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Opinion

Perception or Reality: Capitalism Induced Climate Change in Rural Eritrea

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Opinion

It has been already decennia since climate change has been a reality and has increasingly become the concern of the international community without discrimination. Drought, floods and heatwaves have become very common incidents in the 20th century [1]. Nevertheless, the effects of the change have been more dangerous in the developing countries particularly to the rural population of the developing countries in the form of "slow violence" [2]. Notably, peasantry which constitute majority of the Eritrean society has now experienced several climate related changes in their livelihood. In the last hundred to eighty years, in all accounts, Eritrea exhibits the impact of climate variability in the forms of recurrent drought, shortage and spatial and temporal variability of rainfall which resulted in frequent crop failure, livestock and wildlife mortality, genetic erosion, extinction of endemic species, degradation of habitats and disequilibria in ecosystem structure and function [3]. Hence, the objective of this article is to give an overview assessment of peasants' understanding about the impact of climate change in the livelihood of peasantry society of Eritrea. Despite several uncertainties regarding the impact of climate change, the Department of Environment in the Ministry of Land and Environment of Eritrea has proven that climate change has begun to be felt in the agriculture through erratic rainfall and irregular temperature. Knowing that the agricultural sector of the Eritrean economy still depends on the peasantry mode of production, the impact on the national economy is serious.

Hence, practically and conceptually, the impact of Climate change is no-more suspicion in Eritrea; it is unquestionable reality. Yet, in assessing the impact of climate change in Eritrea there are uncertainties and unknowns. In spite of that, looking at temperature and rainfall factors, the changes are undeniable and difficult to ignore. According to data released in 2021 by the Department of Environment, from 1961 to 2018, temperature in the central highlands where showed increase in the maximum average and minimum average of 1.85oC and 1.64oC respectively which means there is 1.7oC [4]. From 1900 to 2018, mean annual precipitation recorded 17 percent decrease. However, it is not steady throughout the century; for example, the decrease of rainfall from 1920 to 1967 was 30 percent comparing to pre and post this period. In a nutshell, the decrease in mean annual precipitation from 1900 to 2018 in the central highland ranged from 20 to 50 percent [5].

The question is: how do peasants view this change? Peasants admit the change in temperature and amount of rainfall. Nevertheless, they have a different version of explanation regarding the factors that caused it. In their view, the phenomenon of climate change is not the direct act of human being. But it is the manifestation of God's anger, because man's actions become distant to his commandment. In words of one of the peasants once asked about the climate change, "how would you think that man could have the power to change temperature and rainfall...this is nothing except man is seeking divine power." In peasants' understanding, any change in temperature and rainfall can only be the domain of divine power. To the peasants, climate is a divine sphere that can be altered on the basis of the deed of human being towards the commandments of God. So, peasants hardly believe that climate change is a man-made phenomenon unless God lets it be when man has failed to comply with his holly order. It is "God's punishment to human being to come to order if not deluge." So, peasants believe that there is real change in climate system but hard to accept it as human phenomenon.

Nevertheless, they see the change very clearly when they begin to work on land during food production. In the view of another peasant, "it has been so long since we receive adequate and regular rainfall. To us, this means so many problems including shortage of drinking water to us and our livestock and more importantly to our crops. Without adequate water, the fate of our harvest is doomed, so does our survival." Hence, peasantry agriculture is the most vulnerable sector of the Eritrean economy due to its reliance on natural system. Reports indicated that declined in agricultural yield, depletion of water resources, land degradation, loss of biodiversity outbreak of diseases, loss of livestock etc. are the most common climate change related damages in the rural Eritrea [6]. Except the early maturing crops such as Sorghum, pearl millet and barely, some crops mainly maize which matures longer than others appear to be in the verge of disappearing. For example, in one of the sub-regions under study called as Serejeka, peasants say, "it has been between five to three years since they have either stopped sowing or harvesting maize because of lack of sufficient rainfall." In the 2021 report of the national UNFCCC, it is stated that peasants' household production focuses on the early maturing crops particularly Sorghum and Barley. While Sorghum stands first, Barley is second. Statistically, Sorghum occupies 49 percent of the total cultivated area and accounts for 46.6 percent of the total production [7]. When peasants are asked why, their response is simple, i.e. shortage of rainfall. According to an old man, "long time ago, there was a mini-rainy season in this area called Azmera which usually used to take place between April and May. If God releases sufficient rain during this period, we saw maize (Corn) and begin harvesting from around the mid-August. This rescues us from starvation that we normally face during rainy season." In the peasant practice, food storages get out of supply by mid-June since they do not harvest adequate annual supply. This means during rainy season peasants' households run out of food stock.

The effects climate change has not been limited to crop production. Livestock production has also been suffered from it. Lack of water and poor animal feed all related to drought attributed to climate change severely affected the livestock population in the peasantry regions [7]. "Giving livestock are the source of our food and flexible property to convert in to cash, their absence is felt in almost every household of the peasants" according to a female peasant who heads a family of five children. According to majority of the peasants who have been informing this research, stress in rain supply in the grazing areas as well as in the households is the major factor of livestock decline. The lack of water, mainly rain, diminished the grazing areas. When another peasant defines the situation, "forty to thirty years ago, animals had not to travel long to graze, both grazing fields and hives from the harvests was enough to cross the years...of course, there was time when we cross some distant place but it was rare incidents." To the peasants and national UNFCCC reports, drought become recurrent in the regions under study in the last 28 years.



Even though capitalism in Eritrea has weak footing, it has never missed causing damage on the peasantry structure. Land dispossession and land grabbing, capitalism's most destructive processes in developing countries, are totally irrelevant to the peasantry mode of production in Eritrea. However, global warming is making its contribution in changing the fundamental structure of peasants. Even though the scale is small and at its initial stage, the gradual concentration on fewer grains in the peasant regions will have multiple effects on the peasantry mode of production. As peasants focus on few grains, there will be decrease in land fertility. This means there will also affect harvest on other grains. Continuous application of the same grain on the land will definitely reduce harvesting on other grains. Hence, it has spiral effects on the harvesting capacity of other grains. Unless there is fast intervention from the state, which of course weighs peasants' role in the national economy, with the continuous unreliable rain, peasants will embrace for shock soon.

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