FOOD LOSSES AND WASTE IN THE MENA COUNTRIES:
STATUS, PROSPECTS, AND STRATEGIES FOR REDUCTION

WORKSHOP ON AGRICULTURAL TRADE AND FOOD SECURITY
IN THE EURO-MED AREA
AKDENIZ UNIVERSITY (TURKEY), 25-26 SEPTEMBER 2014
• **Food loss** The decrease in quantity or quality of food *intended* for human consumption

• **Food waste (FW)**

• **Quantitative food loss**

• **Qualitative food loss**

• **Food supply chain (FSC)**

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**Definitional Framework of Food Loss, FAO 2014**
STATUS OF FLW IN MENA

THE CONTEXT: FOOD (IN)SECURITY IN MENA

≥ 50% OF FOOD NEEDS ARE IMPORTED

STRUCTURAL CHALLENGES:
- High population growth (~ 2%)
- Increasing urbanisation (129 million more people 2010-2013, 84 million in cities)
- Scarce and fragile natural resource base
- Limited capacity to expand food production
- High exposure to climate change

DYNAMIC CHALLENGES:
- Changing food preferences, rising incomes
- Double burden of malnutrition
- Food price volatility, exposure to international food markets
- Conflicts and political instability, etc

.... and very high levels of FOOD LOSSES & WASTE.
### STATUS OF FLW IN MENA

**Estimates Of FLW:**
- ~ 210 kg/capita/year
- ~ 594 kcal/capita/day

<table>
<thead>
<tr>
<th></th>
<th>Agricultural production</th>
<th>Postharvest handling and storage</th>
<th>Processing and packaging</th>
<th>Distribution</th>
<th>Subtotal Food Losses</th>
<th>Consumption</th>
<th>TOTAL FL&amp;W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>6%</td>
<td>8%</td>
<td>4%</td>
<td>3%</td>
<td>21%</td>
<td>10%</td>
<td>31%</td>
</tr>
<tr>
<td>Roots &amp; Tubers</td>
<td>6%</td>
<td>9%</td>
<td>10%</td>
<td>3%</td>
<td>29%</td>
<td>4%</td>
<td>33%</td>
</tr>
<tr>
<td>Oilseeds &amp; Pulses</td>
<td>15%</td>
<td>5%</td>
<td>6%</td>
<td>1%</td>
<td>28%</td>
<td>1%</td>
<td>29%</td>
</tr>
<tr>
<td>Fruits &amp; Vegetables</td>
<td>17%</td>
<td>8%</td>
<td>16%</td>
<td>9%</td>
<td>50%</td>
<td>6%</td>
<td>56%</td>
</tr>
<tr>
<td>Meat</td>
<td>6.6%</td>
<td>0%</td>
<td>5%</td>
<td>4%</td>
<td>16%</td>
<td>7%</td>
<td>23%</td>
</tr>
<tr>
<td>Fish &amp; Seafood</td>
<td>6.6%</td>
<td>5%</td>
<td>8%</td>
<td>8%</td>
<td>27%</td>
<td>3%</td>
<td>30%</td>
</tr>
<tr>
<td>Milk</td>
<td>3.5%</td>
<td>6%</td>
<td>2%</td>
<td>7%</td>
<td>18%</td>
<td>2%</td>
<td>20%</td>
</tr>
</tbody>
</table>

From *Global FL&W, Extent, Causes and prevention* (FAO, 2011)
STATUS OF FLW IN MENA

FLW REDUCTION  ↔  FOOD SYSTEM EFFICIENCY

- Inefficient food production and distribution systems
- Inefficient markets and marketing systems
- Weak emphasis on food quality and safety
- Lack of adequate technology and insufficient application
- Lack of adequate infrastructure, especially cold chain
- Weak R&D, extension, capacity building, education, awareness
STATUS OF FLW IN MENA

FLW REDUCTION ➞ BETTER USE OF NATURAL RESOURCES IN THE FOOD SYSTEM

WATER

42km³/year = est. annual blue water footprint of FL&W (surface and groundwater),
17% of the global footprint (250km³)
(volume of the Dead Sea is 114km³, Lac Léman in Geneva is 89km³)

LAND

≥ 360 million hectares of land occupied by FLW in MENA
8,000 m²/capita, (versus global average of 2,000m²)

ENERGY

2 million tons/year ≈ fertilizer losses in MENA, or 27%

ENVIRONMENT: Greenhouse gases

200 million tonnes CO₂ equivalent in MENA from FLW
500 kg CO₂ equivalent/capita
~30% in production and postharvest phases/~70% processing, distribution, consumption
**FLW REDUCTION** → **AGRICULTURE SECTOR’S CONTRIBUTION TO ECONOMIC GROWTH AND STABILITY**

**Economic cost ......**
- $60 Billion USD/yr = cost of FLW in MENA *(FAO Food wastage Footprint, 2013)*
- Snapshot of Wheat in Egypt
  - Imports (2011): $3.2 billion, 10 million Tons (2011)
  - Production = 7 Million Tons
  - 15% lost/wasted? 2.5 MT = 6.6 BILLION LE ($923 Million USD/yr)

**Potential for economic impact...**
- Higher returns to producers, agribusiness by preserving value, preventing FLW;
- decreasing costs through better, more effective technologies;
- reduced burdens of food subsidy programmes;
- reduced food import bills.
PROSPECTS

FL&W REDUCTION:

1. *Potential for more feasible, quicker, less expensive way* to increase domestic food availability as compared to increasing production

2. FLW as a pillar of regional food security, sustainable food systems:

SOURCE:
Food losses and waste in the context of sustainable food systems: A report by The High Level Panel of Experts on Food Security and Nutrition Committee on World Food Security, June 2014
The 31st FAO Regional Conference for the Near East (14-18 May 2012):

“Request to FAO to assist Member countries in addressing the key challenges of reducing food waste and losses in the Near East by conducting comprehensive studies on impact of food losses and waste on food security in the region and in establishing a plan to:

REDUCE FOOD LOSSES AND WASTE IN THE REGION BY 50 % WITHIN 10 YEARS”
Regional Strategic Framework for Food Loss and Waste Reduction

- 2014-2024
- Endorsed by member countries (NERC 32)
- Developed through a consultative process
  \((ECM \text{ Sharm 2012, RMSW Tunis 2013, External/internal review, Extensive review of literature})\)
- Targeted national actions, regional collaboration
- Aligned to \textit{SAVE FOOD}, “Global Initiative on Food Loss and Waste Reduction”
- Derived from analysis of status and barriers to FL&W reduction:
  
  \textbf{Inadequate data}
  
  \begin{itemize}
    \item Lack of awareness and technical capacity
    \item Non-existent or inappropriate policies and regulations
    \item Gaps in institutions and coordination
    \item Insufficient investment
  \end{itemize}
REGIONAL STRATEGIC FRAMEWORK

Four components, drawn from causes and represent areas of opportunity:

- DATA GATHERING, ANALYTICAL RESEARCH AND KNOWLEDGE GENERATION
- POLICIES, REGULATIONS & STRENGTHEN COLLABORATION AND COORDINATION
- AWARENESS RAISING, PROMOTING GOOD PRACTICES
- PROMOTING INVESTMENT AND ENGAGING THE PRIVATE SECTOR

Three considerations for prioritizing action:

- The value chain: Commodity groups of economic, cultural and agricultural relevance
- The nature of the problem: The stage(s) of the supply chain primarily responsible for FLW reduction
- The constraint: Aspects of food systems which have prevented FLW reduction

Food and Agriculture Organization of the United Nations
REGIONAL STRATEGIC FRAMEWORK

FOOD LOSSES & WASTE REDUCTION

- Increase the EFFICIENCY of the food system
- Better use of scarce NATURAL RESOURCES
- Increase the agriculture sector’s contribution to GROWTH and STABILITY
- FOOD SECURITY

SUSTAINABLE FOOD SYSTEMS

Food and Agriculture Organization of the United Nations
STRATEGIES FOR FLW REDUCTION

SAUDI ARABIA

“ACTION PLAN TO REDUCE FOOD LOSSES AND WASTE IN KSA”, October 2014

EGYPT

Inter-Ministerial Working Group on “reducing pre and post-harvest losses” – MoALR, MoTI
Developing a multi-sector strategy for reducing pre and post-harvest losses in the agriculture sector of Egypt – support to Inter-ministerial Working Group (FAO Action Plan for Egypt)

EGYPT/LEBANON/IRAN/JORDAN


EGYPT/TUNISIA

Food Losses and Waste (FL&W) Reduction and Value Chain Development for Food Security in Egypt and Tunisia (FAO project proposal)

REGIONAL

FAO Partnership with “Regional Food Banking Network”
NENA SAVE FOOD Network (Launch January 2015)
THANK YOU