2020 International Conference on the Nile and Grand Ethiopian Renaissance Dam: Science, Conflict Resolution and Cooperation, August 20-21, 2020, Florida International University, Miami, FL USA (Virtual)

Geographical Dimensions of Hydro-politics: The Case of Nile and Mekong Rivers

Daniel Waktola[1]

Abstract

Nile and Mekong rivers are among the world's great transboundary river systems, canvassing 17 countries of Africa and Asia. While each basin is geographically unique, a critical look at the biophysical and hydro-political attributes of the two rivers reveal patterns worthy of in-depth analysis. Recently, the two river systems have gained the attention of academicians, politicians, and the media due to renewed conflicts and cooperation between the upstream and downstream riparian states. Appraisal of contemporary studies in those rivers exhibits a dichotomy of focus areas: either environmental or hydro-political aspects. The environmental side investigates the hydrological, geological, land use/land cover, climate change, etc., while the hydro-political side focuses on hydro hegemony, symmetric-asymmetric power dynamics, treaties and diplomatic challenges, water rights, military and economic powers, etc. Admittedly, studies integrating the two aspects are very limited, if not absent. As environmental studies are conducted in a georeferenced dataset and hydro-political parameters are anchored and implemented in concrete geographical spaces (places) within the territories of the signatory states, this study argues that a geographical approach contributes towards filling the void between the two focus areas. A two-pronged approach followed: the spatiality of biophysical processes and the impact these biophysical processes had on the hydro-political landscapes of countries sharing the Nile and Mekong river basins. A pool of secondary data is harnessed from authoritative sources, which include population and settlement, dams, DEM, land use, stream vector files, meteorological data, etc. Results of vector- and raster-based geoprocessing unveil the hypsographic demography along multiple buffer zones, topographical relief characteristics, morphometric characteristics of the rivers, current and predicted climate characteristics, etc., along with the upstream-downstream blocks of each river basin. At last, the nature and conduct of hydro-politics of both the hegemonic and counter-hegemonic actors of the two river systems are assessed in accordance with the patterns derived from the underlying biophysical factors.

Keywords: Hydro-politics, Nile River, Mekong River, Biophysical factors

1Associate Professor, Geography/GIS, Austin Community College, Northridge Campus