

Geography of Sub-Saharan Africa

Samuel Aryeetey-Attoh, Editor

University of Toledo



Prentice Hall, Upper Saddle River, New Jersey 07458

CONTENTS

PREFACE	xvii
Chapter 1: The Physical Environment	1
WILLIAM YAW OSEI AND SAMUEL ARYEETAY-ATTOH	
Introduction	1
Physical Landscapes	2
The Plateau Continent	3
The Rift Valley System	4
Coastlines	7
Continental Shelf	8
Rivers	9
Drainage Basins	9
Climate	10
Pressure Systems and Wind Movement	10
Latitudinal Effect	14
Maritime Effect versus Continentality	15
Ocean Currents	15
Altitude	16

Lake Effect	17
Climatic Classifications	17
Vegetation	21
Vegetation Types	22
Rain Forest	22
Woodlands	24
Savanna Grassland	25
Sahel Shrubland	27
Desert and Semidesert	27
Mediterranean (Cape and Karoo and Shrubland)	27
Afro-Montane Vegetation	28
Soils	28
Soil Distribution	29
Conclusion	32
Key Terms	33
Discussion Questions	33
References	33

Chapter 2: Human-Environmental Impacts: Forest Degradation and Desertification **35**
WILLIAM YAW OSEI

Introduction	35
Deforestation in Sub-Saharan Africa	36
Definitions	36
Deforestation Trends	37
Causes of Deforestation	40
Agriculture	40
Logging	42
Fuel-Wood Consumption	43
Effects of Forest Degradation	45
Response Strategies to Deforestation	46
Desertification in Sub-Saharan Africa	50
Definition of Desertification	51
Spatial Coverage of Dry Lands in Sub-Saharan Africa	51
Causes of Desertification	52
Strategies to Combat Desertification	54
Conclusion	56
Key Terms	57
Discussion Questions	57
References	58

Chapter 3: Historical Background of Sub-Saharan Africa: Opportunities and Constraints	61
IAN E. A. YEBOAH	
Introduction	61
Indigenous Heritage of Sub-Saharan Africa	61
Sub-Saharan Africa: Cradle of Man	62
The Era of Ancient Civilization	62
Iron, Islam, and Medieval Civilizations	63
Bantu Migrations in Sub-Saharan Africa	65
The Era of Modern Kingdoms	68
Implications of the Indigenous Heritage of Sub-Saharan Africa	68
The Islamic Influence in Sub-Saharan Africa	69
The Spread of Islam in Sub-Saharan Africa	69
Islam and the Indigenous Heritage	71
Islam and the Western Heritage	71
The Western Influence in Sub-Saharan Africa	72
The Period of Initial Contact	72
The Enslavement of Sub-Saharan Africans to the Americas	74
The Age of Land Exploration in Sub-Saharan Africa	74
The Colonial Period, 1884 to the 1960s	78
The Economic and Cultural Impacts of Colonialism	78
The Political and Social Impacts of Colonialism	80
Independence from the West	82
Conclusion	83
Key Terms	84
Discussion Questions	84
References	84
Chapter 4: Culture, Conflict, and Change in Sub-Saharan Africa	86
JOSEPH RANSFORD OPPONG	
Introduction	86
Cultural Geography	87
Culture Change	88
Obstacles to Cultural Diffusion	89
Elements of African Culture	90
Religion in Sub-Saharan Africa	91
Christianity	91
Islam	93
Traditional Religions	94

Family and Kinship Relations	95
Language and Society	96
Niger-Kordofanian Family	97
Nilo-Saharan	97
Khoisan	97
Afro-Asiatic (Semitic-Hamitic)	98
Land Tenure	99
Family Land	99
Communal Land	100
Stool Land	101
State Land	101
Individual Private Ownership	101
Adornment, Dress Forms, and Symbolism in African Culture	102
Colonialism and Diffusion of Non-African Culture	105
Ethnic and Cultural Conflicts	112
Somalia's Clan Warfare: What Went Wrong in East Africa's Only Nation-State?	112
Liberia: Ethnic Politics	113
Sudan: Religious and Ethnic Conflict	114
Modernization and Cultural Conflict	115
Modernization and the Aged in Sub-Saharan Africa	115
Values and Expectations in African Society	116
Conclusion	117
Key Terms	117
Discussion Questions	118
References	118

Chapter 5: Population Geography of Sub-Saharan Africa **120**

SAMUEL ARYEETAY-ATTOH

Introduction	120
General Population Trends	120
Population Density and Distribution	121
The Dynamics of Population Change	126
Fertility Levels and Trends	127
Causes of High Fertility	128
Cultural Determinants of Fertility	129
Mortality Levels	131
Africa and the Demographic Transition	132
Age Composition and Dependency Burdens	133
International Migration and Refugee Issues	135
International Migration Trends	135
Refugee Migration	137
Government Policy and Family Planning	140

Sovereign Rights of Nations and Human Rights	141
Integrative Family Planning Policies	141
Community and Market-Based Strategies and Social Marketing	142
Female Empowerment	142
Effective Targeting of At-Risk Populations	143
Partnerships with NGOs and Private Sector	143
Programs for Refugees	143
Conclusion	143
Key Terms	144
Discussion Questions	144
References	145
Chapter 6: Medical Geography of Sub-Saharan Africa	147
JOSEPH RANSFORD OPPONG	
Introduction	147
Disease Ecology of Sub-Saharan Africa	148
Disease Terminology	149
Endemic Diseases of Sub-Saharan Africa	150
Malaria	150
Trypanosomiasis	150
Yellow Fever	151
Schistosomiasis	151
River Blindness	152
Guinea Worm (Dracunculiasis)	153
AIDS, the African Catastrophe	153
Ebola	155
Sanitation and Health in Sub-Saharan Africa	157
The Health-Care System	159
Spatial Imbalance in Health Services	162
The Rainy Season Accessibility Problem	164
Health Facility Locational Strategies and Location-Allocation Models	164
Bypassing and Utilization of Health Facilities	169
Technology and Health Care	170
Drugs, Fake Drugs, and Health Care in Africa: Killers or Curers?	170
African Traditional Medicine: Dangerous, Anachronistic, or a Panacea?	171
Colonialism and Traditional African Medicine	172
Strengths and Weaknesses of Traditional Medicine and Biomedicine	174
Economic Crisis and Health in Sub-Saharan Africa	175
The Bamako Initiative and Health in Sub-Saharan Africa	177
Conclusion	177
Key Terms	178
Discussion Questions	178
References	179

Chapter 7: Urban Geography of Sub-Saharan Africa	182
SAMUEL ARYEETEEY-ATTOH	
Introduction	182
Historical Evolution of African Cities: Precolonial Cities	182
The Internal Structure of Cities	186
The Internal Structure of Accra, Ghana	191
Current Urbanization Trends in Sub-Saharan Africa	195
Components and Determinants of Urban Growth	199
Gender Migration	200
Urban-Rural Linkages	200
Consequences of Urban Growth	201
Urban Primacy	201
The Urban Informal Sector	202
Housing	206
Land Management	207
Infrastructure Provision, Service Delivery, and Urban Management	208
Water Supply and Sewage Disposal	209
Solid Waste Disposal	210
Public Transportation	211
Solutions to Problems in African Cities	211
Micro-Level Strategies: The Case for Effective Urban Management	211
Macro-Level Strategies: Regional Policies	215
New Towns	215
Growth Poles	216
Intermediate and Small Service Centers	217
Conclusion	217
Key Terms	218
Discussion Questions	218
References	219
Chapter 8: Geography and Development in Sub-Saharan Africa	223
SAMUEL ARYEETEEY-ATTOH	
Introduction	223
Defining and Measuring Development in Sub-Saharan Africa	224
Economic Dimensions of Development	224
Human and Social Dimensions	228
Geographic Patterns of Dualism	233
International Dualism	233
Core-Peripheral Disparities in African Countries	234
Urban Dualism	237
Rural Dualism	237

Theoretical Explanations of Core-Peripheral Disparities	238
Effect of Colonialism	238
Economic Theories	239
Structural-Institutional Theories	243
Sociopsychological Theories	244
Development Strategies	245
Growth with Equity	245
Basic Needs Strategies	246
Intermediate or Appropriate Technology	247
Self-Reliance Strategy	247
Interdependent Development	248
Regional Integration and Pan Africanism	252
Structural Adjustment Programs	255
The Role of Nongovernmental Organizations	257
Conclusion	258
Key Terms	258
Discussion Questions	258
References	259

Chapter 9: Geography and Gender in Sub-Saharan Africa **262**
 IBIPO JOHNSTON-ANUMONWO

Understanding the Geography of Sub-Saharan Africa from a Gendered Perspective	262
Geographic Scholarship of Gender in Africa	264
Mapping the World of African Women: What Counts?	264
Women and Development in Sub-Saharan Africa	265
Adverse Effects of Capitalist Development on African Women's	
Access to and Use of Productive Resources	265
Agriculture and Rural Environmental Degradation	266
Human-Induced and Environmental Influences on	
Agricultural Production	266
Unequal Allocation of Resources within the Household	268
Demographic Trends and Settlement Patterns: Geographical Contexts	270
Population, Fertility, and Mortality Trends	270
Displacement and Migration	272
Differential Access in Urban Settings	273
Geography and Gender Inequality	274
Change and Crisis	274
Structural Adjustment Programs and African Women	277
African Women as Agents of Change	278
Geopolitics and Women's Initiatives	278
Women's Role in Restoring the African Environment	279
Engendering the Geographic Study of Sub-Saharan Africa	279

Gender and Development: Rethinking the Connections	280
African Development: Recognizing and Empowering Women	281
A Gendered Agenda for Future Geographic Research	281
Key Terms	283
Discussion Questions	283
References	283
Chapter 10: Agricultural Development in Sub-Saharan Africa	286
GODSON CHINTUWA OBIA	
Introduction	286
Farming Systems	287
Traditional Farming Systems	287
Shifting Cultivation	288
Rotational Bush Fallow	291
Permanent Farming	293
Pastoralism	293
Cash-Crop and Commercial Farming	295
Cash-Crop Production	296
Commercial Farming	298
Production Trends in Sub-Saharan Africa	300
Problems of Agricultural Production	308
Rural Infrastructure	308
Institutional Factors	310
Land Degradation	310
Inappropriate Technologies	311
Problems with the Green Revolution	312
Research and Development	313
Governments, International Agencies, and Agricultural Markets	315
Policy Options	316
Upgrading Rural Infrastructure	316
Education	317
Developing Appropriate Technologies	318
Developing Alternative Energy Sources	319
Agro-Based Industries	319
Community-Based Cooperatives	319
Integrated Rural Development	320
Conclusion	321
Key Terms	321
Discussion Questions	322
References	322

Chapter 11: Industry, Business Enterprises, and Entrepreneurship in the Development Process	325
BARBARA ELIZABETH MCDADE	
Introduction	325
Trends in Industry and Manufacturing	326
Problems with Industrial and Manufacturing Enterprises	329
Spatial Imbalance in Large-Scale Industries	329
Weak Inter- and Intra-Sectoral Linkages	330
Highly Protectionist Policies	330
Lack of Diversification and Expansion	331
Weak Institutional Capacity	332
Public versus Private Enterprises in Sub-Saharan Africa	332
The Background to State-Owned Enterprises	332
Expanding the Private Sector in Sub-Saharan Africa ^o	334
African Entrepreneurship and Small-Scale Industry	336
Characteristics of African Entrepreneurs	336
Small-Scale Enterprises	337
Conclusion	342
Key Terms	343
Discussion Questions	343
References	343
Chapter 12: Political Landscape of Sub-Saharan Africa	345
IAN E. A. YEBOAH AND SAMUEL ARYEETAY-ATTOH	
Introduction	345
Sub-Saharan Africa: A Landscape of Political Instability	346
Causes of Political Instability in Sub-Saharan Africa	350
Zaire: A Microcosm of Political Chaos	356
The Political Geography of Apartheid in South Africa	358
Scenarios for Political Stability in Sub-Saharan Africa	362
Is There Political Hope for Sub-Saharan Africa?	364
Conclusion	366
Key Terms	368
Discussion Questions	368
References	369
INDEX	371