Dialogues at the Interface

Science and Technology Policy for Development

Editors

Louk Box and Rutger Engelhard

Foreword

Calestous Juma[1]

This is a book about optimism. It builds on the convergence of evidence that three factors have contributed to rapid economic transformation in emerging economies: investment in infrastructure, the development of small and medium enterprises, and public support for knowledge-based institutions. Such public support and the accompanying policies can take very different forms. They include public investment in higher education, but equally important, the creation of professional associations and public interest groups that focus on competence building. But they also require leadership and courage to explore new economic avenues.

Major changes have taken place in the so-called developing countries in the last decade. Some countries, including Brazil, India and South Africa, have become regional hubs for technology development. Others have lagged behind, partly because of the failure of their governments to invest in knowledge-based institutions or to adopt supportive policies.

This volume captures the essential elements of these developments and stresses the critical role of public policy in technological innovation. In other words, public policy plays a much greater role in technological innovation than is generally acknowledged. In Singapore's unique set-up, a powerful 'epistemic community' has directed the country along the path to biotechnological prowess in a relatively short period. Sunil Mani painstakingly analyzes the judicious policy mix that underlies Singapore's success.

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[1] Calestous Juma is Professor of the Practice of International Development, and Director of the Science Technology and Globalization Project at the Belfer Center for Science and International Affairs, Kennedy School of Government, Harvard University. He is editor of *Going for Growth: Science, Technology and Innovation in Africa.* London: Smith Institute, 2005.

Mani makes a strong argument that public policies matter, provided they are based in effective knowledge networks. Osita Ogbu shows the operation of such a network at the African level, providing a case study for policy makers elsewhere. The fascinating work by Carolyn Wagner indicates that not only did regional science and technology hubs develop quickly throughout the 1990s, but they also became integrated at the global level. The pessimists who argue that the centre of global innovation marginalizes the technological periphery need to study Wagner's findings. They may also wish to read Bert Uijtewaal's chapter on agri-technological innovation, in which a transnational pharmaceutical company proposes to hand over its intellectual property rights to a national government, provided it takes care of the legal implications.

The chapters in this book demonstrate that new alliances are emerging between the various actors involved in development. UN Secretary-General Kofi Annan has called for new global compacts between industry, civil society and government to spur equitable development. The contributors to this volume indicate that there is hope. A global learning process is occurring, linked through knowledge networks, spurred by epistemic communities that are driving new science and technology policies – as in the case of the International Atomic Energy Agency analyzed by Jacques Gaillard *et al*. Such learning can only take place if there is effective dialogue and interactions can occur at the interface between public and private institutions.

This book is testimony to the importance of such dialogue and interactions. It will help to inspire new thinking and action on the role of technological innovation in development. It is an excellent antidote for pessimism.

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