Table of Contents

Preface .................................................................................................................. V
Table of Contents ................................................................................................. VII
List of Contributing Authors .............................................................................. XI
List of Abbreviations ............................................................................................ XIX

Introduction ........................................................................................................... 1
1 Village Futures: Concept, Overview and Policy Implications ....................... 3
   Joachim von Braun and Detlef Virchow
2 The Crucial Importance of Urban-Rural Linkages ...................................... 21
   Klaus Töpfer
3 The Independence of the Village .................................................................. 25
   M.S. Swaminathan
4 A New Vision of the Rural World’s Role in a Globalized Environment .......... 27
   Margarita Marino de Botero

I. Political and Institutional Framework ......................................................... 31

Policies to Foster Rural Development ............................................................ 33

   Introductory Statement ...................................................................................... 33
      Michael Bohnet
5 The Need to Reconcile Village and Globalization ..................................... 35
      Günter Dresrüsse
6 Policies to Stimulate Agricultural and Rural Growth .................................. 43
      Rajul Pandya-Lorch
7 Decentralization and Active Community Participation in India .................. 51
      Anita Das
8 Gandhi and Village Governance .................................................................. 59
      Santosh Kumar Sharma
9 Rural Incomes and Employment in Russia’s Transition Phase .................... 67
      Renata Ianbykh
10 Policies to Manage Local Public Goods in an EU Context ......................... 77
      Martin Scheele
11 German Policy for an Integrated Rural Development .................................. 85
      Wilhelm Schopen
12 Potsdam Declaration Rural21 ....................................................................... 91

Grassroots Movements ...................................................................................... 93

   Introductory Statement ...................................................................................... 93
      Anil Gupta
13 The Active Rural Society in West and Central Africa ................................. 97
      Sana F.K. Jatta
14 Akina Mama wa Afrika – a Women’s Development Organization .....107
   Sandra Okoed
15 The Darewadi Watershed Development Project in Maharashtra,
   India.........................................................................................111
   Robert D’Costa and Abraham Samuel
16 Grassroots Movements as a Means to Overcome Rural Financial
   Market Failures........................................................................115
   Franz Heidhues
17 The Barefoot Approach............................................................119
   Bunker Roy
18 IFOAM – the International Organic Grassroots Movement ........123
   Bernward Geier
19 SEKEM - an Egyptian Cultural and Economic Initiative ..........125
   Klaus Merckens and Ahmed Shalaby

II. Sustainable Use of Natural Resources.................................127

Sustainable Energy Systems....................................................129
   Introductory Statement ..........................................................129
   Peter Hennicke
20 Rural Development and Sustainable Energy Systems ...............133
   El Houssine Bartali
21 The Route to Sustainable Energy Systems in Germany............141
   Erich Deppe
22 Renewable Energy Sources for Community Sustainability in India 145
   Chaman Lal Gupta
23 Sustainable Energy Systems in Tanzania................................149
   Stanford A.J. Mwakasonda

Sustainable Soil Management..................................................155
   Introductory Statement ..........................................................155
   Helmut Eger
24 Balanced Fertilization: Integral Part of Sustainable Soil
   Management .............................................................................157
   Adolf Krauss
25 Land Degradation: Causes and Prevention ..............................169
   Paul L.G. Vlek, Daniel Hillel and Sonya Teimann
26 The United Nations Convention to Combat Desertification ........173
   Hama Arba Diallo
27 Do African Soils only Sustain Subsistence Agriculture? ..........175
   Uzo Mokwunye
28 Natural Resource Use in Agriculture in Sub-Saharan Africa: Myths
   and Realities ..............................................................................185
   Henk Breman
Enough Water for All.................................................................189
Introductory Statement ............................................................189
Winfried Polte
29 Creating Institutional Arrangements for Managing Water-Scarce River Basins.....................................................191
Douglas J. Merrey
30 More Water for Village-Based Irrigation.................................203
Hans P. Aeppli
31 Access, Participatory Parity and Democracy in User Based Irrigation Organizations..............................................215
Margreet Zwartveen
32 Water Conservation and Demand Management in Africa ..............223
André Dzikus

III. Broadening the Technological Base.................................233

Information and Communication Technologies..................235
Introductory Statement ............................................................235
Subbiah Arunachalam
33 The Role of Information in Rural Development ....................237
Heather E. Hudson
34 Okinawa Charter on Global Information Society....................251
35 Jobs, Livelihood and Information Technology ......................255
Srinivasan Ramani
36 Worldwide Access to ICT: The Digital Divide......................259
Christophe Brun and Anton Mangstl
37 The Phone and the Future: Village Pay Phones in Bangladesh........263
Abdul Bayes
38 Local Participation in the Information Society .......................275
Arnulf Heuermann
39 Telecommunications in Sub-Saharan Africa .........................277
Miko Rwayitare

The Future of Agriculture......................................................279
Introductory Statement ............................................................279
Per Pinstrup-Andersen
40 What Can We Expect from Agrotechnologies in the Future?........281
Manfred Kern
41 Declaration of Hamburg: Meeting Future Human Needs ............295
42 The Future of Agriculture in the Industrialized World ............297
William Lockeretz
43 Ensuring the Future of Sustainable Agriculture ....................305
Patricia Howard-Borjas and Kees Jansen
44 Dresden Declaration: Towards a Global System for Agricultural Research for Development.......................................321
### Bio- and Crop Technologies for Agriculture

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductory Statement</td>
<td>323</td>
</tr>
<tr>
<td>Barry Thomas and Walter Dannigkei</td>
<td></td>
</tr>
<tr>
<td>45 The Impact of Biotechnology on Plant Breeding</td>
<td>325</td>
</tr>
<tr>
<td>Christian Jung</td>
<td></td>
</tr>
<tr>
<td>46 Potential of Biotechnologies to Enhance Animal Production</td>
<td>329</td>
</tr>
<tr>
<td>Ernst Kalm</td>
<td></td>
</tr>
<tr>
<td>47 Can India Afford to Ignore Biotechnological Applications?</td>
<td>339</td>
</tr>
<tr>
<td>Usha Barwale Zehr</td>
<td></td>
</tr>
<tr>
<td>48 The Conservation of Genetic Resources: A Global Effort</td>
<td>345</td>
</tr>
<tr>
<td>J.M.M. Engels</td>
<td></td>
</tr>
</tbody>
</table>

### IV. Urban – Rural Linkages

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductory Statement</td>
<td>351</td>
</tr>
<tr>
<td>Mathias Hundsalz</td>
<td></td>
</tr>
<tr>
<td>49 Urban-Rural Linkages in the Context of Decentralized Rural Development</td>
<td>355</td>
</tr>
<tr>
<td>Sudhir Wanmali</td>
<td></td>
</tr>
<tr>
<td>50 Berlin Declaration on the Urban Future</td>
<td>367</td>
</tr>
<tr>
<td>51 Employment and Migration in the Urban Future of Southeast Asia</td>
<td>369</td>
</tr>
<tr>
<td>Yap Kioe Sheng and Radhika Savant Mohit</td>
<td></td>
</tr>
<tr>
<td>52 Employment and Migration Perspectives in Africa</td>
<td>377</td>
</tr>
<tr>
<td>John O. Oucho</td>
<td></td>
</tr>
<tr>
<td>53 Reunified Germany: Separate Rural Developments</td>
<td>385</td>
</tr>
<tr>
<td>Claudia Neu</td>
<td></td>
</tr>
<tr>
<td>54 Large-Scale Creation of Sustainable Livelihoods</td>
<td>391</td>
</tr>
<tr>
<td>Shrashtant Patara and Ashok Khosla</td>
<td></td>
</tr>
<tr>
<td>55 Urban World - Rural World</td>
<td>397</td>
</tr>
<tr>
<td>Kirtee Shah</td>
<td></td>
</tr>
</tbody>
</table>

Index .............................................................................................................................................. 401
Villages in the Future
Crops, Jobs and Livelihood
Virchow, D.; Braun, J. von (Eds.)
2001, XX, 410 p. With online files/update., Hardcover
ISBN: 978-3-540-42467-3