

Introduction	p. ix
Deltas: Young, Fragile and Threatened Environments	p. 1
Long-term construction of deltas: general mechanisms	p. 2
Processes and basic forms	p. 2
Dynamics of construction and redistribution in progress	p. 2
Young and unstable areas	p. 5
Some of the Earth's last great natural deltas: two deltas in the Arctic	p. 8
The Lena Delta	p. 8
The Mackenzie Delta	p. 9
The Earth's deltas: what is their current situation in the face of terrestrial and marine constraints?	p. 11
The rise in sea levels	p. 11
Sedimentary exhaustion of continents	p. 13
Extraction of resources and accelerated subsidence of deltas	p. 15
Subsiding deltas in Southeast Asia	p. 16
An example of a young, mainly rural delta, the Huang-He	p. 16
Urbanized deltas in Southeast Asia	p. 16
Conclusion	p. 25
Old Societies and Deltaic Crises	p. 27
Some vulnerable deltas in the Holocene during the long and medium terms	p. 27
The Nile Delta, a condensed version of the history of the African climate	p. 28
The lower Huang-He and its delta: a Holocene metamorphosis under anthropological control	p. 29
The Rhône Delta during the Holocene: fluvial branches and the coastline record the history of its climate and society	p. 35
The Rhine and the Meuse Deltas: from complete control of fluvial and marine waters to attempts at restoration to a natural state	p. 36
The fight against fluvial floods	p. 36
Hydraulic works and environmental objectives in the dyked zone	p. 39
What kind of compatibility or synergy takes place between fluvial restoration and protection against flooding?	p. 41
Defense of the Netherlands against the sea	p. 42
Contemporary imbalances in the Old World	p. 47
A delta with a reprieve: the Nile Delta	p. 47
The Rhône Delta: changes in the basin and the delta	p. 52
The Ebro Delta: alone against the sea	p. 54
The delta of the Po plain: historical dispersion of weak points	p. 57
The Danube Delta: still room for hope	p. 59
Conclusion	p. 61
Tropical Deltas in Crisis, Between Open and Closed Formations	p. 63
A delta that is both open and alive: the Ganges and Brahmaputra Delta	p. 63
Rivers and a delta	p. 64

The Ganges-Brahmaputra-Meghna plain, the most populated and the poorest on Earth	p. 65
The Mekong Delta in a suspended status	p. 78
A technical machine, constantly more complex	p. 78
Extremely worrying emerging factors	p. 87
What will be the management choices in the future? Giving preference to the scale of the basin	p. 95
The Niger Delta: unlimited exploitation of black gold	p. 97
The deltaic zone	p. 97
The effects of the extraction of hydrocarbons on the environment	p. 98
Serious social and political stakes at play	p. 101
The Indus Delta, dramatically dried out	p. 103
The delta and its coast	p. 103
The deleterious effects of dams on water and sediment fluxes	p. 103
A serious environmental, economic and social crisis	p. 104
The Ayeyarwady, initial symptoms of imbalance?	p. 106
Burma, a country on the cusp of development	p. 106
The Ayeyarwady, an enormous conveyor belt	p. 107
The delta: crisis or stability?	p. 107
Conclusion	p. 109
The Aging Delta of a Country in the New World, the Mississippi	p. 111
New Orleans: an "inevitable city on an impossible site"	p. 111
"Discovering" the river	p. 111
At the origins of New Orleans	p. 112
An area with serious issues at stake	p. 113
Floods and protection of the lower Mississippi valley and the delta since 1717	p. 116
Initial protections	p. 116
The beginning of generalized protections	p. 117
The 1927 flood in the Mississippi valley	p. 118
The Jadwin plan (1928)	p. 119
Current protection elements	p. 120
The "deltas" in the lower Mississippi valley, from wilderness to the current crisis	p. 120
The Mississippi Delta stricto sensu: a natural zone in crisis	p. 124
Flow and landscape dynamics	p. 124
The Atchafalaya and its deltaic lobes	p. 127
The conversion of delta marshes into free water and coastal regression	p. 129
Hurricanes and their effects on the Mississippi Delta	p. 132
Hurricane Katrina	p. 132
What does the future hold for New Orleans?	p. 134
Sediments in the Mississippi and equilibrium of the delta	p. 137

Simply a reduction in inputs or a sediment deficit?	p. 137
The rise in sea levels and climate change	p. 138
Reconstruction of the marshes	p. 138
Sedimentary management of deltaic branches and the future of the marshes	p. 139
Coastal protection plan	p. 140
Conclusion	p. 141
What Strategies Can Help Overcome the Delta Crisis?	p. 143
Delta dynamics: contrasting budgets on a global scale	p. 143
The progress of analytical approaches adds complexity to the understanding of deltas on a global scale	p. 143
The unforeseen effects of scientific choices	p. 145
Open, vulnerable systems	p. 147
Some control logic for rivers and deltas	p. 148
Situations involving crises and knowledge	p. 148
Contemporary hydraulic engineering pitted against the dynamics of economic domination	p. 149
Scientific knowledge at the service of policies on rivers and on their deltas: the case of the Mekong	p. 151
Avatars and tribulations of geopolitics	p. 153
Expert appraisal and conquest of engineering markets on deltaic land	p. 154
What sustainability is there for deltas in the 21st Century? Comparative approaches	p. 158
The typology of deltas as a function of the changes expected in the risk profile	p. 158
Typology of deltas as a function of their energy consumption	p. 159
The degree of vulnerability or the relative vulnerability of deltas to current changes	p. 160
The notion of the tipping point of a delta and of the socioeconomic system	p. 161
Actions at the scale of the continental fluvial system to rebalance the deltaic systems	p. 162
Implementation of actions of sedimentary management	p. 162
Establishment of current and future sediment budgets	p. 165
The actions developed in the deltaic system in response to crisis situations	p. 166
Structural solutions: dykes and fluvial levees	p. 166
Some solutions for correction of the sedimentary deficit of deltaic plains	p. 169
The sustainable solutions	p. 171
Conclusion	p. 177
Glossary	p. 179
References	p. 185
Index of Place Names	p. 205
Index of Common Words	p. 211