

60  
125

# Essay

Time Allowed: 1½ hrs.

Max. Marks: 125

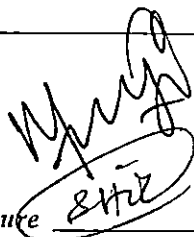
## Instructions to Candidate

- Attempt one essay
- The test carries 125 marks.
- Write the essay in about 1000-1200 words.
- Any page left blank in the answer-book must be crossed out clearly.

*(Examiner will pay special attention to the candidate's grasp of his/her material, its relevance to the subject chosen, and to his/ her ability to think constructively and to present his/her ideas concisely, logically and effectively).*

### Remarks

Please see inside for value addition.



1. Invigilator Signature \_\_\_\_\_

2. Invigilator Signature \_\_\_\_\_

Name SWAPNIL KHARE

Mobile No. \_\_\_\_\_

Date 01/10/16Signature Swapnil Khare

1. Censorship is at odds with a knowledge economy.
2. Feeding India: Turning From Food Waste to Food Security

### FEEDING INDIA: TURNING FROM FOOD WASTE TO FOOD SECURITY

India has a population of more than 1.25 billion. Feeding the huge population and making sure that no one goes to sleep hungry is thus a huge challenge. Achieving food security is ensuring that all <sup>people</sup> have access to affordable food is thus an even bigger challenge. To attain food security, it is very important to increase production of food. However, if all the food that is produced does not reach the plate of those who want to consume it, food security cannot be realised. Thus wastage of food in the harvest, transport, storage and procurement stage needs to be curbed to ensure that <sup>all</sup> food produced

reaches the final consumer. Similarly, many people who have food on their plate waste it, which makes the food produced of little or no value. This food, if instead of being wasted was fed to a poor person, would have contributed towards food security. Thus there is a need to curb food wastage if the objective of food security is to be attained. Use of refrigerated storage, transport in well-covered containers, curbing ledges in the PDS system are ways in which wastage can be reduced before it reaches the customer. Similarly, inculcating the habit of consuming all that is on one's plate can incentivize an individual to take less food on plate and thus reduce wastage. Further, leftover food in kitchens and messes can be

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distributed to the local poor. This would take us one step closer to feeding every hungry stomach and hence food security. The following paragraphs look at wastage of food in harvesting, storage, transport, marketing, distribution and consumption stages. Certain ways to curb wastage have also been proposed. Let us start by looking at food wastage in the harvest stage.

In India, food harvest is a very labour-intensive process. Most processes are conducted by farmers and agricultural labour and use of machines is minimal. However, such a harvest procedure is prone to food wastage. Use of sickles to cut crops can leave many grams to be left uncut (uncut) or to lie on the ground

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uncollected. Similarly post-harvest technique of winnowing using wind can also lead to separation of a lot of the grain with the husk. Threshing and hand-picking to separate wastes too may lead to a lot of the food grains being separated out along with the waste. This <sup>is</sup> a challenge to food security as just after harvest a significant portion of the food is being separated out and then being wasted. The solution to this is the use of machines for harvest and post-harvest operations. These machines which are efficient in most of the post-harvest separation procedures such as threshing, winnowing, etc ~~can~~ <sup>can</sup> save us tonnes of food grain at a national level. Similarly, use of pesticides and weedicides

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can ensure that there is no wastage of food in the pre harvest stage. The food thus saved can contribute hugely to India's food security. However, food produced and harvested efficiently is of little value if there is a lack of proper storage facilities.

In rural areas, there is a lack of proper food storage facilities. Due to an absence of godowns, farmers are forced to store food in the open which leaves it susceptible to rains and pests. Further, FCI and other state godowns are often in a poor condition and the humidity and rodents in these godowns lead to wastage of stored food. Further, there have been instances of corruption or asking for bribes before farmers can

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allowed to store food in godowns. This wastage can be easily curbed if proper storage facilities are created at the grassroots level. The panchayats should be empowered to take up construction of godowns for the village farmers. This can also be made part of MGNREGA works. Further, <sup>large</sup> storage facilities of FCI and CWC should be refrigerated to avoid moisture and pests. Private competition in the storage sector can make the FCI more efficient. Better monitoring and tours by senior FCI officials can help reduce corruption at local levels. Thus, better storage facilities can curb wastage and help us move towards food security. Now let us look at food wastage in transportation.

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The transport of food in India is undertaken through roads and rail. Food transported through freight railways is sometimes left open from the top (uncovered). This leads to wastage both through rains and through pilferage. Similarly non-maintenance of proper-moisture conditions during transportation through roads and railways can also lead to wastage. But, this wastage can be <sup>Kumar</sup> cutted early if recommendations of Shanta Ram Committee are adhered to. The committee recommended ~~contamination~~ of transport, use of refrigeration in trucks and railways, <sup>and</sup> use of gunny sacks to ensure less exposure to rain. These steps would ensure that food is not wasted in the transport stage and instead be used to feed the intended beneficiary.

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Similarly, there is a lot of food wastage due to in the marketing processes. There is a <sup>(LACK)</sup> lack of good procurement facilities. FCI is not equipped to procure most items other than foodgrains. This can lead to farmer's produce not being procured - a threat to food security. Further, the compulsion to sell only through APMCs makes farmers to undertake the long journey to the APMC with their produce - a lot of food is wasted during this transport. Also, many times prices of food items fall below input costs as happened in the case of onions recently. This leads to wastage of food as farmers prefer to not sell their produce at such throwaway prices. Proper market mechanisms can curb such food wastage. Introducing private procurement as recommended by Arund Subramanian

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Committee can ensure that all types of food items produced by the farmer are procured and reach the market. Creation of buffer stocks and announcing MSP for food items can ensure that foods like onions are not wasted due to plummeting of prices. Relaxing of APMC compulsions can ensure that all food reaches the market, without wastage in transport. Further, getting leakages in PDS system which is akin to food wastage as it denies food to the intended beneficiary, can help us move towards food security.

Finally, there has to be a change in the way food is consumed at the final stage.

At present, people take more food on their plate

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than they can consume. This food could have gone to the plate of another hungry person who would have valued the food more.

Further, a lot of food is also wasted at the time of cooking in kitchens and messes.

This food again could be utilized better. Food left in kitchens and messes can be given to poor living in nearby areas. Further, parents should inculcate habit of finishing everything that is on one's plate. This will urge children to only take the amount that will not be wasted. This will thus reduce demand for food and the left food would go to the others including the poor and the hungry.

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We have looked at how food at various stages such as harvest, storage, transport, distributors and consumption. Certain measures to curb such wastage such as mechanization, refrigerated storage facilities, covered hopper of food grains, proper market mechanisms and distribution of leftover food were suggested. Given India's huge and increasing population, food security is going to be a huge challenge in the coming years. It is predicted that in coming years, climate change would reduce yields of agriculture. Thus, increasing food production can only take us so far. Efficient utilization of food produced and reducing food wastage is the way forward. Gandhi's idea of being for the last person in the line forces us to think about the poor and

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the hungry. The dream of making sure that no person goes to bed hungry can only be realised if we link food security to reducing food wastage. Reducing food wastage will help us realize Gandhi's dream.

— X —

60  
—  
120

good!

Strength  
Structured, analytical and relevant.

Weakness: Needed to say that food security is more than containing "wastage"  
What are the other components?

— What is being done, what needs further to be done?

Wastage - The reasons, especially

(a) Rich and poor divide in consumption

(b) Lack of concern and attitudinal issues

etc - Could be discussed a little more

Remarks

(c) No where effort has been identified to quantify "wastage" and its impact on hunger and malnutrition (Milk being thrown in temples for example).

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*Remarks*