Contents

Part I Ecohealth: The Ecosystem Approach to Human Health

1 Exploring the Linkages Between Ecosystems and Human Health ............................................. 3
   1.1 Introduction ....................................................... 3
   1.2 Ecosystem Services and Human Health .......................... 7
   1.3 Land Fragmentation and Health ............................... 9
   1.4 Water Resource Development and Health ....................... 10
   1.5 Urbanization and Health ....................................... 12
   1.6 Modern Food Production Systems and Health .................. 13
   1.7 Climate Change and Health .................................... 14
   1.8 Wars, Conflicts and Health ...................................... 16
   1.9 Conclusion ....................................................... 16
   References ........................................................... 17

2 Evolution Towards an Ecosystem Approach to Public Health ............................................. 21
   2.1 Introduction ....................................................... 21
   2.2 “Old” Public Health and the Biomedical Approach .............. 22
   2.3 The “New” Public Health and Ecological Approaches .......... 25
   2.4 Integrated Approaches to Natural Resource Management ........ 27
   2.5 Making the Links with Sustainable Development ............... 29
   2.6 Modeling Human Health from an Ecosystem Perspective .......... 30
   2.7 Towards Critical Public Health .................................... 33
   2.8 Conclusion ....................................................... 34
   References ........................................................... 34

3 Ecosystem Approaches to Human Health: Key Concepts and Principles ................................. 37
   3.1 Introduction ....................................................... 37
   3.2 The Concept of Human Health .................................... 40
   3.3 The Concept of Ecosystem ....................................... 41
   3.4 Assessing the Health of Ecosystems ................................ 43
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5</td>
<td>The Ecosystem Approach to Human Health: Key Issues</td>
<td>44</td>
</tr>
<tr>
<td>3.6</td>
<td>The Ecohealth Research Framework</td>
<td>46</td>
</tr>
<tr>
<td>3.6.1</td>
<td>Integrating Transdisciplinary, Indigenous, and Stakeholder Perspectives</td>
<td>48</td>
</tr>
<tr>
<td>3.6.2</td>
<td>Making use of Collaborative and Inclusive Processes</td>
<td>49</td>
</tr>
<tr>
<td>3.6.3</td>
<td>Taking Heterogeneity and Difference into Account</td>
<td>49</td>
</tr>
<tr>
<td>3.6.4</td>
<td>Historicizing Environment and Health Problems</td>
<td>50</td>
</tr>
<tr>
<td>3.6.5</td>
<td>Infusing Critical Social Theory into Ecohealth Research</td>
<td>50</td>
</tr>
<tr>
<td>3.7</td>
<td>Conclusion</td>
<td>51</td>
</tr>
<tr>
<td>References</td>
<td></td>
<td>51</td>
</tr>
</tbody>
</table>

### Part II Methodological Approaches and Processes for Conducting Ecohealth Research

<table>
<thead>
<tr>
<th>4</th>
<th>Community-Based Participatory Research for Ecohealth</th>
<th>57</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Introduction</td>
<td>57</td>
</tr>
<tr>
<td>4.2</td>
<td>Participatory Action Research</td>
<td>59</td>
</tr>
<tr>
<td>4.3</td>
<td>Being Critical About Participatory Research Approaches</td>
<td>61</td>
</tr>
<tr>
<td>4.3.1</td>
<td>Being Critical About “Community”</td>
<td>62</td>
</tr>
<tr>
<td>4.3.2</td>
<td>Being Critical about “Participation”</td>
<td>64</td>
</tr>
<tr>
<td>4.3.3</td>
<td>Being Critical About “Empowerment”</td>
<td>65</td>
</tr>
<tr>
<td>4.4</td>
<td>Conclusion</td>
<td>66</td>
</tr>
<tr>
<td>References</td>
<td></td>
<td>67</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5</th>
<th>The Process of Conducting an Ecohealth Research Project: A Participatory Action Research Approach</th>
<th>71</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Introduction</td>
<td>71</td>
</tr>
<tr>
<td>5.2</td>
<td>Gaining Entry into the Research Community</td>
<td>73</td>
</tr>
<tr>
<td>5.3</td>
<td>Forming a Transdisciplinary Research Team</td>
<td>74</td>
</tr>
<tr>
<td>5.4</td>
<td>Recruiting Research Participants</td>
<td>76</td>
</tr>
<tr>
<td>5.5</td>
<td>Data Gathering Processes</td>
<td>77</td>
</tr>
<tr>
<td>5.6</td>
<td>Focus Group Discussions</td>
<td>79</td>
</tr>
<tr>
<td>5.7</td>
<td>Follow-up and In-depth Individual Interviews</td>
<td>79</td>
</tr>
<tr>
<td>5.8</td>
<td>Strategic Planning for a Healthy Community</td>
<td>80</td>
</tr>
<tr>
<td>5.9</td>
<td>Steps to Planning for a Healthy Community</td>
<td>81</td>
</tr>
<tr>
<td>5.9.1</td>
<td>Step 1: Mapping Out a Vision for a Healthy Community</td>
<td>81</td>
</tr>
<tr>
<td>5.9.2</td>
<td>Step 2: Analysing Underlying Obstacles and Barriers to Achieving a Healthy Community</td>
<td>81</td>
</tr>
<tr>
<td>5.9.3</td>
<td>Step 3: Identifying Appropriate Strategic Directions for a Healthy Community</td>
<td>81</td>
</tr>
<tr>
<td>References</td>
<td></td>
<td>81</td>
</tr>
</tbody>
</table>
5.9.4 Step 4: Identifying Systematic Actions and Assessing Community Capacity .................. 82
5.9.5 Step 5: Developing an Implementation Schedule and Carrying Out Proposed Actions .......... 82
5.10 Site Visits ........................................................................... 83
5.11 Secondary Data Sources .................................................. 83
5.12 Data Management and Analysis ........................................ 83
5.13 Conclusion ....................................................................... 84
References ............................................................................... 85

Part III Case Studies: Application of the Ecohealth Approach

6 Applying an Ecosystem Approach to Community Health Research in Ghana: A Case Study .. 89
6.1 Introduction ....................................................................... 89
6.2 Health and Environment Challenges of the Study Community ............................................. 91
6.3 Making Use of an Ecosystem Approach to Community Health Research ............................. 93
6.4 Forming a Transdisciplinary Research Team and Setting the Research Agenda ................. 94
6.5 Findings of the Study .......................................................... 95
6.5.1 Community Members’ Perceptions of Health and Poor Health ..................................... 95
6.5.2 Indicators of Good Health and Poor Health ................................................................. 97
6.5.3 Identifying Major Community Health Problems ............................................................ 98
6.5.4 Examining the Underlying Causes of Poor Health in the Community ............................. 100
6.6 Analysing Participants Responses from a Political Ecology of Health Perspective ................. 102
6.7 Conclusion ....................................................................... 106
References ............................................................................... 106

7 Planning for a Healthy Community: A Case Study – Phase II ............................................ 109
7.1 Introduction ....................................................................... 109
7.2 Mapping Out A Vision for a Healthy Community .............................................................. 111
7.3 Identifying Obstacles to Achieving a Healthy Community .................................................. 114
7.4 Assessing Our Strengths and Resources ........................................................................ 117
7.5 Identifying Strategic Directions and Systematic Actions for a Healthy Community .......... 118
7.5.1 Building Community Capacity to Manage Local Environments Sustainably .................. 119
7.5.2 Strengthening Intersectoral Collaboration ................................................................. 120
7.5.3 Broadening the Concept of Community Participation ........................................ 121
7.5.4 Communicating Environment and Health Information Effectively .......................... 121
7.5.5 Building on Local Knowledge Systems .................................................. 122
7.6 Building Community Capital: Integrating the Strategic Directions .................................. 124
7.7 Drawing up an Implementation Plan ...................................................................... 125
7.8 Conclusion ........................................................................................................ 127
References ............................................................................................................. 127

8 Challenges and Ethical Dilemmas in Conducting Participatory Ecohealth Research .................. 129
8.1 Introduction ...................................................................................................... 129
8.2 Gaining a Second Entry into the Community ...................................................... 130
8.3 Establishing Equal Partnerships Between Participants and the Research Team .................. 133
8.4 Participatory Ecohealth Research as Transformative and Empowering? ......................... 134
8.5 To Be or Not To Be: Insider – Outsider Relations ................................................. 136
8.6 Dealing with Vulnerability in Focus Group Discussions ........................................... 137
8.7 Are all Voices and Knowledges Captured through Group Processes? ......................... 138
8.8 Conclusion ...................................................................................................... 139
References ............................................................................................................. 140

9 Ecosystem Approaches to Indigenous Health .................................................................. 141
9.1 Introduction ...................................................................................................... 141
9.2 Indigenous Peoples and Communities .................................................................. 143
9.3 Indigenous Conceptions of Health and Links to “Country” ........................................ 144
9.4 Colonized and Politicized Indigenous Ecosystems: Implications for Human Health ............... 146
9.4.1 Mercury Poisoning in Grassy Narrows First Nations .............................................. 146
9.5 Climate Change and Indigenous Health .................................................................. 148
9.6 Examining Indigenous Health Problems from a Political Ecology of Health Perspective .......... 150
9.7 Ecosystem Approaches to Indigenous Health ....................................................... 152
9.8 Conducting Research with Indigenous Communities: Some Considerations .................. 153
9.9 Conclusion ...................................................................................................... 156
References ............................................................................................................. 156
10 Policy Frameworks on Health and Environment Linkages .... 159
  10.1 Introduction .................................................. 159
  10.2 Global Policy Frameworks on Health, Environment
      and Development .............................................. 160
  10.3 Regional Initiatives on Health and Environment: Africa
      and Europe .................................................... 163
      10.3.1 Health and Environment Policy Frameworks
              in Africa .............................................. 164
      10.3.2 Health and Environment Policy Frameworks
              in Europe .............................................. 167
  10.4 Developing Integrated Policy Frameworks:
      Issues and Challenges ....................................... 169
  10.5 Influencing Policy Through Community-Based
      Ecohealth Research .......................................... 172
  10.6 Conclusion ................................................... 173
References .......................................................... 173

Part IV A Critical Approach to Ecohealth Research and Practice

11 Applying Critical Theory to Environment and Health Issues .... 177
  11.1 Introduction ................................................... 177
  11.2 Critical Theoretical Perspectives ........................... 178
  11.3 The Production of Scientific Knowledge Claims .............. 179
      11.3.1 Processes Through which Scientific
              Knowledge Claim Authority ............................ 180
  11.4 Constructing Subject Positions Through the Use
      of Binary Logic .............................................. 181
  11.5 Scientific Interventions and Forms of Resistance ............ 183
  11.6 Conclusion ................................................... 183
References .......................................................... 184

12 Examining Environmental Problems from a Critical Perspective .. 185
  12.1 Introduction ................................................... 185
  12.2 Examining Various Environmental Discourses .................. 187
  12.3 Key Features of Political Ecology ............................ 189
  12.4 Political Ecology of Health ................................... 193
  12.5 Conclusion ................................................... 194
References .......................................................... 195

13 Examining Public Health Concerns from a Critical Perspective .. 199
  13.1 Introduction ................................................... 199
  13.2 Public Health as Discourse ................................... 200
  13.3 Negotiating Definitions of Health and Ill Health ............ 201
  13.4 Negotiating the Determinants of Health Problems ............ 202
  13.5 Historicizing Health Problems ................................ 203
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.6</td>
<td>Conclusion</td>
<td>204</td>
</tr>
<tr>
<td></td>
<td>References</td>
<td>205</td>
</tr>
<tr>
<td>14</td>
<td><strong>Towards a Critical Approach to Ecohealth Research and Practice</strong></td>
<td>207</td>
</tr>
<tr>
<td>14.1</td>
<td>Introduction</td>
<td>207</td>
</tr>
<tr>
<td>14.2</td>
<td>Identifying Environmental Problems from a Critical Perspective</td>
<td>208</td>
</tr>
<tr>
<td>14.3</td>
<td>Explaining Environmental Problems from a Critical Perspective</td>
<td>210</td>
</tr>
<tr>
<td>14.4</td>
<td>Identifying Health Problems from a Critical Perspective</td>
<td>211</td>
</tr>
<tr>
<td>14.5</td>
<td>Explaining Health Problems from a Critical Perspective</td>
<td>213</td>
</tr>
<tr>
<td>14.6</td>
<td>Contextualizing Environment and Health Experiences</td>
<td>214</td>
</tr>
<tr>
<td>14.7</td>
<td>Developing Mutually Acceptable Ecohealth Interventions</td>
<td>216</td>
</tr>
<tr>
<td>14.8</td>
<td>Approaching Transdisciplinarity and Participation from a Critical Perspective</td>
<td>218</td>
</tr>
<tr>
<td>14.9</td>
<td>Towards a Reflexive Ecohealth Research Practitioner</td>
<td>219</td>
</tr>
<tr>
<td>14.10</td>
<td>Conclusion</td>
<td>220</td>
</tr>
<tr>
<td></td>
<td>References</td>
<td>221</td>
</tr>
<tr>
<td><strong>Index</strong></td>
<td></td>
<td>223</td>
</tr>
</tbody>
</table>
Ecosystems and Human Health
A Critical Approach to Ecohealth Research and Practice
Dakubo, C.Y.
2010, XIV, 233 p., Hardcover
ISBN: 978-1-4419-0205-4