

books

Dying Wisdom: The rise, fall and potential of India's traditional water harvesting systems. State of India's Environment 4, A citizen's report

Anil Agarwal and Sunita Narain
CSE, New Delhi, 1997.
404pp. Pbk. US\$12.00.

In 1987, and quite by chance, some of the staff of New Delhi's Centre for Science and Environment passed some wondrous structures in a remote, dry area of northern India. The structures proved to be water-harvesting systems which enabled people to survive in the harsh climate.

Thus began a long journey of discovery and appreciation of the water culture in the Indian sub-continent. And what a journey it proved to be. In a national seminar in 1989, many (academically) forgotten water-harvesting methods were presented, which invited further study and documentation both in writing and through intriguing and often fabulous photographs. *Dying Wisdom* provides a fascinating read on the ways the peoples of India managed to survive and prosper by harvesting rainwater and surface runoff. By presenting traditional water harvesting systems from all over India, the book puts forward a powerful argument. If we have been able to build civilizations and keep households and communities supplied with water for ages, why then has it proved so difficult to ensure water security for agriculture and domestic needs these last few decades? It questions the need for large dams and reservoirs which can only collect some 20 per cent of the annual rainfall, and allow

the rest to flow off.

In contrast, the proven potential of individual and community water harvesting is such that rainfall and runoff can cover the needs of the country. Surely, the need to revitalize the systems, to study the way in which these systems were managed, and to see whether the community organization which enabled sustainable use, can be set up again, in rather more challenging socio-economic circumstances, is a question to be answered. Still, in many areas in the Indian sub-continent, a revival of traditional water harvesting systems may well ensure both greater water supply security and reliability.

The document argues for a more ecologically sound use of rainfall as a primary water source, and emphasizes the need to incorporate traditional methods of collecting rainfall and runoff into present water resources development plans. The restoration of the traditional water harvesting systems also seems to offer the most efficient and cost-effective way of retaining water for agricultural and domestic use. Its well-designed pages, with a wealth of detailed graphics and photographs, makes it an excellent book to pick up time and again to read a few pages, on how Jodhpur, a hillside fortress city in Rajasthan ensured five centuries of water security, on the role of the urban tanks in Madras' water supply, on the 'Zabo' system of catchment conservation and cultivation in Nagaland, or on how the new watershed management is practised in Adgaon in Maharashtra through *pani panchayats* (village water-management committees).

The book will be of interest to students of water-resource management systems and may well offer

fresh — despite being ancient — ideas on water-conservation strategies; for all other water people, and especially those who have been to India, the book is a must, and it is so interesting and enjoyable to read. For people from the Indian sub-continent, whose water future is at stake, the book offers hope that all is not yet lost, that engineering skills and local management were once capable of creating a thriving civilization, the water element of which — with some effort — we may be able to recreate.

The Centre for Science and Environment has done a great job in producing this document. It has put the past on record; now all we have to do is to learn from it and integrate the knowledge in sustainable and reliable water harvesting systems that will also stand the test of our time. At US\$12, it is a bargain.

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Hygiene Evaluation Procedures: Approaches and methods for assessing water and sanitation-related practices

Astier Almedom, Ursula Blumenthal, Lenore Manderson
INFDG, Boston, 1997. (IT Publications is sole distributor in Europe).
130pp. Pbk. £7.95.
ISBN 0 9635 5228 7.

A quantitative investigation is often an essential framework of hard facts, but to really understand people's feelings, not just what they own, we must investigate people's attitudes, customs and practices when living with, or using, systems and technologies — in this case, water and sanitation facilities. Sustainability is the objective of most development efforts and, to a major extent, this will depend on the way people think and act.

The problem with asking about people's feelings and reactions is that they will

most likely not wish to upset you or your study, and will 'over-co-operate' by giving, perhaps, the answer they think you want to hear. To really understand these human traits needs a subtle set of techniques that draw out true feelings, with some measure of cross-checking to enable you to see the range of opinion, and be sure you are really getting the truth.

Hygiene Evaluation Procedures aims to guide a wide range of health and technical field-staff through the mysteries of community opinion by the qualitative evaluation of water and sanitation hygiene practices, and does it well. There are few such compact and to-the-point guidebooks outside the world of sociology and, while written for water and sanitation assessment, the advice is sound for those investigating a much wider spectrum of community development. This book would be useful for any field researcher involved with community participation.

There are no hard and fast rules for carrying out or reporting investigations, unless clients specify exactly what they want, but the authors provide good advice and wise counsel with a logical and well-explained set of options at each stage.

This book is not for the amateur. The reader must already know the terminology, together with the arguments for and against qualitative and quantitative studies, and well able to fill in the unwritten fundamentals of investigation. This is a well thought-out guide that seems to have involved many of those most involved in this area.

I would have liked a little more detail on the analysis and presentation of collected data, and the interesting new 'F' diagram seems to miss the direct connection from flies and fields to new hosts. But I think this is a good buy for those eager to undertake an in-depth investigation at community level.

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