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WASTE NOT, WANT NOT

WHAT ARE THE RAMIFICATIONS OF FOOD WASTE?

Introduction:

Food waste has become a global problem in which food is lost throughout the food cycle, including within production, processing, packaging, distribution and consumption systems. According to reports globally, between 30-50% of all food produced is never consumed.¹ With an ever increasing global population, and with the amount of food wasted annually, food security will become an all too familiar reality to people every day. The EU Parliament has recognised this issue will have grave consequences if not addressed quickly and declared 2014 as the Year Against Food Waste. Additionally, the EU has adopted a target of reducing food waste by 50% by the year 2020. Food waste has been identified as a priority action in the EU Roadmap for a Resource Efficient Europe.²

Situation in Ireland:

- Approximately one million tonnes of food is disposed in Ireland per annum.
- Ireland adopted its Food Waste Regulations in 2009 which mandated that all food related businesses must recycle or compost their food waste.³
- A 3-bin service (residuals, mixed dry recyclables and organics bins) was provided to 24% of serviced households (21% in 2008).⁴
- There is not a well-established food recovery system in Ireland, such as foodbanking.
- Over 10% of Irish people face some form of food poverty.

¹ "Global Food Waste Not, Want Not," Institute of Mechanical Engineers, Jan 2013; "Wasted: how America is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill," National Resource Defence Council Issue Paper, Aug 2012.

² http://ec.europa.eu/environment/resource_efficiency/pdf/com2011_571.pdf

³ Food Waste Regulations (SI 508 of 2009)

⁴ Environmental Protection Agency, National Waste Prevention Programme: Seventh Annual Report – for year 2011, page

- The anaerobic digestion industry is largely undeveloped as a solution to compost food waste, slurry and sludge from sewerage treatment plants and to generate renewable power.
- Ireland's Swill Order prevents the feeding of "any broken or waste foodstuff (including table, catering or kitchen refuse, scraps or waste) whether or not such foodstuff contains, or has been or may have been in contact with, any carcase or offal."⁵

Teaching Point

The amount of Food Waste generated in Ireland is unsustainable and major cultural change is needed.

Outcomes: Having completed this unit, students should be able to:

-  Outline where food waste is generated.
-  Evaluate the environmental sustainability of current practice.
-  Suggest and analyse the different options for change.

⁵ S.I. No. 597/2001 — Diseases of Animals Act, 1966 (Prohibition on The Use of Swill) Order, 2001

Activities

1. *Where is food wasted?*

Ask the students to find out the situation in Ireland and globally:

- ✎ Amount of food wasted on the farm? Why doesn't it make it to the shops?
- ✎ Amount of food wasted at the processing plant (what type of businesses?)
- ✎ Amount of food wasted in the transportation and distribution stage?
- ✎ Amount of food wasted at the retail stage?
- ✎ Amount of food wasted by the consumer and what is the most commonly wasted food and why?
- ✎ Where is food disposed? What happens to it once it is rejected by shops or thrown away by shops/restaurants/caterers/consumers?

Resources: www.stopfoodwaste.ie, www.lovefoodhatewaste.co.uk, www.feeding5kdublin.org

2. *Brainstorming*

Based on the Eco Eye video presentation, ask the class, through questions and answers, to outline the main issues concerning the amount of food waste and its sustainability.

Guide the discussion along the issues of:

- ✎ current amount of food waste, nationally and internationally
- ✎ the carbon and water footprint in food production (meat vs. vegetables) (local vs. imported)
- ✎ how many people face some sort of food poverty in Ireland and internationally.
- ✎ what are the implications associated with food production, transportation and waste
 - Environmental
 - Societal
 - Economic
- ✎ the business/retail mindset in relation what food should look like and the resulting amount of food waste
- ✎ the individual actions and mindset in relation to food and food waste.
- ✎ Impact of the 'best by', 'display till' and 'best before' dates?
- ✎ What is the difference between surplus food and food waste?
- ✎ How can we reduce or prevent the creation of food waste?

Write all the main points on the whiteboard or chalkboard and get each student to take them down.

3. Group work

1. Divide the class into groups and ask each group to focus on alternative strategies. Students should attempt to deal with possible solutions to reduce and prevent the creation of food waste. They should come up with their strategy to deal with the food waste problem.

If necessary guide students towards the possibilities of:

- ✎ buying local and seasonal food.
- ✎ selling ugly produce (broaden the food business's and consumers' view of sellable products). List other uses for this 'ugly food'.
- ✎ economic incentives or disincentives to prevent food waste.
- ✎ changing consumer habits, buying loose rather than packaged – save money and reduce waste?
- ✎ Home economics education – how to better manage food shopping/cooking/budget.
- ✎ what can restaurants and their patrons do to reduce waste? Look at www.leanpath.com.
- ✎ inducements to householders to reduce the amount of waste produced, such as increased charges based on weight or subsidised composting bins.
- ✎ food redistribution to foodbanks, soup kitchens, charities.

Each group should report on their findings and strategy. The teacher and other groups should comment on the reality and sustainability of the proposals.

2. Food Waste Disposal: What is the national policy on waste and food waste in particular?

Look at the EU Landfill Directive and the Irish National Strategy on Biodegradable Waste (www.environ.ie). Under these, Ireland (and all EU countries) must divert a decreasing amount of biodegradable waste (including food) from landfill disposal. By 2016, Ireland must limit such disposal to only 427,000 tonnes (down from 916,000 tonnes in 2010). Also, look at the Food Waste Regulations (www.foodwaste.ie).

- ✎ briefly outline current practice and how Ireland plans to reduce the amount of biodegradable waste disposed in landfills.
- ✎ What is the best way to manage food waste? (landfill, incineration, composting, anaerobic digestion with electricity generation)
- ✎ comment on the reality and sustainability of the plan.
- ✎ suggest your alternatives based on the video and your own group discussions.

4. Fieldwork Investigation

What are individuals' views on food waste and how can such waste be reduced: A Local Survey.

Remember the steps!

Step 1: Identify key aims or formulate a hypothesis.

Step 2: Identify and get the background material required.

Step 3: Identify the main methods of gathering your information.

Step 4: Identify the main results and draw a conclusion.

Step 5: Identify some achievable actions, which may help the situation.

Step 1: Identify key aims or formulate a hypothesis

Aims:

1. To conduct an audit on the amount of food waste that is generated among residents of a community. This can be the school community or your own community.
2. To examine awareness of the amount of food waste and its environmental implications.
3. To look at buying and cooking habits.
4. To determine knowledge of 'best before' and 'use by' dates.
4. To investigate eating-out habits and the amount of food left on the plate.
5. To survey attitudes towards reducing the amount of food waste and investigating potential solutions.

Step 2: Background Information:

1. View the Eco-Eye food waste programme.
2. Study the food and biodegradable waste national policies.
3. Look at case studies of businesses/schools/institutions that have reduced their food waste and the resulting savings, both environmentally and economically. www.leanpath.com, www.foodwaste.ie
4. Investigate what can be done on a personal and local level. www.thinkeatsave.org

Step 3: Gathering:

1. Examine and extract the key strategies from your hypothesis.
2. Construct your questionnaire. (See sample questionnaire attached)
3. Each class member should interview at least 10 different households or 5 different schools.

Results and conclusions:

1. Total the number of returned questionnaires and divide them into four groups.
2. Assign a number of students to analyse each group of questionnaires. They should work out the basic statistics for each of the answers. The results which show significant variations should then be related to the variables of age, gender, marital status, income.
3. In drawing conclusions try to answer the aims.

Action:

1. Make a display of your results and exhibit them in school or in a public building.
2. Send your results to the national government with recommendations for change
3. Write a report for the local newspaper highlighting your findings and recommendations.
4. Invite a local representative or TD to your class to discuss the issue

Our Transition Year class is doing a project on Food Waste in our local area. I am interviewing 10 households in this area. I wonder would you take 5 minutes to answer some questions.

1. How much do you spend on your food each week?

2. On average, how much do you throw away each week?

3. What are the most common things you throw away?

4. If 'ugly' fruits or vegetables were offered at the shops for a reduced price, would you buy them? Y or N .

5. If an item reaches its 'best before' date, would you automatically throw it away? Y or N . If yes why? If no, how would you tell if the product is still good?

6. Do you differentiate between 'best before' and 'use by' dates? Y or N .

explain: _____

7. Do you cook your leftovers or bring them to work for lunch the next day? Y or N .

8. When you eat out, do you leave food on your plate and if you do, would you bring it home in a doggie bag?

9. Do you try to buy local fruit/veg or do you buy what is the most inexpensive?

10. Are you concerned with the amount of food you throw away? Y or N

11. Are you aware of any local initiatives that use surplus food before it becomes waste?

12. Do you think that food waste is a big issue?

Strongly Agree Agree Disagree Strongly Disagree No Opinion

13. How would you suggest solving the problem?

Can I finish by asking you a few questions about yourself?

14. Into what age bracket do you fall?

Under 20 20 to 34 35 to 49 50 to 64 over 65

15. Gender? Male Female

16. What is your marital status? Married Single Other

Thank you for your help.