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Bakama B. BakamaNume  
Houston, Texas, USA.





## Introduction

The last text on the geography of Uganda was written in 1975 by Professor Brian Langlands. Since the last publication, Uganda has undergone numerous changes. The population has more than tripled from less than 10 million to almost 30 million. The district boundaries have changed and the number of districts increases every year. New districts are created every year. Economic productivity has also shifted over the years. Furthermore, new and emerging diseases have surfaced in Uganda. This textbook addresses the need for an updated document on the geography of Uganda. This book was written by a joint group of Ugandan geographers. The contributors authored chapters in their areas of specialization. There are a total of twelve chapters in the book. These chapters are based on the most current data available.

Chapter 1 discusses the climate of Uganda. Ndyabahika Matete and Bakama BakamaNume, examine Uganda's climatic controls, zones, characteristics, trends and the relative importance of climate in Uganda's economic development. They propose future directions mainly for practical applications in agriculture, human settlement, health and industry and in planning short, medium and long-term economic benefits. They acknowledge that data on climatic conditions is now more readily available than before.

Chapter 2 deals with the geomorphology of Uganda. Yazidhi Bamutaze discusses the diversity of Uganda's landforms and the geological structural changes caused by both internal and external forces. Their emphasis is on surficial forces (erosion) or river action. The chapter points to the fact that climate changes have resulted in the melting of most of the ice on Mt. Rwenzori, leaving behind glacial features. Mt. Elgon also depicts features of glacial erosion and morainic deposition. In the Lake Victoria and Lake Albert regions, the immediate coastal shores show lacustrine sand deposits. Around Lake Victoria, a secession of raised beaches occur at approximately 3.5m, 15m and 20m and on part of the shores of Lake Mobutu, bars and cusped fire lands have been created by the prevailing winds from the west.

Chapter 3 is devoted to soils of Uganda. Bob Nakileza provides an analysis of the distribution of major soil types, soil degradation including the types, causes of soil degradation and trends and effects in Uganda. The chapter also discusses response strategies to the problem of soil degradation.

Chapter 4 deals with forestry in Uganda. Mukadasi Buyinza and Jockey Nyakaana examine forest resources in Uganda. They discuss the availability of forest resources, exploitation and the problem of deforestation.

Chapter 5 covers water and wetland resources. Bakama BakamaNume and Hannington Sengendo examine water and wetland resources in Uganda. The chapter is divided into two sections. The first section deals with the availability of water resources and problems of water resources. The second section examines wetland resources and related problems.

Chapter 6 deals with population issues in Uganda. Fredrick Tumwine examines population distribution, population growth, demographic characteristics, factors influencing fertility and possible interventions to reduce rapid population growth.

Chapter 7 is about urbanization in Uganda. Hannington Sengendo examines the evolution of urban societies. He presents a critical view of the internal structure of cities and processes that mold and shape the city, urbanization trends, causes and effects associated with urbanization and city growth and the environmental issues resulting from urbanization. He critically looks at trends in Uganda and what can be done to reduce some of the urbanization problems.

Chapter 8 analyzes medical geography. In this chapter, Bakama BakamaNumé focuses on four health issues: disease distribution, mortality causes, distribution of medical facilities and HIV/AIDS and malaria prevalence. Furthermore, the analysis and discussion in this chapter demonstrates how health care issues can be examined and analyzed using geographic and cartographic techniques.

Chapter 9 is on political geography. Bakama BakamaNumé presents an examination of spatial attributes of the Ugandan political process in the areal expression. The focus of this chapter is the evolution of administrative units in Uganda, the administrative system in Uganda and the electoral geography in Uganda.

Chapter 10 examines spatial variations in economic activities. Bakama BakamaNumé examines economic activities – primary, secondary, tertiary, quaternary and quinary. Primary activities involve extraction and harvesting of resources. These activities include; agriculture, mining, forestry, hunting and quarrying. Secondary activities involve adding value to a raw material. Manufacturing and construction are secondary activities. This chapter focuses on primary and secondary sectors of the Ugandan economy. The emphasis is on agriculture, fisheries and manufacturing.

Chapter 11 is on development geography. Jockey Nyakaana provides an interpretation of and elements of sustainable development, as well as the relationship between geography and sustainable development in Uganda. The discussion gives a conceptual framework for linking the two. It also shows the linkage between the Millennium Development Goal 7 (MDG) for ensuring environmental sustainability and other MDGs.

And finally, Chapter 12 deals with Geographic Information Systems (GIS). Shaub Lwasa focuses on GIS as a new tool in Geography and geographic studies with some demonstrations of its capabilities in handling geographic data and information. The chapter is organized in three parts: the first part is an introduction on GIS in which definitions and theoretical underpinnings of GIS are elaborated; the second part is a discussion of GIS as a tool and method with some review of literature on methodology in Geography as well as the different fields where GIS is applied and used in Uganda; and the third part presents some case studies analyzed using GIS focusing on the procedures or algorithms and the uses of the outputs. The three case studies attest to the analysis of population dynamics and visualization and urban development. The chapter concludes with a brief overview on opportunities and limitations of using GIS in Uganda.



## Contributors

1. Bakama BakamaNume is an associate professor of Geography at Prairie View A&M University, Prairie View, Texas
2. Yazidhi Bamutaze lecturer Department of Geography, Faculty of Arts, Makerere University, P.O. Box 7062 Kampala, Uganda
3. Mukadasi Buyinza is a senior lecturer in the Department of Community Forestry and Extension, Faculty of Forestry and Nature Conservation, Makerere University, P.O. Box 7062 Kampala, Uganda
4. Shuab Lwasa is lecturer in the Department of Geography, Faculty of Arts, Makerere University, P.O. Box 7062 Kampala, Uganda
5. Jockey B. Nyakaana is an Associate Professor and head of the Department of Geography, Faculty of Arts, Makerere University, P.O. Box 7062 Kampala, Uganda
6. Ndyabahika Matete is lecturer Department of Geography, Faculty of Arts, Makerere University, P.O. Box 7062 Kampala, Uganda
7. Bob Nakileza lecturer Department of Geography, Faculty of Arts, Makerere University, P.O. Box 7062 Kampala, Uganda
8. Hannington Sengendo is an associate professor of geography and dean of the Faculty of Arts, Makerere University, P.O. Box 7062 Kampala, Uganda
9. Fred Tumwine lecturer Department of Geography, Faculty of Arts, Makerere University, P.O. Box 7062 Kampala, Uganda