

Squatting with Dignity: Lessons from India. Kumar Alok. SAGE Publications India Pvt Ltd, B1/I-1 Mohan Cooperative Industrial Area, Mathura Road, New Delhi 110 044. 2010. xxvii + 379 pp. Price: Rs 850.

Sanitation has been a neglected area both by policy makers and the researchers across the globe. Although some took sanitation for granted, many did not consider it as a subject worth discussing or regulating. It is in this scenario, the Government of India introduced Total Sanitation Campaign (TSC) in 1999 to accelerate sanitation coverage in rural India. The central theme of the book under review here is TSC. The book explains how TSC was evolved, how it was implemented in different parts of the country, what lessons have been learnt and how to move forward. The nine chapters in the book, although generally concentrating on TSC, do deal with the history of sanitation in India, the evolution of both policies and implementation strategies, the systems built across the country for effective sanitation, the key achievements, lessons learnt and the challenges that still remain in this sector. In the context of the Millennium Development Goals accepted by India, one of which relates to halving by 2015 the proportion of people without sustainable access to sanitation, this book explaining the intricacies of a TSC is extremely relevant and timely.

The author had the distinct advantage of handling issues relating to sanitation in the Department of Drinking Water Supply, Government of India under different secretaries and ministers during a five-year span. His perspectives as an

insider to the policy making process are spread over this book and that certainly adds a distinct flavour to an otherwise simple but comprehensive narrative.

Water Supply and Sanitation (WATSAN) have no doubt been among the primary drivers of public health. Since lack of potable water directly impinges on the very existence of human life, water has always taken undue priority over sanitation. If drinking water supply is even temporarily affected, citizens will agitate in front of government offices and demand immediate restoration. No such thing happens even when an entire village is without a toilet, drainage or a waste management system for years together. Lack of sanitation is accepted as one's fate and no one questions anyone for poor sanitation. Issues relating to water – its availability, quality and recharge have thus taken precedence always over sanitation and that explains the relatively large number of papers, reports and books on water in the WATSAN domain. As against writing something which is attractive, the author has chosen to write about something which he himself calls 'the biggest national shame' – of people defecating in open, along the railway tracks, river side and agricultural fields. He certainly deserves appreciation for this courage.

As the book suggests, sanitation and hygiene were given high priority in India even prior to the Indus Valley Civilization. In addition to well laid out streets and houses, there was a good underground drainage system in Harappa and Mohenjodaro, about which history records detailed accounts. Explaining the historical significance of sanitation in the Indian society, the book acknowledges that over a period of time and with a substantial increase in population, the importance of sanitation got diminished and was entirely forgotten at some point of time during the later years. The rest of the book summarizes the efforts taken by the government to bring sanitation back on track if not to its original glory.

Unlike other sectors, policy evolution in rural sanitation has taken place in a relatively short-time frame. The first ever centrally sponsored sanitation programme titled 'Central Rural Sanitation Programme' was launched in 1986. This was entirely supply driven. The concept of involving Non-Government Organizations (NGOs) to create mass awareness was first attempted by the Government

of West Bengal in 1988 with Ramakrishna Mission Lokashiksha Parishad, a social service unit of the Ramakrishna Mission developing an integrated sanitation project with assistance from UNICEF. TSC itself came into existence only in 1999. Despite this short span of evolution, TSC has raised a number of controversies, which are lucidly explained in this book.

Several issues such as whether TSC should be entirely based on subsidies or should it encourage only community led sanitation have been endlessly debated in different parts of the country. What should be the quantum of subsidy, whether it should be front loaded or back ended, will an incentive to the community bring out better results instead of a subsidy to the individual household toilet, etc., have been discussed in this book *in extenso*. Why different states adopted different models to achieve their targets under sanitation has also been explained. Besides faithfully capturing the various policy debates, the book also explains the bureaucratic and political processes through which decisions were arrived at on critical issues. Even simple issues such as who should maintain the school toilets have taken explosive proportions in certain parts of the country and the author is right in taking the stand that children need to learn the dignity of labour and have to collectively share the responsibility of keeping their toilets and the school environment clean and green.

An interesting feature of the book is that it clearly brings out certain facets of public administration enlightening an ordinary reader on how the system functions in India. How the beliefs change in the government system with a change in leadership, how the government functionaries wait for a congenial environment to push through policies closer to their hearts and faith, and how the political leadership reacts to the proposals emerging from the bureaucracy have been well explained keeping TSC at the centre. Despite his association with UNICEF, the author has been frank enough to admit that 'even in UN organizations there is too much emphasis on results based framework which at times undermines the key actions needed to achieve the key results'. He rightly emphasizes the need to steer clear off any temptations for short-term gains and personal glory in the process of systems building to implement any scheme.

Some of the suggestions made in this book deserve serious attention by the policy makers. Sustained focus on monitoring the use of toilets and adoption of hygiene practices have to be ensured through a system of well designed report cards. Instead of looking TSC as a mere construction programme for latrines, equal attention has to be paid to the management of solid and liquid waste generated both at the household and the community levels. Efforts under TSC and the employment schemes of the government need to be converged. Partnerships with other institutions such as the milk co-operatives, the Panchayathiraj Institutions and the corporate sector have to be encouraged. Possibilities of claiming carbon credits have to be explored, as proper waste management will save the greenhouse gas emissions. For instance, all organic waste can be decomposed in a suitable bio-gas plant to extract methane for use as energy and the carbon credits earned can partly meet the investment costs. Other ideas relating to eco-sanitation, grey water reuse, etc. can also be advantageously implemented in different parts of the country.

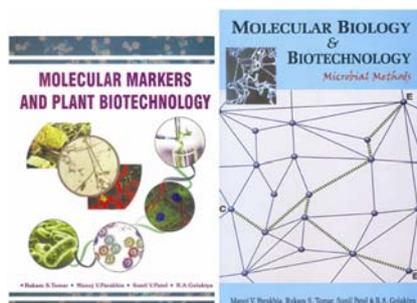
This book of course has a few short comings as well. Generally the government sponsored programmes concentrate largely on construction activities allocating little efforts or funds for creating awareness among the stakeholders. Even in this book issues relating to hardware occupy a substantial space. So much so, the author could not highlight Information, Education and Communication activities, how they were designed in different parts of the country, by whom and what were the impacts. The efforts of the NGOs in implementing sanitation programmes could also have been given a better coverage.

In view of his long experience in government in the sanitation sector, the author could not perhaps avoid exhibiting certain pre-conceived notions prevalent among the bureaucrats. For instance, his commitment to Nirmal Gram Puraskar does not let him dispassionately analyse the strengths and weaknesses of that programme. Further, the narration tends to be personal in some places forgetting the fact that an ordinary reader may not be interested in too many such details. However, the book is extremely informative and goes to the extent of describing minute details of the projects as well as project proposals, which will

be of great use to policy makers. Despite minor flaws, this book has definitely added to the scarce published material on sanitation throughout the world. It will certainly help the policy makers and implementers in designing suitable programmes on sanitation not only in India but also in other developing countries.

S. S. MEENAKSHISUNDARAM

No. 1332, Double Road,
Indiranagar,
Bangalore 560 038, India
e-mail: meenakshi54@hotmail.com



Molecular Markers and Plant Biotechnology and Molecular Biology and Biotechnology: Microbial Methods. Rukam S. Tomar, Manoj V. Parakhia, Sunil V. Patel and B. A. Golakiya. New India Publishing Agency, 101, Vikas Surya Plaza, CU Block, L.S.C. Mkt., Pitam Pura, New Delhi 110 088. 2010. First book: 1 + 578 pp. Price: Rs 2900/US\$ 97.00. Second book: xx + 360 pp. Price: Rs 1640/US\$ 77.50.

A manual that is a one-stop shop for all procedures that one may need in the laboratory is the dream of any student. The books by R. S. Tomar *et al.* are meant to fulfil this need – they discuss the instruments commonly used in a microbiology or biotechnology lab, techniques involved in DNA and RNA purification, screening, amplification, genetic engineering and the use of molecular markers. The book on plant biotechnology presents procedures for isolation and purification of RNA and DNA; gel electrophoretic methods for the separation of DNA, RNA and proteins; Southern, Western, Northern and Eastern blotting methods; PCR and its modifications including RAPD, RFLP, AFLP,

ISSR, etc; fluorescent *in situ* hybridization; the usage of molecular markers; genotypic barcoding and genetic engineering of plants among other topics. The book on microbial methods too discusses similar topics. In fact, the two books share many aspects including identical paragraphs, pages and diagrams.

It is regrettable that the two books have very little that is original, either in matter or in presentation. Certain sentences in the chapter on laboratory safety rules in the plant biotechnology book (such as ‘Tips racked by Alice are only for everyday-type use’ (p. xiii) or ‘Stickers can be found in the left drawer in the autoclave room. Check with Ron ... for more’ (p. xvii), or ‘We buy Braun grinders ...’ (p. 69)) distinctly give the impression of unintelligent copying from a company’s lab manual. There are similar defects throughout these books – there are paragraphs that are repeated in toto in the space of few pages (about one and a half pages of matter discussing gel electrophoresis, for instance, is repeated on pages 80 and 119 in the plant biotechnology book); in the description of a schematic diagram explaining PCR, the authors have said ‘blue lines indicate the DNA template to which primers (red arrows) anneal...’ (p. 177), but the diagram that follows is in black and white; the quality of writing in successive chapters is distinctly different, the style varies from formal to absolutely informal (such as, ‘SDS, a nasty ionic detergent ...’ (p. 38) or ‘Lots of quickie protocols out there in the web especially’ (p. 72)), one paragraph is in the third person and the next is in first person – the list can go on.

Much cannot be said about the editing and proofreading of the books either. Spelling and grammatical errors abound (like ‘pipet’ instead of ‘pipette’ throughout pages 72 and 73 on microbial methods), and there are sentences that, unfortunately, provide the reader much unintended amusement. For instance, in Chapter 3 on plant biotechnology, one of the points under the subheading ‘What is DNA?’ is ‘DNA work has lots of toys’ (it is not clear what the author means by this sentence). The introduction to the chapter on ‘Extraction of DNA fragments from agarose gel’ (p. 142) says, ‘We used to give the generic term “hoonose” to the unspecified carbohydrates that co-purified along with the DNA and inhibited enzyme reactions’ (probably a joke in the original source