Country presentation:
Food Insecurity Assessment
In Thailand
Outline of the presentation

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1. Background

- FAO monitors the MDG hunger indicator 1.9 (prevalence of undernourishment) using country data.
- FAO released SOFI 2010 and 2011 which reported the hunger indicator for Thailand at a high level of 16 percent.
- The high estimated level of undernourishment were of great concern to the government considering the fact that Thailand has had excess food supplies and rising food exports during the past decades.
- The government considered that these reported figures did not reflect the true picture of food insecurity in the country.
2. Implementing project ‘Analysis of Food Security Statistics in Thailand’

- In order to improve food security information in support better informed policies and actions towards food security and socio-economic development
- Aim to strengthen the capacity of national statistical system of Thailand in analyzing food and agriculture data
- Funded by FAO and the FAO’s Statistics Division supplied the necessary technical support in conducting the training workshops in Bangkok
- A joint collaboration of the National Statistical Office (NSO) and the Office of Agriculture Economics (OAE) together with the contribution of several national institutions involved in the analysis of agriculture and food data.
2. Implementing project ‘Analysis of Food Security Statistics in Thailand’ (cont’d)

The main objectives of this project are:
- To improve the coordination and establish linkages between all national institutions involved in the collection, processing and analysis of food and agriculture data;
- To improve the statistical analytical capacity of the national statistical system for the implementation of new methodologies to generate better and more information on food security situation using country food and agriculture data;
- To support the multi-sector taskforce in using food security statistics for the policy processes in decision-making and response
2. Implementing project ‘Analysis of Food Security Statistics in Thailand’ (cont’d)

- Management taskforce consists of;
  - The committee on Supply Utilization Accounts and Food Balance Sheet, under the responsibility of OAE, Min. of Agri.
  - The committee on the analysis of food insecurity assessment, under the responsibility of NSO

- Project activities are;
  1) Training workshop
     - Supply Utilization Accounts / Food Balance Sheet Training Workshop, held from 29 Aug–1 Sep 2011 and 3–5 April 2012
     - Food Security Analysis Training Workshop, held from 17-21 October 2011
  2) Publishing the report of Food Insecurity Assessment; the seminar will be held in November 2012
The multiagency taskforce were trained on how to use the Supply and Utilization Accounts (SUA) Excel tool for processing of production and trade data appropriately in order to prepare the SUA for the compilation of the annual Thai FBS.

The challenge was considerable as the participants had to compile past SUA/FBSs with new inputs and updates during the one-year period of the project.

The outputs are the annual Thailand FBS, 2005 - 2010.

Technical officers from FAO supported this training were Mr. Seeva Ramasawmy and Mr. Kari Rummukainen.
Training workshop on Food Security Analysis

- The multiagency taskforce were trained on how to use FSSM /AdEPT software to derive the food security statistics at subnational levels in terms of population groupings, either geographical or demographic and socio-economic factors.

- These outputs are useful for determining the profile of food insecure population and groups and to provide information on “Who and Where” are the food insecure people for better and informed policies and more focused intervention programmes.

- Technical officers from FAO supported this training were Mr. Seeva Ramasawmy, Ms. Chiara Brunelli and Ms. Nathalie Troubat
Other collaboration regarding Food Security Statistics Program (NSO & FAO)

- Two TNSO personnel to participate as resource persons in the FAO statistical analysis training workshop in Lao PDR, from 13 to 17 February 2012 in Vientiane.

- TNSO conducting regional training workshop on food security analysis for 11 countries, from 23 – 27 July 2012, (Bhutan, Cambodia, India, Indonesia, Kazakhstan, Lao PDR, Mongolia, Myanmar, Philippines, Sri Lanka and Viet Nam). Technical officers from FAO supported this workshop were Mr. Seeva Ramasawmy and Mr. Luigi Castaldi.

3.1 Data preparation

3.1.1 Improving production and trade data for preparation of SUA and FBS; completeness and updated

- The OAE is the leading institution on this activity

3.1.2 Data on food consumption in physical quantities and monetary values, total consumption, total expenditure, income and household characteristics (including household members) are from the Household Socio-economic Survey 2011

3.1.3 Other data such as height data, population by sex and age (the population projection produced by the NESDB are used, together with nutrients values for all the food products from Thailand Food Composition Table.
3. Method and Procedure ‘Food Insecurity Assessment in Thailand 2011’ (cont’d)

3.2 Tools

- Using standardized processing and analytical tools developed by FAO’s Statistics Division namely the SUA Excel and FSSM/ADePT softwares to compile the FBS and derive the Food Security Indicators.

3.3 Parameters for assessing undernourishment

- Three basic parameters are used for assessing undernourishment:
  1) Dietary Energy Supply (DES)
     ➔ from Food Balance Sheet (FBS)
  2) Minimum Dietary Energy Requirement (MDER)
     ➔ from Household Socio-economic Survey
  3) Inequality of food access as measured by the Coefficient of Variation (CV) of dietary energy consumption due to income ➔ from Household Socio-economic Survey
4. Main findings
4.1 Result from Thailand’s FBS, 2005 - 2010

Per capita food availability/supply of food commodities per year, 2005-2010

<table>
<thead>
<tr>
<th>Products</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals (excl. beer)</td>
<td>158</td>
<td>156</td>
<td>149</td>
<td>148</td>
<td>167</td>
<td>192</td>
</tr>
<tr>
<td>Fruits</td>
<td>134</td>
<td>146</td>
<td>159</td>
<td>133</td>
<td>126</td>
<td>127</td>
</tr>
<tr>
<td>Alcoholic beverages</td>
<td>36</td>
<td>44</td>
<td>46</td>
<td>45</td>
<td>42</td>
<td>34</td>
</tr>
<tr>
<td>Vegetables</td>
<td>40</td>
<td>36</td>
<td>39</td>
<td>39</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Fish &amp; sea food</td>
<td>33</td>
<td>33</td>
<td>31</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Sugar &amp; Sweeteners</td>
<td>32</td>
<td>36</td>
<td>32</td>
<td>33</td>
<td>29</td>
<td>34</td>
</tr>
<tr>
<td>Meat</td>
<td>27</td>
<td>28</td>
<td>30</td>
<td>27</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>Milk</td>
<td>30</td>
<td>26</td>
<td>24</td>
<td>24</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>Starchy roots</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>23</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>Oilcrops</td>
<td>24</td>
<td>21</td>
<td>20</td>
<td>17</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>Eggs</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Vegetable oils</td>
<td>8</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Sugar crops</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Spices</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Pulses</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Stimulants</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Offals</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

- Cereals and fruits contributed significantly to the total food supply of the Thai population.
4.1 Result from Thailand’s FBS, 2005 – 2010 (cont’d)

Food availability or supply (person/day) in dietary energy and macronutrients, 2005-2010

<table>
<thead>
<tr>
<th>Dietary energy and macronutrients (per person/day)</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dietary energy (kcal)</td>
<td>2857</td>
<td>2886</td>
<td>2879</td>
<td>2828</td>
<td>2868</td>
<td>3116</td>
</tr>
<tr>
<td>Carbohydrate (gram) *</td>
<td>518</td>
<td>537</td>
<td>527</td>
<td>523</td>
<td>534</td>
<td>589</td>
</tr>
<tr>
<td>Protein (gram)</td>
<td>64</td>
<td>63</td>
<td>63</td>
<td>62</td>
<td>64</td>
<td>69</td>
</tr>
<tr>
<td>Fats (gram)</td>
<td>59</td>
<td>54</td>
<td>58</td>
<td>55</td>
<td>53</td>
<td>54</td>
</tr>
</tbody>
</table>

* Estimate

- The increase in cereal products, which are rich in carbohydrates, significantly influenced the increase of DES.
- The decrease of fats was due to a fall in supply of the oils and fats commodity group.
4.2 Result from 2011 THSES food consumption data

How much food is consumed by Thai population?

- The average daily energy consumption of Thai individual was 2,090 kcal.
- DEC increases with rise in levels of income as more income increase access to food in terms of quantity and quality.
- The rural population had a slightly higher DEC than the urban population as the rural population are usually producers of food which are available at lower prices.
4.2 Result from 2011 THSES food consumption data (cont’d)

How Thai households acquire food?

- On average, 60% of the DEC was acquired from purchases.
- Away from home food consumption contributed to about 18% of the total.
- Other food sources include a significant amount of home-grown food, which unfortunately was not captured separately in 2011 THSES questionnaire, food received free from relatives and friends.
4.2 Result from 2011 THSES food consumption data (cont’d)

How Thai households acquire food? (cont’d)

- The share of purchased food among both the urban and rural population were respectively 64 and 59 percent.
- The low share of purchased food among rural households was compensated by a high share of food acquired from other sources, of which home-grown food may constitute a significant share.
- Food consumed outside home was very predominant among the urban population (27%) compared to 13% in rural areas.
4.2 Result from 2011 THSES food consumption data (cont’d)

Indicators of food access

- The CV of DEC is defined as the ratio of variability measured by the standard deviation to the mean of the DEC distribution.
- A high CV value reflects wide variability in DEC distribution among population.
- The CV of DEC was 11.9% indicating low disparities in DEC among population due to income.

- The CV of food expenditure (FMV) was relatively higher than that of DEC as the former includes variations due to food prices.
- The CV of total DEC as defined by FAO was 24.5% (by aggregating the variation of CV due to income and the variation of CV due to energy requirement).
4.2 Result from 2011 THSES food consumption data (cont’d)

Indicators of food utilization

- The macronutrient share of dietary energy for Thailand was within the recommended norms of the WHO balanced diet.

- Thai diet is well diversified with rice as the main source of carbohydrates together with a sufficient amount of protein-rich foods such as chicken, pork and seafood products, but excess fats products. The average fats contribution of 26% was above the average recommended (22.5%).
4.3 Prevalence of undernourishment

Thai estimates of MDG and WFS indicators using updated parameters

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DES (kcal/p/d)</td>
<td>2320</td>
<td>2874</td>
<td>2864</td>
<td>2858</td>
<td>2938</td>
</tr>
<tr>
<td>CV (%)</td>
<td>28.4</td>
<td>27.7</td>
<td>27.1</td>
<td>26.4</td>
<td>25.8</td>
</tr>
<tr>
<td>MDER (kcal/p/d)</td>
<td>1864</td>
<td>1893</td>
<td>1894</td>
<td>1896</td>
<td>1897</td>
</tr>
<tr>
<td>PoU (%) – proportion of undernourished</td>
<td>26</td>
<td>8.1</td>
<td>7.7</td>
<td>7.4</td>
<td>5.5</td>
</tr>
<tr>
<td>WFS – number of undernourished (million)</td>
<td>15.0</td>
<td>5.5</td>
<td>5.3</td>
<td>5.0</td>
<td>3.8</td>
</tr>
</tbody>
</table>

• The prevalence of undernourishment for 2008-2010 revealed a low estimate of 5.5% as compared to 26% in 1990-1992.
• The number of undernourishment for the same period was 3.8 million.
• These updated figures indicate that Thailand has already achieved progress in reducing both the MDG 1.9 hunger and the WFS target well before the reference period of 2015.
5. Conclusion

- This project has been able to throw more light on the food security situation in Thailand with better quality and consistent agriculture and food data collected by different national institutions at the national level.

- Thailand is now able to prepare its annual SUA for compiling the yearly FBS, which is useful for monitoring the food security at the national level.

- The NSO has conducted the THSES yearly which is able to produce food security indicators regularly to assess the impact of hunger reduction policies and programmes both at national and provincial levels.
Thank You