

Opinion

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Volume 2 : Issue 3

Article Ref. #: 1000AFTNSOJ2137

Article History

Received: October 31st, 2016

Accepted: December 7th, 2016

Published: December 13th, 2016

Citation

Mukherjee A. The economics of food wastage at the consumer end. *Adv Food Technol Nutr Sci Open J.* 2016; 2(3): 110-112. doi: [10.17140/AFTNSOJ-2-137](https://doi.org/10.17140/AFTNSOJ-2-137)

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The Economics of Food Wastage at the Consumer End

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INTRODUCTION

Food wastage can be defined as food that is grown and harvested for human consumption but is then discarded instead of consumed, hence, a part of the intended purpose of the food has been lost, which has a negative impact on manpower, machines, costs, and the household.

Food wastage is intimately related to the economy. Considerable hard work and investment is needed to grow vegetables and transport them to the market, but after customers purchase them, a certain amount of the food is wasted. Imagine, if the amount of food that is wasted, if not purchased, it could be bought by someone who is in more need of it.

From an economic point of view, food wastage increases the price of food globally, and natural resources have a nexus to it, resulting in a negative impact on poor and starving people, having limited access to healthy food to survive. Household waste production will be negatively affected by increasing population growth and specifically by the expected growth of the world's middle class.¹

WASTAGE OF FOOD ON A WORLD BASIS

In the year 2009, the Food and Agriculture Organization (FAO) of the United Nations estimated that approximately 32% of food produced was either lost or wasted, which was estimated based on weight.² Most food wastage occurs in developed countries considering per capita food wastage by consumers. Excluding production of processed food, ~95-115 kg of food is wasted per annum in Europe and North America, while in Sub-Saharan Africa and South and South East Asia it is ~6-11 kg per year.

In rich countries, consumers buy mammoth amount of food but fail to plan their purchase of food suitably.

On a world basis, around one-third of the food produced is wasted. In US, food waste is the biggest component of landfill and incinerators according to Environmental Protection Agency (EPA).³ Consumers in high-income countries jettison up to 30% of fruit and vegetable purchases and groom products up to 33% by weight during household recipe preparation.

It has been found that household has the biggest responsibility in food wastage accounting for 42% of the entire food wastage.

According to the 2013 Global Hunger Index (GHI), India ranks 63rd, among 78 hungriest countries, notably worse than its neighbors—Sri Lanka (43rd), Nepal (49th), Pakistan (57th), and Bangladesh (58th). Despite India's significant improvement over the past quarter century—its GHI rating has risen from 32.6 in 1990 to 21.3 in 2013—the United Nations FAO believes that 17% of Indians are still too undernourished to lead a productive life. One-quarter of the world's undernourished people dwell in India which is more than in all of Sub-Saharan Africa.⁴

RELATION OF FOOD WASTAGE AND ECONOMY

Food wastage represents a missed opportunity to feed the region's ever-growing and existing population which should be acknowledged by every individual in the world. In terms of economics of food wastage, food wastage has an inversely proportional relation with the producers and customers. Food wastage has a negative impact on the economy of the region by lowering the income of the producers and increasing the price of food for consumers.

If food wastage is viewed by applying⁴ "Consumer theory", a low planning potential, lack of information related to food labels, standards, and expiration dates can also lead to food wastage.

Food wastage also has an impact on families. Throwing away a product is equivalent to lost money. Food wastage is indirectly paid by the consumers by the increase in prices which enable shops, outlets, etc., to remain profitable.

The economic impact on the smallest scale (families/ household) has relatively the biggest impact on the poorest household.

Consumer's expenses are directly proportional to the price of food. The global market that is influenced by demand and supply involves price variation of a product which can lead to increase in price of product and even riots in poor regions but if there is a significant decrease in prices, then it is better to leave it on the ground instead of selling it at a cost lesser than the harvesting cost.

Many people lack the knowledge/skills to make a recipe with a certain ingredient. Lack of skills to make a recipe of

the left over ingredients, poor planning due to weddings, occasions, etc. and uncertainty of number of meals in home per week contribute to food wastage.⁵

Consumers store a stock of promising never used items that were purchased for either a special recipe or for an occasion that has never taken place but gets discarded at some point of time.

REASONS WHY FOOD IS WASTED

Food is wasted for various reasons such as^{5,6} (Figure 1):

Leftover

The reason behind this is either exorbitant quantity of food was served on plate or prepared.

Partially used Food

Food not used completely and ends up behind the fridge.

Food not Stored Properly

Bad smell, looked bad and tasted bad because of lack of proper food storage.

Passed Expiry Date

Some foods like bread and other staples are left in cupboard like memories and when noticed, it is too late.

Preparation of Food

Food wastage also happens when food is not prepared well.

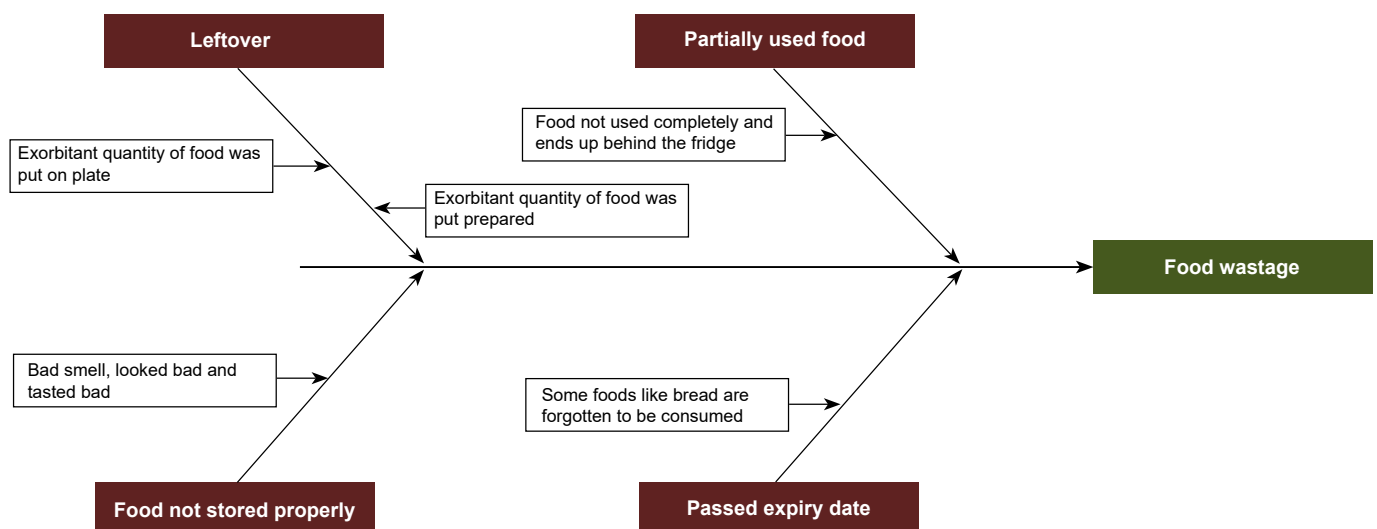


Figure 1: Fish bone diagram (reasons of food wastage at the consumer end).

Lack of Planning or Management

Some ingredients are used in a hurry which actually could be used for future.

WAYS TO CURB FOOD WASTAGE

Do not Shop Hungry

Purchase what is necessary and avoid purchasing more than that is required. Avoiding plastic money can help to get rid of the habit because cash pains more.

Plan your Purchases

Plan what is required to be purchased and ignore offers that stimulate you to purchase more.

Be Wise and Choosy

Bulk purchase is always not wise. Potatoes and onions can be stored for days but other vegetables may not. It is better to purchase leafy vegetables in small quantity. Avoid purchasing foods that have a short expiry date.

Store Food Intelligently

Maintain proper temperature inside the refrigerator. Put new groceries at the back while the old ones in front. Use breathable bags to store vegetables and fruits.

Plan Meals

Do not make excess of food to avoid waste.

Exercise Rules/Law

France is the first country to exercise a law to curb food wastage from super markets. If laws like fine for food wastage in restaurants are implemented, people will take food wastage with gravity.

Teaching in Educational Institutes

Importance of planning for food purchase, consumption, storage needs to be taught in educational institutes to raise awareness.

Food Sharing

Food sharing could be a solution to food wastage. A pilot experiment conducted by Piergiuseppe Morone et al⁷ was concluded by findings that food sharing practices reduce organic food wastage.

CONCLUSION

Like the environment, food is also important for the survival of every living organism on the planet, hence, food should be purchased and consumed wisely. There are many people in the world who hardly gets three meals a day.

Prevention is better than cure. Instead of spot lighting on how to recycle food wastage, spotlight should be directed towards consuming the food.⁵

Whichever reason(s) are behind food wastage, those points should be worked upon and improved so that food wastage can be reduced. To meet the food requirements of our future generation, it is necessary to act as soon as possible. Instead of blaming each other, each individual should hold the torch and take an initiative to avoid food wastage.

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