



Food Loss in NENA Region

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Outline

- ✓ Concept of food loss
- ✓ Why Food Loss Matters?
- ✓ The magnitude of food loss
- ✓ The food loss in the region
- ✓ Food security and food loss
- ✓ The way forward



Concept of Food Loss and Waste

- According to FAO, Food loss/waste is edible material intended for human consumption, arising at any point in the FSC that is instead discarded, lost, degraded or consumed by pests
- Food waste/loss occurs at different points in the Food Supply Chain (FSC), from farm to fork
- Generally, the common terminology is Post- Harvest Loss (PHL)
- The concept of PHL usually covers only from farm gate to marketing
- The comprehensive concept includes the retail or the micro data at the household level



Definition of Food Loss and Waste (Cont.)

DEFINITION

- **Food Loss and Waste** refer to the decrease in mass (quantitative) or nutritional value (qualitative) of food -edible parts- throughout the supply chain that was intended for human consumption. Food that was originally meant for human consumption but which gets out the human food chain is considered as food loss or waste, even if it is then directed to a non-food use (feed, bioenergy).
- **Food Loss** refers to food that during its process in the food supply chain gets spilled, spoiled or otherwise lost, or incurs reduction of quality and value, before it reaches its final product stage. Food loss typically takes place at production, postharvest, processing and distribution stages in the food supply chain.
- **Food Waste** refers to food that completes the food supply chain up to a final product, of good quality and fit for consumption, but still doesn't get consumed because it is discarded, whether or not after it is left to spoil. Food waste typically (but not exclusively) takes place at retail and consumption stages in the food supply chain.

SCOPE

Food loss and waste apply to food products in the supply chain from the moment that:

- crops are ripe in the field, plantation, orchard;
- animals are on the farm (in the field, sty, pen, shed or coop) ready for slaughter; this means that taking the animals to the slaughterhouse is a post-harvest activity, and slaughtering is agro-processing;
- milk has been drawn from the udder;
- aquaculture fish is mature in the pond;
- wild fish has been caught in the net.



Why Food Loss/Waste Matters?

- Many people consume much less than required food (Minimum Dietary Energy Requirement (MDER)), food wasted can make up for the gap
- The opportunity cost of the wasted food is enormous. The market value of the lost food is significant



The Magnitude of Food Loss

- In developed countries where infrastructure and technological innovations are well in place, the food loss/waste is relatively less,
- Food loss is generally high in developing regions and countries but varies from region to another and within the countries in the same region,
- The average food loss of major food items range between 6% and 12% for the countries in the Near East region;
- Looking commodity by commodity the food loss range between 1% and 20% ,
- The average food loss in terms of Calories (Kcal/capita /day) is around 130 for the countries in the region.

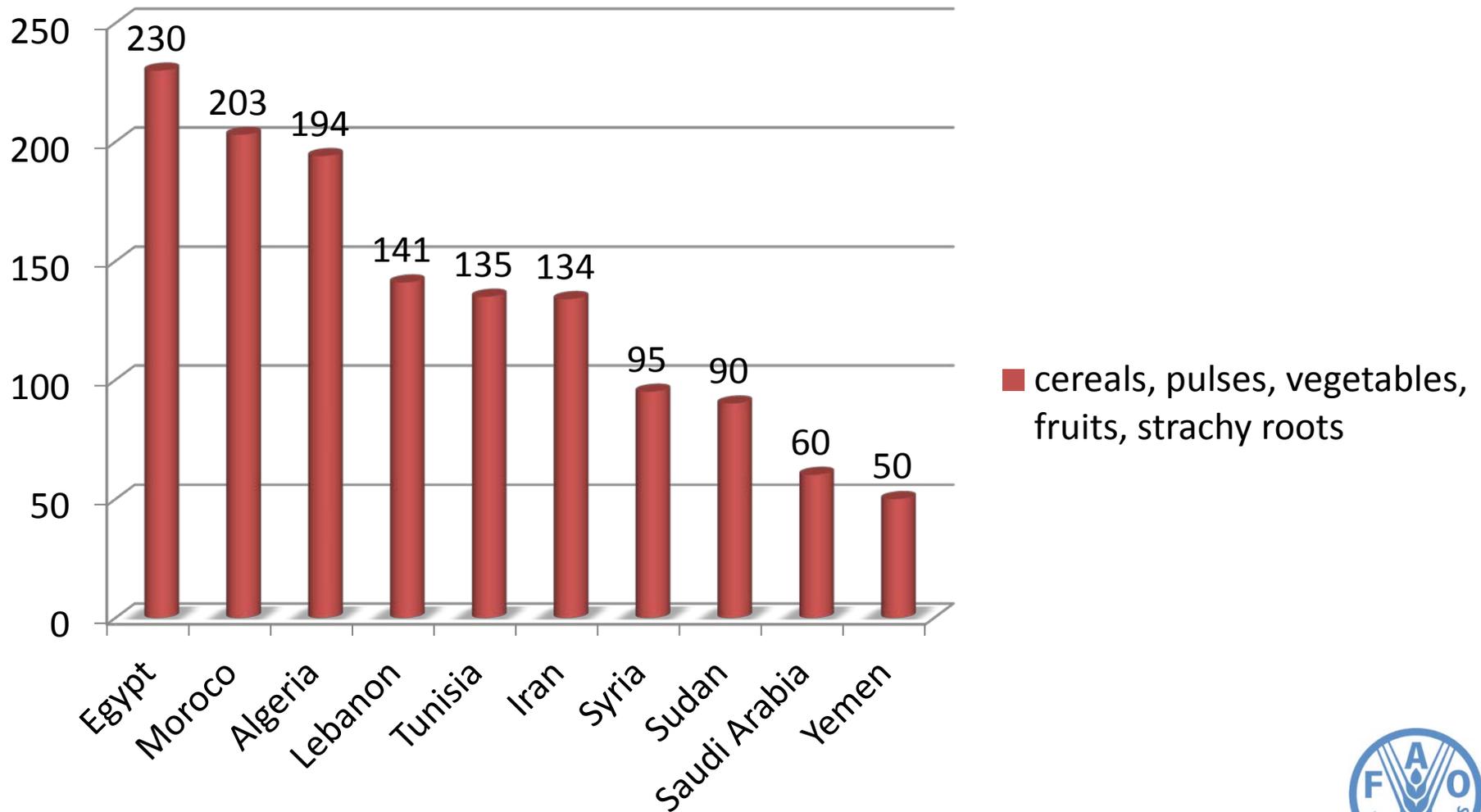


NENA Food Security/Loss Situation

- Around 45,000,000 people are suffering from undernourishment in the NENA Region
- NENA Region is import dependent on its food supplies, importing around 70% of its calorie intake (WB-FAO 2011)
- Shortage of Food Production in the region is compounded by significant Food Loss and Food Waste
- Losses in the region start from production/import up till consumer waste

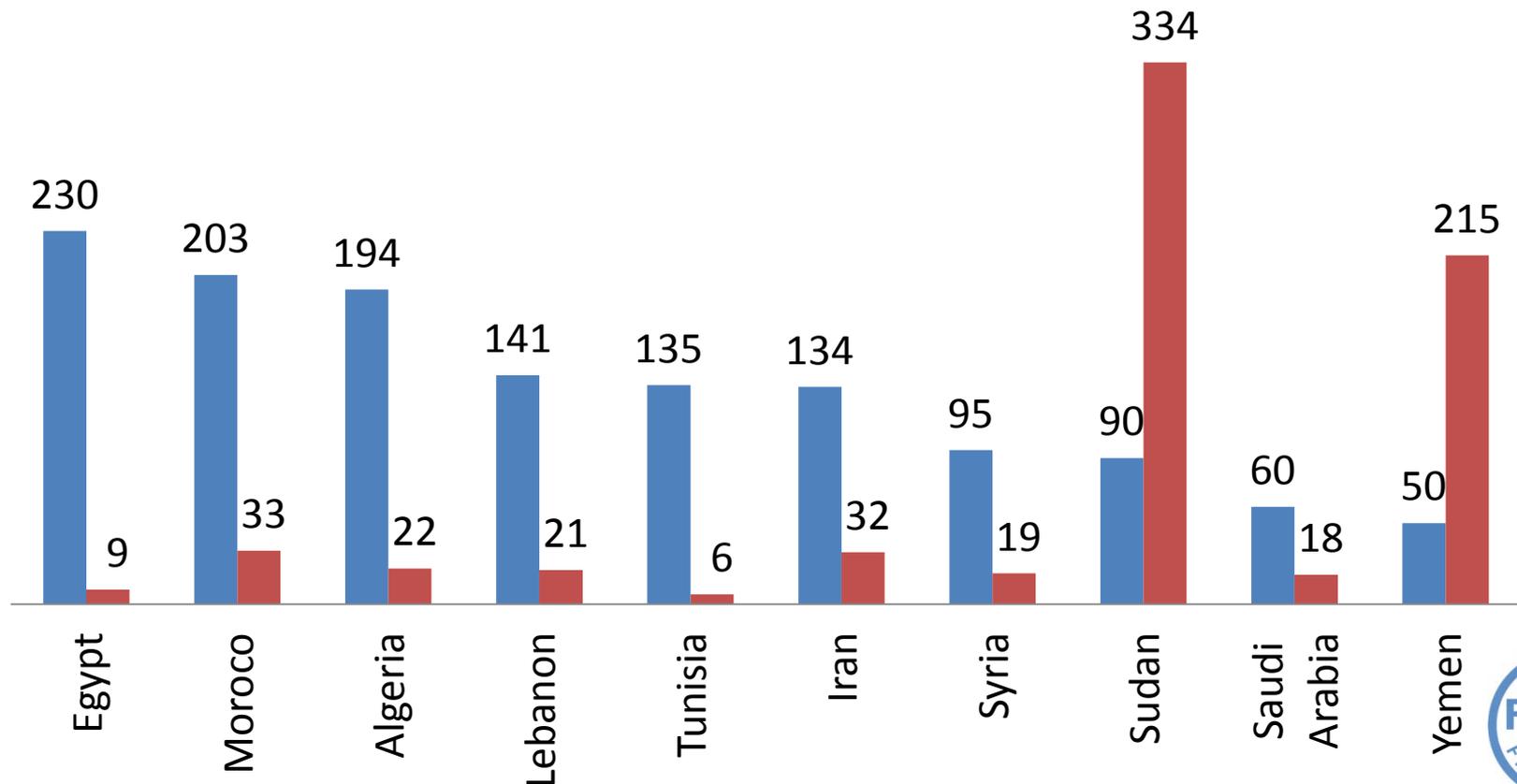


Food Losses in Supply (Kcal/capita/day) in 2009 for Selected Countries in NENA



Food Losses in Supply (kcal/capita/day)(2009) Against the Depth of Food Deficit (2010-2012)

■ Food losses supply (kcal/capita/day) ■ The depth of food deficit (2010-2012)



Food Security and Food Loss and Waste

- The depth of the food deficit indicates how many calories would be needed to lift the undernourished from their status, everything else being constant. The average intensity of food deprivation of the undernourished, estimated as the difference between the average dietary energy requirement and the average dietary energy consumption of the undernourished population (food-deprived), is multiplied by the number of undernourished to provide an estimate of the total food deficit in the country, which is then normalized by the total population |

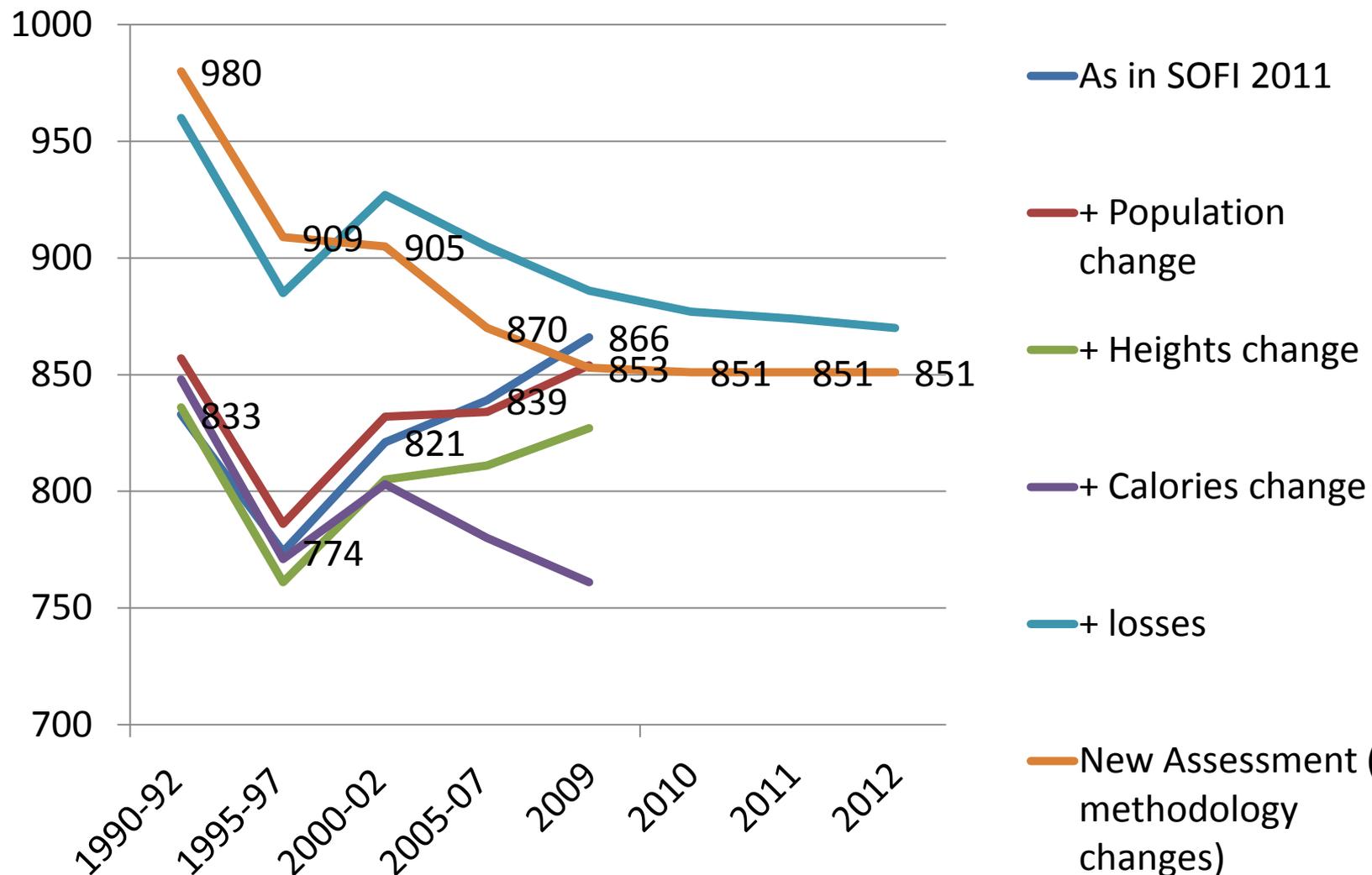


Food Balance Sheet

- Domestic supply= Stock + Production + Import – Export – Food loss -Seed- feed- other uses,
- This food loss/waste is what has to be dealt with or addressed,
- The Methodology of estimating the number of undernourished people were revised and food loss factor revealed the highest impact.



Number of Undernourished People



Food Lost Goes Beyond Food Deficit: Opportunities Lost

The Case of Saudi Arabia

Product	Losses (%)	Farmland Losses (1000 ha)	Water Losses (Million m ³)	Chemical Fertilizer Losses (1000 tons)
Tomatoes	14	2.56	21.54	1.79
Cucumber	12.1	0.35	2.63	0.24
Potato	10	1.37	10.74	2.26
Onions	5.2	0.21	1.62	0.09
Watermelon	5	0.82	7.4	0.55
Melon	5	0.73	6.56	0.49
Grape	5	0.38	8.99	0.11
Dates	13.8	19.52	539.92	3.9



Incentives as Constraints: Case of Egypt

- The extent of waste is partly a reflection of prices. Incentives in the form of subsidies have encouraged food loss and waste.
- Food is cheap enough for consumers to not worry about wasting it, as happening in Egypt with subsidized bread.
- Egypt is importing approximately 10 Million tons of wheat annually while producing approximately 7 Million tons.
- Losses of produced wheat annually is around 1.8 Million tons costing 4.1 Billion Egyptian Pounds. While losses of imported wheat is 1.5 Million tons costing 2.5 Billion Egyptian Pounds. (FSIC 2009) Together, around LE6 Billion are lost in the supply chain.
- Another 1.7 Million tons costing LE3.3 Billion is lost through bad food habits (overbuying and over-consuming) resulting in obesity and other illness as diabetes, hypertension, heart diseases and others.



The Way Forward

- Quality and reliable data of food loss and waste is key factor in assessing food production, consumption and in analyzing food security. Therefore, the quality of the estimates of food loss and waste need further improvements.
- The Statistics Division of FAO is planning to carry out research on food loss and waste within the framework of the **Global Strategy to Improve Agriculture and Rural Development Statistics**
- Countries in the region, in close collaboration with the FAO Regional Office for NENA, should play important role in these research activities and get involved in the expert consultation process
- Countries should provide expert advice on the food/waste factor when filling the production questionnaires. The countries can provide the best estimates of food loss
- It is important to establish baseline and benchmark statistics, and tracking system to monitor food loss and waste over time



Thank You

