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Water Crises, Food insecurity & Climate Change: Linkages & Options for Offsetting the Adverse Impacts - the case of Southeastern Oromia in Ethiopia

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Abstract

Fresh water is one of the scarcest and the most unevenly distributed resources in our globe. Its natural scarcity, combined with the multifaceted pressures on the ecosystem's ability to generate and retain water and the dire demand for it have resulted in water crises and food insecurity, particularly in Sub-Saharan Africa. In planning for any sort of socioeconomic transformation, water is a central part as it is the major input in production of biomass and energy. Moreover, it is the life blood of an ecosystem so that an environment with a diminishing water content becomes a desert and stops supporting life. Climate change affects the distribution and residence time of water, creating an ever increasing water crises in terms of water shortage and water threats. In different parts of the world, it is causing the most hydrologic events, droughts and flooding, that have resulted in losses of lives and assets.

Ethiopia is a good example where rain-water is the major limiting factor for economy, and land degradation and Climate change induced water crises have been evidently demonstrated themselves as a challenges to economy, livelihood deterioration and social instability. The country suffers severely from physical & economic water scarcity. The existing water scarcity & soil degradation coupled with the nature of agricultural practice of the country has made the local community highly vulnerable to manmade and natural shocks, making the situation extremely exasperating. The agricultural practice is mostly subsistence in which marketable surplus is under 25% of total production. Without properly addressing the water crises and doing a meaningful effort to create resilience towards social and economic shocks by the climatic uncertainties, it is difficult to ensure food security and livelihood transformation in a sustainable manner.

In this paper, the author tries to present the situation of mismanagement of soil and water resources and the role of climate change impacts in aggravating the water crises and livelihood deterioration in southeastern Oromia Regional State of Ethiopia. To reverse the existing trend of water crises in the target area, key factors driving to the current problems were identified, major challenges that need to be addressed and proposals for strategic interventions to be undertaken have been discussed. The major contributing factors for the water shortage and its consequences on the socio-economy and the environment were categorized under two major issues: manmade and natural factors. Climate change and altitude are the main natural factors whereas lack of effective management and improper utilization of land and water resources are the anthropogenic factors that led to vicious cycles of poverty driven natural resources degradation and vice-versa.

To offset the current trend, five strategic interventions that may address the dire need for focused investments in water infrastructure and the development of institutional and human capacities were recommended. These interventions are focused on the mechanisms that enhance the supply of water and aid for water demand management that mainly involve water harvesting, efficient water utilization, conservation works and physical and human capacity building. These proposed interventions are based on

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