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Study on The Ecological Consequences of Food Wastage

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ABSTRACT

The present study focusses on evaluating the ecological impacts due to food wastage which has been either food loss or due to food wastage. Food production and consumption are resource oriented that consumes nearly 70% of available fresh water and 30% of energy, that is impacted by population growth, urbanization, growing demand, climate change and resource degradation. Globally, average water and food availability indicates sufficiency to meet demands of 7.7 billion population (UN, 2018). Still, nearly 1.2 billion people face acute water scarcity and 870 billion people go hungry every day, of which majority are from India (~194.6 million) which is much low in global hunger index. India produces about 270 million tons of food a year against the demand of 225-230 million. Paradoxically, despite adequacy, food security is not ensured and nearly 40% food is wasted at all levels from harvesting till consumption as all the produce fail to reach the consumer. Such wastage adversely affects the economy, environment, and society. Even with several attempts to reduce food waste by individuals, organizations and authorities, India trails in reducing food crisis and needs innovative technological and entrepreneurial solutions and some policy changes. In order to lay out a road map for achieving sustainable development goals (SDG) 2,6 and 12 (which stipulates “zero hunger”, “clean water and sanitation” and responsible consumption and production respectively), it is important to explicate the resources utilization as well as their reparations to the environment.

The concept of footprints especially the water and the carbon footprints, that are good proxies to measure the pressure of human actions on the environment have been utilized in this study to estimate the impacts of food wastage. Available estimation of water and carbon footprints for various food products have been recorded from the literature and interpreted in terms of resource utilization as well as damages caused to the environment when wasted. Outcome of the study would be helpful in deriving strategies for sustainable resources management as well as for preparing agenda that could scale down the vulnerable impacts on environment.

Food, water and energy underpin are inextricably linked to environment sustainability contributing to a variety of ecological disasters culminating in food and resource in security.

KEYWORDS: food security, water footprint, carbon footprint, environment, sustainability