

Sediment key-issues between the river and the sea

SedNet conference on 23-24 November 2006

hosted by UNESCO at the Palazzo Zorzi, in Venice, Italy

SedNet identified that for achieving the objectives of the Water Framework Directive (WFD) it is essential to give more and specific attention to sediment. Through sediment there is an obvious, natural connection in river systems and especially between rivers and marine waters. As with the WFD, until now little specific attention to sediment is given presently in the Marine Strategy discussions.

Sediment is an essential, integral and dynamic part of our river basins. At the end of most rivers, sediment is deposited within the estuary and in the coastal zone. In estuaries, sediment transport occurs both downstream and upstream, mixing fluvial and marine sediments as a result of tidal currents. Sediments shape the hydromorphology of the aquatic environment and they are the base for riverine ecology. At the same time they are highly dynamic, and therefore to fully understand the system requires a good scientific basis.

While in the first three years of SedNet contaminated sediments in fresh water systems were the main focus, the scope now extends significantly. SedNet focuses on river and marine sediments with all their aspects. Its mission is "to be a European network aimed at incorporating sediment issues and knowledge into European strategies to support the achievement of a good environmental status and to develop new tools for sediment management". It should be kept in mind that River Basin Management Plans have to be developed by 2009. To achieve good ecological status or potential and to support the well being of the European economy at the same time, sustainable sediment management is also of importance.

Hence, SedNet is organizing a conference on 23-24 November 2006. This conference is aimed at discussing and defining the scientific sediment key-issues at stake in the important transition area between the river basin and the marine system. The outcome will be used to draft a SedNet position paper on this issue. The conference will be preceded by a 2-day closed Round Table discussion. It brings together representatives from European river commissions, user groups from these rivers, and scientists. The objective is to develop recommendations for sediment management in these river basins, which can also be of help for other rivers. The outcome of the discussion will be presented at the beginning of the conference.

The Conference aims at SCIENTIFIC sediment-key issues, while the Round Table discussion focuses on PRACTICAL issues related to the implementation of sediment management in River Basin Management Plans.



SEDNET CONFERENCE PROGRAM

The conference program starts on Thursday evening 23rd November with a poster session and the presentation of the SedNet-Elsevier book series.

SedNet started with funding by European Commission (EC) DG-Research under the 5th RTD Framework Programme as a Thematic Network aimed at setting up a European network in the field of "assessment of fate and impact of contaminants in sediment and dredged material and at sustainable solutions for their management and treatment". Between 2002 and 2004 the scientific, policy and management aspects of contaminated sediments and dredged material were addressed in 17 workshops and 3 conferences. Europe's leading scientists and major sediment managers contributed to these activities. The comprehensive results are published by Elsevier as a series of four books. The first books of this series are ready and are presented to the SedNet community and the EC DG Research (Dr. Jürgen Büsing, to be confirmed) at this evening.

The next day, 24th November, presentations will be given by European sediment experts. In the evening the poster session is continued.

THURSDAY 23 NOVEMBER 2006

18:30-21:00 Welcome reception and poster session
Presentation of the SedNet - Elsevier book series to the SedNet community and to Dr. Jürgen Büsing of the European Commission, DG Research

FRIDAY 24 NOVEMBER 2006

08:30-09:00 Registration

Introduction

Chaired by Axel Netzband, Hamburg Port Authority / chairman SedNet

09:00-09:15 Opening and introduction by the chairman

09:15-09:25 Welcome by host of meeting
Philippe Pypaert, UNESCO BRESCE, Italy

09:25-10:00 River Basin Management - conclusions SedNet Round Table session
held on 21-22 November 2006
SedNet Steer Group member

10:00-10:30 Hydrology-morphology-ecology in estuaries - links and management aspects
Patrick Meire, University of Antwerp, Belgium

10:30-11:00 Coffee break

Sediment contamination

Chaired by Philippe Pypaert, UNESCO BRESCE

11:00-11:15 Characterization of the coastal area facing Cogoletto (Liguria): distribution of chromium
Rosa Maria Bertolotto, Environment Agency, Italy

11:15-11:30 Influence of land use in small karst catchments on the chemical status of peloid sediments on the eastern Adriatic coast
Slobodan Miko, Croatian Geological Survey, Croatia

11:30-11:45 A methodology to determine riverine loads and coastal deposition processes of polluted sediments in the Drammen Harbour, Southern Norway
Eva Skarbøvik and Aud Helland, Norwegian Institute for Water Research, Norway

- 11:45-12:00 The river basin-coastal zone continuum: heavy metal contents Aegean Sea (Eurocat)
Aris Karageorgis, Hellenic Centre for Marine Research, Greece
- 12:00-12:15 Bioavailability of POPs in the Westerschelde estuary
Michiel Kotterman, Imares, NL
- 12:15-12:30 Discussion
- 12:30-14:00 Lunch
- Sediment transport and dynamics**
Chaired by Stefano Della Sala, Nethun S.r.L.
- 14:00-14:30 Functions of mud in estuarine and coastal ecosystems
Victor De Jonge, Groningen University, NL
- 14:30-14:45 Sediment characterization of Tagus estuarine beaches (Portugal)
Rui Taborda, Lisbon University, Portugal
- 14:45-15:00 Improving our understanding of connections between the catchment and sediment dynamics in UK estuaries
Larissa Naylor, Environment Agency, UK
- 15:00-15:15 Designing a sediment management program for the Lower Ebro River
Albert Rovira, Aquatic Ecosystems Unit – IRTA, Spain
- 15:15-15:30 Methods to specify and quantify sediment source contributions and transport pathways
Rodney Stevens, Göteborg University, Sweden
- 15:30-15:45 Flux of sediment-associated chemical elements in rivers draining to the Arctic Ocean
Jim Bogen, Norwegian Water Resources and Energy Directorate, Norway
- 15:45-16:00 Discussion
- 16:00-16:30 Coffee break
- Sediment management**
Chaired by Axel Netzband, Hamburg Port Authority / chairman SedNet
- 16:30-17:00 The benefits of the use of dredged material in the aquatic system
Lindsay Murray, CEFAS, UK
- 17:00-17:15 Integrating sediments in the European WFD
María Jesús Belzunce, AZTI - Marine Research Division, Spain
- 17:15-17:30 How do we achieve ecosystem-based sediment management?
Sabine Apitz, SEA Environmental Decisions, UK
- 17:30-17:45 The dynamics of natural systems between the river and the sea and the whimsicality of policy processes
Adriaan Slob, TNO, NL
- 17:45-18:00 Discussion, summary and conclusions
- 18:00-21:00 Drinks, followed by finger-food dinner and poster presentation

Organising Committee:

Piet den Besten – Ministry of Transport, Public Works and
Watermanagement / RIZA, NL

Jos Brils – TNO, NL

Marc Eisma – Port of Rotterdam, NL

Susanne Heise - TU Hamburg-Harburg, Germany

Peter Heininger – BfG, Germany

Axel Netzband – Hamburg Port Authority, Germany

Phil Owens – Cranfield University, UK

Stefano Della Sala – Nethun S.r.L, Italy

**Venue:**

The event is hosted by UNESCO BRESCE (Regional Bureau for Science and Culture in Europe) at their office in Palazzo Zorzi in Venice, Italy. Palazzo Zorzi is situated in the sestiere of Castello, near Campo S. Maria Formosa, not far from Piazza San Marco, Riva degli Schiavoni and the Church of San Zaccaria. A map can be found at: www.unesco.org/venice

Hotel accommodation:

Hotel accommodation can be booked with a Hotel Reservation Form (to be downloaded from www.sednet.org) via booking office Veneziasi Hotel Reservations. Price of hotel rooms vary from 52 Euro for a single room in a 2-star hotel to 95 Euro for a double room in a 3-star hotel.

How to register:

If you wish to participate then please complete the registration form (see www.sednet.org) and return it ultimately 1 November 2006 to the SedNet Secretariat.

The registration fee is Euro 100 excl. VAT. Food and drinks as mentioned in the program are included in the fee.

We will send you an invoice upon receipt of your registration.

**Palazzo Zorzi****SedNet Secretariat:**

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UNESCO

UNESCO BRESCE focuses its action in science and culture on Member States of South-East Europe as a priority, and develops initiatives in favour of Central Europe and the Mediterranean basin in close consultation with the other UNESCO offices concerned. Its programmes seek to build human and institutional capacities in the basic and engineering sciences, foster collaborative research in the field of the environment, especially in ecological and water sciences, contribute to the protection of cultural heritage, and promote cultural diversity and intercultural dialogue (see: www.unesco.org/venice).

UNESCO launched the International Sediment Initiative (ISI) as a major activity of the current 6th phase (2002–2006) of the International Hydrological Programme (IHP). ISI is expected to add a new dimension to ongoing efforts aiming at sustainable sediment management, in the context of sustainable water resources development at global scale. Through international cooperation in the area of erosion and sediment management, ISI aims to: 1) Strengthen, at global level, awareness about the importance of erosion and sediment processes and their impacts; 2) Promote exchange of information on relevant data, monitoring and management methods, including the use of global environmental observation systems and 3) Foster cooperation in erosion and sediment-related research and education. (see: www.irtces.org/isi).

As far as the European Region is concerned, a major contribution to the initiative is expected from the Danube River Basin. In this perspective, the cooperation with SedNet has already generated ideas to work towards a collaborative project proposal addressing any opportunities under the upcoming 7th EC RTD Framework Programme.