



Food Waste: A moral dilemma

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'Nature gives us nuts, but it does not break them for us.' Global food waste is a challenging nut to crack, but there are also multiple ways in which to address the current situation which have still not been explored.

With the threat of climate change at our doorstep and the subsequent impact on monsoon patterns and agricultural output, it is imperative for all stakeholders to mitigate food waste by employing new practices at multiple levels.

Food waste management is a complex subject with no easy answers. A 2011 report by the Food and Agriculture Organization (FAO) illustrates the scale of the challenge. It states that globally, one third of the food produced is wasted, amounting to a loss of \$750 billion. This wasted food makes its journey to landfill sites. According to a government report, India suffers approximately 45 to 50 per cent post-harvest loss per annum.

Not only is food being wasted as millions go hungry, but the corresponding environmental footprint is also very high with resources used in food production going to waste. The report adds that, 'the blue water footprint (i.e. the consumption of surface and groundwater resources) of food wastage is about 250 km³, which is equivalent to the annual water discharge of the Volga river, or three times the volume of Lake Geneva. Finally, produced but uneaten food vainly occupies almost 1.4 billion hectares of land or close to 30 per cent of the world's agricultural land area.'

Food is lost or wasted throughout the supply chain, from initial agricultural production down to final household consumption. In medium and high-income countries, food is wasted at the consumption stage to a large extent. That is, food is discarded even if it is still suitable for human consumption. Significant losses also occur early in the food supply chains in the industrialised regions. In low-income countries, food is lost mostly during the early and middle stages of the

food supply chain, and much less is wasted at the consumer level.

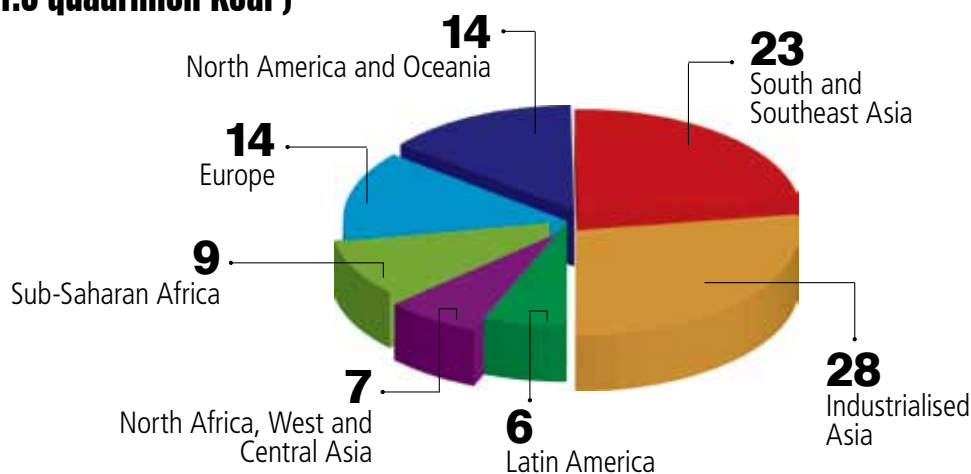
Overall, on a per-capita basis, much more food is wasted in the industrialised world than in developing countries. We estimate that the per capita food waste by consumers in Europe and North-America is 95-115 kg/year, while this figure in sub-Saharan Africa and South/Southeast Asia is only 6-11 kg/year.

Paradoxically, while large amounts of food are thrown away, 30 crore people go to bed hungry every night in India.

Hotels and restaurants need to sharpen their communication to customers to enable them to order optimally. For example, minimum and maximum number of people attending events, like conferences and weddings, must be given more accurately so that the waste is minimised. A methodology should be developed by the food industry for levying charges for food waste, which will naturally result in waste reduction. In San Francisco, Germany and Singapore, restaurants have categorically stated that if food is wasted, an extra charge will be levied.

Other examples of simple messaging to customers include a signboard in a McDonalds outlet in Gurgaon: '30 per cent less wastage, 100 per cent credit to you. Thanks for making every sachet of ketchup count.' Similarly, a small roadside restaurant in South India has a message on food waste, which reads, 'Food waste does not matter to me or you, but it matters to the country. If you waste, pay extra.' The intention here is not to make money, but to make the customer conscious and thus help to reduce waste by giving a forewarning.

**Figure 3 Share of Global Food Loss and Waste by Region, 2009
(100% = 1.5 quadrillion Kcal)**



Note: Number may not sum to 100 due to rounding.

Source: WRI analysis based on FAO, 2011. Global food losses and food waste - extent, causes and prevention. Rome: UN FAO.

Pilot protocols need to be set up so that leftover food from large five-star hotels is given to those without the means for basic sustenance. These protocols should focus on appropriate storage and transfer guidelines in addition to maintaining temperatures at which food will not spoil. Similarly, a protocol for giving away breads, buns, croissants, etc. should be developed which have a shelf life of two-three days. According to the Companies Bill of 2013, companies are voluntarily expected to spend two per cent of their net profit on CSR. As a result, there are opportunities for new players to set up a reverse logistics food chain to transfer leftover food to those in need.

There are many NGOs across the country who are taking leftover food from various organisations and giving it to those in need. The *dabbawalas* of Mumbai have developed a service design whereby a person who has not consumed the content of the tiffin box puts a green sticker on it which means that the food is uneaten. This is then given to street children.

If the food industry and the Government put their heads together, workable solutions can be developed. Climate change is going to increase the pressure on the availability of water, and it is imperative that different organisations work synergistically to avoid social upheavals on account of the paucity of food. Developing an elegant service design to address this issue is going to take time and that makes the need to begin all the more pressing.

Some guidelines can be drawn from the Emerson Good Samaritan Food Donation Act of 1996 in the US. It states: 'The Federal Bill Emerson Good Samaritan Food Donation Act protects

the donor and the recipient agency against liability, excepting only gross negligence and/or intentional misconduct. In addition, each state has passed Good Samaritan Laws that provide liability protection to good faith donors. Each of the Harvest Programs we coordinate have established procedures to ensure that safe food handling and storage is built into their donation program.'

The Emerson Act is important because it was found that each year, 14 billion pounds of food were being sent to landfills. Meanwhile, nearly 30 million Americans, including 12 million children, were at the risk of hunger. Potential donors most often cited fear of liability as the reason they refused to donate to feeding programs. Before passage of the national law, all 50 states of the USA and the District of Columbia had adopted laws protecting donors. Yet, differences in language and applicability between states often discouraged national and regional companies from donating. With the national law in place, regional and national donors have a uniform language that protects them from civil and criminal liability.

India is poised at a similar juncture in terms of high food wastage amounting to ₹44,000 crore while 48 per cent of children from the age group of 0-5 years are chronically malnourished, according to a 2012 report by the Ministry of Statistics and Programme Implementation. Unless strong policy decisions are taken to address the situation, these figures will only rise and more food will make its way to landfill sites.

(Views expressed in the article are that of the author, Niranjana Khatri, General Manager, Environment Initiatives, ITC Hotels)



Originality demands willingness to experiment, spontaneity in response to novel situation, flexibility to change directions as information dictates, and responsiveness to opportunities as they present themselves, even if they are unexpected. Rooted as it is in experimentation, originality openly courts failure”
— Roger Martin