are likely to give considerable support and inspiration to the River Basin Authorities implementing the Water Framework Directive in deciding upon interventions leading to a cost-effective fulfilment of the Water Framework Directive objectives. In many cases, this will include river restoration, but of course the natural dynamics of a river to restore itself should be taken into consideration in order to obtain the most cost-effective implementation.

DISSEMINATION

During the LIFE-project period a number of publications have been disseminated through a number of channels.

The ECRR have been described or mentioned in the following:

1. Popular scientific articles and newsletters
2. Books
3. Scientific articles
4. Proceedings
5. Presentations at conferences, seminars, workshops etc.
6. Posters
7. WEB-sites
8. Education
9. TV broadcasts
10. Excursions and excursion material
11. Envisaged dissemination

1. Popular scientific articles and newsletters:

ECRR (2002): Newsletter ECRR. – Vol. 6, no. 1, March 2002. (Downloadable from the ECRR homepage at: www.ecrr.org/sider/pulications.html).

ECRR (2001): Newsletter ECRR. – Vol. 5, no. 2, July 2001. (Downloadable from the ECRR homepage at: www.ecrr.org/sider/pulications.html).

ECRR (2001): ECRR – Connecting people in river restoration. – Folder informing about the ECRR. RIZA.

ECRR (2001): Newsletter ECRR. – Vol. 5, no. 1, February 2001. (Downloadable from the ECRR homepage at: www.ecrr.org/sider/pulications.html).

WETNEWS (2000-2001): Conference River Restoration 2000. – WETNEWS, Newsletter of the Wetland Advisory & Training Centre (WATC). RIZA, The Netherlands, No 9, Winter 2000-2001.

ECRR (2000): Newsletter ECRR. – Vol. 4, no. 1, June 2000. (Downloadable from the ECRR homepage at: www.ecrr.org/sider/pulications.html).

ECRR (1999): Newsletter ECRR. – Vol. 3, no. 1, September 1999. (Downloadable from the ECRR homepage at: www.ecrr.org/sider/pulications.html).

ECRR (1999): Newsletter ECRR / DCVR - The Danish Centre for River Restoration. – Vol. 6, no. 1, December 1999. (In Danish). (Downloadable from the ECRR homepage at: www.dmu.dk/1_om_dmu/2_tvaer-funk/3_vlres/Nyhedsbrev.asp).

2. Books

Nijland, H.J. & Cals, M.J.R. (Eds.) (2001): River Restoration in Europe, Practical approaches. - Proceedings from the conference on river restoration, Wageningen, The Netherlands, 2000. - RIZA rapport no. 2001.023. Institute for Inland Water Management and Waste Water Treatment/RIZA Lelystad, The Netherlands. 344 pp. (Downloadable from the ECRR homepage at: www.ecrr.org/pdf/proceedings2000.pdf).

3. Scientific articles

Iversen, T.M., Madsen, B.L. & Bøgestrand, J. (2000): River restoration in the European Community, including Scandinavia. In: Boon, P.J., Davies, B.R. & Petts, G.E. (Eds.): Global Perspectives on River Conservation – Science, Policy and Practice. Wiley, UK. 79-103.

4. Proceedings

Hansen, H.O. (2002): Efforts for river restoration in European countries. – In: Proceedings from the Symposium on Environmentally Friendly Public Works for the 21st Century. Ecosystem Conservation Society – Japan, Tokyo, Japan 1 November 2001. Pp. 42-55. (In Japanese).

Hansen, H.O. (2002): The nature restoration efforts of rivers in European countries. – In: Proceedings from the Symposium on the Nature Restoration of Rivers. Ecosystem Conservation Society – Sapporo, Japan 4 November 2001. Pp. 18-31. (In Japanese).

Hansen, H.O. (2001): A Danish classification system and database for river restoration projects. – In: Taugbøl, T. & L'Abée-Lund, J.H. (Eds.): Proceedings from the CONNECT Workshop "Physical habitat restoration in canalised watercourses - possibilities and constraints". Norwegian Institute for Nature Research (NINA), Oslo, Norway. Document 7: 81-84.

Hansen, H.O. (2001): European Centre for River Restoration (ECRR) – In: Taugbøl, T. & L'Abée-Lund, J.H. (Eds.): Proceedings from the CONNECT Workshop "Physical habitat restoration in canalised watercourses - possibilities and constraints". Norwegian Institute for Nature Research (NINA), Oslo, Norway. Document 7: 85-88.

Hansen, H.O., Friberg, N. & Pedersen, M.L. (2001): Country status report – Denmark. – In: Taugbøl, T. & L'Abée-Lund, J.H. (Eds.): Proceedings from the CONNECT Workshop "Physical habitat restoration in canalised watercourses - possibilities and constraints". Norwegian Institute for Nature Research (NINA), Oslo, Norway. Document 7: 19-23.

Nijland, H.J. & Cals, M.J.R. (Eds.) (2001): River Restoration in Europe, Practical approaches. - Proceedings from the conference on river restoration, Wageningen, The Netherlands, 2000. - RIZA rapport no. 2001.023. Institute for Inland Water Management and Waste Water Treatment/RIZA Lelystad, The Netherlands. 344 pp. (Downloadable from the ECRR homepage at: www.ecrr.org/pdf/proceedings2000.pdf).

Nijland, H.J. & Cals, M.J.R. (2001): Conference considerations, conclusions and recommendations. – In: Nijland, H.J. & Cals, M.J.R. (Eds.): River Restoration in Europe, Practical approaches. - Proceedings from the conference on river restoration, Wageningen, The Netherlands, 2000. - RIZA rapport no. 2001.023. Institute for Inland Water Management and Waste Water Treatment/RIZA Lelystad, The Netherlands. Pp. 17-30. (Downloadable from the ECRR homepage at: www.ecrr.org/pdf/proceedings2000.pdf).

Hansen, H.O. (1999): A database on river restoration – How can it be used? – In: Hansen, H.O. (Ed.): Proceedings from a seminar on restoration and management of streams 12-13 October 1999. National Environmental Research Institute. 53 pp. – Work-report from DMU no. 114. (In Danish).

Hansen, H.O. (Ed.) (1999): Proceedings from a seminar on restoration and management of streams 12-13 October 1999. National Environmental Research Institute. 53 pp. – Work-report from DMU no. 114. (In Danish).

Hansen, H.O. (1999): The European Centre for River Restoration – In: Hansen, H.O. (Ed.): Proceedings from a seminar on restoration and management of streams 12-13 October 1999. National Environmental Research Institute. 53 pp. – Work-report from DMU no. 114. (In Danish).

5. Presentations at conferences, seminars, workshops etc.

Cals, M.J.R. & Menke, U. (2001): ECRR (European Centre for River Restoration) and the link with NCR (Netherlands Centre for River Studies) - The Dutch Synergism for Rivers. - Several presentations at a symposium arranged as start of the national Dutch river restoration network. Wageningen, The Netherlands 18-19 October 2001.

Cals, M.J.R. (2001): Public Participation and Integrated River Management: The Rijnwaarden Case Study, Rhine River Basin, The Netherlands (proceedings on: www.panda.org/europe/freshwater/pdf/sem3-proc.pdf) - WWF-EC-seminar: Implementing the EU Water Framework Directive: A seminar series on water. Organised by WWF with the support of the European Commission and TAIEX. 29 and 30 May 2001 in Brussels, Belgium.

Hansen, H.O. (2001): Efforts for River Restoration in European Countries. – Presentation (invited speaker) at the Symposium on Environmentally Friendly Public Works for the 21st Century, arranged by Ecosystem Conservation Society – Tokyo, Japan 1 November 2001.

Hansen, H.O. (2001): The Nature Restoration Efforts of Rivers in European Countries. – Presentation (invited speaker) at the Symposium on the Nature Restoration of Rivers, arranged by Ecosystem Conservation Society – Sapporo, Japan 4 November 2001.

Hansen, H.O. (2001): European Centre for River Restoration. – Paper presented at the first workshop arranged by the Italian Center for River Restoration (CIRF), Venice, Italy 7 July 2001.

Hansen, H.O. (2001): ECRR and a database on river restoration. – Presentation on the SIL Working Group on Conservation and Management of Running Waters. Melbourne, Australia 4-10 February 2001.

Hansen, H.O. (2001): River Restoration in Europe – What is going on? - Paper presented at the XXVIII SIL congress, Melbourne, Australia 4-10 February 2001.

RIZA (2001): Networking without boundaries – objectives and functioning of the ECRR (European Centre for River Restoration). – One-day symposium organised by the Dutch RIZA 28 November 2001, Amersfoort, The Netherlands.

RRC (2001): RRC Workshop. – London, January 2001.

Cachón de Mesa, J. & López-Piñeiro Pérez, T. (2000): Restauración de Ríos en Europa. Presentación del European Centre for River Restoration. – V Jornadas Sobre Encauzamientos Fluviales, CEDEX, Madrid, Spain November 2000. (In Spanish).

Diamond, M. (2000): Presentation of the centre at the River Restoration Centre's Annual Workshop, UK, April 2000.

Hansen, H.O. (2000): European Centre for River Restoration (ECRR) and EU-proposals. - CONNECT Workshop: "Physical habitat restoration in canalised watercourses – possibilities and constraints", Lillehammer, Norway November 6–8 2000.

Hansen, H.O. (2000): Presentation of the ECRR at the international seminar on Environmental Management at Haifa School for Managers, Israel 5-18 February 2000.

Holmes, N.T.H. (2000): Workshop arranged by LAWA. - Essen, Germany, February 2000.

Cals, M.J.R. (1999): Presentation of the ECRR and the international conference on river restoration at the Co-ordination group on River Research, The Netherlands 2 September 1999.

Hansen, H.O. (1999): A database on river restoration – How can it be used? – Presentation at a Danish seminar on river restoration and river management arranged by the ECRR and National Environmental Research Institute (NERI). Silkeborg, Denmark 12-13 October 1999.

Hansen, H.O. (1999): The European Centre for River Restoration – How can it be used? – Presentation at a Danish seminar on river restoration and river management arranged by the ECRR and National Environmental Research Institute. Silkeborg, Denmark 12-13 October 1999.

RRC (1999): RRC Workshop. – Scotland, December 1999.

6. Posters

Hansen, H.O. (2001): Restoration of the Skjern River – Denmark's largest restoration project. – Poster presented at the XXVIII SIL congress, Melbourne, Australia 4-10 February 2001.

Larsen, S.E. & Hansen, H.O. (2001): Statistical Methods for Testing Differences in Aquatic Invertebrate Communities. – Poster presented at the XXVIII SIL congress, Melbourne, Australia 4-10 February 2001.

Hansen, H.O. & Cals, M.J.R. (2000): ECRR - European Centre for River Restoration. ECRR introduction poster presented at the second international ECRR conference in Wageningen, The Netherlands May 2000.

7. WEB-sites:

ECRR homepage established September 1999: www.ECRR.org

The following WEB-sites is a sample of homepages with links to the ECRR:

- *Austria - FLUVIUS:* www.fluvius.com/Komponenten/Fluviuslinkriverrestoration.htm
- *Denmark - Danish Centre for River Restoration (DCVR):* <http://DCVR.dmu.dk>
- *Denmark - National Environmental Research Institute (NERI):* [www.dmu.dk/1 Om DMU/2 Netvaerk/default.asp](http://www.dmu.dk/1_Om_DMU/2_Netvaerk/default.asp)
- *Finland - Environmental administration:* www.vyh.fi/ympsuoprojekti/lifepo/kiintoai/ihmismuu.htm

- *Finland* - Helsinki University of Technology: www.water.hut.fi/wr/research/luomu/links.html
- *Finland* – Ministry of Environment: www.ymparisto.fi/ympsuo/projekti/lifepo/kiintoai/ihmismuu.htm
- *France* - International Office for Water (OIEAU): www.oieau.fr/eaudoc/infeau/01juin_presse.htm
- *France* - Liens: <http://wetlands.free.fr/liens/liens.htm>
- *Italy* - Italian Center for River Restoration (CIRF): www.CIRF.org/linkfiumi.htm
- *Italy* - SINAnet: www.sinanet.anpa.it/LINK/IDG.htm
- *The Netherlands* - The European Centre for Nature Conservation (ECNC): www.ecnc.nl/doc/europe/organiza/europorg.html
- *The Netherlands* - Institute for Inland Water Management and Waste Water Treatment (RIZA): www.riza.nl/waterlinks/internetadressen_emi.html
- *The Netherlands* - InterNat: www.wwwim.nl/indx_eng.htm
- *Poland* – Amonnet: www.amonnet.waw.pl/squid/2002Jan29-2002Feb17/10.0.0.32.html
- *Poland* - WWF-Poland: www.wwf.pl/en/linki
- *Portugal* - APRH - Associação Portuguesa dos Recursos Hídricos: www.aprh.pt/Boletins/106/bi106_internet.html
- *Portugal* - Universidade do Algarve Escola Superior de Tecnologia: <http://w3.uaalg.pt/~rlanca/x-links.html>
- *Spain* - Ríos Con Vida: www.geocities.com/RainForest/Wetlands/1329/riosesp.htm
- *Switzerland* - Bundesamt für Umwelt, Wald und Landschaft BUWAL: www.umwelt-schweiz.ch/buwal/de/fachgebiete/fg_fischerei/fischereirubrik2/unterseite8
- *UK* - EPSRC Network: www.geog.nottingham.ac.uk/rivermorph/links.html
- *UK* - The Land Regeneration Network: www.grc.cf.ac.uk/lrn/info/environment/water.html
- *UK* - River Restoration Centre (RRC): www.therrc.co.uk/links.htm
- *UK* - Social Science Information Gateway (SOSIG): www.sosig.ac.uk/roads/subject-listing/EuroStudies-cat/dk/alphalist.html
- *UK* - Queen Mary, University of London: www.qmw.ac.uk/~fa9128/webpages.html
- *Ukraine* - Ukrainian Rivers Network: <http://riversnetwork.iatp.org.ua/index1-e.html>
- *USA* - Stream Restoration, Ecology, & Aquatic Management Solutions, Ohio: www.ag.ohio-state.edu/~streams/resources/organizations.html
- *European* - European Rivers Network, RiverNet: www.rivernet.org/links.htm#worldwide
- *European* – KeyWATER: keywater.vub.ac.be/RTD/Programs/Default.asp?ItemID=L246011
- *European* - WWF International, Living Waters Programme: www.panda.org/europe/freshwater/links.html
- *International* – Wetlands International: www.wetlands.agro.nl/links/europe.html
- *Global* - UNESCO: [www.unesco.org/water/water_links/Geographical_Scope/Regional/Europe_and_North America](http://www.unesco.org/water/water_links/Geographical_Scope/Regional/Europe_and_North_America)

8. Education



Romanian River Restoration Centre (2001): Training Course on River Restoration. - Organised by the Romanian River Restoration Centre and the National Company "Apele Romane" (CNAR) in co-operation with experts from ECRR, RIZA and WWF. Bucharest, Romania 23-28 October 2001.

Hansen, H.O. (2000): Guest lecture on river restoration and the European Centre for River Restoration at the international course on Ecology of Rivers, Lakes and Coastal Environments. – Aalborg University, Denmark 13 April 2000.

Holmes, N. & Janes, M. (2000): Farming and Watercourse Management Training Course (3). – Perth, Scotland, August 2000.

River Restoration Centre, RRC (2000): More than 5 training workshops arranged by the RRC.

9. TV broadcasts

NHK News (2001): TV interview on river restoration and the ECRR. Transmitted 3 November 2001 in the NHK News, Japan.

NHK News (2001): TV transmission with cut from the ECRR and river restoration presentation given at the Symposium on the Nature Restoration of Rivers, arranged by Ecosystem Conservation Society in Sapporo, Japan 4 November 2001.

10. Excursions and excursion material

Denmark: Excursion to different river restoration projects for four South-Koreans April 2001.

Denmark: Excursion arranged for Dr. Barry Biggs, National Institute of Water and Atmospheric Research (NIWA), Christchurch, New Zealand to river restoration sites in Denmark September 2000.

Denmark: Excursion arranged for the Agricultural University, Wageningen, the Netherlands to the River Skjern restoration project 28 September 2000.

The Netherlands: Several excursions in connection with the second international conference on river restoration 'River Restoration 2000 – Practical approaches'. - Arranged by the ECRR and hosted by RIZA, Wageningen, the Netherlands in mid-May 2000.

11. Envisaged dissemination

Pedersen, M.L., Kronvang, B., Hansen, H.O. & Friberg, N. (in prep.): Ecological effects of river rehabilitation – Methodologies applied in Europe. - Chapter for the Encyclopedia of Life Support Systems (EOLSS) sponsored by UNESCO. The encyclopedia will represent a comprehensive knowledge base describing the physical, chemical, biological, socio-economic, and social processes occurring on our planet on a global scale and will be one of the largest encyclopedias ever produced. It will be published in paper copy, in CD-rom format and on the Internet. The chapter has been approved. The publication is expected late 2001.

LITERATURE CITED IN THE FINAL TECHNICAL REPORT

European Centre for River Restoration (different years): Newsletter ECRR. - European Centre for River Restoration, ISSN: 1397-0097. (Downloadable from the ECRR homepage: www.ECRR.org/sider/pulications.html#Anchor-Newsletter-44298).

Hansen, H.O. (Ed.) (1996a): Vandløbsrestaurering - Eksempler og erfaringer fra Danmark. - Faglig Rapport fra DMU nr. 151. ('River Restoration - Danish experience and examples. – Technical Report no. 151 from NERI, Denmark'). 136 pp. (In Danish). (Downloadable from the ECRR homepage at: www.ECRR.org/sider/pulications.html#Other).

Hansen, H.O. (Ed.) (1996b): River Restoration - Danish experience and examples. - National Environmental Research Institute, Denmark. 99 pp. (Downloadable from the ECRR homepage at: www.ECRR.org/sider/pulications.html#Other).

Hansen, H.O. (Ed.) (1997): Restauración de Rios y Arroyos - Experiencias y ejemplos de Dinamarca. - Instituto Nacional de Investigacion del Medio Ambiente, Dinamarca. ('River Restoration - Danish experience and examples. - National Environmental Research Institute, Denmark'). 99 pp. (In Spanish). (Downloadable from the ECRR homepage at: www.ECRR.org/sider/pulications.html#Other).

Hansen, H.O. (2001): European Centre for River Restoration and a database for river restoration. – Verh. Internat. Verein. Limnol. 27(3): 1528-1531.

Hansen, H.O. & Madsen, B.L. (Eds.) (1997): River Restoration '96 - Plenary lectures. - International Conference arranged by the European Centre for River Restoration. - National Environmental Research Institute, Denmark. 151 pp. (Downloadable from the ECRR homepage at: www.ECRR.org/sider/pulications.html#Other).

Hansen, H.O. & Madsen, B.L. (Eds.) (1998): River Restoration '96 – Session Lectures Proceedings. - International Conference arranged by the European Centre for River Restoration. - National Environmental Research Institute, Denmark. 294 pp. (Downloadable from the ECRR homepage at: www.ECRR.org/sider/pulications.html#Other).

Hansen, H.O., Boon, P.J., Madsen, B.L. & Iversen, T.M. (Eds.) (1998): River Restoration: The Physical Dimension. - A series of papers presented at the International Conference 'River Restoration '96', organized by the European Centre for River Restoration. - Special issue, Aquatic Conservation - Marine and Freshwater Ecosystems 8 (1). 264 pp.

Madsen, B.L. (1997): Freedom regained - A film on stream restoration in Denmark. - Video from the European Centre for River Restoration and the Danish Ministry of Environment and Energy. (Available in English, Danish and Italian).

Nijland, H.J. & Cals, M.J.R. (Eds.) (2001): River Restoration in Europe, Practical approaches. - Proceedings from the conference on river restoration, Wageningen, The Netherlands, 2000. - RIZA rapport no. 2001.023. Institute for Inland Water Management and Waste Water Treatment/RIZA Lelystad, The Netherlands. 344 pp. (Downloadable from the ECRR homepage at: www.ECRR.org/sider/pulications.html#Other).

ANNEX A EXPENDITURE STATEMENT

Cost summary by 31 March 2002. (For further details please see the Final Financial Report).

Cost category	Total Budget		Spent	
	Total cost, in local currency (DKK)	Eligible costs, in local currency (DKK)	In local currency (DKK)	% of the total costs by each cost category
Personnel	1,264,860	1,264,860	1,553,536	123
Travel	271,296	271,296	221,074	81
Outside assistance	140,000	140,000	482,558	345
Capital expenditure				
Durable equipment	50,000	30,000	27,054	90
Consumable equipment	30,000	30,000	31,349	104
Other costs	250,000	250,000	198,000 *	79 *
TOTAL	2,006,156	1,986,156	2,513,572 *	127 *

* As the auditing of the project expenditures has not been finished with this final technical report, the given amount does not include these expenditures. It is thus expected that the final amount spent under 'Other costs' will be about DKK 225,000 and thus reach about 90% of the budget. The total will thereby reach about DKK 2,540,000 and 128%. The closing of the audition are expected in July or August 2002. The final financial report will be forwarded to LIFE immediately thereafter.

Explanations on divergences from the budget

In connection with the interim report the original budget was revised as shown above in January 2001. The revision was accepted by LIFE in March 2001. In spite of the revision the final expenditures differed from the budget on certain cost categories:

Personnel: The personnel costs exceeded the budget by 23%, primarily due to additional administrative work and more work in connection with the conference.

Travel: By using discount air fares and by travelling over weekends as often as possible it has been possible to limit the travel costs. All travel activities foreseen in the proposal have been conducted.

Outside assistance: The expenses exceeded the budget by DKK 342,558. The costs was primarily meant to cover expenses in connection with the international conference under task 2 of the LIFE project. These expenses showed to be somewhat higher than expected. Especially the printing of the proceedings were higher than expected (DKK 361,072)

Other costs: As the auditing of the project expenditures has not been finished with this final technical report, the given amount does not include these expenditures. It is thus expected that the final amount spent under 'Other costs' will reach about DKK 225,000 and thus about 90% of the budget. The total will thereby reach about DKK 2,540,000 and 128%. The closing of the audition are expected in July 2002 and will be forwarded to LIFE immediately thereafter.

ANNEX B

TIMETABLE FOR THE PROJECT

Year Month	1999												2000											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
LIFE Project commencement				■																				
Management task																								
Inception report											✓													
Progress report											■	✓				■								
Interim report																							■	
Management board meeting			■			✓				■	✓				■							■	✓	
Meeting for all institutions			■														■							
Dissemination task																								
Newsletter	■									✓								■	✓					
International paper											■	✓										■	✓	
Task #1																								
WEB-site established										✓														
WEB-site updating										✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Databases established										✓														
Database updating										✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Network established										✓														
Task #2																								
Preparing the conference				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
International conference																								✓

Year Month	2001												2002			Future
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
Management task																To be continued To be continued Submitted June 2002
Progress report				■							■	✓				
Interim report	✓														■	
Management board meeting			■					✓		■					✓	
Meeting for all institutions					■											
Final report																
Dissemination task																To be continued To be continued
Newsletter	✓				■		✓				■				✓	
International paper												■				
Task #1																To be continued To be continued
WEB-site updating	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Database updating	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Task #2																Spring 2004 in Croatia
Conference proceedings							✓					■				
International conference																
Life project closed															✓	

■ : According to the LIFE proposal ✓ : The item has been initiated/carried out □ : Item before the project period



ANNEX C INQUIRY SUBSEQUENT TO THE INTERNATIONAL CONFERENCE

By M.J.R. Cals, Cals Consultancy - On behalf of RIZA, The Netherlands, Lelystad, June 2001

Realised contacts as a result of the international conference River Restoration 2000, held May 2000 in The Netherlands and suggestions for ECRR functioning

Introduction

ECRR is a network platform that supports the development of river restoration as an integral part of sustainable water management throughout Europe, by connecting people and organisations working on river restoration. It has formulated the following strategy to achieve this:

- ECRR will facilitate access to any type of practitioners of the network through a web based matching service to allow and encourage the sharing of experience on river restoration and building of ideas
- ECRR will reinforce the development of this learning community through the organisation of conferences, workshops, seminars etc. and the delivery of newsletters
- ECRR will facilitate access to information on research, planning, implementation and monitoring on river restoration through the development of a website
- ECRR will facilitate establishment of national networks on river restoration
- ECRR will frequently poll the users to get feedback on the functioning of the network

In May - June 2001 an inquiry was sent to the participants of the international conference River Restoration 2000. This conference was one of the major ECRR events in the year 2000. Of course, the spin off of an international conference exceeds the realised contacts. However, it is a way to achieve tangible insight into the networking result and future aims.

The inquiry

In May 2001 an inquiry was sent to the conference participants with two aims:

- To get insight in the contacts made and what kind they are
- To poll the users how the network can be improved and whether they would be willing to actively contribute to the ECRR by organising a workshop or study tour.

The inquiry file is enclosed as annex C-1. It was sent to 95 persons, all of them participants of the conference. After several reminders 43 persons (i.e. 45%) have responded including 11 persons who weren't able to answer for a certain reason. This means that 32 persons (i.e. 34%) have filled in the inquiry. The response list is enclosed as annex C-2.

Results

Question 1 referred to the contacts made and the way of networking.

Table 1 shows how many times certain organisations was mentioned and that the conference resulted in (at least) 150 contacts between 36 organisations. In a few individual cases, exchange of information took place.

Table 1: Number of contacts made with an organisation

ECRR 2000 resulted in contacts with	
COWI (Denmark)	1
RIZA (The Netherlands)	9
EURONATUR (Germany, Croatia)	4
WI	2
RAMSAR	2
Apele Romane (Romania)	2
Danube Delta Inst. (Romania)	1
University of California (U.S.A.)	3
ECRR	3
EWA (European Water Association)	1
NERI (Denmark)	1
Reg. Ministry of Environment, Sevilla (Spain)	1
Kazan State University (Russia)	2
Lithuanian Water Management research institute	1
Ministry of Environment Lithuania	1
Alterra (The Netherlands)	2
Universidad politecnica de Madrid (Spain)	1
Environment Agency (U.K.)	3
EAWAG (Switzerland)	1
Volga Delta people (Russia)	2
WWF	7
Centre for protection of the Environment (Bulgaria)	1
Lajos Kossuth University (Bulgaria)	1
Inst. of Ecology (Lithuania)	1
SOSNA (Slovakia)	1
Swiss federal inst. for Envir. Sciences and technology	1
Bundesanstalt für Gewässerkunde (Germany)	2
Inst. für Limnology (Austria)	1
Inland fisheries inst. (Poland)	1
None	4
RRC (U.K.)	1
IQPC (Int. Quality and Production Centre)	1
Ecosystem Conservation Society Japan	1
NIVA (Norway)	1
CEDEX (Spain)	2
University of Nijmegen (The Netherlands)	1
University of Wageningen (The Netherlands)	1
WWF-Auen Institute (Germany)	2
Mostly individuals - exchange of info	2
Total	156

Table 2 shows how many times a way of acting was mentioned.

Table 2: Number of times that a certain contact was mentioned

The kind of contact concerned:	
Exchange of information	26
Co-operation (in joint project)	10
Bilateral visit, study tour or such like	10
Preparation of joint projects	1
Job	1
Networking	1

Question 2 and first part of **question 3** referred to the topics of current networking and to which topic more attention should be paid in future ECRR activities. Table 3 shows the number of times a topic was mentioned.

Table 3: Number of times and percentages that an issue was mentioned as a topic of current networking and the need for future attention.

Topic	Current networking		Needs attention in future activities	
	No.	%	No.	%
Monitoring and evaluation	11	14	18	15
Modelling	2	0	6	0
Best practices	15	19	23	19
Water quality	10	13	7	1
Habitat restoration	17	22	18	15
Public participation	9	12	14	12
Cost-benefit analysis	5	0	15	12
Implementing the Water Framework Directive	8	10	18	15
Integrated river and floodplain management	1	0	2	0
Total	78	100%	121	100%

Question 3 ultimately referred to a possible follow up conference, the ways the responders would be willing to actively contribute to ECRR and suggestions for improvement of ECRR's functioning.

All responders except one (i.e. 97%) regard a follow up conference to be an excellent idea and would be interested to participate. 17 Organisations, i.e. 53% of the responders would be willing to organise a study tour on restoration projects or experiences.

The detailed answers about possible contributions and suggestions how to make ECRR work better, is enclosed as annex C-3.

Several suggestions are made on how the concerning organisation could contribute to ECRR networking. In summary, these are the following:

- disseminate information (10 times mentioned)
- organise a workshop, discussion forum, study tour

- provide contacts, set up a national network
- other: hospitality, as a management board member.



Also many suggestions are given on how to improve ECRR's functioning (annex C-3). They can be summarised as follows:

- acquire, maintain and disseminate (regularly and frequently) information on River Restoration throughout Europe
- communicate (better/more) on role, function and aims of ECRR
- pay special attention to Eastern European countries and the enlargement process
- intensify communication between national networks and the international ECRR

Discussion and conclusions

It turned out to be rather difficult to get response of the conference participants on the inquiry. A first mailing resulted in a response of only 4%. Ultimately, several reminders resulted in a response of 43%.

The conference River Restoration 2000 resulted in at least 150 contacts between 36 organisations. In depth analysis of the answers showed that most contacts have been made between research institutes, national (governmental) institutes and/or NGOs. Besides, the conference seems to have been the trigger for networking in southern European countries (i.e. the set up of a national network in Portugal and networking between Spanish organisations).

Although there is no standard available to exactly measure the rate of success, this is regarded to be a good score and the conference seems to have been rather successful with respect to networking.

The contacts made mostly concern the exchange of information. Besides, co-operation in joint projects (or its preparation) and bilateral visits, seminars or study tours were mentioned 10 times. This means that the conference has resulted in ways of networking that suit the objectives of ECRR perfectly.

Currently, the following topics are addressed most in the contacts made:

- Habitat restoration
- Best practices
- Monitoring and evaluation

In future, there is a need to address the following topics:

- Best practices
- Habitat restoration
- Implementation of the Water Framework Directive
- Monitoring and evaluation

The interest in a follow up conference is great. Additional comments suggest either organising a similar conference for other participants or thematically adjusting the concept of the River Restoration 2000 conference for more or less the same group. For ECRR it should be feasible to organise (once or twice a year) a study tour or workshop because 53% of the inquiry responders would be willing to organise such an activity.

Summarised, organisations could contribute to ECRR networking by means of:

- Dissemination of information
- Organise a workshop, study tour or discussion forum
- Provide contacts or set up a national network
- Other ways e.g. hospitality or conducting management board activities.

It would be a challenge for ECRR to encourage the concerning organisations to put these intentions into practice. This could be implemented in the operational plan.

The suggestions that were made on how to improve ECRR's functioning concern aspects directly related to the ECRR objectives. In fact they express that ECRR should improve on communication: concerning more regular and frequent exchange of information as well as the communication on what and how ECRR aims to be and function. This also includes the suggestion to intensify communication between national networks and the international ECRR. These suggestions will be elaborated in the ECRR operational plan.

Recommendations

- The convincing interest in a follow-up conference and the willingness to organise study tours or such like, corresponds with the idea expressed in the ECRR operational plan, arranging an international ECRR conference once every three or four year and to yearly to organise one or two study tours for smaller groups on specific items etc.
- The current and future interest in best practices and habitat restoration can be perfectly addressed in study tours (including presentations and discussions)
- The increased interest in public participation, cost-benefit analysis and the implementation of the WFD might be suitable topics for the next international ECRR conference.

Enclosed:

- Annex C-1: The inquiry file
- Annex C-2: Response list
- Annex C-3: Future activities in detail

Inquiry into the realised contacts by the Conference River Restoration 2000

<p>1. Networking / Contacts</p> <ul style="list-style-type: none">● The conference River Restoration 2000 has resulted in contacts with the following organisation(s):● The contact(s) made concerns :<ul style="list-style-type: none">◇ exchange of information◇ co-operation (in joint project)◇ bilateral visit, study tour or the like◇
<p>2. Topic / Issue</p> <ul style="list-style-type: none">● The topic(s) of networking or co-operation concerns:<ul style="list-style-type: none">◇ monitoring◇ modelling◇ best practices◇ water quality◇ habitat restoration◇ public participation◇ cost - benefit analysis◇ implementing the Water Framework Directive◇
<p>3. Future activities</p> <ul style="list-style-type: none">● ECRR is dedicated to develop a following International Conference and intends to organise or facilitate a 1- or 2-days study tour (including presentations, discussions, visits to projects). Please indicate which of the subjects below needs the most attention:<ul style="list-style-type: none">◇ monitoring◇ modelling◇ best practices◇ water quality◇ habitat restoration◇ public participation◇ cost - benefit analysis◇ implementing the Water Framework Directive◇● In case ECRR will organise a follow up for the International Conference in Wageningen:<ul style="list-style-type: none">◇ it's an excellent idea and I will participate◇ the following fundamental alteration would be necessary to make it interesting:◇ I am not interested

Annex C-2: Response list

	Name	Organisation	Country
1	Bachmann, Jasmine	WWF Austria	Austria
2	Choubine, Mikhail	Volga Water Resources Research Inst.	Russia
3	Stepanova, Nadejda	Min. of Env. and Nature Res. Prot.	Russia
4	Holmes, Nigel	RRC	UK
5	Karacsony, Zoltan	Lajos Kossuth University	Hungary
6	Zalakevicius, Mecislovas	Institute of Ecology	Lithuania
7	Gorbunov, Alexander	Astrakhan Biosphere Reserve	Russia
8	Tent, Ludwig	Bezirksamt Wandsbek	Germany
9	Rijkevorsel, Pauline van	RIZA	The Netherlands
10	Dupont, Etienne	Min. de la Region Wallone	Belgium
11	Barsoum, Nadia	University of Cambridge, Dept. of Geogr.	UK
12	Murphy, John	OPW	Ireland
13	Lussi, Stephan	Swiss Agency for Env., Forest & Landscape	Switzerland
14	Günther-Diringer, Detlef	WWF Auen Institut	Germany
15	Prokhorova, Nadezhda	RosNIIVKh	Russia
16	Kovalchuk, Andriy	Carpathian Ecoclub Ruthenia	Ukraine
17	Romanenko, Victor	Institute of Hydrobiology of NAS	Ukraine
18	Passino, Roberto		Italy
19	Donovan, Pat	OPW	Ireland
20	Binder, Walter	Bayerisches Landesamt für Wasserwirtschaft	Germany
21	Peter, Armin	EAWAG	Switzerland
22	Pacenovsky, Samuel	SOSNA	Slovakia
23	Hughes, Francine	University of Cambridge, Dept. of Geogr.	UK
24	Hansen, Hans Ole	NERI	Denmark
25	Zingstra, Henk	Wetlands International	The Netherlands
26	Salathé, Tobias	RAMSAR	Switzerland
27	Klijn, Frans	Delft Hydraulics	The Netherlands
28	Schmidt, Guido	WWF	Spain
29	Poudevigne, Isabelle	Université de Rouen, Lab. d'Ecologie	France
30	Alves, Helena	Instituto da Água	Portugal
31	Cals, Marita	Cals Consultancy on behalf of RIZA	The Netherlands
32	Mircea, Staras	INCDDD tulcea	Romania

Annex C-3: Future activities in detail

<i>Our organisation would be willing to organise or contribute a study tour or workshop on:</i>	<i>Our organisation can contribute to ECRR networking by means of:</i>	<i>Our suggestion to make the ECRR work is:</i>
If wishes by our partners in the region WWF could assist in organising a study tour or the restorations projects in the Danube Delta	Bringing in partners from Central and Eastern Europe and providing information on restoration projects in Central and Eastern Europe	To transfer the experience of RR to Eastern Europe (Central Volga region)
On Lower Volga restoration problems	Presenting a database on Volga river (water quality, river morphology etc.)	I look forward to hearing views
The ecological problems of the regulated rivers: hydrology, biological degradation, physicochemical deterioration (the Volga river as an example)	Hospitality	To set up a data bank of the different projects in all countries in a simple way e.g. the size of the river, its slope, its environment, the purpose, the water quality, the fish zone, the geology, the kind of flow distribution, post work evaluation and so on.
RRC could help	RRC does through its Newsletter, conferences, workshops and general activities	To try to raise funds for an information web page. This site will need a webmaster who will seek to provoke response, collaboration, solving of problems, raising research questions in a well-edited manner, accessible to the general public (a section asking for their responses)
Water quality, best practices, habitat restoration	Organisation of the Conference in Lithuania dedicated to specific Eastern European problems and issues	To continue and broaden contacts between national and international organisations with an interest in RR and related topics.
Natural wetland ecosystems of large river delta	Funding on a small scale basis: east-west co-operations, offer excursions to our practice orientated activity-sites of restructuring lowland brooks, implement foreign knowledge into our brochures and books	Regularly send information, e.g. newsletter
We have not enough experience to be able to contribute yet	Providing contacts in specific research fields	Maintain an up to date library of information on river restoration initiatives in Europe.
On maintenance of arterial drainage schemes in an environmentally sensitive manner.	Circulating relevant technical papers and publications	Better communication about the objectives and role of the ECRR. More intensive communication with national networks; small-scale workshops on an annual basis (e.g. eurosites-workshops) to strengthen the network and visit pilot areas.

Continues

Floodplain functions and restoration.	Exchanging information / case studies.	Elaborate the idea to exchange information on river restoration and organisations involved through the combination of exchange of information, newsletters by email and internet (www) and bringing people physically together in workshops, study tour etc.
Biotic indication, comparative use of different biotic indexes, selection of Pan-European biotic indexes	Providing and promoting an exchange of information	
In organising a study tour or workshop on the Upper reaches of the river Tisa to investigate the real reasons of creation the catastrophic floods in Central Europe and to suggest proposals of it's prevention.	Discussion forum for special subjects	
Small group could visit OPW catchment drainage schemes undertaken since 1945 and under permanent maintenance and see recent developments in eco friendly maintenance and fishery / drainage co operation. Also see recent flood protection schemes	Participation in the ECRR management board, ECRR secretariat, ECRR LIFE-project co-ordinator, as co-ordinator of the Danish Centre for River Rest. (DCVR)	
River rehabilitation	Input to set up the programme; selecting pilot projects; selecting participants	
Best practices for recreating or managing floodplain woodlands	Decision by WWF European Freshwater Programme. WWF Spain could contribute by public participation aspects	
River restoration projects in Denmark	Creating a national network distributing by e-mail all information about subjects related with river rehabilitation (it has been done at the present time)	
Small scale restoration in central Europe (Moldova/ Slovakia)	Making disposable all the information that we have about these subjects, namely reports, guidelines, case studies, etc.	
Best practices regarding compatibility of functions; putting ideas into practice and public participation in river restoration	Exchange of information; contributions to newsletters and as a member of the management board and facilitate / organise a study tour	
River Restoration: learning from experiences	Attending workshops, study tours + organising workshops	

ANNEX D NATIONAL NETWORKS GUIDELINES

River Restoration Networks – National and International

River Restoration Networks give practical advice that helps make river restoration schemes more effective, efficient and economic.

With this folder the European Centre for River Restoration (ECRR) hopes to ease the establishment of national networks of people and institutions working with river restoration in as many countries as possible.

Background

European rivers and their floodplains are used for many purposes and are among the habitats most severely affected by human activity. Both water and river habitat qualities have been seriously degraded in numerous European rivers due to pollution and as a result of poor physical conditions. However, the need for protection of our freshwater ecosystems has now been recognised. In general, this protection has two objectives: to secure access to clean water and to protect aquatic biodiversity.

During recent decades, intensified wastewater treatment has significantly improved the quality of water, and many European rivers are now once again fairly clean. Physical habitat degradation is now the most important remaining threat to aquatic and riparian biodiversity. Due to the poor physical conditions of many rivers, the improved water quality has often not been matched by an overall improvement in quality of the river and its biodiversity.

Growing environmental awareness and concern for the loss of biodiversity and rivers and floodplain habitats has provided the political route for river rehabilitation and restoration. Physical stream restoration is becoming a priority for many European local, regional, national and international authorities and more and more river restoration projects are being carried out.

To benefit as much as possible from the different experiences gained, it is important to share knowledge and experience on the subject, and to identify the areas where restoration measures result in the desired physical, ecological and economic benefits. For this purpose the European Centre for River Restoration (ECRR) was officially established in March 1999 at a constituting meeting held in Silkeborg, Denmark.

The overall objective of the Centre is to support the development of river restoration as an integral part of sustainable water management throughout Europe.

About the European Centre for River Restoration (ECRR)

ECRR Vision

ECRR supports the development of river restoration as an integral part of sustainable water management throughout Europe by connecting people and organisations working with river restoration.

ECRR Strategy

- ECRR will facilitate access to all participants of the network through a web-based matching service to encourage the exchange of experience on river restoration and building of ideas
- ECRR will reinforce the development of this learning community by organising conferences, workshops, seminars etc. and delivering newsletters
- ECRR will facilitate access to information on research, planning, implementation and monitoring of river restoration through the development of a website
- ECRR will facilitate establishment of national networks on river restoration
- ECRR will frequently poll the users to identify how the network can be improved.

Measures of success

- web site hits
- successful matches (co-operation, capacity building)
- member feedback (inquiry, workshop discussions)
- participant contributions to newsletters
- number and quality of conferences, meetings, workshops etc.

Structure of the ECRR

The ECRR is a European Network that create a platform covering the activities and projects of individual participants. Therefore, ECRR supports the development and implementation of concepts on river restoration becoming part of integrated river basin management within Europe. Subgroups with certain common interests will be encouraged to organise meetings, workshops or study tours to further develop their topics and ideas. In such cases ECRR plays a facilitating role and may provide information for other participants of the network.

A Management Board is responsible for the general management and organisation of ECRR. The Management Board activities include organisational and co-ordinating aspects and will propose structure and working practices, as well as organise meetings and conferences etc. The Board members come from institutions throughout the EU and from at least one TACIS and one PHARE country.

The Management Board members meet twice a year. Meetings are held in different countries in order to provide information on a wide range of geographical differences.

A Secretariat elected by the Management Board for a period of 3-5 years will represent ECRR externally and function as contact centre.

Names and contact addresses of members of the Board and the Secretariat can be found at the back of this folder and on the ECRR homepage at www.ECRR.org

National river restoration networks

ECRR is a European network based on a framework of national networks.

The key objectives of the national networks should be to identify best practices in implementing river rehabilitation schemes, and thereby make them more efficient, effective and economic. The networks could also provide expert support to novices by playing a mentoring or parenting role.

All participants of the network have the opportunity and responsibility of making the ECRR work. A close contact between participants, both nationally and internationally, should be established for the exchange of information through newsletters, homepages and meetings.

The ECRR facilitates and encourages the establishment of national river restoration networks in all European countries. The main function is to establish and maintain national networks of individuals and organisations working with river restoration. The (international) ECRR and the national networks co-operate and support each other.

There are no set directions for the establishment and operation of the national networks. The main objective is to establish a national network of people and institutions interested in river restoration for the benefit of rivers in as many European countries as possible.

Preferably, the national networks will appoint a national representative who will be responsible for the network and act as official intermediary between the network and the ECRR. However, the national network representative should not act as the sole contact within the network and between the network and the ECRR; the representative should rather deal with the developmental and administrative parts of the network in a pro-active manner.

Anybody wishing to contact the ECRR or other participating institutions directly, nationally or internationally, should always be allowed to do so without going through the national network representative.

There are no restrictions on the number of participating institutions within the national networks.

Funding of the networks

The operational development of the ECRR requires external funding. ECRR obtained funding from the EU LIFE programme for the establishment and running of the ECRR Secretariat for the period 1999-2002.

Participants should seek national funding for their own internal activities as the ECRR cannot provide grants or other funding.

The ECRR will, however, seek the EU COST programme for funds to support and fund travel and meetings in connection with the river restoration networks, both national and international.

Establishing a National River Restoration Network

How to get started

As previously mentioned there are no set directions for the establishment and operation of national networks. ECRR cannot dictate the structure or working methods of the national networks, but may provide recommendations. The following directions should be seen as suggestions of how to effectively establish and organise a national river restoration network.

One or more institutions in each country will usually take the first step towards establishing the national networks.

The very first step will often be to examine whether there is a national interest for the establishment of a network. All potential participants (universities, research centres, local and governmental authorities, private companies, individuals etc.) should be given the opportunity to become participants and may be asked to provide information about their expectations, possible contributions, experiences etc.

Shortly hereafter, an introductory meeting for potential participants should be held. A consensus describing the organisation, responsibility and future expectations of the network, could be discussed at this meeting.

It is recommended to approach the European Centre for River Restoration Secretariat at an early stage. The Secretariat may help with practical questions regarding the establishment of a national network.

It is furthermore important to stay in close and regular contact with the ECRR - also after the national network has been established. As mentioned above, the ECRR is a European network of national networks that aim to make the experience and knowledge of the national networks available to all its participants. It is especially important to establish national networks in Eastern European countries.

Possible tasks for the national networks

Homepage

The national networks are encouraged to establish an internet homepage providing participants with the latest news on river restoration and information on network contacts, meetings, workshops, newsletters, etc.

Currently, the following national networks have their own homepage:

'Danish Centre for River Restoration' (DCVR) at DCVR.dmu.dk

'Italian Centre for River Restoration' (CIRF) at www.CIRF.org

'Netherlands Centre for River Studies' (NCR) at www.NCR-web.org

'The River Restoration Centre' (RRC) (UK) at www.therrc.co.uk

The homepage of the European Centre for River Restoration can be found at www.ECRR.org

Newsletters

Information via newsletters is another way of keeping participants up-dated – either distributed as printed copies or by internet access.

Literature

The national networks may provide information about literature on river restoration. Too many experiences, good as well as bad, are lost in internal reports that are not always publicly available.

Meetings, workshops etc.

Meetings and workshops are a very important and effective way of sharing experience and knowledge. Network participants should be encouraged to meet frequently to discuss subjects within the area of river restoration. The national networks could, for example, meet to describe the national strategies and actions taken in connection with the Water Framework Directive (WFD) and river restoration. The information obtained could be published on the network web-site.

Database

Databases with project descriptions will provide an overview of the river restorations undertaken in each country. Such databases were already made by the Danish and British networks (see later under examples of national networks).

Study tours, training courses etc.

Short or longer training courses and study tours to other national networks could be arranged in order to gain further experience. If relevant, such tours and courses could also be made available for participants of other national networks and/or of the ECRR.

Examples of national networks

The UK River Restoration Centre

A national network could be established and organised following the UK network as an example. The UK River Restoration Centre (RRC) was formally established in 1998 following operating as a more informal group for six years.

The UK RRC is a non-profit making organisation providing independent advice for participants and clients so that they achieve maximum benefit from the available experiences.

A comprehensive description of how the UK Centre is managed and run can be found on www.therrc.co.uk

The Danish Centre for River Restoration

The Danish network was established in 1995. The National Environmental Research Institute (NERI) acts as national network co-ordinator. Since its establishment the centre has published newsletters and arranged workshops bringing the Danish participants together to share experiences and discuss future strategies. The Centre has also published a report describing Danish river restoration examples and experiences.

To obtain a useful overview of river restoration projects undertaken and as a guide in connection with future projects, the Danish and British Centres have developed a river restoration classification system and a database on river restoration projects. More information on the database is available at <http://DCVR.dmu.dk>

The Dutch river restoration network

If a country already has another network on rivers, this network may also be used as a national river restoration network. This is what happened in the Netherlands, where a co-operation between the major developers and users of expertise in the area of rivers, 'The Netherlands Centre for River Studies (NCR)', already existed.

Although different in some ways, the objectives of the NCR and the ECRR have many similarities. For instance, both networks focus on transboundary river systems, integrated river management and river basin approaches.

The combination of similarities and differences make NCR and ECRR highly complementary. NCR therefore now also functions as the Dutch river restoration network under the ECRR umbrella facilitating the exchange of information between the Netherlands and other European countries. In this way, NCR and ECRR support each other and create a win-win situation for integrated river basin management.

Using an already existing network can prove an advantage as many formal matters are already in place. For example, as the NCR already has a homepage (www.NCR-web.org), the Dutch national river restoration network need not establish their own homepage, as the NCR homepage will be used for dissemination of information.

Contact address:

European Centre for River Restoration - Secretariat

Att. Ute Menke

c/o Institute for Inland Water Management and Waste Water Treatment (RIZA)

P.O. Box 17

NL - 8200 AA Lelystad

The Netherlands

E-mail: ECRR@ecrr.org or u.menke@riza.rws.minvenw.nl

Tel.: +31 320 298 411

Fax: +31 320 298 383

URL: www.ECRR.org

Names and contact addresses of members of the ECRR board and participants of the ECRR can be found on the ECRR homepage at www.ECRR.org



ANNEX E FAXES FROM UNEP AND EU-COMMISSION



United Nations Environment Programme

PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT · PROGRAMA DE LAS NACIONES UNIDAS PARA EL MEDIO AMBIENTE

Reference: IH/ Publication /mm

Date: 23 July 2001

Dear Mr. Iversen and Mr. Fokkens,

RE: Proceedings of the international conference “River Restoration 2000”

We acknowledge with thanks receipt of the Proceedings of the international conference “River Restoration 2000 that you sent to us by pouch.

We are sure that these proceedings will contribute to our activities of ensuring sustainable water management in river basins.

Yours sincerely,

Donald Kaniaru
Director

Division of Environmental Policy Implementation

Mr. Torben Moth Iversen
Chair Management Board ECRR
P.O. Box 17
8200 AA Lelystad
Zuiderwagenplein 2 8224
AD Lelystad
The Netherlands
Fax: +31 320 249 218

Mr. Bart Fokkens
RIZA Director Wetland Restoration
P.O. Box 17
8200 AA Lelystad
Zuiderwagenplein 2 8224
AD Lelystad
The Netherlands
Fax: +31 320 249 218

Division of Environmental Policy Implementation, P.O. Box 30552, Nairobi, Kenya.

Tel: +254 2 623507. Fax: +254 2 624249.

E-mail: donald.kanu@unep.org





EUROPEAN COMMISSION
DIRECTORATE-GENERAL ENVIRONMENT

ENV.B.1 – Water protection, the Marine and Soil

Brussels, 13 July 2001
ENV.B.1/HB

FAX

To: 1) European Centre for River Restoration;
2) RIZA Institute for Inland Water Management and Waste Water Treatment

Telephone:

Fax: (+31)320 24 92 18

From: Helmut BLÖCH
ENV.D.1
BU-9 03/158

Telephone: (+32-2)2990672

Fax: (+32-2)2968825

Number of pages: 1

Subject: Proceedings of the International Conference “River Restoration 2000”; your letter ref. IH of 3 July 2001

Dear Mr Iversen, dear Mr Fokkens

Thank you for providing us a copy of the proceedings of the International Conference “River Restoration 2000”. I have read the document with great interest and will make it available to all our staff.

Yours sincerely

Helmut BLÖCH
Head of Water Protection

Rue de la Loi 200, B-1049 Bruxelles/Wetstraat 200, B-1049 Brussel - Belgium - Office: BU-9 03/158.
Telephone: direct line (+32-2)2990672, exchange 299.11.11. Fax: 2968825. e-mail: helmut.bloech@cec.eu.int

