

SAGARPA

SECRETARÍA DE AGRICULTURA,
GANADERÍA, DESARROLLO RURAL,
PESCA Y ALIMENTACIÓN



Losses and waste throughout the food chain in Mexico

Taipei, Taiwan

July 15th and 16th, 2015

Background

- ▶ **The Planning Law** and the **National Development Plan** (NDP) 2013-2018 set out the mandate for the sectorial, regional and special programs in order to establish strategies of public policies of the Federal Government. As part of those proceedings, to the NDP 2013-2018 decided to implement the “**Hunger Free Mexico National Program**”.
- ▶ Hunger Free Mexico National Program systematized the overall strategy to guide actions and social programs in order to achieve the objectives, goals and indicators of the National Crusade Against Hunger as well as its continuity, and also define the problem, target population, the strategies and further actions to be taken.



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- ▶ The fourth objective of this Program is related to the post-harvest losses

IV - Minimize post-harvest losses and food during storage, transportation, distribution and marketing

- ▶ The volumes of food losses and waste throughout the food chain has implications for food security.
- ▶ The causes of food losses vary depending on the stage or link in the food chain, the type of delivery channel, the infrastructure that supports economic activities related to food, as well as the information that producers and consumers have.

Factors for food losses in Mexico

- ▶ Inadequate process of harvest
- ▶ Inadequate transport process
- ▶ Packaging and packaging or inadequate packaging process
- ▶ Inappropriate handling process
- ▶ Time to market (wholesale and retail)

Losses and waste throughout the food chain result from the operations in each of the stages of the chain because of the technologically obsolete equipment, the traditional information systems and the inadequate transportation.

Marketing	Industry	Distribution	Consumption
<ul style="list-style-type: none"> • Lack of quality standards • Inadequate loading, unloading and transfer systems • No refrigerated transportation / overloaded • Inadequate packing • Overfilling of container • inadequate infrastructure • Overruns in transportation 	<ul style="list-style-type: none"> • Wrong operational management • incompatible supplies and equipment • untrained staff • lack of certification • breach of quality standards • non-cooling network • inadequate packing • poor control in stock and lots 	<p>Short shelf life:</p> <ul style="list-style-type: none"> • Inadequate ripeness • Mistreated products • deficient stock control • bad management of goods • battered boxes • untrained staff • inadequate transportation • Non-cooling network 	<ul style="list-style-type: none"> • Over ripeness • Over-purchase • Bad management of goods • Good condition and bad condition goods mixed • Mistreated product • Products in bad condition

Waste food rate in Mexico

Methodological note:

- The basic data sources for calculating the National Food Losses Index were:
 - a) the micro-data from the 2010 National Survey of Household Income and Expenditure (ENIGH, for its acronym in Spanish) and
 - b) the data from the Apparent Domestic Consumption of foods from the 2013 Agricultural and Fisheries Atlas of the Agrifood and Fisheries Information System of SAGARPA
- 34 products from the basic food basket were selected to carry out the National Estimate Waste, which correspond to the food consumption reported by households in Mexico in 2010
- Consumption in restaurants represents 7.5% of national food consumption

Waste percentage

ENIGH code	Description	% Waste
A004	Tortilla	29.39
A007	Bread (wheat products)	45.31
A019	Rice	46.87
A027	Beef	34.87
A038	Pork	40.91
A057	Chicken	39.36
A068	Tuna	23.43
A070	Fishes and sardine	54.07
A072	Shrimp	37.77
A075	Cow's milk	57.14
A093	White and red egg	37.66
A102	Potato	37.11
A108	Avocado	53.97
A109	Garlic	21.35
A111	Squash y zicchini	14.65
A112	Onion	32.08
A115	Chili	34.14
A124	Red tomato	28.86
A126	Nopal	53.26
A127	Cucumber	45.46
A129	Green Tomateo	17.78
A130	Carrot	19.01
A137	Beans	24.96
A152	Guava	57.73
A154	Lemon	33.38
A157	Mango	54.54
A158	Apple	49.07
A159	Melon	25.42
A160	Orange	23.22
A161	Papaya	32.80
A163	Pineapple	32.78
A166	Green and tabasco banana	53.76
A168	Watermelon	29.44
A169	Grape	45.53
National mean of waste		37.26
National mean Weighted of waste		37.11

General Index of food waste in Mexico

The national food waste is a weighted sum of each product waste, the weighting factor is the involvement of each product in the diet of the Mexican population



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SOLUTION

FOOD LOGISTICS CENTER (CELA).

- The Food Logistics Center (CELA, for its acronym in Spanish) is a logistics distribution center equipped with refrigerated warehouses, provided with information and communication technologies for the optimal management of purchases and inputs, sales and outputs, store inventory management and order preparation for network of retail customers, and also is provided with a fleet of vehicles for distribution.
- The economic recovery of losses and waste will be done through the national network of Food Logistics Centers.
- The Food Logistics Center (CELA) is the new business model of wholesale trade in food, which replaces a set of warehouses from the Central de Abasto.



Sources:

- ▶ DOF
http://www.dof.gob.mx/nota_detalle_popup.php?codigo=5343098
- ▶ Technical elements for the design, planning, and implementation of the “Hunger Free Mexico ” National Program
http://www.sedesol.gob.mx/work/models/SEDESOL/Cruzada/Programa_Nacional_Meexico_Sin_Hambre_Elements_Metodologicos.pdf

THANKS!

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