

Water Governance: An Evaluation of Alternative Architectures. Asanga Gunawansa and Lovleen Bhullar (eds). Edward Elgar Publishing Ltd., 15 Lansdown Road, Glos GL50 2JA, UK. 2013. 448 pp. Price: Rs 8139.

Public-Private Partnerships (PPP) is considered a key instrument for water management in the decades to come. The National Water Policy of 2002 made an emphatic statement in favour of PPP in water sector. But the Government neither provided a good 'DIY Manual' to implement PPP, nor rose to the occasion to answer satisfactorily various concerns raised by the civil society. Consequently, there has been hardly any progress with PPP in India. So much so, the current NWP of 2012 has considerably diluted the support for PPP.

There was a desperate need for a book that would analyse various aspects of PPP in water sector, the 'why' and 'how' and *Water Governance: An Evaluation of Alternative Architectures* edited by Asanga Gunawansa and Lovleen Bhullar fills that void. It may be pointed out that although the title says 'water governance', PPP dominates as the central theme of the book, and also the book is essentially about urban water supply and sanitation, and does not address irrigation and various aspects of water governance relevant to irrigation. It is hoped that this remark will not be taken as criticism, but only clarifying something which is not clear in the title.

The book is a compilation of 14 essays and the difficulty in reviewing such a book for *Current Science* is, the journal is purely a science journal, while the book being reviewed, as the title itself indicates, has hardly anything to do with

science aspect of water. Science is the same everywhere. But governance issues are very sensitive to political, social, economic and administrative backdrop. What works in China may fail miserably in India, and vice versa.

The Introduction by the editors of the book and also by Sonia Ferdous Hoque is like a primer in PPP projects, tracing the evolution of PPP. *Implementing PPP Programs: The Indian Experience* by Ashwin Mahalingam is about PPP experience in India. A main reason why PPP did not succeed in India is, lack of clarity on why it was required. The author has proposed and explained a set of 'capabilities' that are essential for a PPP project to be successful. There are also case studies, mostly from Tamil Nadu and Karnataka.

In other chapters, the PPP experience in UK, France, Spain, China, Singapore and Australia has been analysed. The civil society in India is fond of quoting the NEWater project in Singapore as a role model of waste water treatment. They would do well to read the chapter on development of PPP in Singapore which explains what it takes to make NEWater project work.

Suffice to say that this reviewer has been closely associated with attempts at advancing PPP in the irrigation sector for almost a decade; has felt first hand the handicap of lack of reading material for first timers in PPP; and has no hesitation in recommending this book as essential reading for any Indian water manager required to implement a PPP project. As said earlier, the book is about urban water supply and sanitation, but even the irrigation managers will find it useful as many of the issues are common.

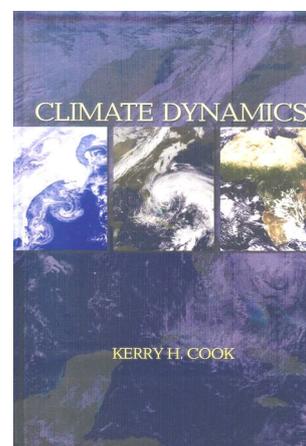
Three topics that should have found a place in the book are: (i) Model bid documents for PPP; (ii) A financially sustainable business model for PPP; (iii) Answering the various concerns raised by the civil society.

The bid documents for a PPP project are very different than for a regular contract. The managers in the Government departments are aware of this, but have no template to help them. The success or failure of a PPP project will depend largely on how good the business model is. The private sector is in it for profit, not for charity, and the project fails if it does not generate profits. And finally the civil society has raised certain questions, viz. the moral hazard of public risks and

private profits which need to be addressed. Also, analysis of two high-profile failures of PPP in India – the 24 × 7 pilot project in Delhi and an industrial water supply project from Sheonath river in Chhatisgarh, would have added significantly to the learning value for the Indian reader. It is hoped that these will be added in a subsequent edition. But even without it, the book provides useful analysis for water managers.

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Climate Dynamics. Kerry H. Cook. Princeton University Press, 41 William Street, Princeton, New Jersey 08540, UK. 2013. 296 pp. Price: Rs 4341.

Climate change is a topic discussed almost every day in the newspapers and has come to occupy a significant position in the range of environmental problems facing mankind. It is expected that almost every aspect of our lives will be affected and existing problems facing humanity exacerbated by climate change. Many books and on-line resources describe the changes occurring and steps to be taken to solve the problem of climate change – many with misinformation. Yet, there are few textbooks that can help a college student understand how the climate system works or help one teach the subject with the depth and rigour that are necessary. It is in this context that the book under review is a welcome addition. The author is an experienced researcher and teacher of courses on atmospheric physics,

atmospheric dynamics and climate dynamics. The book is a product of years of teaching and is pitched at undergraduate science and engineering.

The first three chapters of the book provide basic introduction to the climate system and observations of its mean state and variability. Chapters 4–6 discuss in some detail the radiative, thermodynamic and dynamic processes that drive the climate system. These topics are handled very well and present the reader with a clear exposition of the basic concepts needed to understand the climate system. With these basic concepts covered, chapters 7 and 8 provide a good treatment of circulation of the atmosphere and oceans. The book gives unusual importance to the hydrological cycle by devoting the whole of chapter 9 to the topic but the material could well have been covered in one of the earlier chapters. Other ‘flows’ in the climate system – such as the car-

bon and nitrogen cycles – have been given much lesser importance. Chapters 10–12 introduce the mechanisms of contemporary climate change. These chapters left me unsatisfied in many ways. There could have been a better attempt at linking to concepts already covered in previous chapters. Some concepts such as the role of land surface changes seem to have not found place in the book.

The chapters in this book are descriptive for the most part, but sometimes devolve into ‘Powerpoint’ style bullet points. The textbook is well illustrated with grey-scale figures (downloadable from the publisher’s website), with colour versions available on the author’s website. In some of the figures the shading scale seemed counter-intuitive. Author assumes a level of calculus preparation appropriate for the material presented, and yet curiously, at some places proceeds to explain linear expressions. Con-

trary to the author’s intentions, I do not think that faculty in any field of science, mathematics or engineering can use this book to teach the subject. There are many instances where the material assumes familiarity with terminology that may confuse people who are not in the field. Moreover, additional reading that would be really useful to a teacher or the interested student is included only in some chapters. The exercises at the back of some chapters are reasonably interesting, but thin in others. On the whole, the book suffers from patchy coverage of topics but is nevertheless a useful text in parts.

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