



Editorial

CLIMATE RESILIENT DEVELOPMENT AND ECONOMIC GROWTH

Climate change, climate resilient communities, and climate resilient development are being discussed widely in the past few years. Environmental researchers cautioned the world about global warming and its possible negative impacts on environment and human life way back in the late 1980s. Thereafter, the Intergovernmental Panel on Climate Change (IPCC) identified global climate change as an issue that needed to be tackled urgently. In response to this, many countries formulated context specific climate change adaptation and mitigation strategies particularly, for managing their forests, agriculture & pastoral lands, and livestock population. Even after years of efforts, life on earth is still being challenged with climate change effects in the form of drought, flash flood, coastal erosion etc. along with creating serious negative impacts on the world agri-food system. In fact, evidences from various Indian states in the past ten years convey the necessity of policy interventions to enhance the climate adaptation capacity of urban communities to resist urban floods and shortage of drinking water. However, promoting climate change adaption without mitigation never work in the long run. Also, keeping the burden of climate change mitigation on the farming community never ensure sustainable development and economic growth in any country.

This issue of HARIT DHARA includes articles related to soilless cultivation, microplastic pollution, soil mining,

soil test-based fertilizer use, burning of crop stubble, and composting of farm waste and weeds. Directly or indirectly all these topics deal with agriculture related climate change adaptation and mitigation. Soilless farming technique like bioaponics reduces pressure on existing farm lands as well as reduces emissions from agricultural soils. Soil excavation for various purposes trigger release of CO₂ trapped in the soil to atmosphere. Also, indiscriminate use of chemical fertilizers in agriculture increases the release of GHGs. Studies revealed that soil microplastics have potential to increase emissions from subsurface soils. Climate change effects like rising sea level and altered ocean currents carry microplastics even to unpolluted areas. Further, burning of crop stubble is an important but unresolved issue in India due to many reasons and microbial based decomposition techniques and composting offer the opportunity to convert agricultural waste and weeds to plant nutrient source. Even though the role of microbes in soil is generally well known, potential of silicon solubilizing bacteria in climate change adaptation of plants is an emerging research area in India.

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