

# TABLE OF CONTENTS

## Preface

11

<b>1</b>	<b>Introduction</b>	<b>15</b>
<b>2</b>	<b>Global Challenges</b>	<b>18</b>
2.1	The Origin of the Universe and the Planet Earth	20
2.2	Origin and Evolution of Life on Earth	22
2.3	Catastrophic Events in the Course of the Evolutionary Process	27
2.4	The Origin and Evolution of Human Beings	32
2.5	Cultural Evolution	36
2.6	The Rise and Fall of Civilizations	43
2.7	The Legacy of Ancient Rome	50
2.8	Global Problem Analysis	57
2.8.1	The Problem of Violence	
2.8.1.1	Wars and Armed Conflicts	60
2.8.1.2	Terrorism and Organized Crime	66
2.8.1.3	Human Rights	71
2.8.2	Population, Migration and Human Settlements	
2.8.2.1	Population Trends	77
2.8.2.2	Migration	85
2.8.2.3	Human Settlements	85
2.8.3	Food Provision, Nourishment	89
2.8.4	The Population's Health	95
2.8.5	The Environment	106
2.8.5.1	A Model of the Environment	109
2.8.5.2	Biodiversity	111
2.8.5.3	Water	118
2.8.5.4	Climate Change	128
2.8.5.5	Depletion of the Ozone Layer	139
2.8.5.6	Land Use	142
2.8.5.6.1	Forests at Risk	144
2.8.5.6.2	Soil at Risk, Spread of Deserts	147
2.8.5.6.3	Long-term Sustainable Use of Ecosystems	151
2.8.5.7	Environmental Security	156
2.8.6	Natural Resources	157
2.8.6.1	Raw Materials	158
2.8.6.2	Waste, Recycling	160
2.8.6.3	Energy	162
2.8.6.3.1	Fossil Fuels	163
2.8.6.3.2	Hydrogen as a Fuel	167
2.8.6.3.3	Nuclear Energy	167
2.8.6.3.4	Renewable Resources	170
2.8.6.3.5	Regional Aspects of Energy Use	174
2.8.7	The Poor and the Rich	175
2.8.8	The Status of Women and Men	182
2.8.8.1	Regional Aspects of the Status of Women and Men	186
2.8.9	Future Global Challenges – Nanotechnology, Biotechnology, and Information Technology	188
2.8.9.1	Nanotechnology	188
2.8.9.2	Biotechnology	190
2.8.9.3	Information Technology	191



<b>3</b>	<b>Study of Possible Futures</b>	<b>195</b>
3.1	Basic Characteristics of the Study of Possible Futures	196
3.2	Methods of Studying Possible Futures	198
3.2.1	The Brainstorming Method	198
3.2.2	Delphi Method	199
3.2.3	Extrapolation Method	200
3.2.4	Scenario Method	201
3.2.5	Panel of Experts	202
3.2.6	Participatory Methods	202
3.2.7	Systems Approach	203
3.2.8	Foresight Method	205
3.2.9	Relevance Tree and Morphological Analysis	205
3.2.10	Analogy Method	206
3.2.11	Futures Wheel	206
3.2.12	Cross-Impact Analysis	207
3.2.13	Trend Impact Analysis	207
3.2.14	Megatrend Analysis	208
3.2.15	Simulation and Games	208
3.2.16	Decision-Making Models	209
3.2.17	Genius Forecasting, Intuition, and Vision	209
3.3	Examples of Non-Scientific Approaches to Studying the Future	211
3.3.1	Astrology	211
3.3.2	Numerology	212
3.3.3	The Bible Code	212

<b>4</b>	<b>Sustainable Development</b>	<b>215</b>
4.1	General Background	216
4.2	Value Orientations	221
4.3	Economic Aspects of Sustainable Development	231
4.4	Technological Aspects of Sustainable Development	242
4.5	Political, Legal, and Institutional Aspects of Sustainable Development	246
4.6	Components of Sustainable Development in Energetics, Transport, and Urban Planning	250
4.6.1	Energetics	250
4.6.2	Transport	252
4.6.3	Urban Planning, Sustainable Cities	256
4.7	Change in the Patterns of Consumption and Production	257
4.8	Indicators of Sustainable Development	259
4.9	Promoting Sustainable Development	283
4.9.1	United Nations Conference on Environment and Development	283
4.9.2	The World Summit on Sustainable Development	285
4.9.3	National Strategy of Sustainable Development	287
4.9.3.1	Building National Capacities for Sustainable Development (The UNDP Project)	287
4.9.3.2	The First Proposal for the Czech National Strategy for Sustainable Development	288
4.9.3.3	The Second Proposal for the Czech National Strategy for Sustainable Development: „From Economic Growth to Sustainable Development“	288
4.9.3.4	The Third Proposal for the Czech National Strategy for Sustainable Development	289
4.9.3.5	Revision of the Czech Republic Strategy for Sustainable Development	290
4.9.3.6	National Strategy for Sustainable Development of the Slovak Republic	291
4.9.4	European Union Strategy for Sustainable Development	293
4.9.5	Local Agenda 21 (Sustainable Development at the Local Level)	294
4.9.6	Actors of Sustainable Development	298
4.9.6.1	The Movement Action Plan	301
4.10	What If It Goes Wrong?	304



<b>5</b>	<b>Global Governance</b>	<b>311</b>
5.1	Global Ethical Values	314
5.2	Global Civil Society	318
5.3	Global Economic Governance	318
5.4	Global Security	323
5.5	Reforming the United Nations	327
<b>6</b>	<b>Development Cooperation</b>	<b>335</b>
6.1	Developing Countries in the Poverty Trap	336
6.2	Development Cooperation	342
6.2.1	Some of the Major Obstacles to Development	344
6.3	Global Marshall Plan	348
6.3.1	The Marshall Plan	348
6.3.2	Truman's Legacy	349
6.3.3	Global Marshall Plan	350
6.3.4	Global Partnership for Development alias the Global Marshall Plan for the 21 <sup>st</sup> Century	353
6.3.5	Marshall Plan for Haiti (case study)	357
<b>7</b>	<b>What Remains to be Discovered?</b>	<b>361</b>
7.1	On the Border between Reality and Fantasy	364
7.1.1	Going into Space	364
7.1.2	Communication with Animals and Plants?	368
7.1.3	Mass, Energy, Space, and Time	373
7.1.3.1	Light	376
7.2	On the Border between Reality and Fiction	
7.2.1	Consciousness	376
7.2.1.1	Controlling Matter through Consciousness	384
7.2.2	Unidentified Flying Objects	391
7.2.3	Lost Worlds (Possible Civilizations)	392
7.2.4	Potential of the Brain, Fusion of the Brain and Computer	393
<b>8</b>	<b>The Lust for Life, the Will to Meaning, the Desire for the Absolute</b>	<b>397</b>
<b>9</b>	<b>Epilogue</b>	<b>405</b>
	<b>Literature</b>	<b>409</b>
	<b>Index</b>	<b>423</b>