The European Sediment Research Network (SedNet):

Planning and decision-making - Opportunities for river basin planning of sediment management

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Sediment plays a key role in the geomorphological and ecological functioning and behaviour of a river basin. Also, sediment is an important natural resource and has socio-economic value. Changes in the amount of sediment being delivered to, and transported by, rivers is likely to affect the long-term sustainability of river systems and of the coastal zone. In addition, sediment is being increasingly seen as a major polluter of fresh and estuarine waters. Not only is the sediment itself a problem (such as the siltation of watercourses and reservoirs), but there are also many nutrients and contaminants (such as phosphorus, heavy and trace metals, and PCBs) associated with fine-grained sediment, which can be detrimental to ecosystem functioning. Thus management of sediment is central to the sustainability of most river systems.

Dealing with the problem - harbour siltation - Hampton Roads, Virginia (Courtesy of NASA).

It is against this background that the European Sediment Research Network (SedNet) was established in 2002. SedNet is a Thematic Network project, funded for 3 years by the European Union (EU) under the EESD (Energy, Environment and Sustainble Development) programme and within area 1.4.1 on "Abatement of water pollution from contaminated land, landfills and sediments".

The main aim of SedNet is to provide guidelines for sustainable sediment management at the river-basin scale. Central to SedNet's philosophy is the belief that multidisciplinary, co-ordinated and harmonised approaches are necessary for achieving sustainable sediment management. In addition, with the implementation of several new regulations and directives, such as the EU Water Framework Directive, the importance of integration and management is at the scale of the river basin**,** resulting in a shift from local scale to trans-boundary water management.

Within SedNet there are six working groups each addressing different aspects of sediment management in river basins. Working Group 4 (WG4), in its broadest aim, will be a forum to facilitate the communication and information exchange between 'problem-owners' and 'problem-solvers' with a specific interest in the planning and decision-making necessary for the management of sediment dynamics and outputs at a river basin scale.

Looking at the problem at a river basin scale - Grande (Guapay) River, Bolivia (Courtesy of NASA)

Top and subsoil as sources of sediment - rill and gully erosion in a cultivated field, Severn Basin, UK.

The organisation leading WG4 is the National Soil Resources Institute, based at Cranfield University, UK, although the working group consists of participants from across Europe.

Through a series of four workshops held between 2002 and 2004, WG4 will explore the following themes:

- Opportunities for river basin planning of sediment management: existing guidelines and the EU framework directives
- Sources and transfer of sediments and contaminants in the river basin
- Modelling and other decision-making tools
- Decision-making in sediment management

For further information on the activities of WG4 please contact: Phil Owens or Alison Collins

For further information on the activities of SedNet please visit the website: www.sednet.org or contact Jos Brils at brils@mep.tno.nl

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