

Contents

Part I Civilization in Crisis: The Edge of the Abyss

1	The Global Ecological Situation	3
	References.....	24
2	A Critically Overpopulated Planet	27
	References.....	42
3	The Ecological Footprint of Modern Man	43
	References.....	53

Part II Civilization in Crisis: The Edge of the Abyss (Continued)

4	The Social Dimensions of the Crisis	57
	References.....	78
5	Centralized Economics, the Market and Their “Contributions”	81
	References.....	96
6	Humanity’s Spiritual Crisis as the Root Cause of the Ecological Challenge	97
	References.....	105

Part III World Society: Politicians and Scientists in Search of an Answer

7	First Steps by the UN and Club of Rome. The Computer Model That Rocked the World	109
	References.....	126

8 Programs of Change: Stockholm—Rio De Janeiro—Johannesburg—Rio+20	127
References	136
9 The Path to a Systemic Understanding of the Biosphere	137
References	151
 Part IV Permanence of the Planetary Environment and the Concept of Biotic Regulation	
10 Abiotic Factors in Forming the Earth's Climate	155
References	162
11 Role of the Biota in Forming the Environment	163
References	174
12 Biotic Mechanisms for Supporting Environmental Stability	177
References	194
 Part V Weighing a Scientific Approach	
13 Foundations of Sustainability in Nature and Society	199
References	205
14 Sustainable Development Within the Norms of the Biosphere's Carrying Capacity	207
References	215
15 Prerequisites for Sustainable Development and Maintaining Ecosystems by Country and Continent. Russia's "Special Project"	217
References	242
16 What About Coevolution?	245
References	253
Conclusion: "The Die is not yet Cast"	255
Index	259