PLAN B 3.0

Mobilizing to Save Civilization

Lester R. Brown

EARTH POLICY INSTITUTE

W • W • NORTON & COMPANY

NEW YORK LONDON

Contents

Pre	Preface	
1.	Entering a New World	3
	A Massive Market Failure	6
	Environment and Civilization	9
	China: Why the Existing Economic Model Will Fail	13
	Mounting Stresses, Failing States	14
	A Civilizational Tipping Point	18
	Plan B—A Plan of Hope	20
	I. A CIVILIZATION IN TROUBLE	
2.	Deteriorating Oil and Food Security	27
	The Coming Decline of Oil	29
	The Oil Intensity of Food	34
	The Changing Food Prospect	36
	Cars and People Compete for Crops	38
	The World Beyond Peak Oil	42
	Food Insecurity and Failing States	45
3.	Rising Temperatures and Rising Seas	48
	Rising Temperature and Its Effects	49
	The Crop Yield Effect	51
	Reservoirs in the Sky	53
	Melting Ice and Rising Seas	56
	More-Destructive Storms	61
	Cutting Carbon 80 Percent by 2020	64
4.	Emerging Water Shortages	68
	Water Tables Falling	69
	Rivers Running Dry	75
	Lakes Disappearing • .	77
	Farmers Losing to Cities	78

viii	Contents
'111	Contents

	Scarcity Crossing National Borders		81
	Water Scarcity Yields Political Stresses		82
5.	Natural Systems Under Stress		85
	Shrinking Forests: The Many Costs		86
	Losing Soil		90
	From Grassland to Desert		93
	Advancing Deserts		94
	Collapsing Fisheries		97
	Disappearing Plants and Animals		101
6.	Early Signs of Decline		106
	Our Socially Divided World		107
	Health Challenge Growing		110
	Throwaway Economy in Trouble	-	115
	Population and Resource Conflicts		117
	Environmental Refugees on the Rise		121
	Mounting Stresses, Failing States		123
	II. THE RESPONSE—PLAN B		
7.	Eradicating Poverty, Stabilizing Population		131
	Universal Basic Education .		133
	Stabilizing Population		136
	Better Health for All		140
	Curbing the HIV Epidemic		144
	Reducing Farm Subsidies and Debt		146
	A Poverty Eradication Budget	,	149
8.	Restoring the Earth		152
	Protecting and Restoring Forests		153
	Conserving and Rebuilding Soils		158
	Regenerating Fisheries		162
	Protecting Plant and Animal Diversity		164
	Planting Trees to Sequester Carbon		165
	The Earth Restoration Budget	i	169
9.	Feeding Eight Billion Well		175
	Rethinking Land Productivity		176
	Raising Water Productivity		179
	Producing Protein More Efficiently		183
	Moving Down the Food Chain		188
	Action on Many Fronts		189

Contents	ix
Contents	<i>ix</i>

10. Designing Cities for People	192
The Ecology of Cities	194
Redesigning Urban Transport	196
Reducing Urban Water Use	202
Farming in the City	205
Upgrading Squatter Settlements	208
Cities for People	209
11. Raising Energy Efficiency	213
Banning the Bulb	215
Energy-Efficient Appliances	218
. More-Efficient Buildings	221
Restructuring the Transport System	225
A New Materials Economy	228
The Energy Savings Potential	235
12. Turning to Renewable Energy .	237
Harnessing the Wind	239
Wind-Powered Plug-in Hybrid Cars	243
Solar Cells and Collectors	246
Energy from the Earth	252
Plant-Based Sources of Energy	255
River, Tidal, and Wave Power	258
The World Energy Economy of 2020 .	259
III. AN EXCITING NEW OPTION	
13. The Great Mobilization.	265
Shifting Taxes and Subsidies	267
Summing Up Climate Stabilization Measures	273
A Response to Failing States	276
A Wartime Mobilization	279
Mobilizing to Save Civilization	280
What You and I Can Do	285
Notes	289
Index	
Acknowledgments	393
About the Author	399