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Reducing wastage of food key to saving the environment

By Hippu S Kristle Nathan

This year's theme of World Environment Day (June 5) focuses on reducing food wastage. One might think that this topic is unrelated to the environment, but facts indicate otherwise. As per the United Nations Environment Programme (UNEP), global food production occupies 25 per cent of all habitable land and is responsible for 70 per cent of fresh water consumption, 80 per cent of deforestation, and 30 per cent of greenhouse gas emissions. When food is wasted, so are the resources and efforts in producing it. Hence, the reduction in food wastage will lead to reduction in food requirements and the inputs used in the production.

Wastage of food can occur anywhere in the food supply chain– production, processing, storage, transportation, and consumption. Broadly speaking, different societies show different patterns of food wastage. The UNEP reports that the Western world wastes nearly as much as it eats, and most of this happens towards the end of food supply chain with retailers and consumers.

Retailers' strict cosmetic standards result in rejection of food items not perfect in shape or appearance. Consumers waste food through excess purchase and careless eating behaviours. In developing economies, wastage of food – sometimes referred to as 'food loss' – occurs in the initial part of the food chain mainly connected to harvesting techniques, transportation, storage and cooling facilities. Food and Agriculture Organization (FAO) estimates the per capita food waste/loss in Europe and North-America is 280-300 kg/year and in Sub-Saharan Africa and South/Southeast Asia it is 120-170 kg/year. If one considers only food wastage by consumers, the per capita figure for Europe and North-America is 95-115 kg/year, while the corresponding value for Sub-Saharan Africa and South/Southeast Asia is about 6-11 kg/year.

In the case of India, various reports suggest losses of food grains and other food items at different stages of the food supply chain. A 2007 ministry for food processing industries report estimates agricultural produce worth Rs 580 billion is wasted in

India each year. A 2009 UNEP study states that India loses yearly 23 million tonnes of food cereals, 12 million tonnes of fruits, and 21 million tonnes of vegetables.

Country's perspective

A more recent report by the Institute of Mechanical Engineers (2013) on global food indicates that India loses about 21 million tonnes of wheat annually due to inadequate storage and distribution. These figures are not conclusive, but there is no second opinion as to India's need for better food storage and transportation facilities. Our country's leak-prone food supply chain has a resemblance with the electricity sector. India loses about 25 to 30 per cent of its generated electricity on account of transmission and distribution (T&D) losses, whereas the T&D loss for developed countries is below 10 per cent. So, from the country's perspective, this 'theft' results in electricity shortages and revenue loss to the production companies which are mostly government-owned. Similarly, a significant portion of the food produced with a lot of effort does not reach the plates, on account of supply leakages.

At the consumption end, though the per capita food wastage by consumers is low in India compared to developed economies, the same cannot be ignored given that nearly 70 per cent of Indians live with less than 2 dollar a day and don't contribute to this wastage. Rich people, to show off status in social events like weddings, births or deaths, display wide array of dishes, which lead to wastage of large quantities of food.

A recent study by the Indian Institute of Public Administration of the wastage of food during social gatherings in national capital region Delhi, shows that rising economic prosperity makes people indulge in extravagance and ostentatious behaviour during social events and people do not mind throwing away food, but the menu has to be extensive as any shortage would affect their so-called honour and respect in society. Also, celebrations of plethora of festivals in Indian societies waste food on such occasions as it is prepared on a large scale.

This loss/wastage of food in India is ironical given the fact that India is among the world's most hunger-ridden countries. With nearly one-fifth of total population and 43.5 per cent of under-five children malnourished, India ranks 15th from the bottom in the 2012 global hunger index. A reduction in food loss/waste can potentially mitigate hunger in the country. Plugging the supply leakage and simplified lifestyle inducing fewer expenses on food in social gatherings would reduce the overall food production requirement. It would reduce the demand for food from the rich and increase its supply for the poor. It would reflect in decline in food prices, which in turn would increase the affordability of poor for food items.

In order to reduce the foodprint, we need to acknowledge the heavy footprint of irrigated agriculture. This high input-intensive system requires more energy, water, fertiliser, pesticides, and subsidies, but it is neither inclusive, nor sustainable as it does not respect agro-ecological variability. Revitalising rain-fed agriculture, which the Planning Commission reports, contains two-thirds of gross cropped area and three-fourths of livestock population, will bring back the focus on location-specific, decentralised, natural resources integrated, climate resistant, and 'diversity driven' productive agriculture. This will not only reduce carbon footprint of agriculture, but also reduce the scope of supply leakages and contribute significantly to meeting India's rising food and nutrition requirements.

(The writer is with the National Institute of Advanced Studies, Bangalore)