## Long-Term Climate Patterns in Eastern and Southeastern Ethiopia

Authors: Messay Mulugeta, Degefa Tolossa

Abstract: The purpose of this paper is to scrutinize trends of climate risks in eastern and southeastern parts of Ethiopia. This part of the country appears severely affected by recurrent droughts, erratic rainfall, and increasing temperature condition. Particularly, erratic rains and moisture stresses have been forcibly threatening and shoving the people over many decades coupled with unproductive policy frameworks and weak institutional setups. These menaces have been more severe in dry lowlands where rainfall is more erratic and scarce. Long-term climate data of nine weather stations in eastern and southeastern parts of Ethiopia were obtained from National Meteorological Agency of Ethiopia (NMA). As issues related to climate risks are very intricate, different techniques and indices were applied to deal with the objectives of the study. It is concluded that erratic rainfall, moisture scarcity, and increasing temperature conditions have been the main challenges in eastern and southeastern Ethiopia. In fact, these risks can be eased by putting in place efficient and integrated rural development strategies, environmental rehabilitation plans of action in overworked areas, proper irrigation and water harvesting practices and well thought-out and genuine resettlement schemes.

**Keywords:** rainfall variability, erratic rains, precipitation concentration index (PCI), climatic pattern, Ethiopia **Conference Title:** ICGUES 2017: International Conference on Geography, Urban and Environmental Studies

**Conference Location :** Paris, France **Conference Dates :** May 18-19, 2017