

## Editorials

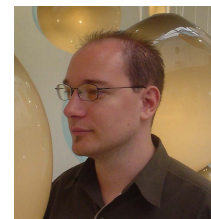
### Introduction of a New Subject Editor

## Policy and Communication

### Section 2: Sediment Risk Management and Communication

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Sediments have a problematic position in the realm of politics and policies. They often rank lowest in the list of political priorities and only surface during calamities. When it concerns the daily routines – for example policies for maintenance dredging or standards for contamination – it is likely to remain at the domain of officials, researchers and engineers, whilst politicians opt to pay attention to more fashionable issues.

Sediments will stay in that obscure corner for quite a while, even though there is ample evidence that sediments as a resource often deserve a higher position on the political 'to-do' list (Owen 2006). What the sediment community can't do is making mud fancier. But there is still much ground to gain within the sediment community by working on a better integration of technical knowledge and societal developments. **This is where policies and communication cross.**

This element of sediment management has roughly two dimensions, a theoretical one and a practical one. The Journal of Soils and Sediments has developed both with regard to the physical system, but there is also a social side to this which requires attention as well.

It is interesting to note that there are few publications on this matter. There is ample literature, for example, on the use of natural resources, on the management of rivers or on the development of stakeholder involvement in environmental issues. Empirical research on cases of sediment management, however, is scarce. Nevertheless, it is possible to apply ideas and notions from other empirical subjects to sediment management. For example, it is interesting to understand the formulation of rules and standards from a constructivist perspective (Souren 2006) or to analyse the emergence and disappearance of sediments on the political agenda in terms of the political attention cycle (Edelman 1988). The benefit of such perspectives is that they have explanatory power for the analysis of the role and position of sediments in the policy process. The disadvantage is that, between those approaches and the mode of analysis as used in natural sciences with regard to sediments, a large gap exists in terms of methods, vocabulary and philosophy of science.

These differences are firmly grounded in traditions and will continue to coexist. We should not attempt to formulate a unified, holistic science for the analysis of sediment-related issues. However, it is possible to position these coexisting approaches within a single framework and, from that framework, to understand them. The science of complexity offers this possibility as it allows an understanding of sediment-related issues as a matter of co-evolution between physical and social systems (Norgaard 1994, 1995) in which both systems evolve through mutual adjustment. A few attempts on the subject of water and sediments are available already (Geldof 2001, Gerrits & Marks 2007, Otter 2000). It all boils down to one point: non-linear

system developments. For the Journal of Soils and Sediments and its readers, it is good to realise that the social system is as capricious and multi-causal as is a complex, adaptive physical system. We basically talk about the same thing.

At a more practical level, the realm of policy and communication can benefit from a wide range of lessons from other environmental issues. The most important point is to understand that sediment management is not a purely technical matter. It has an impact on many actors and, as such, touches other policy fields that require a connection with and conception of societal developments. This idea is gaining more ground in the realm of sediments (Apitz & Power 2002, Ellen et al. 2007, Gerrits & Edelenbos 2004, Heise et al. 2007, Quevauviller 2006), consequently leading to better understanding of empirical cases of sediment management (Ellen et al. 2007, Meulen et al. 2006).

The challenges ahead are therefore two-fold: to understand sediment issues as a matter of co-evolving physical and social systems, and to understand that sediment management on a practical level is also a social matter. This journal provides a good platform for developing both dimensions.

### References

- Apitz S, Power EA (2002): From risk assessment to sediment management: An international perspective. *J Soils Sediments* 2 (1) 61–66
- Edelman M (1988): *Constructing the political spectacle*. The University of Chicago Press, Chicago
- Ellen G-J, Gerrits L, Slob A (2007): Risk perception and risk communication. In: Heise S (ed), *Sediment Risk Management and Communication. Sustainable management of sediment resources*. Elsevier, Amsterdam, 292 pp
- Geldof G (2001): *Omgaan met complexiteit bij integraal waterbeheer*. Tauw, Deventer, 186 pp
- Gerrits L, Edelenbos J (2004): Management of sediments through stakeholder involvement. The risks and value of engaging stakeholders when looking for solutions for sediment-related problems. *J Soils Sediments* 4 (4) 239–246
- Gerrits L, Marks PM (2007): Complex bounded rationality in dyke construction; path-dependency and lock-in in the emergence of the geometry of the Zeeland delta. *Land Use Policy* (submitted)
- Heise S, Apitz S, Babut M, Bergemann H, den Besten P, Ellen G-J, Gerrits L, Joziassse J, Maass V, Oen A, Slob A, White S (2007): The way forward for sediment risk management and communication – A summary. In: Heise S (ed), *Sediment Risk Management and Communication. Sustainable management of sediment resources*. Elsevier, Amsterdam, 292 pp
- Meulen MJvd, Rijnveld M, Gerrits L, Joziassse J, Heijst MWv, Gruijters S (2006): Handling sediments in Dutch river management: An analysis of the planning stage of the Maaswerken project. *J Soils Sediments* 6 (3) 163–172
- Norgaard RB (1994): *Development Betrayed. The end of progress and a co-evolutionary revisioning of the future*. Routledge, London, New York, 280 pp
- Norgaard RB (1995): *Beyond materialism: A coevolutionary reinterpretation*. *Review of Social Economy* 53, 475–486
- Otter HS (2000): Complex adaptive land use systems. An interdisciplinary approach with agent-based models. Eburon, Delft, 245 pp
- Owens P (2007): Sediment management at the river basin scale: Challenges. *J Soils Sediments* 7 (1) 7
- Quevauviller P (2006): Science-policy interfacing in the context of the WFD implementation. *J Soils Sediments* 6 (4) 259–261
- Souren AFMM (2006): Standards, soil, science and policy. Labelling usable knowledge for soil quality standards. Souren, Nijmegen, 232 pp