THE WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT

The World Summit on Sustainable Development

The Johannesburg Conference

Edited by

LUC HENS

Vrije Universiteit, Brussels, Belgium

and

BHASKAR NATH

European Centre for Pollution Research, London, UK



A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN 10 1-4020-3652-3 (HB) ISBN 13 978-1-4020-3652-1 (HB) ISBN 10 1-4020-3653-1 (e-book) ISBN 13 978-1-4020-3653-1 (e-book)

Published by Springer, P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Chapters 1, 3, 4, 5, 8, 9, 10, 11, 12, 13, and 16 were previously published by Springer, under the Kluwer Academic Publishers imprint, in *Environment, Development and Sustainability*, Volume 5, Nos. 1-2, 2003.

Printed on acid-free paper

All Rights Reserved © 2005 Springer No part of this work may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written permission from the Publisher, with the exception of any material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands.

PREFACE BY HRH LAURENT OF BELGIUM	XV
LIST OF CONTRIBUTORS	xvii
LIST OF FIGURES	xix
LIST OF TABLES	xxi
LIST OF BOXES	xxiii
INTRODUCTION AND ACKNOWLEDGEMENTS	XXV
CHAPTER 1 - THE JOHANNESBURG CONFERENCE L. HENS AND B. NATH	1
1. Introduction	2
2. The context and the antecedents	5
2.1. The UN environmental conferences	5
2.2. Implementation of the Rio agreements	
2.3. The Millennium Declaration	8
2.4. The Doha Declaration	8
2.5. The Monterrey Consensus	11
2.6. The Summit Preparatory Committees (PrepComs)	12
2.7. The WSSD targets	
3. World Summit on Sustainable Development	14
3.1. Organisation	14
3.2. The Johannesburg Declaration on Sustainable Development	15
3.3. Plan of Implementation of the WSSD	16
3.4. Type II partnerships for Sustainable Development	
4. Discussion	
4.1. The WSSD	
4.2. Evaluation of WSSD outcomes	
5. Conclusion	
References	

CHAPTER 2 - POVERTY REDUCTION AND SUSTAINABLE	
DEVELOPMENT	
F. MESTRUM	
1. Introduction	35
2. From Rio to Johannesburg	
2.1. Trends in world poverty	
2.2. Strategies for poverty alleviation	
2.3. Agenda 21 and the Johannesburg Plan of Implementation	
3. Poverty, sustainability and growth	
3.1. Growth and the environment	44
3.2. Naturalising development thinking	47
4. The way forward	50
4.1. Clarifying the conceptual framework	51
4.2. Exploring the links	51
4.3. Aiming at policy coherence	
5. Conclusion	52
References	53
CHAPTER 3 - PRODUCTION, CONSUMPTION AND THE WORLD	
SUMMIT ON SUSTAINABLE DEVELOPMENT	57
J. BARBER	
1. Introduction	
2. Production and consumption at Rio	
2.1. A matter of grave concern	
2.2. Common but differentiated responsibilities	
2.3. Domestic policy frameworks	
2.4. Reviewing progress	
3. Progress since Rio	
3.1. International programme of work	
3.2. Rio+5: More action-oriented?	
3.3. Consumer guidelines on sustainable consumption	
3.4. Rio+10: The implementation gap	
4. Production, consumption and the WSSD Plan of Implementation	
4.1. Lessons from the past	
4.2. Towards a ten-year programme of work	
4.3. Corporate responsibility and accountability	
4.4. Cleaner production and eco-efficiency	
4.5. Other proposed actions	
4.6. Role of trade and investment	83
5. Conclusions	84
References	86

CHAPTER 4 - WATER FOR SUSTAINABLE DEVELOPMENT IN	
AFRICA	91
D. MWANZA	
1. Introduction	91
2. The African water vision	92
3. The African water task force	94
4. The Accra conference	94
5. The African crisis	
6. Responding to the crisis: the role of water	
7. Salient features of water resources in Africa	
7.1. Multiplicity of transboundary water basins	
7.2. Extreme spatial and temporal variability of climate and rainfall	
7.3. Growing water scarcity	
7.4. Inadequate institutional and financing arrangements	
7.5. Inadequate data and human capacity	
7.6. Availability of groundwater resources	
7.7. Increasing demand and low investments	
7.8. Water pollution and environmental degradation	
8. The key challenges	
9. What did the WSSD achieve?	
9.1. Access and availability	
9.2. Allocation issues	
9.3. Capacity building and technological needs	
9.4. Social issues	
10. The Water Dome	
11. Conclusion	
References	
CHAPTER 5 - ENERGY AND SUSTAINABLE DEVELOPMENT AT	
GLOBAL ENVIRONMENTAL SUMMITS: AN EVOLVING AGENDA	113
A. NAJAM AND C.J. CLEVELAND	
1. Introduction	113
2. Energy and sustainable development: conceptual connections	114
2.1. Energy and environmental stress	115
2.2. Energy and economic growth	116
2.3. Energy and basic human needs	
3. Global policy on energy and sustainable development	
3.1. Stockholm, 1972	
3.2. Rio de Janeiro, 1992	
3.3. Johannesburg, 2002	
3.4. An evolving agenda	
4. Conclusions	131
References	131

CHAPTER 6 - MANAGEMENT OF CHEMICALS FOR SUSTAINABLE	
DEVELOPMENT	135
LARRY W. OLSON	
1. Introduction	
2. Setting the stage for Johannesburg: Agenda 21 and post-Rio actions	137
3. Rotterdam Convention	
4. Stockholm Convention on Persistent Organic Pollutants	141
5. Bahia declaration and priorities for action beyond 2000	143
6. Globally Harmonised System (GHS) for the classification and	
labelling of chemicals	145
7. Reduce risks posed by heavy metals to human health and the	
environment, including a global assessment of mercury and	
its compounds	
8. Conclusions	
References	148
CHAPTER 7 - HEALTH: A NECESSITY FOR SUSTAINABLE	
DEVELOPMENT	151
A. STEWART, E. WILKINSON AND C.V. HOWARD	
1. Introduction	
2. Health	
3. Disease and Ill Health	
4. Disease and population changes	
5. Changing behaviour	
6. Vulnerable groups	
7. Economics	
8. Education	
9. Beliefs and values	
10. Westernisation	
11. Traffic, air quality and chemicals	
12. Conclusions	
References	180
CHAPTER 8 - SUSTAINABLE DEVELOPMENT IN SMALL ISLAND	100
DEVELOPING STATES: THE CASE OF THE MALDIVES	183
F. GHINA	
1. Introduction	
2. Vulnerability and small islands	
2.1. Demography	
3. Maldives – a typical small island developing state	
3.1. Demography	
3.2. Socio-economic status	192

3.3. Freshwater	103
3.4. Energy	
3.5. Pollution	
3.6. Biodiversity	
3.7. Climate change and sea-level rise	
3.8. Implications of climate change to sustainable development	
4. Progress in implementation and future prospects	
5. Conclusion	
References	206
CHAPTER 9 - SUSTAINABLE DEVELOPMENT - A NEW CHALLEN	
FOR THE COUNTRIES IN CENTRAL AND EASTERN EUROPE	211
I. LÁNG	
1. Historical overview	
2. Conferences of the European Ministers for environment	
2.1. The First Ministerial Conference, Dobris 1991	
2.2. The Second Ministerial Conference, Luzern 1993	
2.3. The Third Ministerial Conference, Sofia 1995	
2.4. The Fourth Ministerial Conference, Aarhus 1998	
2.5. The Fifth Ministerial Conference, Kiev 2003	
3. The state of the environment in the region	215
3.1. Atmosphere	215
3.2. Soil	216
3.3. Water	217
3.4. Biodiversity	217
4. General problems	
5. Regional Environmental Centre	
6. The EU and the CEE countries	
7. Conclusions	
Acknowledgements	
References	
CHAPTER 10 – WSSD 2002, LATIN AMERICA AND BRAZIL:	
BIODIVERSITY AND INDIGENOUS PEOPLE.	223
A. BEGOSSI AND F. DIAS DE ÁVILA-PIRES	
1. Introduction	
1.1. Scientific networks	
2. The diversity of life forms	
3. The Brazilian heterogeneity: environmental, demographic, and	
socio-economic diversity	230
4. The Amazonian dilemma	
5. Indigenous peoples and sustainability	
5. murgenous peoples and sustainaointy	

6. Conclusions	235
Acknowledgements	236
References	236
CHAPTER 11 – SUSTAINABLE DEVELOPMENT AND THE ROLE	
OF THE FINANCIAL WORLD	241
H. PEETERS	
1. Johannesburg and its means of implementation	242
2. Official development assistance and the development banks	243
3. Open and equitable multilateral trading and financial systems	244
3.1. Problems regarding short term financial security	245
3.2. Problems regarding long term financial security	245
4. Foreign direct investments	
4.1. The role of corporations	
4.2. FDI versus ODA	
5. Micro-finance	
6. Generating resources in the public sector	
7. Sustainable bankers and insurers pushing the codes	
7.1. UNEP statement by financial institutions	
7.2. UNEP statement by the insurance industry	
8. A survey on the state-of-the-art sustainability and banking	
8.1. The London Principles	
8.2. WBSCD Joint Statement at Johannesburg Summit	
8.3. RIO+10 Finance Commitments	
8.4. The SiRi Group suggested actions for disseminating	
SRI-practices	254
9. Environmental care, CSR and accountability	
9.1. Sustainability Reporting, GRI and AA1000	
9.2. The frameworks of EMAS, ISO, VFU, EPI, and ABI	
10. Sustainable and responsible investments	
10.1. Success in the market	
10.2. Performance	
10.3. Mainstreaming and convergence	
10.4. Engagement.	
10.5. The carbon disclosure project	
11. SRI: global objectives, local divergences	
12. The impetus of the European definition on CSR	
12.1. Triple bottom line approach	
12.2. Voluntarily beyond legal requirements	
12.3. Offering fair deals to stakeholders	
12.4. Having a dialogue with stakeholders	
13. A quality standard for CSR/SRI research and rating processes	
15. A quality standard for CSK/SKI research and rating processes	209

TABLE	OF	CONT	ENTS
-------	----	------	------

13.1. Harmonisation of the data collecting process?	
13.2. No harmonisation of the evaluation and rating process	270
13.3. Maximum transparency	
13.4. The European VQS	
14. Conclusions	
References	271
CHAPTER 12 - EDUCATION FOR SUSTAINABLE DEVELOPMENT:	
THE JOHANNESBURG SUMMIT AND BEYOND	275
B. NATH	275
1. Introduction	275
2. "Means of implementation" of the JPI and some parallel initiatives	
2.1. "Means of implementation" of the JPI	
2.1. Weaks of implementation of the 511	
2.3. Some other initiatives on education for sustainable developmen	
3. The problem and an analysis of its cause–effect relationship: can scier	
and technology deliver sustainable development?	
3.1. The problem and some of the issues central to it	280
3.2. Cause–effect relationship	
3.3. Can science and technology deliver sustainable development?	
4. Evolution of human attitude to the environment	
4.1. In the ancient civilisations	
4.2. In Western civilisations	
5. Heuristic for a solution	
5.1. Need for a moral renaissance	
5.2. Methodology	
6. Conclusion	
References	
CHAPTER 13 - SCIENCE, RESEARCH, KNOWLEDGE AND	
CAPACITY BUILDING	299
A. STRIGL	
1. Introduction: what does a fair world mean in respect to finite	
environmental resources?	300
2. Which grand challenges do earth's societies face?	301
3. Was the WSSD in Johannesburg a science summit?	303
4. What is on the science agenda – before and after Johannesburg?	
5. How many dimensions does capacity building have?	
6. What about "best practice examples" in capacity building?	
7. How to communicate the "scientific value" of sustainability?	
8. Wanted: scientists with hearts and new ideas – all over the world	311

9. Conclusion: what does the new contract between science and the public	
look like?	
References	316
CHAPTER 14 – GOVERNANCE FOR SUSTAINABLE DEVELOPMENT	
AND CIVIL SOCIETY PARTICIPATION	319
K. BACHUS	
1. Introduction	
2. The concept of governance	
3. Good governance	
4. The role of civil society	
5. Participation	
5.1. Types of participation	
6. Link between governance and participation	328
7. Governance and democratisation	329
8. The United Nations Commission on Sustainable Development	329
9. Treatment of "governance" at the World Summit	330
9.1. Occurrence in political declaration and plan of implementation	330
9.2. A chapter on "governance" or on "institutional framework"?	331
9.3. The vital role of partnerships	333
9.4. Principles of good governance	334
9.5. Good governance for Africa	
10. Treatment of "participation" at the World Summit	
11. Post WSSD	339
11.1. Global environmental governance: Need for a World	
Environment Organisation	
11.2. The role of Civil Society in the future sustainability debate	
11.3. Environmental governance and trade	
12. Conclusion	
References	343
	2.47
CHAPTER 15 – PARTNERSHIPS	347
R. WHITFIELD 1. Introduction	2 4 7
2. Partnerships	
2.1. Partnerships for sustainable development	
2.2. Partnership concepts	
2.3. Process of forming a partnership for sustainable development	
2.4. Key features of successful multi-stakeholder partnerships	
2.5. The case for partnerships for sustainable development	
3. Sustainable development partnerships at WSSD	
3.1. Type II partnerships	

TABLE OF	CONTENTS
----------	----------

3.2. Criteria/guiding principles debate	
3.3. WSSD outcomes	
3.4. CSD-11	
3.5. Regional implementation meetings	
3.6. Other UN partnership activities	
4. Analysis	
4.1. Bold new move in the dark	
4.2. Confusion	
4.3. Has the case for partnerships been established?	
4.4. The interest of the parties	
4.5. Political assessment	
5. What more should be done?	
5.1. Resolve PFSD confusion	
5.2. The CSD and "partnerships for sustainable development"	
5.3. Promotion of "partnerships for sustainable development" (pfsd)	
5.4. Political	
6. Conclusions	
References	.371
CHAPTER 16 - IS MULTILATERALISM THE FUTURE? SUSTAINABLE DEVELOPMENT OR GLOBALISATION AS "A COMPREHENSIVE VISION OF THE FUTURE OF HUMANITY" M. PALLEMAERTS 1. Introduction	.373
2. The vague mandate and unfocused agenda of the WSSD	
3. The international political ritual of review and re-commitment:	
a never-ending story	.376
4. The multi-faceted 'outcomes' of the WSSD: the new face of	
multilateralism?	.379
4.1. Partnerships	.379
4.2. The Johannesburg Declaration	
4.3. The PoI of the WSSD: action-oriented decisions and time-bound	
measures?	.387
5. Conclusion: too little multilateralism to bridge the gap between econom	
globalisation and sustainable development	
References	.393

List of Abbreviations	
Index	403

PREFACE

The Johannesburg Earth Summit, which took place in the summer of 2002, confirmed the irreversible nature of the process that is founded upon the concept of Sustainable Development initially given form at Rio de Janeiro ten years earlier. This process is to be welcomed, while at the same time recognising the tremendous work that has taken place in converting this concept into a more concrete vision.

The Sustainable Development concept relates to every human activity, covering the social, economic and ecological dimensions, which are often in conflict.

Consequently, it is most important to include in research programmes some thought of the way people behave. In theory, the general elements of this inclusion are relatively easily defined. However, assessing the effects of one or another decision on all the interactions between the social, economic and ecological dimensions involves significant difficulties. All the more since we have to recognise, in all modesty, that humanity has not always excelled in the art of forward studies. In fact, the Precautionary Principle was introduced partly as a reaction to the sometimes blind confidence in technology and logic (even if it is sometimes invoked in an exaggerated manner).

Nevertheless, the duty to act for the sake of present and future generations is pressing. Throughout history mankind has had to adapt and to innovate. Now, at the beginning of the 21st century the urgent need for such adaptations is obvious. Indeed, we see that challenges and deadlines are increasing in the near term, at least compared with the duration of the history of mankind. Starting from today we must implement development management tools based on the universally recognized concept of Sustainable Development. It is up to each one of us, within the framework of our family or social obligations or within our working environment, to rebase our actions and our life style choices on a holistic approach. There is no unique or single solution but a group of solutions that work together to achieve the same aim.

Commitment to this individual holistic approach is the first step in trying to prevent Earth becoming uninhabitable for mankind.

PREFACE

However, alongside this commitment there is another essential element, namely the knowledge that arrives, as always, through study and reflection. This is all the more necessary, as I stressed previously, because of the necessity to take into consideration the extremely complex character of environmental issues. As UN Secretary General Kofi Annan stated last year: "In all these areas [of the Environment] there are things we can do now with the technologies already at our disposal, provided we give the right incentives. Science will bring us many more solutions if we make the right investment in research. Knowledge has always been the key to human development. It will also be the key to sustainability."

Therefore, it is neither correct nor appropriate to set in opposition Science and Sustainable Development. Science, with the proviso that it is ethically driven, can be one of the possible ways to take into account and to tackle the challenges that we face.

Moreover, I think that it is essential, or even vital, to develop solidarity, not only between North and South as advocated in Agenda 21, but also between generations. In a world which, all too often, leads to individualism and selfishness, we must remember that Man is essentially a social being and nothing that happens in the world should leave him indifferent.

Laurent of Belgium President of the IRGT Royal Institute for the Sustainable Management of Natural Resources and the Promotion of Clean Technology

xvi

LIST OF CONTRIBUTORS

K. BACHUS Higher Institute for Labour Studies Catholic University of Leuven Kapucijnenvoer 33 Block H 4th floor B-3000 Leuven BELGIUM

J. BARBER Integrative Strategies Forum Rockville, MD USA

A. BEGOSSI Núcleo de Estudos e Pesquisas Ambientais (NEPAM) Universidade Estadual de Campinas Campinas, SP, 13081-970 BRAZIL

C.J. CLEVELAND Department of Geography Center for Energy and Environmental Studies Fredrick S. Pardee Center for the Study of the Longer-Range Future 152 Bay State Road Boston University Boston, MA 02215 USA

F. DIAS DE ÁVILA-PIRES Instituto Oswaldo Cruz Rio de Janeiro BRAZIL

F. GHINA

International Coral Reef Action Network (ICRAN) c/o United Nations Environment Programme-World Conservation Monitoring Centre (UNEP-WCMC) 219 Huntingdon Road Cambridge, CB3 0DL UNITED KINGDOM

L. HENS Human Ecology Department Vrije Universiteit Brussel, Human Laarbeeklaan 103 B-1090 Brussels BELGIUM

C.V. HOWARD Developmental Toxic-Pathology Research Group Department of Human Anatomy and Cell Biology University of Liverpool Liverpool L69 3GE UNITED KINGDOM

I. LÁNG Hungarian Academy of Sciences Roosevelt tér 9 Budapest HUNGARY

CONTRIBUTORS

F. MESTRUM Université Libre de Bruxelles Av. F.D. Roosevelt 50 B-1050 Brussels BELGIUM

D. MWANZA Water Utility Partnership for Capacity Building in Africa Abidjan IVORY COAST

A. NAJAM Department of International Relations Center for Energy and Environmental Studies Fredrick S. Pardee Center for the Study of the Longer-Range Future 152 Bay State Road Boston University Boston, MA 02215 USA

B. NATH
European Centre for Pollution
Research - Unit 2F
289 Cricklewood Broadway
London NW 2 6NX
UNITED KINGDOM

L.W. OLSON Technology Center Arizona State University Mesa, 85212 Arizona USA

M. PALLEMAERTS Institute of European Studies Pleinlaan 2 B-1050 Brussel BELGIUM H. PEETERS Ethibel – Stock at Stake Strategic Advice and Project Development Rue du Progrès 333/7 B-1030 Brussels BELGIUM

A.G. STEWART Cheshire and Merseyside Health Protection Team Microbiology Laboratory Countess of Chester Health Park Chester, CH2 1UL UNITED KINGDOM

A.W. STRIGL Austrian Institute for Sustainable Development University of Natural Resources and Applied Life Sciences Lindengasse 2/12 A-1070 Vienna AUSTRIA

R. WHITFIELD Envirostat 66, Weltje Road London W6 9LT UNITED KINGDOM

E. WILKINSON Central Liverpool Primary Care Trust Liverpool L3 6AL UNITED KINGDOM

xviii

LIST OF FIGURES

CHAPTER 1	
Figure 1.	Main sources of input to the WSSD14
CHAPTER 3	
Figure 1.	Global consumption expenditures in industrial and developing countries
Figure 2.	Gap between rich and poor
Figure 3.	Regional income trends
Figure 4.	CO ₂ emissions world-wide
CHAPTER 5	
Figure 1.	Energy and sustainable development: Deep linkages115
Figure 2.	The international relationships between energy use and GDP117
Figure 3	Global energy use and GWP, 1980-2000117
Figure 4.	The international relationship between energy use and the HDI.119
Figure 5.	Energy and sustainable development: An evolving agenda130
CHAPTER 7	
Figure 1.	Main factors affecting health153
Figure 2.	Death and loss resulting from common disease groups, 2001156
Figure 3.	Death and loss, 2001156
Figure 4.	The changes in disease with increasing development: the epidemiological transition
Figure 5a.	Increasing development over time brings about
	increasing population160
Figure 5b.	World population growth over the last 250 years160
Figure 6.	Population pyramids showing the different shape of the
	distribution of the population in a developed country (UK) and a
	developing country (Kenya)
Figure 7.	Behavioural change model
Figure 8.	Main causes of death in different communities
CHAPTER 8	
Figure 1.	Location and map of Maldives
Figure 2.	Traverse across Hithadhoo in Baa atoll showing potential
	impacts of sea-level rise based on projected climate change
	scenarios

CHAPTER 1	1	
Figure 1.	Green, social and ethical funds in Europe	.260
CHAPTER 12	2	
Figure 1.	Schematic of the cause–effect relationship of the problem of little or no progress towards global sustainable development	.283
CHAPTER 14	4	
Figure 1.	Conceptual framework linking governance, participation and civil society	.320
CHAPTER 1:	5	
Figure 1.	Tripartite model	.350
Figure 2.	Multi-stakeholder approach	.351
Figure 3.	Partnership initiation and facilitation	.354

LIST OF TABLES

CHAPTER 1	
Table 1.	Draft plan of implementation as it emerged from PrepCom 4 in Bali. Summary of elements (sub-paragraphs) on which agreement was reached
Table 2.	WEHAB commitments and initiatives stemming from the WSSD
Table 3.	Time-limited targets in the PoI of the WSSD, with indication of their reference in other fora
CHAPTER 3 Table 1.	Follow-up activities on sustainable production and
Table 2.	consumption
CHAPTER 4 Table 1.	Economic performance in Africa, 1965–199897
	Deaths in 2001 from various disease groups
CHAPTER 8 Table 1.	Relative CO ₂ emissions between regions
	Environmental indicators in the CEE countries
CHAPTER 11 Table 1.	Existing financial instruments for maintaining financial security in the short and the long term

LIST OF TABLES

CHAPTER 14

Table 1.	Occurrences of "governance" in the WSSD Pol	331
Table 2.	Occurrences of "participation" in the PoI	337

CHAPTER 15

 Table 1.
 Categorisation of partnerships for sustainable development362

xxii

LIST OF BOXES

CHAPTER 1

Box 1.	Environment and development milestones during 1972 and 2002	2
Box 2.	The Eight Millennium development goals and targets.	
Box 3.	The Doha Declaration	
Box 4.	The Johannesburg Declaration on Sustainable Development:	
2011 11	structure and keywords	17
Box 5.	The Johannesburg Plan of Implementation (JPI) for	
Don D.	Sustainable Development: the core ideas	19
Box 6.	WSSD terminology	
CHAPTER 4		
Box 1.	The Africa water vision for 2025	93
Box 2.	The Accra Declaration on water as a tool for sustainable	
	development in Africa	
Box 3.	Selected water related outputs of the WSSD	105
CHAPTER 8		
Box 1.	List of small island developing states	184
Box 2.	Characteristics of SIDS leading to their vulnerability	
Box 3.	Extreme weather events	
CILLATED 1		
CHAPTER 1		
Box 1.	UNEP Statement by Financial Institutions on Environment	250
D	and Sustainable Development	250
Box 2.	UNEP Statement by the Insurance Industry on Environment	
	and Sustainable Development	
Box 3.	The London Principles	
Box 4.	The Rio+10 Finance Commitments	255
Box 5.	The SiRi Group suggested actions for disseminating	
	SRI-practices	
Box 6.	The 1992 Rio Resolution on Social Investment	259
Box 7.	The ESIs, the corresponding label and the financial	
	constituents	263
Box 8.	Some schematic elements and features of the Ethibel Fund	
	Typology and Research Morphology classification	266

LIST OF BOXES

CHAPTER	12	
Box 1.	Outline of a proposed generic environmental syllabus	
	for the secondary level	
CHAPTER	14	
Box 1.	The concepts used in this chapter	322
Box 2.	Good governance items	
Box 3.	Characteristics of good governance	
CHAPTER	15	
Box 1.	Global Reporting Initiative. An example of a multi-	
	stakeholder approach to dialogue and partnership	352

xxiv

By all accounts, the United Nations Conference on the Human Environment, held in Stockholm in 1972, focused the international community's attention on environmental concerns as never before and provided the impetus for the ascent of those concerns to the top of the international agenda. Until that conference, and even after it for some time, environmental concerns had been almost the exclusive preserve of environmentalists, ecologists and conservationists who, according to many, took an idealistic if not somewhat romantic view of nature conservation and environmental protection. They were often regarded with disdain by the then political establishment that viewed them as an irritant and potential or manifest obstacle to unfettered pursuit of economic development mainly through environment-degrading industrial activities.

The next and a very important milestone in the international environmental calendar was the publication in 1987 of the Brundtland Commission Report, entitled *Our Common Future*, under the auspices of the World Commission on Environment and Development. It was a key document, not least because it firmly established the paradigm of sustainable development at the top of the international agenda as the only means by which both intergenerational and intragenerational equity (the core requirements of sustainable development) could be secured.

Sealed with this international imprimatur, environmentalism and concerns over environmental damage inflicted by human activities began to shed its hitherto romantic image as perceived by many. Even hard-headed international structures as well as economists and others began to take much interest in these and related issues and problems, and this resulted in a veritable avalanche of assorted publications.

However, *Our Common Future* is first and foremost a political document, and the definition of sustainable development it gives is political too. And so it is proving to be extremely difficult to translate that definition into a unique operational definition for the practical implementation of sustainable development.

The lack of a unique operational definition of sustainable development ushered an open season for all to indulge in do-it-yourself definitions mainly to suit their own circumstances and to serve their own purposes. Unfortunately, this state of affairs has been serving to corrupt the intended meaning of sustainable development and to devalue its currency – the intended meaning being how the present generation ought to behave vis-a-vis the environment, and precisely what it ought to do in practice, and how, in order to secure both intergenerational and intragenerational equity. Interestingly (some would say perversely), and due

probably to the hegemony over such matters which economists and politicians gained in the mid 1980s or thereabouts, sustainable development began to be defined in important documents not in terms of the sustainability of the natural environment or integrity of nature's life support systems, but in terms of economic sustainability. Typically, the following from Article 2 of the Treaty of the European Union (1992) illustrates this well: EC's environmental-policy objectives to include the goals of 'sustainable and non-inflationary (economic) growth respecting the environment'.

The UN Conference on Environment and Development, held in Rio de Janeiro in June 1992, was the next key milestone, and the document called Agenda 21 was probably the most important of its outputs. It drew up in considerable detail the blueprint for progressing towards global sustainable development. The Rio Conference was remarkable also for the hope, excitement and anticipation it generated world wide. Most concerned people everywhere actually believed that Agenda 21, ratified by most of the nation states, would usher a new developmental paradigm to protect and sustain the natural environment in the interests of both present and future generations. But it was not to be, as it turned out.

Indeed, most of the environmental problems have been exacerbating since Rio to make the global environment less sustainable today than it was ten years ago, and this constituted the background to the World Summit on Sustainable Development (WSSD), held in Johannesburg during 26 August and 4 September 2002. The reports of the Secretary General of the UN, presented to the first Prepcom of the WSSD in New York, painted a negative picture of the way the world had moved away from sustainable development since Rio.

At the global level today there is less concern over population growth than ten years ago, largely based on the scientifically uncertain prediction that world population would stabilise by 2080. The industrialised countries consider their stable economic growth and improved social conditions, which they have achieved while at the same time reducing environmental pressures in a number of areas, as their most important contribution to SD to date. During the last decade environmental policy and management regimes have been implemented in the developing countries. However, in many cases this institutional progress is yet to bear fruit in terms of improvements.

It is a matter of mounting concern that so far little, if any, progress has been made in addressing unsustainable patterns of production and consumption, and that poverty eradication is proving to be an apparently intractable challenge. Globalisation, and a credible and objective evaluation of its costs and benefits, is proving to be difficult too. While on the one hand the OECD countries continue to push forward ideas on how globalisation would benefit the global SD process by increasing world trade and investment and through trade liberalisation, on the other greater (often externalised) environmental costs of globalisation, and gross social inequity it is predicted to bring, points to an unacceptably high and growing sustainability deficit.

There is also mounting concern over resources of water, energy, land and biodiversity – all under threat today as never before, especially in sub-Saharan Africa and in the vulnerable ecosystems of small island states.

In view of the above, the objective of the Johannesburg Summit was to seek ways and means for reinvigorating the Agenda 21 process and to promote its practical implementation world wide, rather than to generate yet more voluminous documents. As the WSSD is described in detail in the next article, we will not dwell on it here, except to say that one of its principal outputs, the *Johannesburg Plan of Implementation*, is both comprehensive and goal-oriented for the realisation of Agenda 21 objectives, albeit perhaps a little too ambitious when judged against current and evolving geo-political realities.

This book contains a number of articles on selected key issues discussed and agreed at the WSSD. Written by specialists, the purpose of these articles is to discuss one or more of the following as appropriate: evolution of specific environmental issues or concerns, scientific background, deliberations at Johannesburg, and where do we go from here?

In particular, the authors were invited to compare the status of current knowledge of the key issues with how Johannesburg, and its Plan of Implementation, dealt with that knowledge.

This exercise is useful in at least two ways: first, it allows one to compare how the state-of-the-art relates to the information which diplomats and policy-makers used in their deliberations in Johannesburg. Clearly, such a comparison exposes the divide between scientific evidence and information on one hand and how they are used by policy-makers to make policy on the other, especially in areas in which hard scientific information is scarce, incomplete or tentative such as globalisation and production and consumption patterns. And second, this exercise identifies, or defines more precisely, the gaps in scientific information which must be filled in order for policy-makers to formulate more effective policies for SD. Indeed, filling such information gaps is a major part of the research agenda for SD. Interestingly, to this end a new contract between science and society was proposed at the WSSD. This new post-WSSD contract, it was suggested, should be based on and inspired by both social and environmental considerations, unlike the post Second World War contract that was driven almost exclusively by scientific, technological and economic considerations. The key issues to be included in the new contract emerged as these:

- addressing problems of poverty, population and health;
- sustainable use of water, energy and biodiversity;
- sustainable agriculture and food security;
- strategies and planning for SD;

- measuring SD;
- scientific support for local-to-global action;
- environmental management and sustainability;
- economic and social policy instruments for SD;
- fact-based education for SD.

This book is based on articles that have already been published in the journal "Environment, Development and Sustainability" (2003) that devoted a special issue to the WSSD. These papers have been complemented with a set of chapters on management of chemicals, health, Africa, governance, and partnerships that are essential in the Johannesburg discussion but previously unpublished.

The international community decided on a follow-up programme of the WSSD. In the ten years to come, the different main themes of the Johannesburg Plan of Implementation (JPoI) will be dealt with in more depth. Water and human settlements are the first themes the world will deal with. This book aims to provide essential background information for this decade to come.

The production of a book such as this is no mean task, involving as it does enormous scientific and administrative efforts. On the scientific side we are most grateful to the following colleagues who did such a splendid job of reviewing the papers published in this issue:

- Prof. Dr. Johan Albrecht, Universiteit Gent, Belgium
- Prof. Dr. Jan Otto Andersson, Abo Academy, Finland
- Prof. Dr. Yonathan Anson, Ben Gurion University of the Negev, Israel
- Prof. Dr. Giancarlo Barbiroli, Istituto di Merceologia, Università degli Studi di Bologna, Italy
- Dr. Lila Barrera-Hernandez
- Dr. Claudia R. Binder, Swiss Federal Institute of Technology, Zürich, Switzerland
- Prof. Dr. Karl Bruckmeier, Human Ecology Department, University of Göteborg, Sweden
- Prof. Dr. Emmanuel Boon, Human Ecology Department, Vrije Universiteit Brussel, Belgium
- Prof. Dr. Richard J. Borden, College of the Atlantic, Bar Harbor, Maine, USA
- Prof. Dr. Philippe Bourdeau, IGEAT, Université Libre de Bruxelles, Brussels, Belgium
- Dr. Mickel Christolis, Computational Fluid Dynamics Unit, National Technical University of Athens, Greece
- Dr. Donaat Cosaert, Flemish Institute for Scientific and Technological Aspects Research, Flemish Parliament, Brussels, Belgium
- Dr. Farid Dahdouh-Guebaz, Laboratory of General Botany and Nature Management, Vrije Universiteit Brussel, Belgium

- Dr. Morgan De Dapper, Geological Institute, Universiteit Gent, Belgium
- Prof. Dr. Fernando Dias de Avila Pires, Fundação Oswaldo Cruz, Rio de Janeiro, Brazil
- Prof. Dr. Theo K. Dijkstra, Department of Econometrics and Operations Research, University of Groningen, The Netherlands
- Prof. Dr. Jan W. Dobrowolski, Institute of Management and Protection of the Environment, Krakow, Poland
- Dr. Kwame A. Domfeh, School of Administration, University of Ghana
- Dr. Prabir Ganguly, Centre for European Studies, VSB, Technical University Ostrava, Ostrava-Poruba, Czech Republic
- Prof. Dr. Ir. Bernard Geeraert, Department of Mechanical Engineering, Catholic University of Leuven, Belgium
- Prof. Dr. Bernard Glaeser, Social Science Research Centre, Berlin, Germany
- Prof. Dr. Jackie Van Goethem, Royal Institute for Natural Sciences, Brussels, Belgium
- Dr. Leah Goldfarb, International Council for Science, Paris, France
- Mr. Lee R. Hatcher, AtKisson Inc., Seattle, USA
- Dr. Roberto Laserna, Centro de Estudios de la Realidad Economica y Social, Cochabamba, Bolivia
- Prof. Dr. Luc Lavrysen, Centrum voor Milieurecht, Universiteit Gent, Belgium
- Dr. Roderick J. Lawrence, Centre for Human Ecology and Environmental Sciences, University of Geneva, Switzerland
- Prof. Dr. Walter Leal Filho, Environmental Technology Department, Technical University of Hamburg-Harburg, Germany
- Prof. Dr. Gerry Marten, School of Policy Studies, Kwansei Gakuin University, Hyogo, Japan
- Prof. Dr. Patrick Meire, Antwerp University, Belgium
- Prof. Dr. Bedrich Moldan, Charles University, Prague, Czech Republic
- Prof. Dr. Armando Montanari, Italian Geographical Society, Rome, Italy
- Prof. Dr. Bart Muys, Faculty of Agricultural and Applied Biological Sciences, Catholic University of Leuven, Belgium
- Prof. Dr. Rudolfo Paz, Faculty of Mechanical Engineering and Production Sciences, Escuela Superior Politécnica del Litoral, Guayaquil, Ecuador
- Prof. Dr. Steven S. Penner, University of California at San Diego, USA
- Prof. Dr. Warren M.B. Pescod, Department of Civil Engineering, University of Newcastle, Newcastle-Upon-Tyne, UK
- Dr. P.K. Rao, Global Development Institute, Lawrenceville, NJ, USA
- Prof. Dr. Joe Ravetz, Centre for Urban and Regional Ecology, School of Planning and Landscape, Manchester University, UK
- Prof. Dr. Frank Rijsberman, International Water Management Institute, Colombo, Sri Lanka

- Dr. John P. Robinson, International Centre for Technical Research, London, UK
- Dr. S.O. Saaka, UNDP Capacity 21, Accra, Ghana
- Mr. Gordon Sillence, European Commission, Brussels, Belgium
- Dr. Michael Stauffacher, Swiss Federal Institute of Technology, Zürich, Switzerland
- Prof. Dr. Harro Stolpe, Faculty of Civil Engineering, Ruhr Universität Bochum, Germany
- Prof. Dr. Stoyan Stoyanov, Ecology Centre, University of Chemical Technology and Metallurgy, Sofia, Bulgaria
- Prof. Dr. Charles Susanne, Laboratory of Anthropogenitics, Vrije Universiteit Brussel, Belgium
- Dr. Emma L. Tompkins, School of Environmental Sciences, University of East Anglia, Norwich, UK
- Prof. Dr. Luc Vanliedekerke, Economics Department, Catholic University Leuven, Belgium
- Prof. Dr. René Van Grieken, Antwerp University, Belgium
- Dr. Olaf Weber, Natural and Social Science Interface, Swiss Federal Institute of Technology, Zurich, Switzerland
- Prof. Dr. Raoul Weiler, Club of Rome, Brussels, Belgium
- Dr. Willy Weyns, Flemish Institute for Scientific and Technological Aspects Research, Flemish Parliament, Brussels, Belgium
- Prof. Dr. Edwin Zaccai, IGEAT, Université Libre de Bruxelles, Belgium

On the administrative side sincere thanks are due to the secretarial staff of the Human Ecology Department of the Vrije Universiteit Brussel and, in particular, Mr. Serge Gillot and Mr. Glenn Ronsse.

Luc Hens and Bhaskar Nath

XXX

CHAPTER 1

THE JOHANNESBURG CONFERENCE

L. HENS^{1*} and B. NATH²

¹Vrije Universiteit Brussel, Human Ecology Department, Laarbeeklaan 103, B-1090 Brussels, Belgium; ²European Centre for Pollution Research, Unit 2F, 289 Cricklewood Broadway, London NW 2 6NX, UK (*author for correspondence, e-mail: human.ecology@vub.ac.be; fax: +322 477 4964; tel.: +322 477 4281)

Abstract. The World Summit on Sustainable Development (WSSD), held in Johannesburg during 26 August and 4 September 2002, was the biggest event of its kind organised by the United Nations to date. A major objective of the WSSD was to set out strategies for greater and more effective implementation of Agenda 21, negotiated in Rio ten years ago, than hitherto. An overview of the WSSD is presented in this chapter, including a scrutiny of its major outcomes.

Discussion begins with a detailed account of major UN environmental conferences and related events, such as Doha and Monterrey conferences, that led to the WSSD, followed by a brief discussion of the deliberations that took place at the preparatory meetings (PrepComs) of the WSSD. A detailed account and scrutiny of the following, that are the main outcomes of the WSSD, is then given.

- The "Johannesburg Declaration on Sustainable Development", which is a political declaration mirroring the will of the international community to move towards sustainable development.
- The "Johannesburg Plan of Implementation", which is the core document of the WSSD containing an impressive list of recommendations for accelerating the implementation of Agenda 21.
- "Type II partnerships", which are projects that allow civil society to contribute to the implementation of sustainable development.

The increasingly important post-Rio issue of globalisation, which has serious implications for a number of issues directly or indirectly impinging on global sustainability, was an important element in the contextual background to the WSSD. Reference is made to some of these implications.

Type II partnerships are an innovation of the WSSD. Although a good deal of confusion persists over their precise nature and *modus operandi*, they were nevertheless presented at the WSSD as powerful and more democratic instruments for the realisation of Agenda 21 objectives.

The analysis shows that the Summit contributed at defining sustainable development more precisely. The Plan of Implementation is most instrumental in showing how to make resource use and the generation of pollution less unsustainable. In this way implementing the recommendations of the Johannesburg Summit offers an important defeat, worldwide.

Key words: declaration, Johannesburg, plan of implementation, sustainable development, Type 2 partnerships, world summit.

Abbreviations: CITES – Convention on International Trade in Endangered Species; CSD – Commission for Sustainable Development; DESA – Department of Economic & Social Affairs (of the UN); EOLSS – Encyclopaedia of Life Support Systems (of UNESCO); EU – European Union, the; GDP – Gross Domestic Product; GEF – Global Environmental Facility; IPCC – Inter-governmental Panel on Climate Change; IUCN – International Union for Conservation of Nature (and Natural Resources); JPI – Johannesburg Plan of Implementation; MDG – Millennium Development Goals, the; NEPAD – New Partnership in Africa's Development; NGO – Non-governmental Organisation; ODA – Overseas Development Aid; OECD –

Readers should send their comments on this paper to: <u>BhaskarNath@aol.com</u> within 3 months of publication of this issue.

L. Hens and B. Nath (eds.), The World Summit on Sustainable Development, 1–33. © 2005 Springer. Printed in the Netherlands.

L. HENS AND B. NATH

Organisation for Economic Cooperation & Development; R&D – Research & Development; SD – Sustainable Development; SIDS – Small Island Developing States; UN – United Nations, the; UNCED – United Nations Conference on Environment & Development (Rio de Janeiro, 1992); UNCTAD – United Nations Conference on Trade & Development; UNDP – United Nations Development Programme; UNEP – United Nations Environment Programme; UNESCO – United Nations Educational, Scientific & Cultural Organisation; WCED – World Commission for Environment & Development; WEHAB – Water, Energy, Health, Agriculture & Biodiversity; WMO – World Meteorological Organisation; WSSD – World Summit on Sustainable Development (Johannesburg, 2002); WTO – World Trade Organisation, the; WWF – World Wild Fund for Nature (previously World Wildlife Fund).

1. Introduction

The World Summit on Sustainable Development (WSSD), held in Johannesburg during 26 August and 4 September 2002, was attended by 9101 delegates from 191 governments and 8227 representatives of major groups who deliberated on how to implement sustainability in more effective ways than during the last ten years, as well as by 4012 media representatives who reported on it.

Most of the indicators confirm that both environmental quality and sustainability have further deteriorated since the Rio Summit of 1992, and the WSSD was primarily concerned with why so little progress had been made towards achieving the Rio goals of sustainable development (SD). It was generally agreed that while Rio's Agenda 21 was a reliable and high-quality document giving guidance for implementing SD, its practical implementation fell far short of what was needed and agreed in Rio ten years ago.

This huge conference – biggest of its kind organised by the UN to date – was remarkable both for the scope and complexity of its organisation. The context of the WSSD deliberations encompassed the outputs of the UN environmental conferences to date, the UNCED documents, the Millennium Declaration, the Doha and Monterrey conferences and the WSSD "Prepcoms" among others. Box 1 lists the environment and development milestones building up to the WSSD during a period of thirty years.

Box 1. Environment and development milestones during 1972 and 2002.

1972

- United Nations Conference on the Human Environment, Stockholm.
- UNESCO Convention on the Protection of World Cultural and Natural Heritage.
- First report of the Club of Rome.

1973

• Convention on International Trade in Endangered Species and Flora and Fauna (CITES).

1976

• Convention on the Protection of the Mediterranean Sea Against Pollution.