THE STATE OF PLAY OF FOOD WASTE IN WEST ASIA

Hussein Hassan, Associate Professor of Food Science and Technology, Lebanese American University
Mohamad Abiad, Associate Professor of Food Science, American University of Beirut

Expert Group Meeting on “Resource Efficiency in the Arab Region: Monitoring Progress of SDG 12 and Building Back Better from COVID-19”
Thursday, October 8, 2020
FOOD LOSS VS. FOOD WASTE

Food wastage

Food loss
- Agricultural production and harvest
- Processing

Food waste
- Distribution & retail
- Restaurants & catering
- Domestic consumption
QUICK FACTS ABOUT FOOD WASTE

- ~1 billion are starving. Yet we annually lose and waste 1.3 billion tons of food, enough to feed 3 billion people
- 1/3rd of the food produced in the world for human consumption every year gets lost or wasted
- If food loss and waste were its own country, it would be the world’s third-largest GHG emitter
- Industrialized and developing countries dissipate roughly the same quantities of food (~650 million tons)
- Fruits and vegetables, plus roots and tubers have the highest wastage rates of any food
- In developing countries, 40% of losses occur at post-harvest and processing levels while in industrialized countries, more than 40% of losses happen at retail and consumer levels
- At retail level, large quantities of food are wasted due to quality standards that over-emphasize appearance

Sources: Food and Agriculture Organization of the United Nations (FAO), European Commission, EU FUSIONS, United States Department of Agriculture, United States Environmental Protection Agency, World Resources Institute, The Danish Environmental Protection Agency (EPA)
QUICK FACTS ABOUT FOOD WASTE

- In September 2015, UN adopted the SDGs, among them SDG12.3: By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains.
- The food currently wasted in Europe could feed 200 million people.
- The food currently lost or wasted in Latin America could feed 300 million people.
- The food currently lost in Africa could feed 300 million people.
- By 2050, the world population will reach 9 billion. By then, food production must be increased by 70% to meet the demand. Reducing food losses and waste must be among the main focus areas.
- Global quantitative food losses and waste per year are roughly 30% for cereals, 40-50% for root crops, fruits and vegetables, 20% for oil seeds, meat and dairy plus 35% for fish.

Sources: Food and Agriculture Organization of the United Nations (FAO), European Commission, EU FUSIONS, United States Department of Agriculture, United States Environmental Protection Agency, World Resources Institute, The Danish Environmental Protection Agency (EPA)
FOOD WASTE IN WEST ASIA

- In the Arab countries, FLW generated per person sometimes exceeds 210 kg per year
- FLW research represents 2.5% only of the world’s overall research output
- For 10/22 Arab countries, there was not a single research article on FLW
FOOD WASTE IN WEST ASIA

Bar chart showing the number of publications per year during the last decade on “food loss” and “food waste” both (a) globally and (b) in Arab countries. “-“ shows the cumulative number of publications over the past 10 years. Source: Scopus (May 2017)
In the Arab World, 44% of the food handled along the pre-consumption supply chain is estimated to be either lost or wasted, while about 34% of food served is wasted at or during consumption.

KSA and Qatar have one of the highest rates of food waste in the world (584-657, and 165-511 kg/person/year, respectively).

Food wasted at an average wedding in Mecca, Saudi Arabia, can be sufficient to feed 250 hungry people.

Food waste generated/person/year at the household level varies from one country to another:
- 68–150 kg in Oman
- 62–76 kg in Iraq
- 194–230 kg in Palestine
- 177–400 kg in UAE

FOOD WASTE IN WEST ASIA

- Amount of food waste among residence students in Riyadh depended on the meal; it was higher for dinner (39.74% of the meal) than for lunch (22.67%)
- In-flight catering food waste on Egypt Air flights varies between 23 and 51% of food served
- Food waste in a university canteen in Jordan was estimated 13% of the average meal size
- A roughly one wasted meal for each sold meal at a Qatari university campus
- Food wastage at a Saudi hospital amounts on average to 24%-32% of the presented portions
- 60% of Kuwaiti households report they regularly waste food

FOOD WASTE IN WEST ASIA

- **Food Waste Recovery Strategy:**
  - Food waste prevention and/or reduction
  - Food redistribution (donation of extra/surplus food to food banks, soup kitchens, shelters, etc.)
  - Food waste recycling and reuse (e.g., animal feed, composting, industrial uses such as production of biofuel and oils)

- **Hospitality:**
  - Converting buffets to a la carte service, improving communication and cooperation between the staff of hotel/restaurant and the guests, and encouraging hotels and restaurants to donate surplus food from buffets of events to local charities and food banks

- **Household:**
  - Using shopping lists to better plan purchases, thus avoiding buying more than is needed as well as impulsive purchase of food that is not required; making more precise evaluation of portions to be prepared; understanding distinction between label dates (viz. ‘use by’ vs. ‘best before’); improving stock management and storage practices; enhancing knowledge on the use of leftovers.
CURRENT PROJECT WITH UNEP DRS. MOHAMAD ABIAD AND HUSSEIN HASSAN

- **State of Play of Food Waste in West Asia Report through:**
  - Identifying and developing new, and collect existing, case studies on best practices and integrated approaches to food waste
  - Mapping data & statistics on food waste and present case studies of what is currently being done in West Asia
  - Collecting inputs from external partners and liaising with other UN partners

- **Four webinars:**
  - Framing the issue of food waste in West Asia (July 22, 2020)
  - Moving Together in Addressing the Food Waste Challenge: Public and Private Interventions on Food Waste Mitigation in West Asia (September 9, 2020)
  - Moving Together in Addressing the Food Waste Challenge: How Do We Measure the Food Waste? (September 29, 2020)
  - Setting targets, developing national strategies and implementing policies to deliver SDG 12.3 (October 21, 2020)
THE STATE OF PLAY OF FOOD WASTE IN WEST ASIA