

Research Reports

MSMUNQ VI: The SDGs





Forum: Sustainable Development Goal 12, Sustainable Consumption

Issue: Measures to reduce domestic waste and food waste in North Africa

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PART 1 of the Research Report: Root Causes of the Issue

What are the root causes of the issue? Use images and videos to give Evidence and Examples to your point

1. What [social factors](#) cause this issue? How does it do so?

An increase in food waste and domestic waste can be caused by multiple social factors such as wealth, religion, population, and buying habits.

- a) With more than 95% of the population in North Africa being Muslim, certain aspects of food waste can be affected by mannerisms and holidays. From a survey done in Alegria, 88% of respondents declared that food waste has increased during the month of Ramadan. Even though it is an auspicious time where Muslims appreciate their blessings, there is an unexpected spike in Food waste with 87% of Moroccan and 75.7% Egyptian respondents agreeing. With



further evaluation, it was identified that the main reason for the spike was foods being left in the fridge for a longer time, or leftovers being thrown away.

b) Population growth can also result in a fluctuation of food waste. As the population rose by 2.7% from 2006 to 2017 in Egypt, food waste also increased. 90 million tons of food waste is produced in Egypt yearly, subsequently 73 kilograms of total annual waste is produced by one person in Egypt. Therefore, as the population grows, so does food waste.

c) When people go on their daily run to the grocery store, their buying habits can affect the food and domestic waste produced in their household. From a study done in Algerian households, about 22.9% of respondents revealed that they did not consume more than 20% of their cereals and baked goods. This suggests baked goods are not eaten before the expiry date could be an educational problem too. Moreover, when people buy cereals and packaged products, it produces more domestic waste such as plastic and cardboard. These buying habits can lead to a much larger consumption of packaged products than fresh goods.

d) Subsequently education level is another factor that affects food waste. Many consumers may not understand terms such as “use by” and “best before”. This could affect food waste as consumers may believe in the goods lasting longer and therefore being shocked when the food is rotten. If these terms were more well understood, consumers could plan to use the products before they are lost. However, some people also throw away food early as they may misunderstand terms such as “sell-by” leading to perfectly fine products being



discarded. Furthermore, education can also be important when identifying the harm of certain products and their waste. People educated on the detrimental effects of plastic and paper production will be more cautious when buying packaged products on their grocery runs.

e) With more money comes more food waste. Researchers have found that as one's net worth increases so does the amount of waste produced. After further investigation it was found that once a consumer's daily spending passes the threshold of \$6.70 or \$10, their food waste begins to increase drastically and then slows down at higher levels of spending. Moreover, as one's wealth increases there is also more domestic waste produced in the house. From constant deliveries and cleaning, a lot of things are discarded from the house rather than reused.

2. What economic factors cause this issue? How does it do so?

a. Currently there are no taxations against food or domestic waste in places like Algeria. However, in a survey 35% of them said that to reduce food waste, it would be better if additional taxes were placed against the wasters. Such taxes could play a pivotal role in making consumers aware of how much waste is produced from their households.

b. Agricultural businesses also majorly affect the waste produced in North Africa. As the population grows, there needs to be a drastic growth in agricultural productivity. However, this also means reductions in PHL (post-harvest losses); A necessity when it comes to ensuring the additional



production is consumed rather than discarded. Conveying this is the annual loss of 32% of crops in the sub- Saharan region.

3. What political factors cause this issue? How does it do so? Political factors can be:
 - a. At the end of 2010, there were food protests in multiple countries in North Africa. When they erupted it was seen as a significant factor in the unrest of these countries which led to events such as the Arab Spring.
 - b. Moreover, after the second world war, the price of food steadily decreased and even though this resulted in agricultural development it did result in more food waste as people were buying relatively more food as it was cheaper. So after the “green revolution” (The time of lower prices for food after World War 2) it was noticed that plentiful food was being taken for granted. Subsequently we can see that as problems such as food security are solved, it may result in issues such as food waste when consumers worry less about prices and begin to buy excess.

4. What other factors cause this issue? Health? Such as a pandemic? Physical? Such as Natural Disasters? Show how each of these root causes has contributed to this problem
 - a. Recently with the Coronavirus pandemic, closures of borders have damaged the supply and inflated prices of the local food. With a failure in food security, food waste continues to devastate the health of the population.



5. How long has this issue been a problem?

Food and domestic waste have been a problem for a vast amount of time. However, it was only in the more recent decades that we noticed the detrimental effect of the problem. So for countless years people have been taking their blessing for granted, and this will continue to go on unless policies are put in place and the people are made aware of their mistakes.

6. Why is this issue a problem? Why does it need to be solved at all?

Food and domestic waste is a global issue that has shown rapid increase as the population grows. This is because, firstly, when food waste is disposed of into landfill they produce harmful and detrimental greenhouse gasses that contribute to global warming and climate change. As our world falls deeper into the trap of climate change, we come closer and closer to the deadline of fixing our past mistakes. One of the steps should be reducing food waste and making sure that waste from individual households is minimized immediately. Moreover, when trying to enhance the values of products through things such as recycling and reusing food waste to newer products, and the of food waste also results in toxic chemicals being produced even though it is a vital stage to control and reduce the impact of food waste.

Secondly it is important we control the management of scarce resources such as food. As food becomes discarded unnecessarily, it is vital people understand that the food could be redistributed to those in need. Food security is another problem arising in many countries and the minimization of food waste could help solve such a crisis.



7. Which organizations benefit from the status quo?

Not many organizations can gain benefits from such an issue, however, Agricultural and food companies do not lose anything from food waste. Supermarkets and other food services receive their money no matter where the food goes. This is not a benefit but not a loss either.

8. How does your country benefit from the status quo?

Countries in and out of North Africa do not benefit from this issue in any way. As food and domestic waste is produced in the North African households, it diminishes the environment of the country and subsequently affects the environment around the country too.

9. Which countries influence this issue the most? How so?

As the issue focuses on the countries in North Africa it is essential to consider them individually and how they influence food waste in their countries:

Algeria: Algeria currently does not have any policies, strategies or plans to deal with food and domestic waste in its country. When a survey was done by Samir Ali Arous in the country, it was also seen that most people do not try to recycle their waste in any way either but 46% of the time it ends up in the Trash. (Can be

seen in the pie chart)

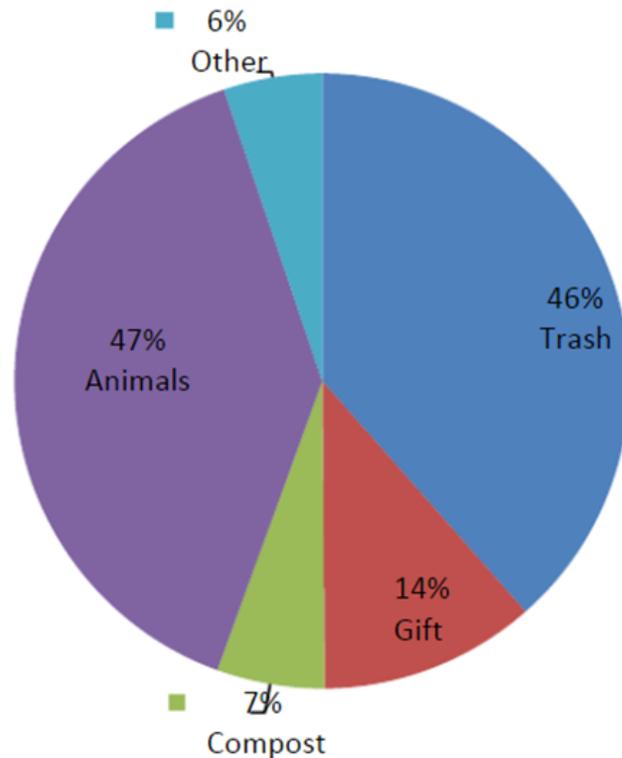


Figure 1. Final use of wasted food.

Egypt: Egypt is actually one of the highest contributors to Food waste in the world.

The country produces 73 kilograms of waste annually per person. It also comes in 16th place in the international food waste percentage. However, citizens of Egypt have tried to find solutions for their food waste problems. They've created apps like Tekeya that take food that was left in restaurants and public gatherings and deliver them to people in need. Apps like these can revolutionize countries and also help those struggling to stand on their two feet and give them a helping hand.



Libya: Libya is another country that contributes heavily to the global food waste percentage. Citizens in Libya produce 76 kilograms of food waste annually and this puts them right above Egypt in terms of food waste production per capita, however as a country Libya produces less waste than Egypt. Just like Egypt, Libya has also put forward some practices that aim to provide innovative solutions to the issues, they have added World Food Day to their calendar to strengthen communities and bring awareness to the waste produced in households.

Morocco: Morocco has one of the highest household waste levels in North Africa, with each person producing 91 kilograms of waste annually. One of the biggest food waste issues faced in Morocco is during the time of Ramadan. During celebrations and Iftar Meals, 84.8% of respondents in a survey replied that there is a rapid increase in food waste, this is because most meals are communal and prepared in large quantities and are not always consumed.

10. Which countries/groups are the most impacted by this issue?

Not only do the North African countries get affected by food waste, but food waste from one country can affect the environment in a different continent. Climate change is a global issue and when one country begins to release greenhouse gasses produced from the food waste, it affects the global environment and it further aids the devastation of our planet such as unpredictable climates, and the melting of ice caps.

11. Which countries/groups should take the lead in solving this issue?



North African countries should be the one to take a lead on this issue as it is a thing happening in their own territory. They should work towards identifying innovative solutions to mitigate food waste. Just like Egypt and its app (Tekeya), more plans and measures to be put into action by them to help minimize the global impact by the greenhouse gasses released through food waste.

PART 2 of the Research Report: UN Treaties/Policies/Resolutions

This section covers what UN action has been taken to address this issue on the agenda

1. Which resolutions are linked to this issue [ratified](#)?

One of the resolutions recently passed by the UN in 2020 was resolution A/RES/74/209.

It involved making an official international day for awareness on food waste and loss.

The UNEP/EA.4/RES.9 is another resolution passed by the Environment Assembly to counter plastic waste from households. It encourages raising awareness and also building innovative ideas to deal with the plastic life cycle.

2. How far did this resolution solve the issue?

The A/RES/74/209 resolution focused on designating 29th September as International Day of Awareness of Food Loss and Waste. It pushed all nations and organizations to promote the day and observe it to see its effectiveness. The resolution was a step towards the right idea as they observed statistics such as food waste produced in the day and noticed a slight reduction in the numbers. The Food and Agriculture organization (FAO) also is required to play a big part in the observance and was invited to collaborate with other organizations.



As far as bringing awareness and encouraging governments to come up with innovative ideas, resolution UNEP/EA.4/RES.9 helps the issue to be brought to light. It pushes countries to gather their countries resources and implement innovative ideas to minimize the harmful effects of single use plastics.

3. Why wasn't this resolution completely effective? Was it blocked by a specific organization/country? Were there any objections from a major organization?

Even though resolution A/RES/74/209 wasn't blocked by any country it was not the most effective solution. With 2030 arriving closer the world requires quicker and more immediate solutions; awareness can be beneficial and help slow down the amount of food wasted, but it cannot and hasn't shown enough changes.

Moreover, with resolution UNEP/EA.4/RES.9 the main problem was that it was a non-binding resolution meaning it was more of encouragement for countries rather than terms countries had to follow. This has its own issues as countries may not take the leap to follow the resolution and hence not aiding the global goal to protect our planet from climate change.

PART 3 of the Research Report: Possible Solutions

Taxes on Food Waste produced: Taxes are the best way to discourage citizens from purchasing excess goods. The Algerian survey has proven that about 45% of people believed this would be the best solution as placing taxes on the food waste produced by each household will make families take into consideration how much is discarded.



Pros: It is more a duty when people are obliged to focus on the output of their waste and how much excess they are buying. When people are made aware they have a choice and some may not look out for the greater good. However, with taxes people become cautious on how much they have to spend.

Money earned from the taxations can be used to help other issues like food security and allow those in need to receive the basic nutrition they need

Cons: measuring food waste produced from each household require time and resources which could be allocated elsewhere

It may lead to inappropriate disposal of waste as people try to avoid the taxes.

Taxes on packaged products: With plastic pollution being a huge a problem it is vital we place heavier taxes on products that require plastics so it discourages users from buying them.

Pros: Further discourages people from buying tiny packets of food, and pushes them to bring their own containers to restock their grocery needs.

People don't need to go out their way to recycle plastic as their plastic usage will decrease.

Cons: may cause food insecurity issues as people may not be able to afford basic necessities if companies continue to package products in plastic.

PART 4 of the Research Report: Bibliography

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