



Editorial

SMART NATURAL RESOURCE USE FOR SUSTAINABLE FOOD SYSTEMS

The world food demand is expected to increase by 50-60% by 2050. Since the base of food production system is natural resources like soil, water, minerals, biomass, biodiversity and fossil fuels, ensuring food security for the growing population without damaging these valuable resources is a big challenge. In fact, intensive agricultural systems are often famous for their large environmental footprints. When improved socio-economic status and living standards of people increased the demand for nutritious and diverse food stuffs throughout the world, the goal of our current food production system has to be more than 'food security'.

Different International reports conveyed the current global average daily food consumption of a person as 1.85 kg from all food sources and an annual wastage of one third of all food produced. Food wastage means loss of natural resources used to produce food, its processing, packaging and marketing along with the emission of Green House Gases during the food production process as well as rotting of wasted food. Further, under the circumstances where one fourth of the world's arable land is reportedly unproductive, the current trend of food production, consumption and food wastage put an extra pressure on the dwindling natural resources. Also, International Resource Panel of the United Nations Environment Project reported a 40 times increase in the global average per capita material demand in 2017 compared to that of 1970s. Hence, it is high time to freeze the food footprint through smart use of natural

resources in agriculture and allied sectors promoting 'growing more with less' and eliminating the food wastage as much as possible.

Innovations in science and technology have already come up with some alternative ways such as soil less cultivation and production of food in the lab for feeding the future generations with minimum dependence on soil, water and biodiversity. However, it is difficult to exclude farm based food production as it is the sole livelihood option for nearly 600 million smallholder farm families of the world. To achieving the Sustainable Development Goals along with meeting the needs of both people and nature, linking food security with intelligent utilization of natural resources is inevitable. This demands long term collaborations among the farming community and other stake holders of food sector to come up with feasible landscape objectives and farm field practices through dialogues and negotiations.

In this issue of Harit Dhara articles on natural farming, strategies for ensuring clean drinking water, utilization naturally available materials like gypsum and waste mica for soil fertility improvement, potential use of Silicon in crop plants for managing environmental stress, extension efforts to prevent field burning of crop residues and farm field story on adoption of resource conserving technologies are included.

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