



**Asia-Pacific  
Economic Cooperation**



**Chihuahua**  
GOBIERNO DEL ESTADO



**Chihuahua**  
AMANECE PARA TODOS

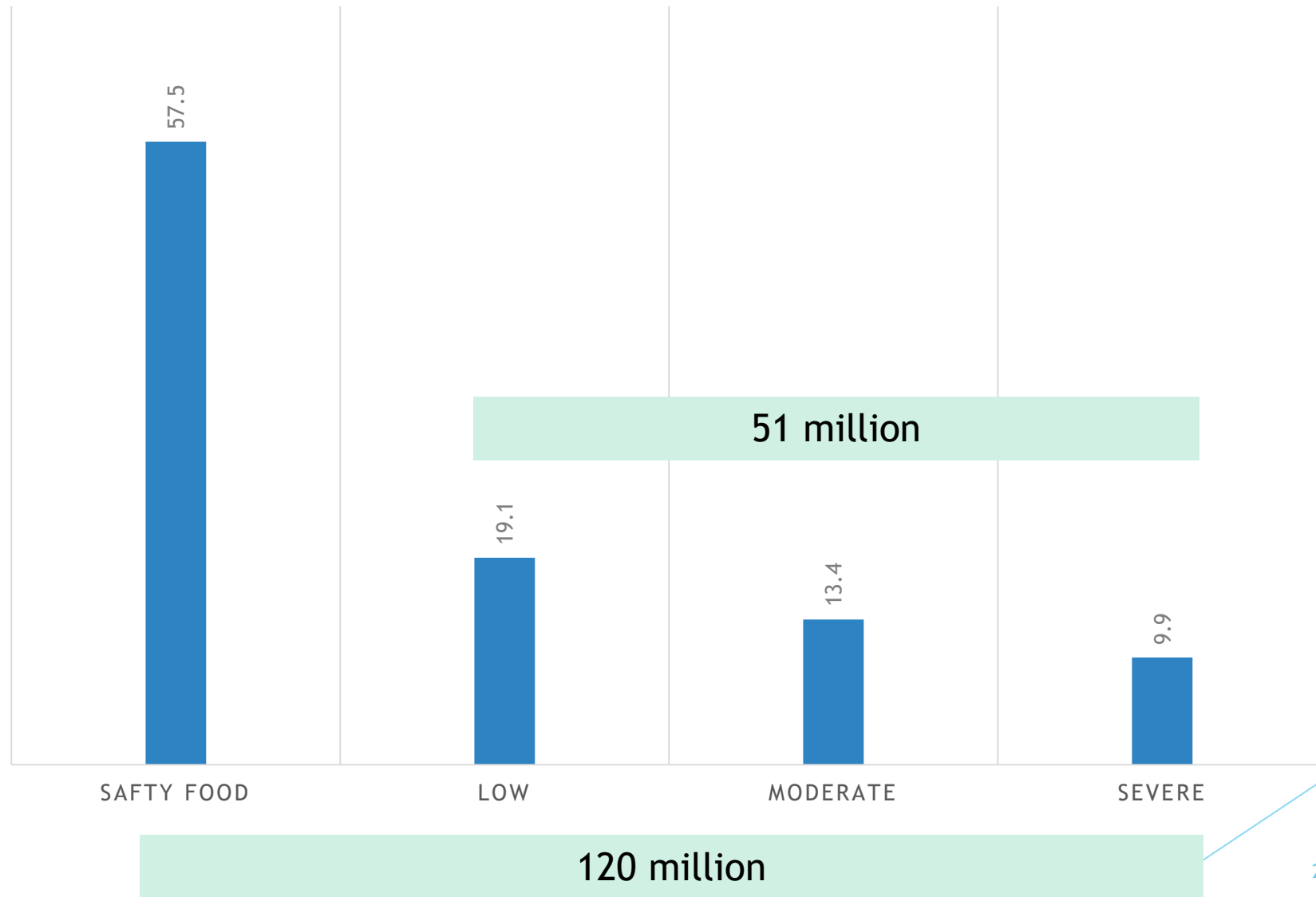
# FLW Reduction in México

**2017 APEC Expert Consultation on Food Losses and  
Waste Reduction  
(APEC MYP SCE 02 2013A)**

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# Overview

## SAFTY FOOD IN MÉXICO.



Review of major public policy measures and private initiatives to prevent, reduce, recover, or recycle FLW in your economy

# National Crusade Against Hunger (NCAH).



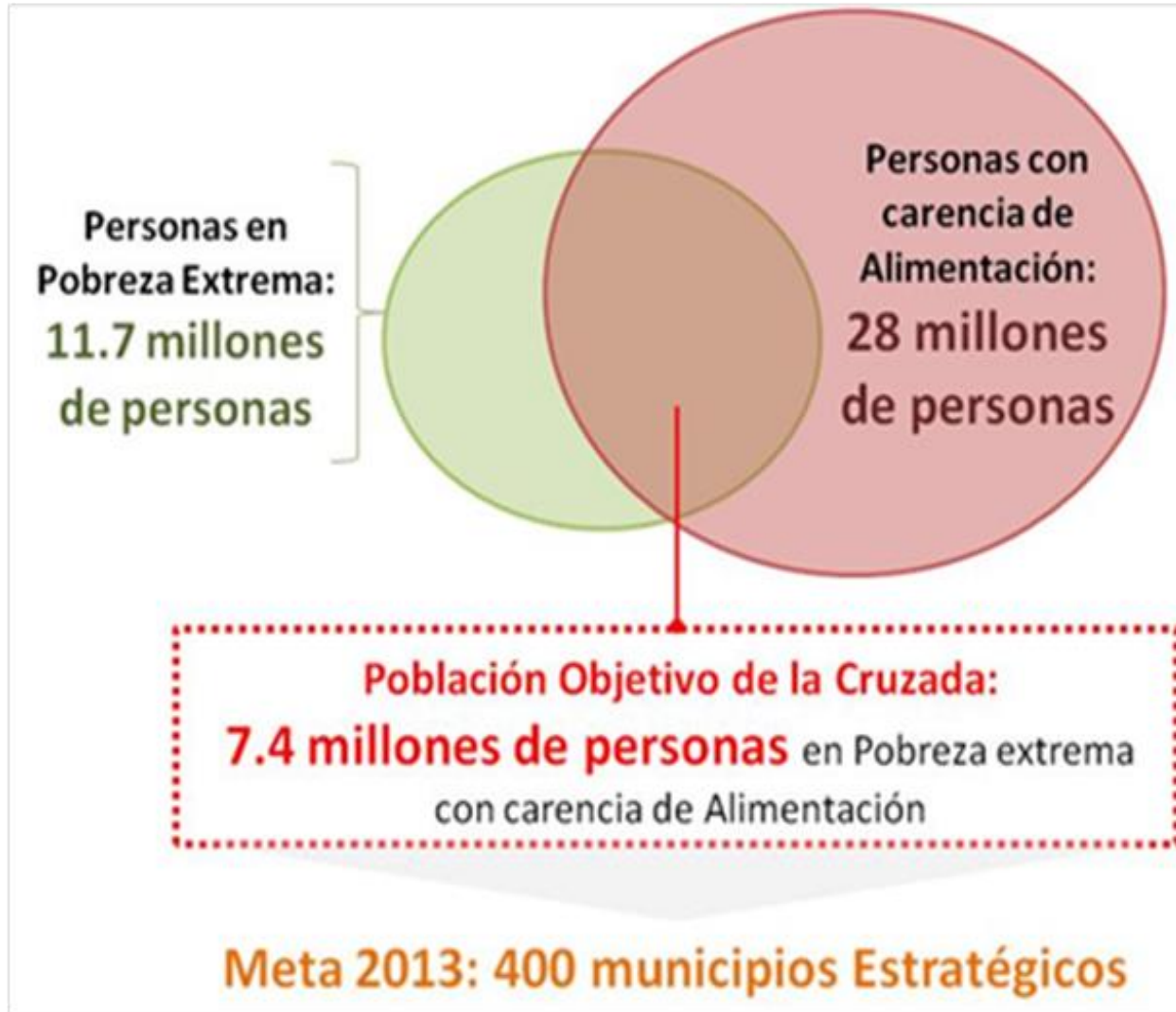
**SINHAMBRE**  
CRUZADA NACIONAL

It is a strategy of social policy, integral and participatory. It seeks a structural and permanent solution to a serious problem that exists in Mexico: hunger.

## OBJECTIVES

1. **Zero hunger** from adequate food and nutrition for people in extreme multidimensional poverty and lack of access to food;
2. **Eliminate acute child malnutrition** and improve indicators of growth of children in early childhood;
3. **Increase food production** and income of peasants and small farmers;
4. **Minimize post-harvest and food losses** during storage, transportation, distribution and marketing;
5. **Promote community participation** for the eradication of hunger.

# Target population



## Formula

**National Food Waste (DN)** is the weighted sum of the waste of each food item, the weighting factor is the proportion of each food item in the diet of the population.

### Food item waste index $i$

Food item waste

$$D_{i,t} = CNA_{i,t} - \sum_{i=1}^n c_{i,t}$$

Apparent National Consumption

Actual consumption of product  $i$ , in period  $t$

### General Food Waste Index for Mexico

Food waste

$$DN = \frac{D_{1,t}}{C_t} \frac{\pi_{1,t}}{1} + \frac{D_{2,t}}{C_t} \frac{\pi_{2,t}}{1} + \frac{D_{3,t}}{C_t} \frac{\pi_{3,t}}{1} + \dots + \frac{D_{k,t}}{C_t} \frac{\pi_{k,t}}{1}$$

Proportion of food item in diet

Total consumption of food of the Mexican population

## Food Waste Index in Mexico



**37,26 %**

Average National Food Waste  
(Weighted: 37.11 %)



This could **feed 7,4 million people**  
living in extreme poverty and food  
insecurity\*

### Some of the most wasted foods

Guava	57,73 %
Cow's milk	57,14 %
Mango	54,54 %
Fish and sardines	54,07 %
Avocado	53,97 %
Green bananas tabasco	53,76 %
Prickly pear	53,26 %
Rice	46,87 %
Cucumber	45,46 %

\*16 litres milk, 3.6 kg potato, 2.6 kg onion, 3.5 kg pork and 4.2 kg beef per week.

## How was it build?

### Sources

a. Microdata from the National Survey on Income and Household Expenditure (2010) carried out by the **National Institute of Statistics and Geography (INEGI)**.

b. Data on Apparent National Consumption of food from Atlas Agriculture and Fisheries (2013) of the Agriculture and Fisheries Information System of the **Ministry of Agriculture Livestock, Rural Development and Food Supply (SAGARPA)**.



There were 34 selected products in the basic food basket from which it was possible to calculate Average National Food Waste without losing accuracy.

Additionally, technical conversions were carried out using coefficients reported in the literature and in the industry for specific products (for example, 1.450 kg of cornmeal is equivalent to 1 kg of corn tortillas).

# Expected Outcomes

Target action	Actions that impact the objective	Outbuildings	Definitions
<p>Minimize losses of post-harvest food 5% of total national agricultural production equivalent to 79.5 thousand mdp.</p>	<p>Improvement in agricultural work.</p> <p>Prediction and contingency in the face of climatic adversities.</p> <p>Integral improvement of post-harvest collection systems.</p> <p>Incentives and support to systems and means of transportation and distribution of food.</p> <p>Improvement of food shelf life.</p> <p>Optimization of food outlets.</p> <p>Recovery of food in the field and during the food supply chain for distribution to target population.</p>	<p>SAGARPA (Support to income, objectives and marketing, support to farmers up to 3 hectares, handling postproduction).</p> <p>SE (Logistics competitiveness and supply centers, PRONAFIN).</p> <p>SEMARNAT (PROARBOL forestry, PET).</p> <p>CDI (Procapi, Indigenous Regional Funds).</p> <p>National Association of Food Banks, A.C.</p> <p>National Confederation of Agrupaciones Comerciantes de Centros de Abastos, A.C.</p>	<p>Reduce the annual agricultural loss of 37.5 million tons of food.</p> <p>Reduce the loss in the annual food supply chain of 18.4 million tons</p>



Existence of the FLW related legislation in your economy that provides “immunity” from liability of food donors; and special tax benefits for your businessmen to make donations of food to food rescue organizations.

# Legislature and Tax Benefits

- ▶ General Health Law (articles 199 y 464 bis).
- ▶ 9 States of the Republic of México (Ciudad de México, Chihuahua, Nuevo León, Baja California, Colima, Durango, Tamaulipas, Quintana Roo and Coahuila).
- ▶ Income Tax Law (Article 27, XX).
- ▶ Fiscal Code of the Federation (Article 37-F).

# Review of the food rescue sector in your economy that handle edible surplus food donations



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# Programs



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**Alimenta**  
Colecta Anual de  **BAMX**



**PROSORA**  
Programa Social de  
Rescate Alimentario

