

Reviews and resources

Creditor Reporting System: Aid Activities In Support Of Water Supply and Sanitation 2001–2006

OECD/World Water Council
Available from <http://www.oecd.org/dataoecd/2/60/42265683.pdf>

This publication from OECD Publishing is the product of collaboration between the Secretariat of the OECD Development Assistance Committee (DAC) and the World Water Council (WWC) and is an update of the previous OECD report on 'Aid Activities in the Water Sector 1997/2002'. This new edition was launched at the end of 2008 and the main findings were incorporated into the OECD synthesis report on 'Sustainable Financing to Ensure Affordable Access to Water Supply and Sanitation' that was made available at the 5th World Water Forum in Istanbul in March 2009.

The report presents comprehensive statistics on aid flows to developing countries in support of water supply and sanitation for the years 2001–2006, including trends in donors' aid and the degree of targeting of countries most in need. The report contains individual donor profiles with policy overviews and summaries of statistical data

as well as records of aid activities within the sector reported by bilateral and multilateral donors in 2006. The focus is on financial assistance for 'development' as opposed to 'humanitarian aid' and does not include contributions to WHO, UNDP or UN-Habitat.

Although this data is already getting a bit dated, more recent updates are available from the OECD website at www.oecd.org/dac/stats/crs/water and the complete database of aid activity reports by the Creditor Reporting System (CRS) is available at www.oecd.org/dac/stats/idsonline. The CRS was established in 1967 by OECD and the World Bank to serve as a tool for monitoring sector policy issues and provide a reference point for governments, aid and financing agencies, and non-governmental organizations.

The types/sectors of activity include water resources policy and administration, water resources protection and river development, water supply and sanitation, and education and training within the water sector. Many sector professions would be interested to see a further distinction and breakdown between 'water' and 'sanitation' but this is not possible, as

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the source of data from the IFIs (International Financial Institutions) is not disaggregated.

Some of the most notable key findings from the analysis are that overall aid has been increasing steadily since 2001 after a decline during the second part of the 1990s. There is renewed emphasis on the water sector in member's aid programmes after a drop to 6–7 per cent in the years 2001–2004; but still only 9 per cent of total aid provided by IFIs in the water sector is for water and sanitation. The largest donors in 2005–2006 are reported to be Japan (26 per cent), the United States (15 per cent) and the European Commission (12 per cent). This has changed considerably since 2001–2002 when Japan's contribution was only 14 per cent compared with United States (9 per cent) and the European Commission (6 per cent). However, according to the OECD review, it is predicted that this level of commitment will start to decrease.

With regard to the recipients of the funds, Iraq received the most (15 per cent) as a result of the massive reconstruction programme financed by the United States. The next most important recipient was India (10 per cent), then China (8 per cent), Malaysia (7 per cent) and then Bangladesh, Indonesia and Morocco all receiving an equal 3 per cent. Overall, countries in Asia and Africa are seen to have received the most aid, 55 per cent and 32 per cent respective-

ly; but sub-Saharan Africa, the part of the world that is most in need, received only 24 per cent although this has increased in recent years from 8 per cent in the period 2005–2006. South Asia, the other region that is suffering the most from lack of sanitation services, is also seen to be a relatively small recipient of aid (only 19 per cent in total).

It is important to note that much of the aid is in the form of loans and aid is concentrated on a relatively small number of large disbursements. Fifty of the largest activities above US\$40 m account for half of the total aid committed during the period 2005–2006. As well as the Iraqi reconstruction programme, these include large loans to finance infrastructure development in India, China, Malaysia and Costa Rica. Other large projects include those in Egypt (Water Sector Reform Programme), India (State Partnership in Rajasthan), various large projects/programmes in Bangladesh as well as sector support programmes in Morocco and Vietnam.

The publication is inherently a rather dry presentation of facts and figures and there is limited analysis of the effectiveness of aid in terms of descriptions of performance evaluation. However, the report is an important reference guide about the financial flows from bilateral and multilateral aid agencies and the types of project support by these agencies in developing coun-

tries. It doesn't provide all the answers, but for those who have a research interest in analysing these data or work for NGOs that lobby aid agencies or need access to this sort of information to assist in the development of their own project portfolio, it is definitely £21 well spent.

Jonathan Parkinson

Pond Treatment Technology

Andy Shilton (editor)

2006, IWA Publishing, 496 pp,
£107.25/US\$214.50/€160.88,
ISBN 9781843390206

Stabilization ponds are a natural method for wastewater treatment applied at thousands of plants around the world from tropical to temperate climates, and in both developed and developing nations. Their conceptual simplicity is one of the key features that have guaranteed their continued application over many decades, during which time the history of wastewater treatment has witnessed the expansion and development of many high-tech biological and physical-chemical processes.

If ponds are so simple, can we really talk about a treatment 'technology'? Indeed we can, and this is what the book *Pond Treatment Technology*, edited by Andy Shilton and published by IWA Publishing, makes very clear from the title itself. Ponds are indeed a technology, and their simplicity is seen in their design, construction and most importantly in their opera-

tion and maintenance. But the intricacies of the physical and biochemical interactions reveal a complex and mutualistic relationship between various species of algae and bacteria. Pond organisms coexist and vary in population according to different environmental conditions, brought about by the dynamic nature of the influent wastewater, time of the day and climatic conditions.

Considering this complexity, this book is a must for wastewater treatment practitioners as it delves into the behaviour of ponds, describes the prevailing conversion mechanisms of the major constituents and extracts the essential information in the form of design criteria and operating guidelines. It is, then, fortunate that a group of 25 leading pond experts worldwide, coordinated by Dr Andy Shilton (Massey University, New Zealand), put together their experience and knowledge in order to select the most appropriate and up-to-date information and present it in a clear and didactic way. The common point of the group is that the authors are active members of the International Water Association (IWA) Specialist Group on Waste Stabilization Ponds, which was chaired at that time by Andy Shilton.

The book covers, in its 20 chapters and 479 pages, all the key elements of pond technology. The introductory chapters deal with the fundamentals

of pond behaviour and the removal mechanisms of the main wastewater constituents are covered in detail in the subsequent chapters. Design details, especially regarding pond hydraulics, an important subject that is not easily encountered in other books, are presented in four chapters, which cover pond process design, solids removal and upgrading techniques. Operation and maintenance guidelines are also provided in one specific chapter. The final chapters are dedicated to advanced topics, integration of ponds with other systems and specific pond applications, such as integrated pond/wetland systems and use of ponds for treatment of livestock wastes.

Each chapter encompasses a detailed review of the subject, consolidating a large number of classic and new references, and converts this knowledge into practical and useful information in the form of design and operating criteria, with several summary tables, illustrations and equations. Although each chapter is self-sufficient in the subject it covers, the book provides a coherent integration, building up the information in a complete and seamless manner.

The book is one of the most comprehensive and best worldwide references on stabilization ponds, and is thus strongly recommended as an essential material for practitioners, consulting engineers, lecturers, researchers and students working on waste-

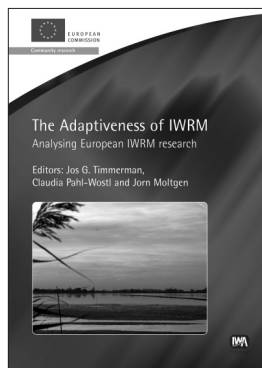
water treatment. The book price is US\$214.50, with a reduced value (\$161.00) for IWA members. This is probably the only point which could hinder its thorough dissemination around the world. The high cost is not easily affordable, especially for those in developing countries, which are exactly the regions in which stabilization ponds are a highly recommended wastewater treatment process. Further information can be obtained at www.iwapublishing.com.

Marcos von Sperling, Federal University of Minas Gerais, Brazil, and Chair of the IWA Specialist Group on Waste Stabilization Ponds

The Adaptiveness of IWRM: Analysing European IWRM Research

Jos G. Timmerman, Claudia Pahl-Wostl and Jorn Moltgen
2008, IWA Publishing, 156 pages, non-members' price: £73.00/US\$146.00/€109.50; IWA members price: £54.75/\$109.50/€82.13
ISBN 9781843391722

Integrated water resources management (IWRM) has been developed to assist decision makers in the planning and allocation of water resources in situations where resources are short, or are likely to become so. As such, the adaptation of IWRM within the European Union is an increasingly important consideration for government departments and planners (not just water planners) in response



to drivers such as the introduction of the EU Water Framework Directive.

This publication provides a comprehensive review of recent research into IWRM carried out at leading research centres across Europe. It gives an informed and carefully considered view of the outputs of research on water resource policies and clear recommendations on the changes that are required in management practices to achieve the integrated approaches advocated by the IWRM approach. It contains 10 chapters that have each been edited into a coherent overview of the key issues affecting the uptake of IWRM, including transboundary issues, vulnerability to drought/flood and climate change consequences on water resources.

The main conclusions of each chapter are quite varied, but together form an integrated demonstration of how IWRM can be adapted and deployed, and how future research work should be organized to carry forward key thinking that has already been developed. In particular, the authors call for more research on: 1) evaluation of transboundary water regimes' performance; 2) interaction between such regimes; and 3) common methodologies for analysing the behaviour of actors in international transboundary water management regimes. The example of the Baltic Drainage Basin Project to reduce nutrient pollution accumulating from all

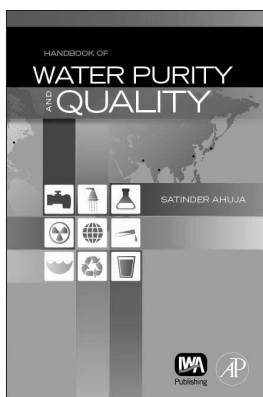
Baltic countries has successfully pioneered social net benefit analysis through analysing cost effective nutrient reduction programmes in different sectors.

With respect to vulnerability in river basins, an analysis of 48 EU projects shows that vulnerability to shocks and stresses has not been included in integrated analyses to date. However approaches to vulnerability are starting to move beyond simply measuring exposure, and on to the human and social dimensions. The authors argue that there is a need to revise river basin management plans all over Europe created by introducing the Water Framework Directive, combined with emerging awareness of climate change impacts and the amount of mitigation and adaptation that will be required.

The book promotes the concept that a truly integrated approach to water management needs to take seriously the social dimensions of IWRM, including issues such as inequality. The approach therefore needs to provide for investment in educational and research development. The focus on inequality is a central concern of water management – not just in 'Northern' countries (Europe), but also 'Southern' ones. It is important to note that the book refers to the application of IWRM within a European context, and an EC regulation one at that! Therefore, although the book is a comprehensive review of the

developments in IWRM, much of the intellectual effort presented is of limited application to developing countries as it is primarily intended for researchers and practitioners working in the European situation.

Geoff Pearce
HR Wallingford



Handbook of Water Purity and Quality

Satinder Ahuja (Editor)
2009, IWA Publishing, 440 pages, ISBN 9781843393184, £126.99

This hardback book co-published by Elsevier and Academic Press consists mainly of a comprehensive description of analytical methods for water quality analysis and monitoring of water contaminants. In its 440 pages, a total of 25 authors, mainly from the USA, contribute to 16 chapters addressing water quality issues. These are predominantly micro-pollutants including arsenic, microorganisms, inorganic compounds, radionuclides, volatile and semi-volatile contaminants, disinfectants, herbicides and pharmaceuticals.

Considering that 5 million people die every year from water-borne diseases, the chapter on 'Microbial Threats to Water Quality', to which the book devotes only nine pages, is rather

disappointing. As it stands, the chapter focuses on monitoring aspects and this topic would need to be expanded upon considerably to be of greater relevance to *Waterlines* readers.

Six chapters cover a broader range of subjects focusing on the effect of human land development on water quality, water quality issues in Eastern Africa, arsenic removal technologies, Environmental Protection Agency regulatory considerations in the United States and forensic water quality investigations. The chapter on terrorist-related contamination is informative and provides a good description of methods for real-time toxicity tests using online monitoring technologies.

In terms of presentation and the accessibility of information, the text is dense with long paragraphs and few illustrations. The book will be of value to water professionals and researchers throughout the world who are involved in water quality monitoring and regulation. However, the price of the book will mean that it is not accessible to practitioners working in developing countries.

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