

Education for Sustainable Development: Challenges, Strategies and Practices in a Globalized World. A. Nikolopoulou, T. Abraham and F. Mirbagheri (eds). Sage Publications India Pvt Ltd, B-1/I-1, Mohan Cooperative Industrial Area, Mathura Road, New Delhi 110 044. 2010. 276 pp. Price: £39.99.

Occupying an important place in the official discourse, the 'development paradigm' has captured our social imagination over the last few decades. With its various avatars (rural, community, participatory and sustainable to name a few), the concept of development signals particular ways of articulating the social. A quick glance at the history of development brings out two interrelated threads: the international/supranational nature of the process and the emergence of the 'third world' as a site for development interventions. While the concept of sustainability dates back to centuries, the articulation of sustainable development came to the forefront in the 1980s in an attempt to understand the connection between nature/environment and development. Since then, the conceptual interaction between education, sustainability and development has gained greater visibility. Education, in particular, is considered to be a useful tool in reshaping the relationship between humans and the environment. This opens up a range of questions: how do we move beyond 'sustainable development - the buzzword' in order to make sense of the contexts, policies and politics by which it is shaped? Where does the struggle for 'commons' fit in the agenda of sustainable development? Given that communities and local resources are central to the vision of sustainability, what are the ways in which public education should be understood? How can the critical thought in education inform our understanding of sustainability?

The book under review explores some of the issues involving common ground, relationships and practices concerning sustainability and education. Covering a rather ambitious canvas, the overall focus of the book is on education in India. The arguments for sustainability are developed by paying attention to a range of issues that influence contemporary education: caste, disability, indigeneity, textbook production, neoliberalism and literacy among others. At the outset, Nikolopoulou, Abraham and Mirbagheri recognize the universalism within which the language of sustainability is crafted. Equally important in this is the role played by supranational agencies in crafting such a language. As the writers state, this new discourse of sustainable development was in part shaped by three declarations: the Tbilisi Declaration (1977); the Brundtland Report (1987) and the Thessaloniki Declaration (1997). Stating an explicit connection between sustainable development and education, these interventions considered education to be an ethical imperative. The top-down construction of the narrative of 'education for sustainable development', however, is couched in an all-encompassing and often feel-good generic term. Let us consider an excerpt that the editors refer to in their introduction.

'The reorientation of education as a whole towards sustainability involves all levels of formal, non-formal and informal education in all countries. The concept of sustainability encompasses not only environment but also poverty, health, food security, democracy, human rights and peace...' (xii).

In what ways, then, should we re-imagine education? The writers discuss some of the core elements that can be considered in thinking about sustainable education: (1) convergence of local and global, (2) celebration of diversity, (3) efforts to minimize cultural and economic gaps, (4) free-market rules for agriculture, (5) transparency, (6) tolerance, (7) reforming the youth, especially in Islamic countries.

Strung loosely and generic in nature, these elements do not tell us much about sustainability or education. For instance, how are we to reduce cultural and economic gaps?

What practices would promote transparency? Has free-marketization of agriculture led to sustainability? The articulation of sustainable development in terms of the components mentioned here is in tune with the dominant international discourse of development that calls for a change in the economic outlook in the Third World. Part of the problem in thinking through these issues is that the discourses of sustainable education are multiple and they are produced by numerous actors and institutions. From the transnational institutions to NGOs; and from the think-tanks to that of target recipients, there are different ways in which the process of development is understood.

Many contributors of the present book address the complex politics of sustainable development and education within a broad analytic framework. A growing visibility of the sustainable approach to development finds space in Michael J. Scoullos' article focusing on the history of Environmental Education (EE). The descriptive accounts of various international initiatives on sustainable development are discussed along with some of the recommendations for future. For Scoullos, sustainable development would require 'social cohesion and welfare, responsible economy, environmental protection, effective institutions, applications of innovative technology, and education for sustainable development (ESD).' (p. 53). Cultural politics of sustainable education, particularly in the context of the rights of marginalized communities, is most directly engaged by Archana Prasad and Anita Ghai. Examining Adivasi development and Adivasi education, Prasad pays attention to the conceptual apparatus of sustainability and development in ways that could be connected to the issues of justice. As Prasad demonstrates, the integrationist policy espoused in the postindependence era failed to find a synergy between multiple ways of learning and their connection to the systems of livelihood. Following this, the educational indicators for Adivasi communities, must be understood within the larger politics of land, rights, justice and citizenship. Anita Ghai's article brings to light the linkages between disability, gender and economic reforms in India. As the issue of disability slowly becomes visible in

the debates surrounding education in India, it offers us an opportunity to reexamine the notions of access, enrolment and retention. Diversity, Ghai states 'is not just a reality to be tolerated, accepted and accommodated...it is a reality to be treasured' (p. 39).

Thorat and Kumar take the thread of critical inquiry further, keeping the focus on the ways in which the historical, cultural and economic forms of exclusion play out in formal education. Thorat begins the article with a conceptual discussion about caste and social exclusion, and goes on to show how structural inequalities influence educational access, experience and performance of students belonging to the scheduled castes. The twin forces of socioeconomic exclusion and discrimination play a central role in Thorat's analysis of employment patterns, land holding, hazardous labour markets and access to health and education. Ravi Kumar presents an incisive critique of the neoliberal approaches to education. Documenting a shift in the state's priority towards education, Kumar analyses larger economic doctrines that are increasingly becoming influential in contemporary education. As for education in India, the entry of unbridled private capital has coincided with the withdrawal of the state from its commitment to common school system.

The politics of textbook production in India and literacy practices receive considerable attention in the book. Shobha Sinha's article draws attention to the need to understand multiliteracies and imagining pedagogies that would also facilitate 'reading the world'. The reorientation of history textbooks makes for an interesting narrative of the regime of colonial, nationalist and more recently, the Hindutva ideologies that have identified the school curricula to be an important field of action. While Narayani Gupta looks at how national pride (in its explicit form) found its way into Indian textbooks, Teesta Setalvad analyses how the multidimensional, multilavered and contradictory nature of history gets cleansed off in order to produce homogenous and uncomplicated narratives of textbook history.

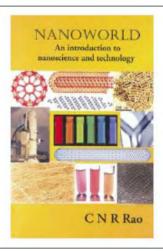
Sadhna Saxena offers an engaging account of one of the innovative and progressive literacy campaigns organized by Jan Shikshan Abhiyan. Narrating her experience with the project that aimed to impart literacy skills to children who

were first-generation learners, Saxena looks at art, language, symbols and comprehension as these relate to both, the questions of acquisition as well as structural reality. Shifting from the politics of formal education to that of the questions of knowledge, Janet Chawla traces mothering practices in tribal communities and their interpretation in current medical terms. N. Radhakrishnan articulates the visions of ethical education that are not simply instrumental in achieving all round development, but are also a way of life. Central to Radhakrishnan's formulation are Gandhian concepts of selfsufficiency, non-violence and childcentred nature of education. In the same vein, Satish Kumar explores the complicated nature of identity and citizenship in the context of global interdependence. Drawing on the Kantian notion of moral cosmopolitanism, Kumar reiterates the need to develop global consciousness and global collectivism. Finally, Mirbagheri presents a philosophical analysis of Islamic thought (focusing on epistemic and jurisprudential strands) that explores the notion of liberal peace.

The text includes contributions focusing on a wide range of questions. While some articles directly engage with the conceptual/historical/empirical issues concerning 'education for sustainable development', others examine educational issues at large. A thorough analysis of sustainable development approaches and an inclusion of case studies would have added to the strength of the book. This is an important intervention, no doubt; however, more work remains to be done.

SHIVALI TUKDEO

National Institute of Advanced Studies, Indian Institute of Science, Bangalore 560 012, India e-mail: shivali@nias.iisc.ernet.in



Nanoworld – An Introduction to Nanoscience and Technology. C. N. R. Rao. Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur P. O., Bangalore 560 064. 2010. 95 pp. Price not mentioned.

Chintamani Nagesa Ramachandra Rao, known as the 'Father of Indian Nanotechnology', has authored yet another book after writing and editing over 40 books in chemistry. This time he has not written a textbook for scholars or a book for specialists, but an introductory handbook on nanoscience. The target readership of this handbook, less than a 100 pages long, includes students and teachers who are beginners in the subject. 'This is obviously not a text book', says the author in the foreword. After reading, I could not resist the desire to write a review of, I would say, a book that introduces nanoscience in the simplest possible way.

The reason behind writing this book, explains the author, is to acquaint the readers with the fundamentals of a science that has gained significance in the past couple of years. If read by specialists in the field (not the target readers), the concepts highlighted will sound familiar but fun to read. The book is small and succinct and one can finish reading at one go. Text is supported by colour pictures and cartoons of instruments used, and of nanomaterials as seen under the electron microscope.

The author begins with explaining the use of nanomaterials by the Romans and Mayas, and the story of Damascus sword. This was the time when the understanding of nanoscale dimensions was lacking. Later, he talks about Michael Faraday, Richard Feynman, Gordon