

SpringerBriefs on Pioneers in Science and Practice

Texts and Protocols

Volume 13

Series Editor

Hans Günter Brauch

For further volumes:

<http://www.springer.com/series/11446>

http://www.afes-press-books.de/html/SpringerBriefs_PSP_TP.htm

Arthur H. Westing

From Environmental to Comprehensive Security



 Springer

Arthur H. Westing
Westing Associates in Environment, Security,
& Education
Putney, VT
USA

ISSN 2194-3125 ISSN 2194-3133 (electronic)
ISBN 978-3-319-00686-4 ISBN 978-3-319-00687-1 (eBook)
DOI 10.1007/978-3-319-00687-1
Springer Cham Heidelberg New York Dordrecht London

Library of Congress Control Number: 2013939044

© The Author(s) 2013

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed. Exempted from this legal reservation are brief excerpts in connection with reviews or scholarly analysis or material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work. Duplication of this publication or parts thereof is permitted only under the provisions of the Copyright Law of the Publisher's location, in its current version, and permission for use must always be obtained from Springer. Permissions for use may be obtained through RightsLink at the Copyright Clearance Center. Violations are liable to prosecution under the respective Copyright Law. The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

While the advice and information in this book are believed to be true and accurate at the date of publication, neither the authors nor the editors nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)

Preface

It was a special honor for me to start this new book series on *Pioneers in Science and Practice* (PSP) with a volume on *Arthur H. Westing: Pioneer on the Environmental Impact of War* and to be able to introduce him as such in that book (Westing 2013). Now I am most pleased to have been able to convince Arthur to prepare this second volume, to coincide with his 85th birthday in July 2013, a volume that brings together many of his innovative contributions since the early 1980s on the ‘reconceptualization of security’, with a particular focus on environmental and comprehensive security.

Thus, Arthur has not only been a pioneer on the environmental impact of war, but also a major innovative contributor since the 1980s to a conceptual scientific discourse and policy debate on a ‘reconceptualization of security’ at a time when the Cold War was winding down and that has been underway ever since (cf. Brauch et al. 2008, 2009, 2011). Elsewhere I have distinguished among three processes in the broadening of the dimensions of security from the narrow politico-military: (a) to a *widening* of its societal, economic, and environmental or ecological characteristics; (b) to a *deepening* from a state-centered to a people-centered security, that is, from the nation-state as the referent object to one in which human beings, communities, and humankind are the referent objects—a concept to be framed as ‘human security’; and (c) to a *sectorialization* of security to encompass the notions of energy, food, water, soil, and health security.

Arthur’s innovative contribution was primarily to the ‘widening’ of security by bringing—as a forest ecologist and environmental scientist—environmental considerations into the evolving policy debate on national and international security. He addressed simultaneously the two sides of the same coin: (a) of the environmental impact of war (Westing 2013); and (b) of the environmental causes of or impacts on multiple forms of conflict (cf. [Chap. 1](#)). He framed ‘environmental security’ initially as a state-centered concept and gradually moved to what he called ‘comprehensive human security’ (Westing 2013, pp 15–17), taking up recent critical suggestions (cf. Bogardi and Brauch 2005; Brauch 2005a, b, 2008, 2011; Brauch and Scheffran 2012; Dalby et al. 2009).

In [Chap. 2](#) Arthur offers us a chronological bibliographical reference list to his many contributions to the reconceptualization of security from 1981 until 2013. Indeed, several of his early contributions inspired me to launch a global

multidisciplinary project on the ‘Reconceptualization of Security’. He introduced environmental factors to national, international, and regional security (cf. [Chaps. 4–7](#)). Arthur used the term ‘human security’ in a United Nations Environment Programme publication of 1993, a year before Mabhuqul Haq triggered a global debate on human security in the United Nations Development Programme’s annual report on human development. As a forest scientist, Arthur was familiar with the debates in the environmental, security, and peace research communities and could thus contribute to conceptual bridge building among those diverse fields.

Arthur’s conceptualization of environmental security in [Chap. 4](#) is still very relevant. For Arthur ‘regional security’ has always been ‘an ecological necessity’ (cf. [Chap. 4](#)). He applied it to the analysis of ‘maritime issues’ (cf. [Chap. 5](#)) and to ‘transfrontier cooperation’ (cf. [Chap. 6](#)), also including a debate on biodiversity issues and the role of protected areas that have been under-researched in the environmental security debate.

I met Arthur most recently in November 2010 at an international conference in Berlin on ‘A World Without Walls’ where he presented a paper on the ‘Korean Demilitarized Zone (DMZ) as a Bridge Between the Two Koreas’ (cf. [Chap. 7](#)) where he began by comparing several divided countries (Germany, Yemen, Korea). He suggested then to protect the DMZ as a ‘confidence and security building measure’, a proposal he developed into a proposed legal text for a treaty between both Koreas.

In [Chap. 8](#) Arthur addresses linkages between globalization and environmental security; and in [Chap. 9](#) he has examined in-depth the concept and significance of ‘environmental refugees’, which emerged from the first conference on Desertification and Migration held in Almeria, Spain in 1994. I read this text when I prepared my opening speech to the second conference on Desertification and Migration held in Almeria in 2006 that firmly placed this linkage of desertification and refugees on the environmental security agendas of nation-states, the United Nations Environment Programme, the United Nations Development Programme, and the United Nations Convention to Combat Desertification.

In [Chap. 10](#) Arthur discusses population as perhaps *the* basic issue, using the concept of the ‘global carrying capacity’, having been inspired, among others, by Lester Brown, Garrett Hardin, and Paul Ehrlich, thus relying more on the ecologist discourse and less on the debates among demographers who stress fertility, mortality, and the like while leaving out environmental constraints and environmentally induced migration. Thus, Arthur has once again contributed to a conceptual bridge building that is essential for understanding the global environmental challenges of the twenty-first century.

The present volume (PSP-13) reintroduces the innovative work of a major scientific, conceptual bridge-builder who has applied multidisciplinary and interdisciplinary approaches in linking his experience as a forest scientist with debates on the environment, war, and demography; and at the same time often addressing the legal dimension. This specific perspective has contributed what biologist Edward O. Wilson (1998) has called *consilience* (the interlocking of causal explanations across disciplines) in which the ‘interfaces between disciplines

become as important as the disciplines themselves' that would 'touch the borders of the social sciences and humanities'.

On the occasion of Arthur H. Westing's 85th birthday in July 2013, both volumes (PSP-1, PSP-13) make a part of Arthur's contribution to Wilson's innovative concept of 'consilience' widely accessible to students, whether in hard copy or as electronic publications (via laptop, tablet, computer, or smartphone). These two volumes can be considered as 'intellectual appetizers' that will in turn guide the reader to Arthur's major books, chapters, and articles. I would suggest these two texts to be ideal for course adoption in graduate seminars on environmental, security, peace, and development issues around the world. Indeed, some 4,500 universities and academic institutions globally subscribe to Springer's earth science package, enabling students to download both of these books at no cost.

Arthur's many friends and colleagues around the globe wish him good health and continued creativity. I have learnt much from Arthur's conceptual work and was influenced by his contributions across disciplinary boundaries. As a series editor, my intention has been to share Arthur's experience with future generations and encourage them also to overcome the methodological, theoretical, and disciplinary confinements that prevail in highly specialized journals and that make it more difficult to communicate the scientific results to policymakers and international organizations. Arthur's work at the Stockholm International Peace Research Institute and the International Peace Research Institute Oslo during the 1970s and 1980s were sponsored and fully supported by the United Nations Environment Programme's Executive Director Mustafa Tolba (who, it might be mentioned, withstood US pressure to stop funding of Arthur's UNEP work).

In short, Arthur has been a *conceptual and empirical innovator* in his several roles during the six decades of his professional life: (a) as a *natural scientist*; (b) as a *professor and educator*; (c) as a *concerned US citizen*; (d) as an *ecologist and environmentalist*; (e) as a *peace researcher*; (f) as a *policy consultant*; and (g) as a *politically active scientist and citizen*. He thus became a *Vorbild* for many young scientists, but also for policymakers, to take the courage not to remain silent on the misuse of scientific knowledge in warfare or for increasing short-term economic benefits and ignoring the longer term effects on the life of present and future generations. This is what the notion of 'sustainable development' is all about, as suggested by the Brundtland Commission (Brundtland et al. 1987). Arthur needs many followers to move toward policies of a transition to sustainability during this century to avoid the security impacts of global environmental change, of biodiversity loss, and of chaotic interactions within the earth system that could result in tipping points endangering the lives and livelihoods of millions of people. Arthur's two books put the analysis of scientific linkages on the agenda of course planners and of policymakers to facilitate moving from 'knowledge to action'.

Cuernavaca, Mexico, April 2013

Hans Günter Brauch
Editor, Springer Briefs on Pioneers
in Science and Practice

Hans Günter Brauch (Dr. phil. habil.) has taught as a Privatdozent (Adjunct Professor) at the Free University of Berlin from 1999 until his retirement in 2012. Since 1987 he has been Chairman of Peace Research and European Security Studies (AFES-PRESS). Since 2003 he has been Editor of the peer-reviewed *Hexagon Series on Human and Environmental Security and Peace* (HESP), and since 2012 he is the Editor of the *Springer Briefs in Environment, Security, Development and Peace* (ESDP) as well as of this *Series on Pioneers in Science and Practice* (PSP). In 2012 he taught at SciencePo (Paris), in the Ph.D. Programme of the *Centro de Estudios Superiores Navales* (CESNAV) in Mexico, at Arhus University (Denmark), at the *European Peace University* (EPU) (Austria), at the *National University of Malaysia* (UKM), and at Chulalongkorn University (Bangkok).

References

- Bogardi, J. & Brauch, H. G. (2005). Global environmental change: A challenge for human security—defining and conceptualising the environmental dimension of human security. In: A. Rechkemmer, (ed.) *UNEO: Towards an International Environment Organization: Approaches to a Sustainable Reform of Global Environmental Governance*. Baden–Baden, Germany: Nomos, 310 pp: (pp. 85–109).
- Brauch, H. G. (2005a). *Environment and Human Security: Towards Freedom from Hazard Impacts*. Bonn, Germany: UN University, Institute for Environment and Human Security, InterSecTions No. 2/2005, pp. 56 <http://www.ehs.unu.edu/file/get/4031>.
- Brauch, H. G. (2005b). *Threats, Challenges, Vulnerabilities and Risks in Environmental and Human Security*. Bonn, Germany: UN University, Institute for Environment and Human Security, Source No. 1/2005, pp. 100 <http://www.ehs.unu.edu/file/get/4040>.
- Brauch, H. G. (2008). Conceptualising the environmental dimension of human security in the UN. *International Social Science Journal Monograph Series* (Paris), 148 pp: pp 19–48. [This Monograph was edited by M. Goucha & J. Crowley under the title *Rethinking Human Security* and published in September 2008].
- Brauch, H. G. (2011). *The Environmental Dimension of Human Security—Freedom from Hazard Impacts*. New York: UN General Assembly, Interactive Debate 2: Human Security—Its Application and Added Value, 6 pp. 14 April 2011. <http://www.un.org/en/ga/president/65/initiatives/Human%20Security/DrBrauch.pdf> & <http://www.un.org/News/Press/docs//2011/ga11072.doc.htm>.
- Brauch, H. G. et al. (eds). (2008). *Globalization and Environmental Challenges: Reconceptualizing Security in the 21st Century*. pp. 1147 Berlin: Springer.

- Brauch, H. et al. (eds). (2009). *Facing Global Environmental Change: Environmental, Human, Energy, Food, Health and Water Security Concepts* pp. 1586. Berlin: Springer.
- Brauch, H.G. et al. (eds). (2011). *Coping with Global Environmental Change, Disasters and Security: Threats, Challenges, Vulnerabilities and Risks* pp. 1815. Berlin: Springer.
- Brauch, H. G. & Scheffran, J. (2012). Introduction: climate change, human security, and violent conflict in the Anthropocene. In: Scheffran, J. et al. (eds): *Climate Change, Human Security and Violent Conflict: Challenges for Societal Stability* 868 pp. 1–40. Heidelberg: Springer.
- Brundtland, G. H. et al. (1987). *Our Common Future: World Commission on Environment and Development*. rev edn. Oxford: Oxford University Press, pp. 400.
- Dalby, S. et al. (2009). Environmental security concepts revisited during the first three phases (1983–2006). In: H. G. Brauch et al. (eds). *Facing Global Environmental Change: Environmental, Human, Energy, Food, Health and Water Security Concepts*. 1586 pp. 781–790, Berlin: Springer.
- Westing, A. H. (2013). *Arthur H. Westing: Pioneer on the Environmental Impact of War*. Heidelberg: Springer, 150 pp. (Springer Briefs on Pioneers in Science and Practice, Vol. 1) http://www.afes-press-books.de/html/SpringerBriefs_PSP01.htm & <http://www.springer.com/law/environmental/book/978-3-642-31321-9>.
- Wilson, E. O. (1998). *Consilience: the Unity of Knowledge* pp. 332 New York: Knopf.

Arthur H. Westing: A Personal Memoir

Arthur Westing came to the International Peace Research Institute Oslo (PRIO) in January 1988. Sverre Lodgaard, who had worked at the Stockholm International Peace Research Institute (SIPRI) for the past 6 years, returned to Oslo to take over the position as Director of PRIO. He was able to bring Arthur to Oslo at the same time, along with his project on 'Peace, Security, and Environment' funded by the United Nations Environment Programme (UNEP). SIPRI's loss was PRIO's gain. At PRIO Arthur edited a volume on *Environmental Hazards of War*, which dealt with the planned or inadvertent release of pollutants following the destruction of major industries in war. Before that, however, he had edited another volume, *Comprehensive Security for the Baltic*, which focused on security in the Baltic region as seen through the lens of an extended concept of security. Arthur did not invent the concept of environmental security. But his work was (and remains) one of the most thorough and thoughtful expositions of it.

When Arthur went back to the USA (to retire, I thought—some retirement!) I had to take over the organizing of a UNEP-funded conference in 1991 on conversion and the environment which had fallen between the cracks. Some of the UNEP-funded conferences had to be held in the USSR in order to spend some of the non-convertible rubles in which that country had paid a major portion of its dues. I have to confess that I took on this project largely because I was fascinated by the opportunity to visit Perm (known as Molotov in my school days), a city closed to foreigners until just before our conference was held there. But my academic interest in the relationship between the environment and security arose from that experience, and continues to this day.

Eventually, my colleagues and I came to focus more on the environmental causes of armed conflict than on its consequences. We have probably taken the work in a direction more critical of neomalthusian thinking than Arthur might have felt comfortable with. I am somewhat less pessimistic than Arthur on several issues discussed in this volume, such as the risk of transboundary atmospheric pollution leading to international conflict (cf. page 20), that the quest for human security may have become more elusive (cf. page 63), that economic globalization may be harmful to environmental security (cf. page 114), that environmental security is

seriously deteriorating at the global level, and that global overpopulation is our most serious problem (cf. page 133). But if you want an intelligent defense of those propositions, you can do a lot worse than to consult this volume.

One of my most profound memories of Arthur's work at PRIO relates to his extreme attention to detail and accuracy, which the reader will soon discover in this volume too. Arthur found errors even in reputable collections of treaties and other standard works of reference. One of the few people who seemed able to live up to Arthur's high standards of citations and references was his valued erstwhile colleague from SIPRI, the recently deceased Jozef Goldblat. With an office right next to Arthur's I couldn't help noticing the occasional outburst when someone did not meet his exacting standards. In one of my papers I inadvertently cited him as 'Arthur F. Westing'. This was not easily forgiven. Nor should it be.

But I thought even Arthur had gone too far when I learned that he was asking every author who had a direct quotation in a chapter in one of his books to send him a photocopy of that quote from the original publication. Surely this was going too far! Shortly thereafter I was in charge of an edited volume myself. PRIO's discerning copy editor pointed out some language infelicities that appeared to have been committed by prominent writers—if one were to believe the lesser mortals who had cited them. Did they really say that? I was too embarrassed to ask the authors to send me copies of the originals, so I looked them up myself. And, indeed, there were numerous errors. Of course, scholars often copy quotations and references from previous articles they have read, so any errors get reproduced. Most of them are trivial, but once in a while there will be one 'not' too many (or one too few). Those of my colleagues at PRIO who think I've spent too much time correcting details now know where I learned that *modus operandi*.

Many of my fruitful interactions with Arthur were linked to my role as Editor of the *Journal of Peace Research*. Arthur published two articles and several short book reviews in the *Journal* and I took advantage of his presence to solicit referee reports from him on many occasions. In fact, over a 15-year period, he was among the top 5 % of referees in terms of the number of reports. I was particularly impressed by the fact that, as a matter of principle, Arthur always signed his reviews with his full name. Many scholars, however committed they may be to transparency, are reluctant to do this because it exposes them to potential quarrelsome responses from authors who felt that their fine scholarship had not been sufficiently appreciated by the *Journal*.

On factual academic matters, I was never able to catch Arthur out. My moment of triumph arrived years later when my son and I stayed with Arthur and Carol over a weekend in Vermont and went hiking with them in a local nature reserve that they had helped to establish, reflecting their environmental activism. This was in the fall and I suggested bringing along a basket for picking mushrooms. There are no edible mushrooms in that area, Arthur stated with some finality. Since my stubbornness matches his, I brought the basket along anyway. That evening we all had mushrooms at supper, and no one got sick. I was later told by Carol that no

sooner had I left than Arthur went off to buy a mushroom field guide. This was a dozen or so years ago. He hadn't stopped taking in new knowledge then. He hasn't stopped at 85. And he never will.

8 April 2013

Nils Petter Gleditsch
Research Professor at PRIO and
Professor of Political Science at the
Norwegian University of Science and Technology

Contents

Part I Toward a Sustainable Future

1 National and International Security: An Evolving Concept	3
1.1 Beyond the Environmental Impact of War	3
1.2 What Next?	6
Appendix 1.1 The Eritrean National Code of Conduct for Environmental Security	7
References	8
2 The Author's Relevant Papers: A Selective Listing	11
References	11

Part II Benchmark Papers by the Author: A Selection

3 From Environmental Security to Comprehensive Security: A Necessary Expansion	17
3.1 Introduction	17
3.2 Towards the Prevention of Resource Wars	18
3.2.1 Territorial Resources	18
3.2.2 Shared Resources	20
3.2.3 Extra-Territorial Resources	21
3.3 Towards the Establishment of a Secure Globe	24
3.4 Conclusion	26
References	28
4 Regional Security: An Ecological Necessity	31
4.1 Introduction	31
4.2 The Concept of Environmental Security	32
4.2.1 Environmental Vandalism	33
4.2.2 Environmental Pollution	34

- 4.2.3 Habitat Disruption 34
- 4.2.4 Resource Over-Utilization 35
- 4.3 The Ecogeographical Region 35
- 4.4 Regional Political Security. 36
- 4.5 Regional Environmental Security 39
- 4.6 Comprehensive Regional Security 41
- 4.7 Conclusion. 43
- References 44

- 5 Regional Security: Maritime Issues 47**
- 5.1 Introduction 47
- 5.2 The Ocean as a Common Natural Heritage of Humankind 48
- 5.3 Abuses of the Ocean. 48
- 5.4 Confidence-Building Measures. 50
 - 5.4.1 Initial Considerations 50
 - 5.4.2 International Law 51
 - 5.4.3 Ecogeographical Regions 55
 - 5.4.4 Natural Resources 55
 - 5.4.5 Nature Reserves 57
- 5.5 Recommendations. 58
- 5.6 Conclusion. 58
- References 59

- 6 Regional Security: Transfrontier Cooperation 63**
- 6.1 Introduction 63
- 6.2 Interstate Wars 64
- 6.3 Genetic Resources (Biodiversity) 65
- 6.4 Establishment and Maintenance 66
- 6.5 Precedents 68
 - 6.5.1 Transfrontier Protected Natural Areas. 69
 - 6.5.2 Demilitarized Border Regions 72
- 6.6 Potential Sites 73
 - 6.6.1 Indochinese Peninsula. 73
 - 6.6.2 Korean Peninsula 75
 - 6.6.3 Central Asian Mountains. 76
 - 6.6.4 Central American Isthmus. 76
 - 6.6.5 Horn of Africa. 77
 - 6.6.6 Northeast Africa. 78
- 6.7 Conclusion. 79
- Appendix 6.1 Miscellaneous International Agreements
(Actual or Proposed) 79
- Appendix 6.2 Waterton–Glacier International Peace Park. 81
- Appendix 6.3 The 1924 Cracow Protocol 82
- References 82

7 Regional Security: The Case of the Korean Demilitarized Zone (DMZ) 87

7.1 Three Nations Cut in Two 87

7.2 The Korean Situation Today 88

7.3 Protecting the DMZ as a Confidence- and Security-Building Measure. 90

7.4 The Next Steps 92

Appendix 7.1 Known Imperilled DMZ Wildlife 93

Appendix 7.2 Agencies and Organizations Mentioned in this Chapter 94

Appendix 7.3 Legal Foundations 96

Appendix 7.4 Select Bibliography (References). 102

Appendix 7.5 The Memorandum of Understanding (MoU). 104

 Appendix 7.5.1 Annex 1 Potential Sites Under Consideration 108

 Appendix 7.5.2 Annex 2 IUCN Protected Area Categories 109

8 The Question of Globalization. 111

8.1 Introduction 111

8.2 The Dynamics of Globalization and of Environmental Security. 112

 8.2.1 Globalization 112

 8.2.2 Environmental Security. 112

8.3 The Influence of Globalization on Environmental Security . . . 113

 8.3.1 Public Health. 113

 8.3.2 Economics. 114

8.4 Positive *versus* Negative Aspects of Globalization 114

8.5 A World Without Globalization 115

8.6 The Regulation of Environmental Security and of Globalization 116

8.7 Regionalization as an Approach to Environmental Security . . . 118

8.8 Conclusion. 119

References 119

9 Environmental Refugees: A Stark Reminder 121

9.1 Background 122

9.2 Desertification 123

9.3 Social and Political Consequences of Environmental Migration 125

 9.3.1 Site of Origin 126

 9.3.2 Domestic Rural Sites of Destination. 126

 9.3.3 Domestic Urban Sites of Destination 126

 9.3.4 Foreign Non-industrialized Sites of Destination 127

9.3.5 Foreign Industrialized Sites of Destination 128

9.4 Recommendations. 128

9.5 Conclusion. 129

References 130

10 Population: Perhaps the Basic Issue 133

10.1 Introduction 133

10.2 How can it be Demonstrated that the Global Carrying Capacity for Humans has been Exceeded?. 134

10.3 Can the Global Carrying Capacity for Humans be Expanded?. 136

10.4 What is the Global Carrying Capacity for Humans?. 137

10.5 How is the Global Carrying Capacity for Humans to be Attained?. 138

10.6 Conclusion. 140

Appendix 10.1 All the Many Humans Ever 141

References 143

Units of Measure 147

Glossary 149

About the Author 151

About the Book 153