The World's Search for Sustainable Development

Addressing a forty year period, when science legitimized policy debates around natural resource use for urbanization and when international cooperation evolved from concerns on environmental risk posed by discrete issues to universal goals of human wellbeing within ecological limits, this book presents a practitioner's analysis on the implications of urbanization as the global mega-trend:

- The urban middle class, expected to triple by 2050, is the driver shaping societal functions – housing, mobility and food; key production systems, such as energy, that steer these arrangements; and dominant institutions, policies, technologies and thinking that sustain them.
- Consumption (the substance of societal well-being) and production (transformation of natural resources), both, impact planetary limits in different but significant ways.
- Disproportionate burdens on the global ecosystem require policy focus not only on globalised material flows and related scarcity but also on the patterns of global use and distribution of natural resources.
- The transformation will require going beyond shorter-term economic efficiency and optimization strategies as it is a social process rather than a physical problem.

Rather than focus on institutions, the book explores drivers, trends and patterns of natural resource usage. It inquires, why interdependence has not been matched by knowledge and policy frameworks; why effective global governance mechanisms should not be now framed around the rural-urban divide rather than between countries; how re-emerging countries, China and India, are harnessing new ideas for post-industrial services and knowledge economy that are not based on increasing use of energy, giving hope that global natural systems will continue to maintain their resilience as the basis for a good life for all.

Mukul Sanwal obtained a Master's degree in Public Administration from Harvard University. He joined the Indian Administrative Service in 1971. He represented India at the Rio Conference in 1992 as a lead negotiator for the Climate Change Treaty. He joined the UN in 1993 as policy adviser to the Executive Director of United Nations Environment Programme and later to the Executive Secretary of the United Nations Framework Convention on Climate Change till 2007. He was part of the group of scientists that contributed to the award of the Nobel Peace Prize for 2007 to the Intergovernmental Panel on Climate Change. He has contributed significantly to national/international journals and think tanks in the areas of sustainable development, climate policy, governance and global strategic affairs.

"…. This book presents an authentic and sophisticated voice of the developing world on a theme of global significance. Given the fact that the fate of efforts to address the challenge of sustainable development will lie in the actions of countries like China, India and Indonesia, coming to terms with this call for reframing and will be a necessary condition for success in addressing the challenge of sustainable development going forward."

— **Oran R. Young**, Professor Emeritus
Institutional and International Governance, Environmental Institutions, Bren School of Environmental Science and Management, University of California (Santa Barbara)

"…. The book explores sustainable development from the perspective of developing countries, with both practical and forward-looking indications. This book has provided in-depth and comprehensive discussion on the necessity, barriers and challenges faced by developing countries in pursuing sustainable development, including analysis of the significance, effects and problems of existing international cooperation mechanisms. The author has also proposed innovative thoughts and solutions for international cooperation that will be of great significance for global environment security and resource conservation."

— **Jiahua Pan**, Director-General
Institute for Urban & Environmental Studies
Chinese Academy of Social Sciences, Beijing

"…. combines a broad historical background with innovative insights that add value to the existing literature on sustainable development and climate change, notably in going beyond familiar political, economic and technological parameters to consider the social dimensions, and it stands out in conveying the perspective of the emerging economies of the South while drawing on his personal hands-on experience of international negotiations."

— **Michael Zammit Cutajar**, Executive Secretary
United Nations Climate Change secretariat (1991–2002)

The World's Search for Sustainable Development

A Perspective from the Global South

Mukul Sanwal

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Dedicated to my parents, whose dreams inspired me to adopt a lifelong concern for the rural poor, an understanding of the dimensions of poverty and the perseverance to support their moving into the urban middle class.

Contents

Preface

'Earth provides enough to satisfy every man's needs, but not every man's greed'.
Mohandas Karamchand Gandhi

Urbanization – as a social process, physical transformation of natural resources and creator of wealth – is one of the most powerful, irreversible and visible anthropogenic forces on Earth. More than half of the world's population already lives in urban areas and by 2050 three-fourth of the population is likely to be concentrated in cities; nearly half of global GDP growth between 2010 and 2025 will come from 440 cities, most of them in Asia, which will have two-third of the world's GDP in 2050.

With urbanization, and its intensive natural resource use, emissions of carbon dioxide increased three times between 1950 and 1970 and doubled between 1972 and 2012 and they will more than double between 2012 and 2035. The industrialized countries[1] share has come down from two-third to two-fifth, and in 2035, it is anticipated that with one-sixth of the global population their share will remain at 30 per cent. The share of Asia, with half the world population, will rise to only 40 per cent because energy consumption per capita will remain less than half that of the industrialized countries as the re-emergence of China demonstrates. Asia will move to a services and knowledge-based economy, and unlike the earlier Industrial Revolution, the Information Technology Revolution spearheaded by India, is not based on increasing use of energy. China's median age will be 47 by 2030, compared to 40 in the United States and 32 in India and the working age population (between 15 and 64) in China will shrink by 11 per cent between 2014 and 2030, that is over 107 million fewer people; this trend will reduce future demand. Global overconsumption will also be reduced with the demographic transition in industrialized countries as one-fifth of their population is expected to be 65 or older by 2035. The Asian century will happen largely outside the North–South framework and will in-turn reshape the geopolitics and geoeconomics of global governance and natural resource use around the rural–urban divide rather than between countries.

Scientific expert opinion has been used to describe the patterns, trends and drivers of natural resource use in terms of global environmental change. In 2000, one-seventh of the human population

[1] The terms industrialized countries and emerging countries refers to developed and developing countries. Re-emerging countries are the ancient civilizations of China and India.

in industrialized countries in cities accounted for half of global energy use and this pattern of energy use came about because, for example, in the United States, cheap energy, low cost capital and real prices for non-petroleum imports fell by more than a third as infrastructure was being developed between 1950 and 1970 and again between 1970 and 1990 when the urban transformation was taking place, allowing consumers to continue enjoying *de facto* gains in living standards[2].

As a result global governance structures and rules are characterized by asymmetries in terms of access, scope and outcomes. While developing countries must abide by and/or shoulder the effects of global governance rules and regulations, they have had limited influence in shaping them; important areas of interest to them are currently not covered, or sparsely covered, while other areas are overregulated with divergent rules and provisions leading to a shrinking of policy space for developing countries[3]. This book provides the intellectual background of how this arrangement came about with respect to one of the most important global concerns by tracing the evolution of global environmental concerns, in 1972, sustainable development, in 1987, and climate change, in 1992, as distinct from economic development up until their again coming together in a new integrated framework with a common set of global goals, in 2012, in a multipolar world.

The discussion and analysis is based on my decade and a half experience within the United Nations, which has shaped my understanding of the framework that was established, as well as its limitations and potential. It includes the politics of framing issues, agenda setting, multilateral processes and outcomes of global conferences. In addition, five forms of material — papers of the United States State Department, United Nations Archives, United Nations publications, Reports of the Secretary-General of the United Nations to support multilateral processes and studies of management consulting firms analysing global trends – that reflect the thinking within governments, international institutions and global research not directly supported by any government, are quoted extensively and can serve as data for further research by others. Moving away from the dominant environmental and economic academic theoretical constructs, which continues to be dominated by researchers in industrialized countries, helps to understand the origins and continuation of an institution-focussed framework that has lasted for over 40 years. Consequently, the way the argument has been developed in this book different dimensions of the issues have been discussed, even at the risk of some repetition. This book presents the perspective of re-emerging and developing countries to better understand global trends, future of international cooperation and governance for achieving sustainable development.

The book assesses past and present natural resource use to analyse global change as well as effective and socially desired ways of dealing with the impacts on the planet, recognizing that the impacts of production and consumption have different characteristics. Besides the introductory chapter/section it has five sections: the first two consider global environmental change and climate change, and the later sections analyse the evolution of sustainable development and global well-being. The transformative geo-economic shift to Asia is already reframing global politics and the China–United States Climate Agreement of November 2014, outside the United Nations framework, and the Asian Infrastructure Investment Bank established by China in

[2] Richard Dobbs, Sree Ramaswamy, Elizabeth Stephenson, and S. Patrick Viguerie. 2014. Management intuition for the next 50 years, McKinsey Quarterly September 2014, McKinsey and Company.
[3] Committee for Development Policy, Policy Note: Global governance and global rules for development in the post-2015 era. United Nations, June 2014. The Committee is an expert body of the United Nations Economic and Social Council composed of 24 members serving in their personal capacity.

October 2014, outside the Bretton Woods framework, are examples. Future natural resource use will largely be within a cooperative framework between re-emerging and developing countries, instead of the post-colonial North–South divide.

The first section explains global environmental change, climate change and sustainable development in an unequal world, and emphasizes that management of natural resources, including trade, is at the heart of this global concern. Politics, rather than science, shaped the way the issue was framed in technical terms as global risk around symptoms rather than the national causes of the problems, thereby requiring global collective action and limiting national policy space in developing countries. How this mode of governance was defined, established and legitimized in a globalizing world is necessary to understand what can be done to modify global governance for sustainable development, in an even more interdependent world. The analysis is illustrated with extensive use of archival material and United Nations reports of the first global conference in 1972 as well as case studies of subsequent major environmental concerns. The details will be of interest primarily to researchers as current assessments, including the reports of the Intergovernmental Panel on Climate Change, rely exclusively on scientific and academic research published in peer-reviewed journals, whose authors are based almost exclusively in industrialized countries.

The second and third sections have a more in-depth treatment of different dimensions of the evolution of climate change from a global to a national concern and the evolution of sustainable development from a national to a global concern. The institutional arrangements reflected, rather than shaped, patterns, trends and drivers of natural resource use. Achieving sustainable development and addressing climate change are closely related concerns and involve trade-offs and synergies between multiple objectives, attention to interactions between different types of policies, and the need for transformational change in systems[4]. This modification of the institution-focussed conceptual framework is a result of the principle of 'common but differentiated responsibilities', which was the last principle to be negotiated in the Rio Declaration in 1992, and it led to the interplay between universality and diversity providing policy space to developing countries till the emergence of the new world order.

The fourth section considers the interlinked concerns of global environmental change, climate change and sustainable development in a more equal world. A broader group of stakeholders, including social scientists are developing a different conceptual framework, that is not based on multilateral treaties or the market, and is based on patterns, trends and drivers of natural resource use, shaped by the transformative impact of the re-emergence of China and India.

The fifth section reinforces the importance of framing and considers the emergence of a global rural–urban divide in international relations, as urbanization, economic growth, trade and geopolitics shifts to developing countries in Asia. The politics is no longer around the framings based on the natural sciences and differentiated rights and obligations in multilateral environmental agreements but around the social sciences, societal functions and global goals. For example, climate-resilient pathways are enabled by urban transformations that facilitate both adaptation and mitigation rather than treat them as separate policy areas. Increasing interdependence of cities on flows of goods and services is a megatrend in the transformation from poverty to middle-class levels of well-being involving three times the population that shifted to cities prior to 1970 when the current governance architecture was instituted to support particular patterns of natural resource use. The leadership of the re-emerging countries and the nature of these shifts give more hope for sustainability than at any time in the past as global goals are now shaped by a service and knowledge-based, not industrial, economy; the quest for markets for services rather than natural resources as the basis of well-being will lead to greater equity and coherence in the global agenda.

[4] IPCC Fifth Assessment Synthesis Report, 2014.

The objective of the book is to rethink the conceptual basis of conventional approaches to studying global change from the perspective of developing countries. I explore the possibilities for turning into reality the vision of shared prosperity for the 9 billion people that will soon inhabit this planet. Internationally traded goods and services already constitute 60 per cent of world production, indicating the very high level of interconnectedness between national economies and the role of trade in balancing locations of urban demand with sources of rural supply. With market forces stretching into most parts of the world, conferring global market values on land, water, energy, forests and minerals, the analytical focus is shifting even more sharply from scarcity of natural resources to their distribution and use or consumption in cities. Global policy is moving away from its narrow focus on governance 'of' sustainable development to the broader concern with governance 'for' sustainable development.

For example, the focus of multilateral cooperation around climate governance has become a part of the political, economic and security debate because of the perceived competition for scarce resources. Why has the issue been framed in terms of dealing with the scarcity of natural resources, the symptoms, rather than the causes of the problem, the use of energy, and the result of an inexorable trend in human civilization – urbanization – enabled by a globalizing economy and supported by multilateral rules? Are the political causes related to collective action problems of states shifting pollution across national boundaries or are they motivated by control over ecosystem services outside national borders and natural resource use beyond planetary limits, both linked to a market economy? Why have consumption patterns in cities not been the focus of inquiry and why megatrends are only now being researched with the re-emergence of China and India? Social scientists are now arguing that environmental issues should no longer be considered in physical terms but rather as social problems concerning people, symptoms of a dysfunctional society and matters of governance and fairness[5]. This reframing will support new forms of international cooperation that are not framed by international experts supporting national agendas but rely on exchanging experiences, developing knowledge networks and sharing human well-being and prosperity.

This book explores the role of ideas, and not just power and influence, to explain the way in which natural resource use, global governance and globalization evolved with urbanization reaching saturation levels in industrialized countries, with three-quarters of the population having shifted to urban areas by the 1970s. The social dimension is becoming relevant as China, with seven times that population, nears the completion of its urbanization around 2030 and 1 billion Indians are expected to reach urban middle-class levels of well-being by 2050 as Asia accounts for two-thirds of global GDP. An understanding of the dynamics of this transformation offers insights into the three dominant interacting processes of global interdependence, governance and human well-being. Sustainability is about the use and distribution, and not the scarcity, of natural resources.

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The book draws heavily on documents of the United States Department of State, including declassified diplomatic correspondence, as well as on reports of the United Nations and its Specialized Agencies, studies of Management Consultancies and Think-tanks. This material provides a perspective different from the mainstream literature, and a related objective is to make this material readily accessible for further work in better understanding a complex challenge.

This book also builds on the following articles:

The China–US Climate Agreement – A Victory for the Planet, and for Developing Countries, Vol. 2 No. 2, *Chinese Journal of Urban and Environmental Studies*, (2014), 2014.

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The Sustainable Development of all Forests, *Review of European Community & International Environmental Law*, Special Number on the UN Conference on Environment and Development, Vol. 1, Issue 3, 1992, UK.

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Abbreviations

ADB	Asian Development Bank
AIIB	Asian Infrastructure Development Bank
BRICS	Brazil, Russia, India, China and South Africa group
EC	European Commission
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GHG	Greenhouse gases
ECOSOC	Economic and Social Council of the United Nations General Assembly
ICSU	International Council for Science
ISSC	International Social Science Council
IEA	International Energy Agency
IPBES	International Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
OECD	Organization for Economic Cooperation and Development
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCTAD	United Nations Conference on Trade and Development
UNFCCC	United Nations Framework Convention on Climate Change
UNEP	United Nations Environmental Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHABITAT	United Nations Human Settlements Programme
UNIDO	United Nations Industrial Development Organization