



Book Review

State of the World 2011: Innovations that Nourish the Planet

Worldwatch Institute, 2011

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The Worldwatch Institute's *State of the World* is a much anticipated yearly appointment for the broad community of academics, practitioners and policymakers committed to sustainable development. Every year since 2004 the *State of the World* has addresses a different topic of concern, and the 2011 volume was dedicated to the global food crisis. The book focuses on Africa, which is considered by many to be a global hotspot of undernourishment, food insecurity, and agricultural vulnerability to climate change (e.g. Müller et al., 2011). There are 15 chapters, most of which are written by leading practitioners and, as the title suggests, the book is mainly a showcase for examples of successful change toward innovative, sustainable agricultural practices, with analysis and predictions limited to the introductory and concluding chapters.

The message resulting from such a rich illustration of case studies is clear: a radical change is needed in the way food is produced, stored, distributed and consumed from the local to the global level. 'Business as usual' is not an option for solving the coexisting challenges of fragile food systems, climatic change, and malnutrition. Indeed, the opposite is true: agriculture as we know it significantly undermines the ecological and social basis on which it relies. For this reason, the *State of the World 2011* advocates a paradigm shift that involves considerable innovations in the way that agri-food systems are understood, evaluated and governed. It advocates a form of agriculture based on agroecological principles, is poor in external inputs and rich in knowledge and job creation, reunifies ecological and cultural components and is sensitive to the local conditions, especially those of marginalized environments and communities. Consistent with a growing body of scholarly research (e.g. Pretty et al., 2003; Pretty, 2008; Altieri and Toledo, 2011), this book shows that such an approach to agri-food systems is already working for thousands of the most marginal and poorest farmers in the world. However, the implications of this concern not only smallholders in Africa or in the Global South, but the global agri-food system, including producers and consumers in the Global North (Reganold et al., 2011).

Four themes run through the many examples presented in the *State of the World 2011*. One theme is the fundamental need for a systemic approach to agriculture. The book shows how innovative, sustainable practices are often the result of adopting a systemic approach to analysing agri-food problems and, very importantly, of implementing and evaluating policies. Adopting a systemic perspective is formulated by different contributors in the book in different ways. Many wish to consider the entire value chain rather than just food production, to take into account agriculture's environmental and cultural components, or to locate agriculture along with

health, education, and gender issues in the wider picture of rural development. In all cases, however, the need to avoid reductionistic and mechanistic approaches is clearly argued and supported by examples that range from soil fertility to irrigation and from biodiversity to post-harvest losses. A corollary for adopting a systemic approach is that, although farmers might take a central role in some cases, many other actors (e.g. policymakers, private business, NGOs, extension agents, researchers, consumers) at different levels (e.g. from local to international) exert influence on the agricultural system to different degrees. Successful agricultural innovations depend fundamentally on the consistent actions of this varied set of social, economic and institutional actors, and not only on farmers' choices. A second overarching theme in the book is that of learning. Learning is not strictly intended to mean just the training and education of farmers, although this might turn out to play a central role, especially in contexts in which smallholders have to face environmental conditions that they do not have a previous experience of. Instead, learning is intended to be seen more broadly as the system's adaptiveness to changing conditions, and the ability of marginalized groups, including women, to become empowered and efficient communicators in active social networks. In this sense, learning is not unidirectional – that is, involving farmers acquiring knowledge from experts (i.e. a reductionist 'social fix' approach) – but is a multidirectional process, in which different actors (farmers, government, researchers and consumers) learn from each other. In such a learning process, farmers are not receivers of knowledge but active co-producers and experimenters in innovative solutions. This is illustrated in the book, with its examples of low-cost technologies developed by creative farmers. It is linked to the third overarching theme of the book, of scaling up and mainstreaming. As often happens, the best practices do not gain momentum and remain limited to a few local communities. Here, again, it seems that the synergic action of different actors at different levels in the system is a necessary condition for successful scaling up and mainstreaming. In addition, evaluation – a too frequently underfunded enterprise – is called upon to play a key role. An appropriate evaluation of experiences in different contexts is essential in order to identify the best practices to be mainstreamed. Finally, the fourth overarching theme is the absence of one-for-all solutions for achieving sustainable agriculture. The case studies presented in the book show how each agri-food system has a unique configuration. In some cases, innovation occurs 'spontaneously' while in others an external trigger (for example, in the form of knowledge or financial incentives) is needed. In some cases, investment in technology is the main ingredient for enhancing adaptiveness, while in others the missing element is social capital in the community – e.g. the lack of trust among farmers hindering organized action or collective decision-making. Nevertheless, in this respect the *State of the World 2011* shows convincingly that, even when one specific agri-food system is at stake, making a transition toward sustainable agriculture can require the deployment of many policy tools whose action is mutually reinforced, rather than a search for one successful policy.

The strength of the *State of the World 2011* surely lies in the clarity and accessibility of the arguments presented and in its stimulating overview of diverse successful innovations in sustainable agriculture. The book is accessible to a wide audience. However, the academic audience might be disappointed by the sometimes limited amount of references to supporting literature and the one-sided argumentation. Indeed, the book could have probably been improved by a more balanced presentation of arguments for and against agroecological practices, which occur in only a few

contributions. This would have made the message even more convincing, especially in the eyes of those who are critical about agroecology and similar approaches. Despite that, the book can certainly be described as stimulating reading for an academic audience and can be recommended to students as a valuable resource to complement standard textbooks.

The transition to sustainable agri-food systems will definitely not be an easy one. It will require capital, time, and commitment. However, reading the *State of the World 2011* provides some convincing reasons to be hopeful.

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