World Academy of Science, Engineering and Technology International Journal of Environmental and Ecological Engineering Vol:9, No:04, 2015

Green Revolution and Reckless Use of Water and Its Implication on Climate Change Leading to Desertification: Situation of Karnataka, India

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Abstract: One of the basic objectives of Independent India five decades ago was to meet the increasing demand for food to its growing population. Self-sufficiency was accomplished towards food production and it was attained through launching green revolution program. The green revolution repercussions were not realized at that moment. Many projects were undertaken. Especially, major and minor irrigation projects were executed to harness the river water in the dry land regions of Karnataka. In the elevated topographical lands, extraction of underground water was a solace given by the government to protect the interest of the dry land farmers whose land did not come under the command area. Free borewell digging, pump sets, and electricity were provided. Thus, the self-sufficiency was achieved. Contrary to this, the Continuous long-term extraction of water for agriculture from bore well and in the irrigated tracks has lead to two-way effect such as soil leeching (Alkalinity and Salinity), secondly, depleted underground water to incredible deeps has pushed the natural process to an un-reparable damage which in turn the nature lost to support even a tiny plants like grass to grow, discouraging human and animal habitation, Both the process is silently turning southwestern, central, northeastern and north western regions of Karnataka into desert. The grave situation of Karnataka green revolution is addressed in this paper to alert reckless use of water and also some of the suggestions are recommended based on the ground information.

Keywords: alkalinity, desertification, green revolution, salinity, water

Conference Title: ICEAFS 2015: International Conference on Environment, Agriculture and Food Sciences

Conference Location : Lisbon, Portugal **Conference Dates :** April 16-17, 2015