



Food Waste Reduction –A Need of Present Era

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Abstract:

Food waste is one of the very serious issues which now a day is increasing day by day. It not only affect to human being but also to environment .The purpose of this study is to assess where the food waste is happening most among the food production unit and to find out the strategy by which it can be reduced. A survey was conducted to know where the food waste is happening and how it can be reduced. Reducing food waste is social responsibility of each and every individual. As well as by reducing food waste cost effectiveness can be done and environmental hazard can be reduced. The study concludes offering opportunities for future development.

Keywords: food, waste, reduction, strategy

Introduction:

Food is any substance consumed to provide nutritional support for the body. It is usually of plant or animal origin, and contains essential nutrients, such as fats, proteins, vitamins, or minerals. The substance is ingested by an organism and assimilated by the organism's cells to provide energy, maintain life, or stimulate growth. (www.wikipedia.org:http://en.wikipedia.org/wiki/food#cite_note-1)

If one thinks where the production and consumption of food take place then some name strikes our mind are Residence, Restaurant and Catering is the place where food is prepared, consumed and enjoyed but all these places differ from each other with their volume of work.

A residence is an establishment where it was originally or currently being used by a host as their main place of dwelling or home. Architecturally, a residence is typically a house, mansion, cottage or even grand castles and palaces. A residence is offered to travelers as temporary lodgings where they can rent a room.(www.wikipedia .org:http://en.wikipedia.org/wiki/redidence)





Residence is a place where food is prepared every day in the form of breakfast, Lunch and dinner Majorly, Each and every member of the Home have food every day.

In Residence few members are staying. They are considered as family which includes a husband wife and their children. Lady is the one who prepares food for the entire family; she knows eating habits of each member including their likes, dislike and diet. Food prepared at home is of limited quantity and there are very rare chances of food wastages.

Restaurants are of different standards. A specialty or an A grade restaurant s objectives is the provision of food and beverage .The food ,service and prices are often comparable of those of similar restaurant in luxury hotels .they offer a wide choice from an elaborated menu and a very high quality of service.(Verghese,B.,1999).

In restaurant food is prepared by cooks who are expertise, Here guest come with their own likes, dislike and diet. In restaurant food is served as per the menu card which includes most preferable dishes. To serve food quickly to guest some part of food is pre prepared and even the guest who visit restaurant for dinning are in large numbers. Guest are suppose to pay for what they had consumed thus mainly food not wasted by them but some guest who like to try new dishes may not like after trying it and in such cases food waste take place. Garnishes, Excess portion size and food prepared is not as per the guests expectation, are the some of this basic reason of food wastage.

Catering is the business of providing food service at a remote site or a site such as a hotel, public house or other location ([www.wikipedia.org:http://en.wikipedia.org/wiki/catering.](http://www.wikipedia.org:http://en.wikipedia.org/wiki/catering))

Banquet is the place where functions are organized and functions are incomplete without food, In banquet food which offered to the guest is termed as catering. For function the number of guests are not fixed as host invite a huge number of guest, where ever the number is huge the chances of exact figure is very less therefore for catering estimated number of guests is given.





In Banquet catering Food is selected by Host or someone on his behalf which are going to prepared, In small catering mostly up to 15 dishes are prepared and in Big function it may go up to 50 dishes also. Host is the one who do the payments on behalf of the guests, In banquet catering every one start the food at ones thus the queue get formed for taking the food, To save the time and inconvenience guests tend to take food more than the requirement and end up in wasting food, Guests take the food above their appetite, attractive live counters and many more. Bulk food preparation and huge crowd are the reason due to which food waste happened more.

“Food loss and waste” refers to the edible parts of plants and animals that are produced or harvested for human consumption but that are not ultimately consumed by people. In particular, “food loss” refers to food that spills, spoils, incurs an abnormal reduction in quality such as bruising or wilting, or otherwise gets lost before it reaches the consumer. Food loss is the unintended result of an agricultural process or technical limitation in storage, infrastructure, packaging, or marketing. “Food waste “refers to food that is of good quality and fit for human consumption but that does not get consumed because it is discarded—either before or after it spoils. Food waste is the result of negligence or a conscious decision to throw food away.(Brian Lipinski, C. H., 2013,may).

Significance of Study:

Food waste is the very serious issue which now a day’s increasing day by day ,it not only affect the human being but also to environment .the purpose of the study is to assess where the most food waste is happening and how it can be reduce. The significance of the study highlights the important of food waste and method to curb it. The researchers are keen to provide the sources of waste and practices to curtail them through suggestions.

Aim:

Food Waste Reduction –A Need of Present Era:

Objectives:

- To Locate maximum food waste area





- To create awareness among the participants about the food waste reduction concept.
- To provide strategies for reducing food waste.

Limitations:

Time, Energy and Money were the major constraints.

Study was limited to Nagpur City Only

Sample size was limited to 60 only

Research Methodology:

The area selected for the study was Nagpur city. The Primary data was collected by questionnaire method and secondary data was collected through books, websites and journal. Three types of questionnaires were prepared and 60 samples were collected .which include 20 samples from Nagpur city residence cook preparing food for families having not more than 4 member. Next 20 samples were collected from the cooks of Nagpur restaurant having up to 50 covers and the remaining 20 samples were collected from the caterer, serve up to 1000 guest at a single time. Purposive random sampling method was used for survey.

Applied Chi –square test () to find the association between awareness and category of food maker.

Results and Discussion:

From the table I, Chi square test showed there is no significant difference between the awareness of food waste and the category of food makers.

The table value at 5% level of significance and 2 DOF is 5.99 while computed value is 1.20 hence researcher accept the statement that there is awareness in all categories

From table II, it is clear that the residence cook show maximum wastage when food is not consumed by family member whereas restaurant cooks respond maximum for uncertain guest number and carters respond that excess or unfair quantity of food taken by each guest. Purchasing, storing and preparing are the less causing area due to which food waste causes at residence, restaurant and catering





From table III, it is clear that majority of residence cooks insist on creating awareness about food consumption at residence ,restaurant and catering site where as minimum Residence cooks, Restaurant cooks and Caterers think purchasing, storing, preparing are the area where least awareness is needed.

From table IV, the result which come out is that all the three respondents which are Residence cook, Restaurant cook and Caterers highly emphasis on cost effectiveness due to food waste and minimum on controlling waste

Summary and Conclusion:

Researcher like to conclude that necessary steps has to be taken for saving food from getting waste in Residence, Restaurant and Banquet Catering but most seriously at banquet catering, There is a need to find out the causes due to which food waste is occurring, after finding the problem strategies has to form due to which food waste can reduces. To conclude the researchers would like to highlights the importance of reducing food waste from the initial raw stage to finished stage thereby increasing the profitability of the services and at the same time will reduce food waste. With this research work researcher would state the importance of saving edible food for sustainable used. Food waste is also reduce for cost effectiveness in Residence, Restaurant and catering

Suggestions and Recommendations:

- Residence should prefer to purchase good quality of raw material .Every day purchasing policy should have to follow. Food preparing persons should enquire the members regarding any plans for moving out for dinning
- Government should make such policies where to work on food waste reduction are become mandatory Practices for caterers.
- Restaurant should remove those dishes from menu which are not moving on regular basis.
- Portion size has to update in such a way that individual, couple and family can order as per their requirement.





- Charts symbolizing proper methods of storing and preparing food should display on wall of storage and preparing area of caterers.
- Sign boards regarding save food waste and motivating take exact needed food have to place near the buffet counter during function.
- The local governing authority should make mandatory used of small menus planning for the caterers by means of providing proper training to the caterers at the time of registration.
- Ministry of information and broadcasting should direct the local radio and television operator for creating awareness about food waste reduction.

Table I: Awareness regarding Food waste

Option	Residence cook	%	Restaurant cook	%	Caterers	%
YES	12	60	14	70	15	75
NO	08	40	06	30	05	25
Total	20	100	20	100	20	100

Table II: Reason behind food waste

Option	Residential cook	%	Restaurant cook	%	Caterers	%
While Purchasing Raw Material	00	00	01	05	01	05
While Storing Raw Material	01	05	01	05	01	05
While Preparing Food	00	00	01	05	02	10
While Serving Food	00	00	01	05	02	10
When Eaters not Consumed food	15	75	02	10	04	20
Excess Food taken by eaters	01	05	04	20	05	25
Not confirmed Guest number/	00	00	06	30	03	15
While storing left food/left food	03	15	04	20	02	10
Total	20	100	20	100	20	100





Table III: Effective ways for reducing food waste

Option	Residential cook	%	Restaurant cook	%	Caterers	%
Following Proper Purchasing Raw Material Practices	00	00	02	10	01	05
Following Proper Storing Raw Material Practices	01	05	02	10	01	05
Following Proper Practices While Preparing Food	01	05	01	05	02	10
Food service done by server	00	00	01	05	04	20
Crating Awareness about Take Needed Food	12	60	08	40	05	25
Confirmed Guest Number	04	20	02	10	03	15
Planning formula for Portion Control	02	10	04	20	04	20
Total	20	100	20	100	20	100

Table IV: Need behind food waste

Option	Residential cook	%	Restaurant cook	%	Caterers	%
Assuring Cost Effectiveness	09	45	11	55	13	65
Saving Raw Material	02	10	03	15	02	10
Controlling Waste	02	10	02	10	01	05
Safeguarding Environmental Hazard	07	35	04	20	04	20
Total	20	100	20	100	20	100

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