# The State of Indonesia's Food Security

#### Prof. Dr. Bustanul Arifin

barifin@uwalumni.com

Professor of Agricultural Economics at UNILA
Professorial Fellow in Management and Business at IPB
Founder/Senior Economist with INDEF-Jakarta

#### **Presentation Outline**

- 1. Refresh: The Indonesia's agricultural development
- 2. Self sufficiency of strategic foods in 2014
- 3. Java remains important target for food self-sufficiency
- 4. New dimension of food security (post 2008)
- 5. Concluding Remarks: Policy recommendations

Food Security? Beyond Self-Sufficiency



### **Brief Overview of Indonesian Agriculture**

- The current growth rate of agricultural sector is 3.4 percent, which is simply not adequate to shape the economic growth and to improve the growth quality of Indonesian economy;
- Declining farm households of 500,000 per year has serious consequences of the growth performance and the future of structural transformation in the country.
- The majority of food-crop farmers is smallholders, facing problems of economies of scale, even for innovation in production technologies.
- New approach on agricultural biotechnology and corporate farming and food-energy estates, especially outside Java, to boost food production has yet to implement in the field.

**Major Food Production Centers in Indonesia** 

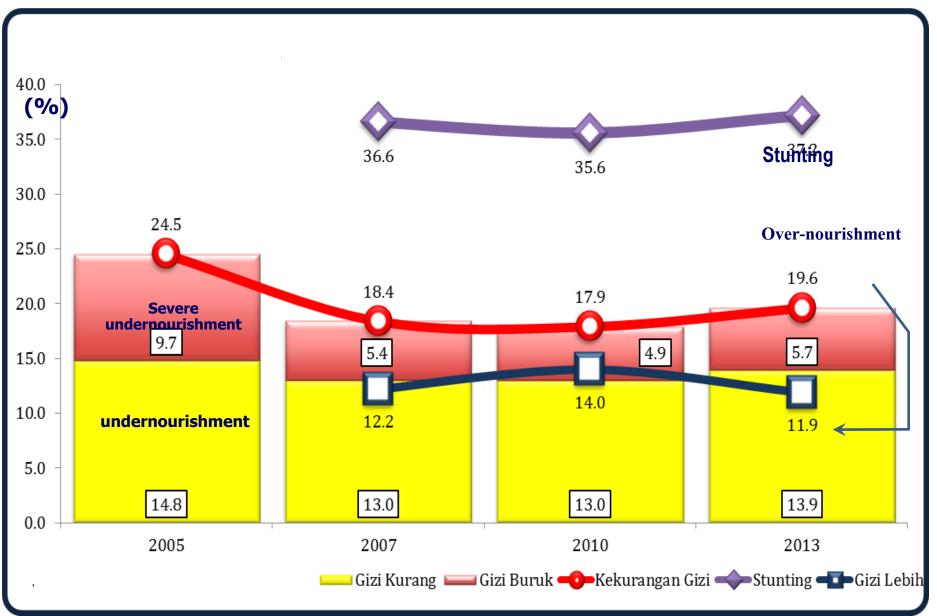
Food	Regional Food Production Centers
Rice	West Java+Banten (20,7%), East Java East Java (17,8%), Central Java (16,3%), South Sulawesi (7,1%), North Sumatra (6,7%), West Sumatra, South Sulawesi, Lampung >3%).
Corn	East Java (36,0%), Central Java (17,7%), Lampung (11,6%), North Sumatra (6,9%), South Sulawesi (6,5%); West Java, Gorontalo, and East Nusa Tenggara (each >4%)
Soybean	East Java (37,9%), Central Java (20,1%), Aceh (7,0%), West Java (5,4%), South Sulawesi (4,2%), and Lampung (2,2%)
Sugarcane	East Java (44,1%), Lampung (33,3%), Central Java (7,5%), West Java (4,2%), and North Sumatra (3,9%)
Oil Palm	North Sumatra (39,9%), Riau (21%), West Kalimantan (6,1%), Aceh (6,1%), and West Sumatra (5,4%)
Meat	West Java (21,1%), East Java (15,6%), Central Java (12,0%), Bali (8,1%), Jakarta (7,7%), North Sumatra (6,3%)
Groundnut	East Java (24,4%), Central Java (21,7%), West Java (14,8%), South Sulawesi (6,5%), North Sumatra, and West Nusa Tenggara (each >3%)
Vegetables	West Java (36,6%), North Sumatra (19,6%), Central Java (15,1%), East Java (9,6%), West Sumatra, Bengkulu, Bali, South Sulawesi (each >3%)
Fruits	West Java (26,9%), East Java (21,1%), Central Java (12,6%), North Sumatra (5,9%), South Sulawesi (5,5%), South Sumatra+ Babel, Lampung, East Nusa Tenggara (each >3%)
Fisheries	Sumatera (27%), Java (25%), Sulawesi (18%), and Eastern Indonesia regions

Source: Agency for Food Security, Ministry of Agriculture, 2012

## Self Sufficiency of Strategic Foods in 2014

- Rice: Production 69,9 million ton GKG (40 million ton of rice, using 0,57 conversion). If rice consumption is 113,5 kg per capita, total rice consumption for 250 population: 29 million ton. Theoretically, Indonesia has a surplus on rice. Why import?
- <u>Maize</u>: Production 18,5 million ton of dried grains, mostly for feed industry. Similar to rice, maize import last year was 3 million ton.
- Soybean: Production 893 thousand ton, growth flatten, far away to achieve 2,5 million ton. Soybean imports are mostly from US.
- <u>Sugar</u>: Production 2,4 million ton, below the target of 2,8 million ton. Consumption is 4,5 million ton (2,5 million ton is from cane sugar and 2 million ton from refined sugar).
- <u>Beef</u>: Production 470 thousand ton (?), consumption 550 million ton, about 80 thousand ton import from Australia. However, beef self sufficiency is not yet acieheved as targeted.

#### **Nutrition Status of Children Under 5 Years**



Source: Ministry of Health, Indonesia

#### Java: remains important in food security target

- Rice 2009: 34.9 mil.ton-54,2%  $\rightarrow$  2013: 37.5 mil.ton (52.6%)
- Maize 2009: 9.5 mil.ton-53,6%  $\rightarrow$  2013: 10,1 mil.ton-54,5%
- **Soybean 2009**: 645 thou.ton-66,4% → **2013**: 521 thou.ton-66,9%
- Sugar 2009: 1,5 mil.ton-67,3%  $\rightarrow$  2013: 1,6 mil.ton-67,4%;
- Next 5 years, new government would not take the risks by shifting the basis of strategic food production to Outside Java;
- Preventing land conversion in Java by enforcing the law & regulations;
- Strengthening the foundation of food production of Outside Java.



## **New Dimension of Food Security (post 2008)**

- Beyond the old (availability, accessibility, price stability and utilization). More complex, multi-scale interconnected.
- Food security is a part of human security, sometimes called *non-traditional food security*
- Cross border or regional dimension—Collaborative?
- The F-nexus (Food-Feed-Fuel-Finance): Trade off?
- At macro level--FEWS: Food, Energy and Water Security
- Governance, traceability, food safety, private sectors
- New jargon--Food sovereignty: mistrust of global market?
- Management of food demand: From growing middle class to misfortune the bottom of the pyramids—Nutrition nexus

### **Closing Remarks: Policy Recommendation**

- Develop innovation system and technological change to improve the productivity and efficiency in agriculture, capacity building in R&D, strategies for rural development and employment creation;
- Increase budget allocation for R&D and R4D at least 1 percent of the GDP, from the public funds, SOEs and private sectors, empower food-innovation networks, involving ABGC.
- Remove local regulations that hinder food distribution by improving infrastructures, developing food stocks at local level, and focusing on Eastern Indonesia and some remote regions.
- Provide incentives for regional and local government to develop early warning and monitoring system for environmental risks and climate change and improve water infrastructure management;
- Reduce poverty (subsidizing the needy and empowering the active poor) and remove food insecurity, by implementing concrete actions to combat children malnutrition in the country.