World Academy of Science, Engineering and Technology International Journal of Environmental and Ecological Engineering Vol:11, No:05, 2017

Urban Livelihoods and Climate Change: Adaptation Strategies for Urban Poor in Douala, Cameroon

Authors: Agbortoko Manyigbe Ayuk Nkem, Eno Cynthia Osuh

Abstract: This paper sets to examine the relationship between climate change and urban livelihood through a vulnerability assessment of the urban poor in Douala. Urban development in Douala places priority towards industrial and city-centre development with little focus on the urban poor in terms of housing units and areas of sustenance. With the high rate of urbanisation and increased land prices, the urban poor are forced to occupy marginal lands which are mainly wetlands, wastelands and along abandoned neighbourhoods prone to natural hazards. Due to climate change and its effects, these wetlands are constantly flooded thereby destroying homes, properties, and crops. Also, most of these urban dwellers have found solace in urban agriculture as a means for survival. However, since agriculture in tropical regions like Cameroon depends largely on seasonal rainfall, the changes in rainfall pattern has led to misplaced periods for crop planting and a huge wastage of resources as rainfall becomes very unreliable with increased temperature levels. Data for the study was obtained from both primary and secondary sources. Secondary sources included published materials related to climate change and vulnerability. Primary data was obtained through focus-group discussions with some urban farmers while a stratified sampling of residents within marginal lands was done. Each stratum was randomly sampled to obtain information on different stressors related to climate change and their effect on livelihood. Findings proved that the high rate of rural-urban migration into Douala has led to increased prevalence of the urban poor and their vulnerability to climate change as evident in their constant fight against flood from unexpected sea level rise and irregular rainfall pattern for urban agriculture. The study also proved that women were most vulnerable as they depended solely on urban agriculture and its related activities like retailing agricultural products in different urban markets which to them serves as a main source of income in the attainment of basic needs for the family. Adaptation measures include the constant use of sand bags, raised makeshifts as well as cultivation along streams, planting after evidence of constant rainfall has become paramount for sustainability.

Keywords: adaptation, Douala, Cameroon, climate change, development, livelihood, vulnerability

Conference Title: ICWEEM 2017: International Conference on Water, Energy and Environmental Management

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