

# books

## **Water Resources: Health, Environment and Development**

**B. H. Kay**

ISBN 0419 22290 1 (E and FN Spon), 250pp, 1999, £55.00

Health, Environment and Development provides a well-rounded view of the links between environment and health. However, whilst the title may imply a much broader perspective, these elements are chiefly discussed within the context of the development of surface water resources, and of dams and reservoirs in particular.

The structure of the book moves logically from the international, regional to the local, and from the theoretical and political to the practical. As such it has three distinct parts of interest to a wide variety of readers, but it is quite a weighty 'meal'. This may reflect its origin as a series of papers for a conference, which tends to provide very concentrated (if well-edited) food for thought.

Chapters 1-4 consist of views which are perhaps of most relevance to macro-planners and policy makers. These may prove a bit heavy-going for those most interested in practical applications and experiences. Major issues nestle among a forest of general background and United Nations acronyms, but overall the first four chapters set the theoretical and political scene for the practicalities which follow. In particular these chapters emphasise the inter-sectoral and long-term nature of influences on health and the environment which need to be considered in project design, government structures and an integration of the two.

Chapters 5-7 examine the structure and application of health impact assessments, health opportunity assessments (the positive rather than the negative opportunities), and the scope for the development of inter-sectoral collaboration. These are clearly set out with relevant examples.

Chapters 8-15 present more detailed case histories, some of which span more than half a century. They allow a view of long term impacts and the degree to which strategies can change as socio-economic environments progress. This section provides illustration of many of the points raised in the earlier parts of the book, but mainly from the perspective of the developed world.

Overall the picture is of the conflicting interests of various disciplines and the continuing need for a better understanding of each by the others. Most papers are written by authors from the developed world. This underlines the degree to which the perspective and most experience remain those of countries which can afford the levels of monitoring, debate, and attention to issues of conservation and sustainability which are still very difficult to institute, or be supported within, many developing economies. This book may help to contribute to transfer of strategies and concepts so that, in future, more contributions to debate will come from within those countries which may, at present, sometimes be responding more to the requirements of donors than to their own concerns over the important issues raised.

With its many useful references and early emphasis on theories and political concepts, it is perhaps more a book for academics and policymakers/planners than for field workers, but has something of value for all.

*Sally Sutton*

## **How to Build The Archloo: An Ancient Structure as the Basis for a Low-Cost Sanitation Solution**

**Dr. Peter Glover**

ISBN 0620 25693 1, (The Write Stuff, Durban), 38pp, 2000,

The sanitation sector in South Africa has experienced a number of problems in recent years, despite considerable successes in the sector since the country's Independence in 1994. Many of these problems stem from a decision by government to

provide what has proven to be unsustainable subsidies for VIP latrines. When subsidies were high (ranging from £60-70 per latrine), many organizations claimed that it was impossible to build high-quality VIPs for less than this subsidy. In fact, the cost of latrines at many project sites exceeded £100, and few were willing to risk promoting other low-cost options, as they feared the political consequences of digressing from government policy.

The argument made by many sector professionals that VIPs could not be constructed for less than the subsidy was of course nonsense, as many other countries throughout the world have demonstrated. Unfortunately, it was a powerful argument in South Africa that in many ways stifled innovation in the sector.

Thankfully, there were notable exceptions to this rule. A range of sector role players recognized that the subsidy was unsustainable, and that communities did in fact want a wider range of lower-cost sanitation options. Glover Development Engineers (GDE) is one such organization, and their experimentation has led to the development of the Archloo.

The Archloo has shown many South African policy-makers and practitioners that communities can construct a lower-cost VIP that is an effective barrier to disease transmission, is aesthetically pleasing and addresses material and transport constraints characteristic of rural South Africa (and elsewhere).

The Archloo superstructure is a catenary arch structure that does not require reinforcing. Its inverted catenary shape gives it its strength, as many ancient civilizations understood. Arch-shaped structures from thousands of years ago still exist throughout the world, and proved to be the inspiration for GDE's work.

The superstructure is constructed by draping hessian over catenary-shaped wooden forms, and then painting the hessian with cement slurry before plastering with consecutive layers of cement mortar.

Recent work by GDE has shown that clay and grass (cob) can be substituted if cement is too costly or not readily available. Once dry, the wooden arches are simply removed from the self-supporting structure, and the latrine is ready for use.

“How to build the Archlooï is a simple manual that provides step-by-step instructions on how to build an Archloo. The manual includes an overview of the materials required to construct an Archloo, The steps necessary to build the catenary-shaped wooden forms from scratch, some basic guidance on siting latrine and digging and lining the pit, and each step in the process of building the latrine. Guidance on the construction of hand-washing facilities that are integrated into the Archloo are also provided.

The instructions are well explained, and supported by clear drawings of the actual work to be done and photographs of each stage in the construction process. An overview of the system’s maintenance requirements is also explained.

Some may challenge the view that this

is an “ultra-low cost” VIP, as its cost is still in the £40 range (including labour). But this innovation is a considerable step forward in South Africa, and is certainly applicable in other countries as well.

*Edward D. Breslin  
Country Representative  
WaterAid - Mozambique*

**Europe’s leading  
development bookshop -  
The IT Bookshop**

Unless stated otherwise, all priced publications reviewed here can be ordered direct from the IT Bookshop:  
103-105 Southampton Row,  
London WC1B 4HL, UK. Fax: +44  
20 7436 2013. E-mail:  
<orders@itpubs.org.uk>

Or visit our online bookshop:  
<[www.oneworld.org/itdg/  
publication.html](http://www.oneworld.org/itdg/publication.html)>

**Waterlines welcome Portland Press as their new subscription managers**

**Subscription enquiries should be addressed to:**

**The Subscriptions Manager, ITDG Publishing, Journals  
c/o Portland Press, Commerce Way,  
Whitehall Industrial Estate, Colchester, Essex, C02 8HP, UK.  
Tel: (0)1206 796351; Fax: (0)1206 799331.  
Email: [sales@portlandpress.com](mailto:sales@portlandpress.com)**

***contributions***

Waterlines welcomes written contributions. If you have information you feel would be of value and interest to other readers, send us your manuscript. Manuscripts should be less than 1500 words long. Photographs and illustrations are very important, and should be black-and-white and captioned. The editors regret that no responsibility can be accepted for the return of the original manuscript or illustrations.

Where opinions are expressed in Waterlines they are those of the authors and not necessarily those of the Intermediate Technology Development Group. Where technical articles and advertisements from outside sources are published, the details, effectiveness, and data on which they are based are assumed to be correct and are taken on good faith to be so.

***subscriptions***

Subscription rates are £20 (US\$32) for individuals, £30 (US\$50) for institutions. Subscriptions are available from The Subscriptions Manager, ITDG Publishing, Journals, c/o Portland Press, Commerce Way, Whitehall Industrial Estate, Colchester, Essex, C02 8HP, UK. Tel: (0)1206 796351; Fax: (0)1206 799331. Email: [sales@portlandpress.com](mailto:sales@portlandpress.com). Waterlines is sent overseas by air-speeded post where available, surface mail otherwise. For airmail, please add £8 (US\$14). Special bulk subscription rates are available for more than 10 copies.

***back issues***

Back issues of Waterlines are available at £4 each plus postage and packaging (for standard post, add 15% for UK, 20% for Europe, and 25% for the rest of world; for priority post, add 40% for rest of world). Available from ITDG Publishing.