

# Sustainable Oil Palm Development : Challenges for Food Security

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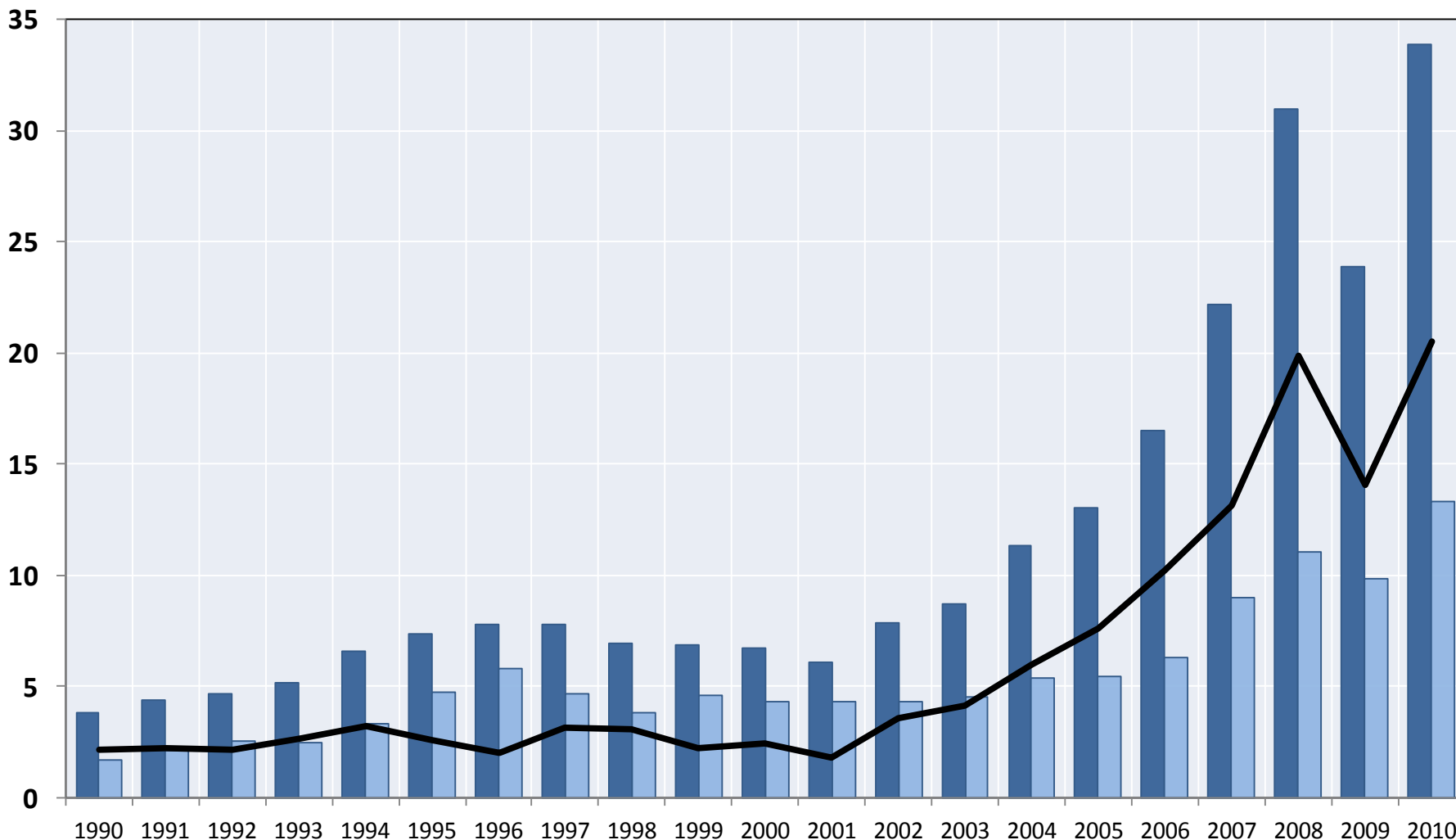
# Presentation Outline

1. Overview: Agro-food balance of Indonesia
2. Oil Palm in the plan of economic corridors
3. Food situation in 2011 differs from that in 2008
4. Dominant roles of food price on inflation
5. Serious threats from poverty and food insecurity
6. Concluding Remarks: Policy Changes

# Agro-Food Balance of Indonesia, 1990-2010

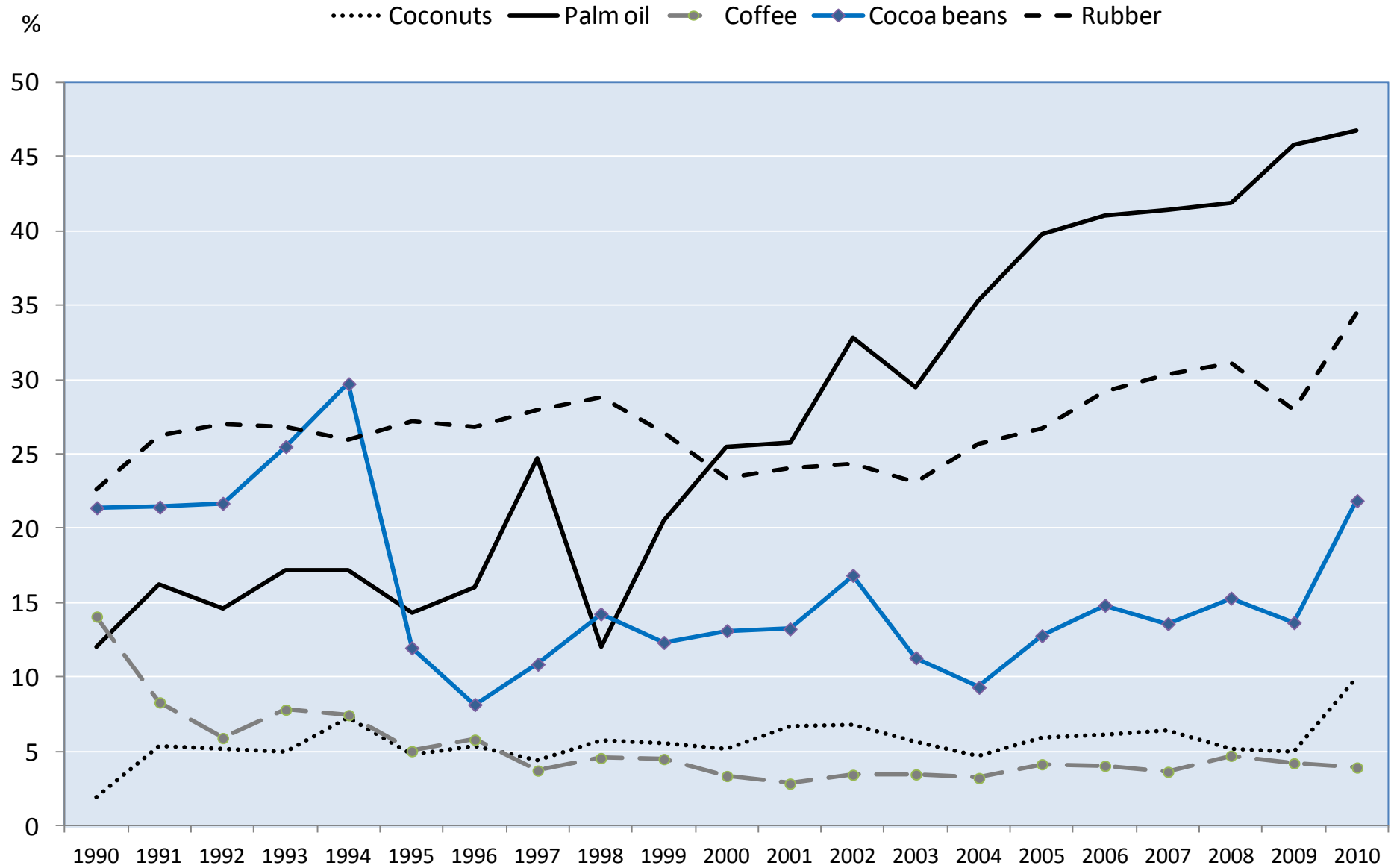
■ Agro-food exports      ■ Agro-food imports      — Agro-food balance

USD billion



Source: UN Comtrade, Database 2011

# Agro-Food Export Share (%), 1990-2010

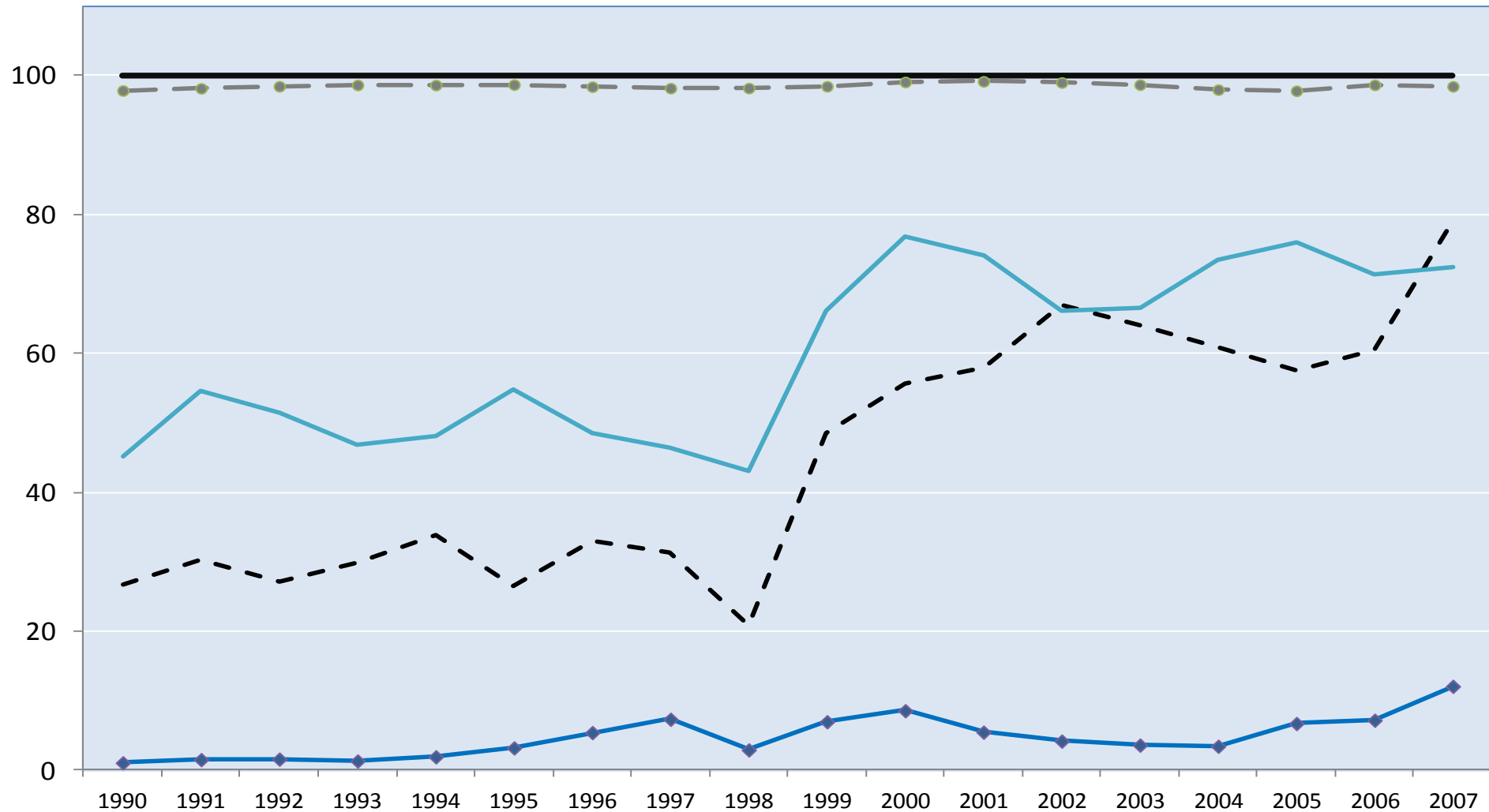


Sources: UN Comtrade Database 2011 dan FAO STAT 2011

# Agro-Food Import Share (%), 1990-2010

%

— Wheat    - - Soybean    -●- Cotton lint    -◆- Bovine meat    — Milk - excluding butter



Sumber: FAO FAO STAT 2011

# 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

# Oil Palm: The biggest producer--what next?

- Indonesia is the biggest CPO producer, reaching about 23 million ton; (Malaysia 18 million ton). Increasing trend CPO price at world market has increased export level to 17 million ton, which probably would change the structure of international trade policy.
- Share of smallholder palm-oil farmers decreases to 41%, large-scale plantation increases to 48%, the remaining 11% is state-own enterprise, but tend to decrease.
- Allocation of “foods vs. fuels” has now become more real than it was 10 years ago.

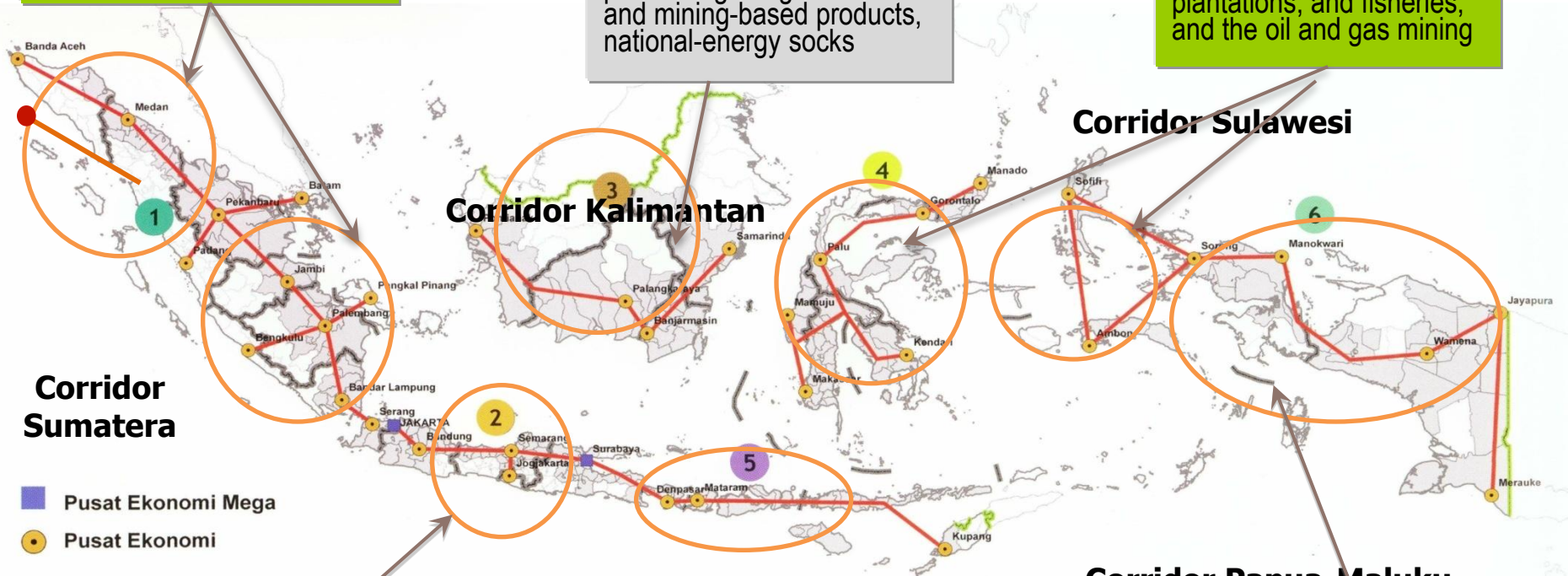


# CPO in MP3EI: Plan of Economic Corridors

Production centers and processing of agricultural and resource-based products and national energy stocks

Production centers and processing of agriculture and mining-based products, national-energy socks

Production centers and processing of agriculture, plantations, and fisheries, and the oil and gas mining



**Corridor Sumatera**

**Corridor Kalimantan**

**Corridor Sulawesi**

**Corridor Java**

**Corridor Bali - NTT**

**Corridor Papua-Maluku**

■ Pusat Ekonomi Mega

● Pusat Ekonomi

1 KE Sumatera

2 KE Jawa

3 KE Kalimantan

4 KE Sulawesi

5 KE Bali – Nusa Tenggara

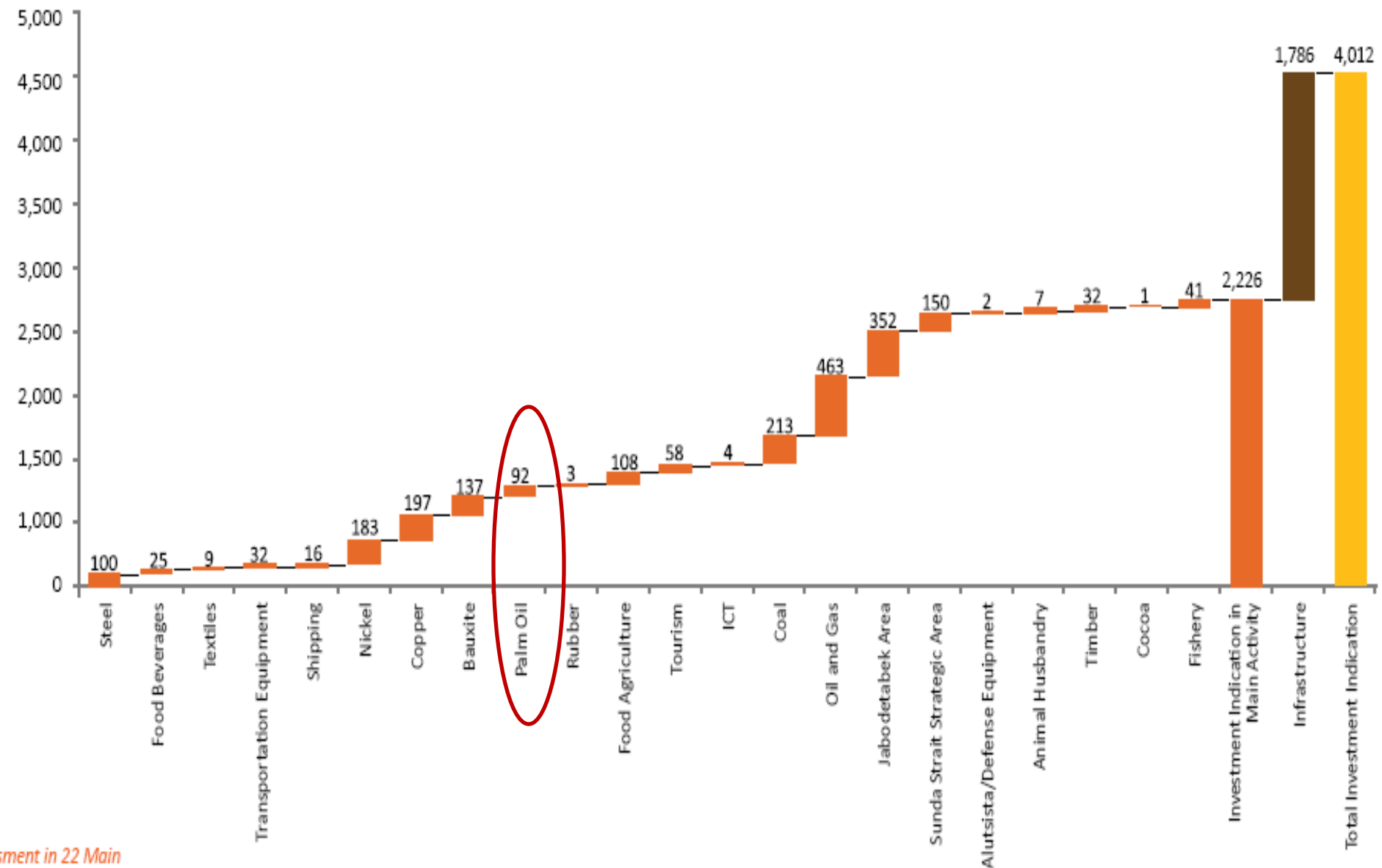
6 KE Papua – Kepulauan Maluku

Supporters of manufacturing and service sectors

Entry point of tourism and national support system for food production

Development center of food, fisheries, national energy and mining.

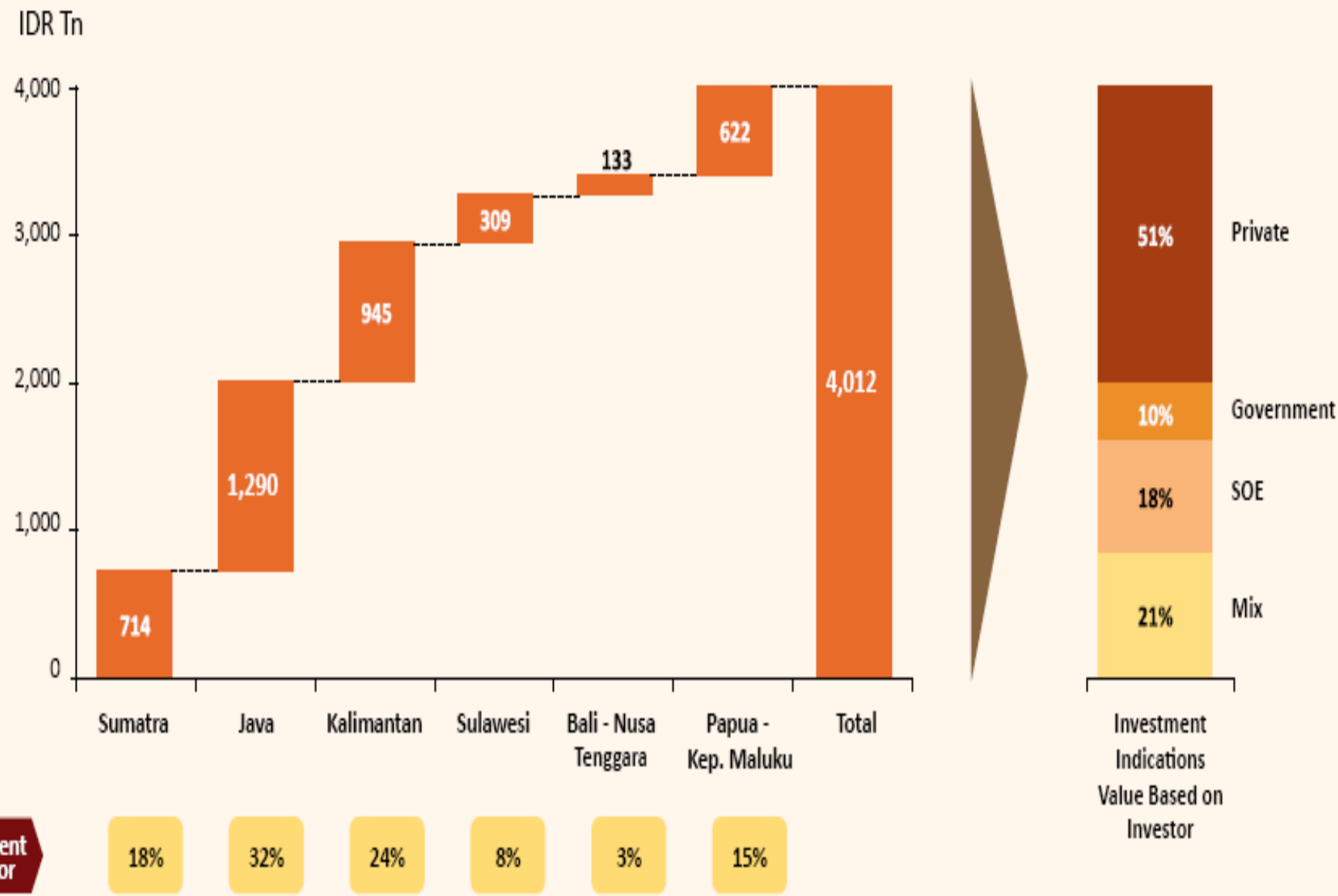
# Investment Indications in Main Economic Activities (Rp tln)



Investment in 22 Main  
- MP2FI

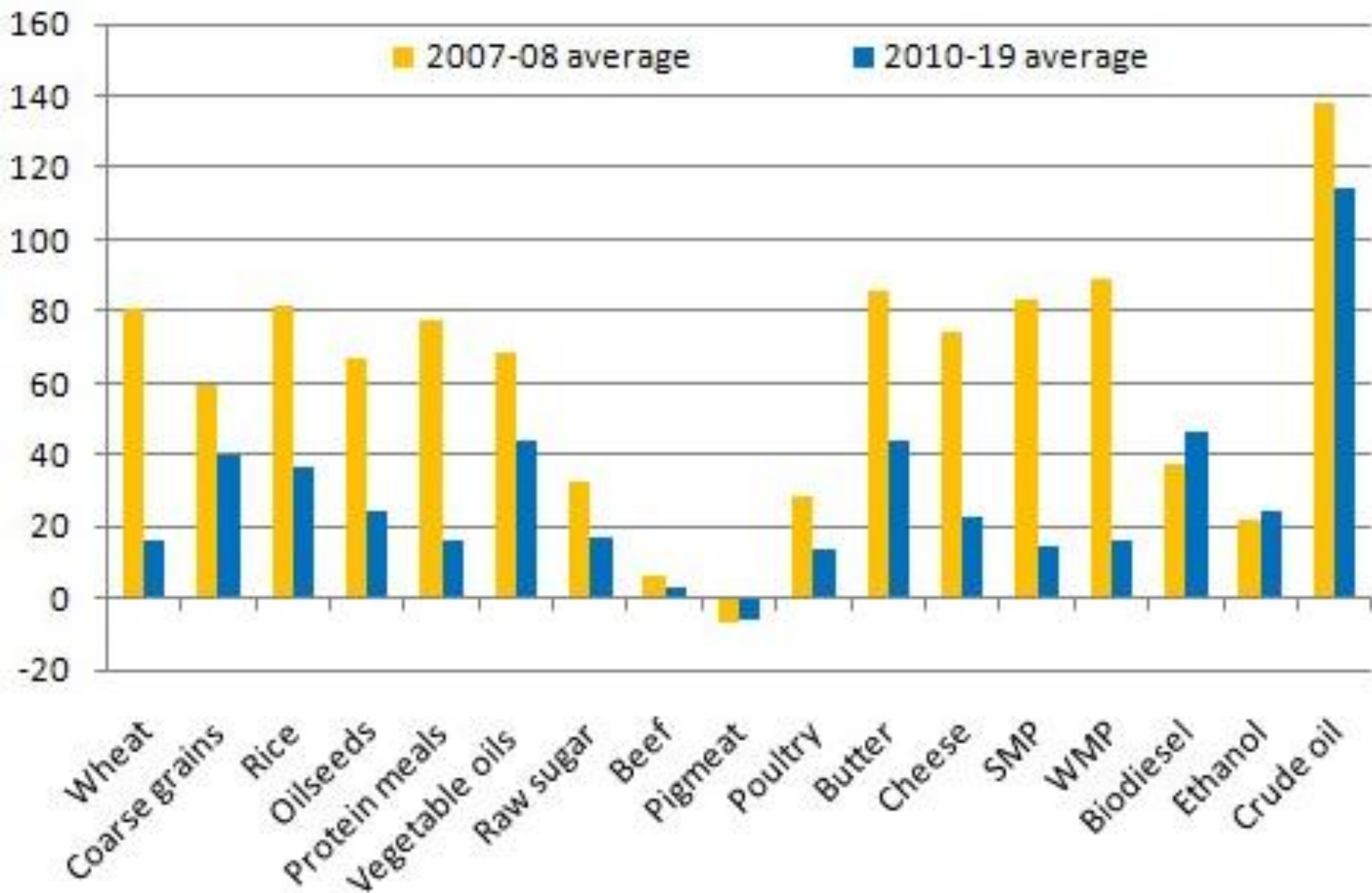
Sources: Ministry of Economic Affairs, 2011

# MP3EI: Financing the Investment (Rp triliun)

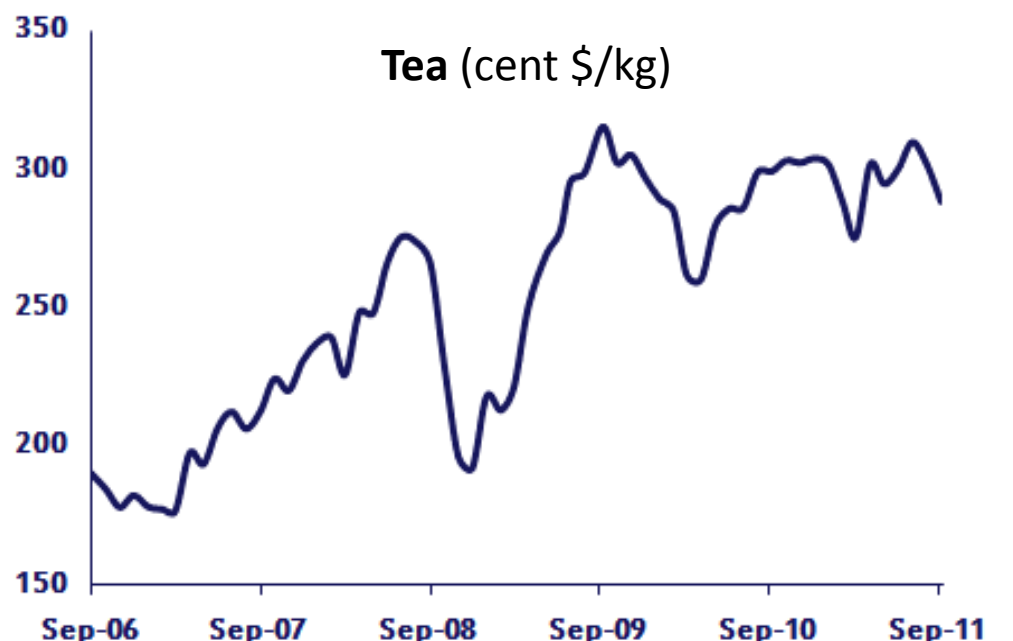
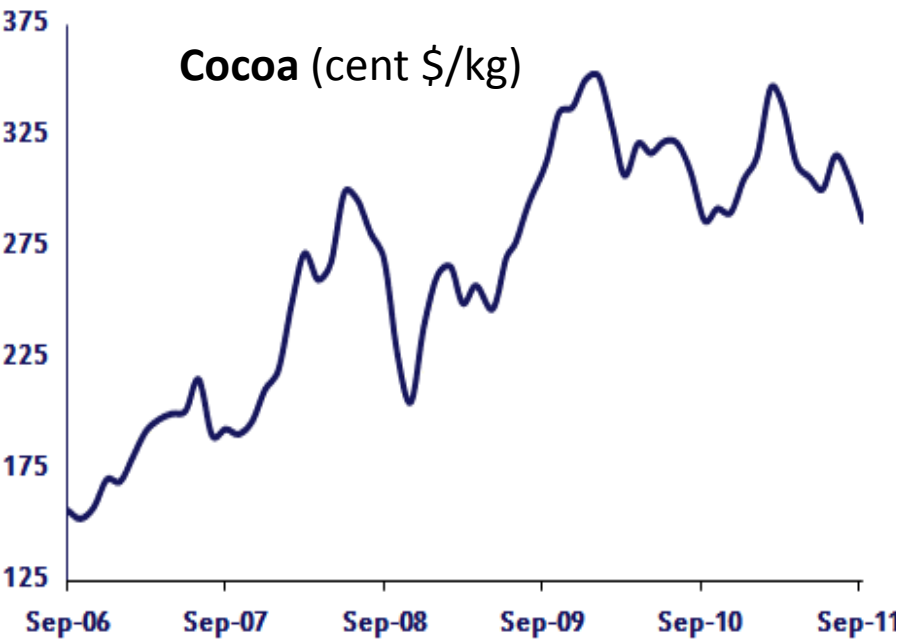
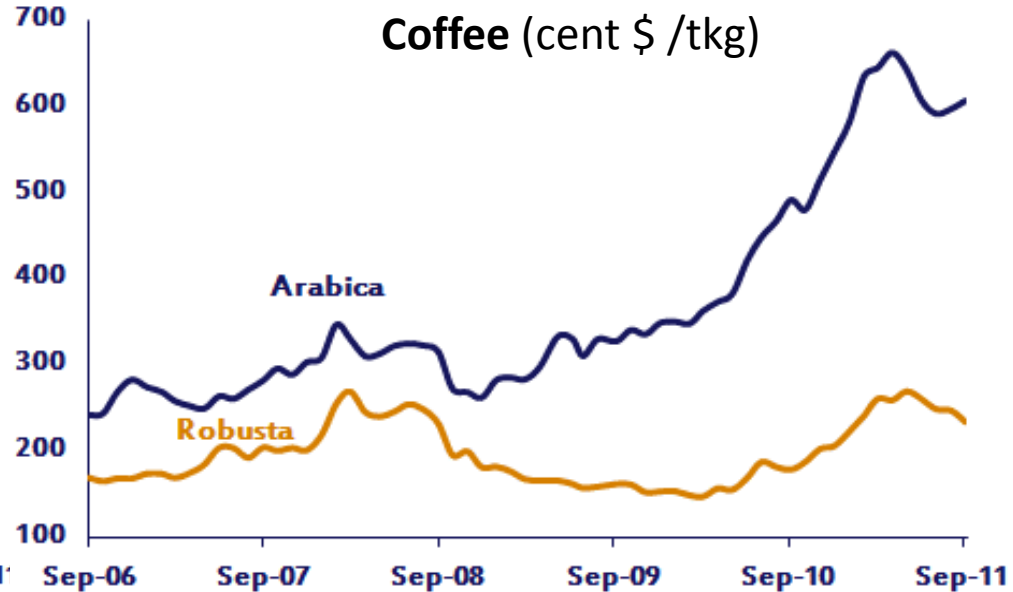
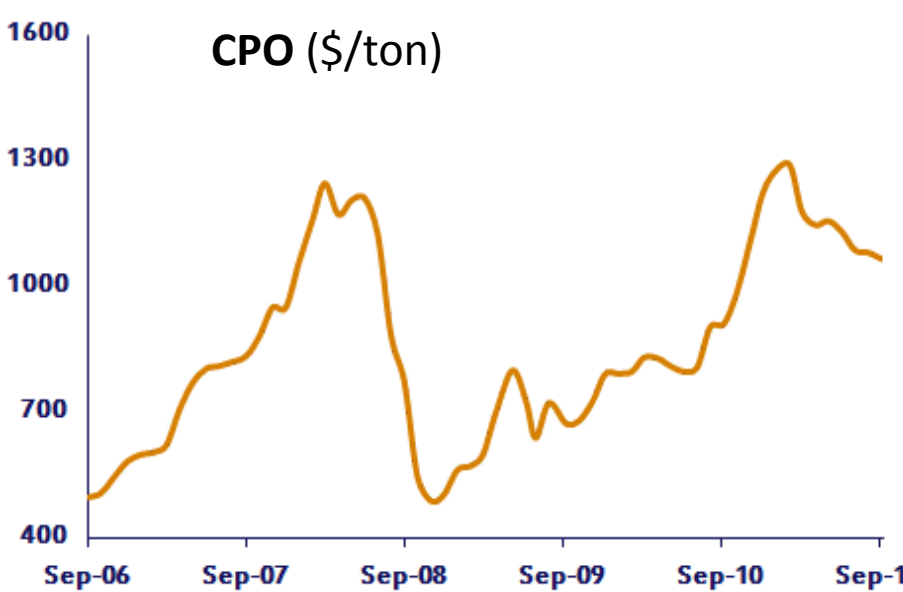


Sources: Ministry of Economic Affairs, 2011

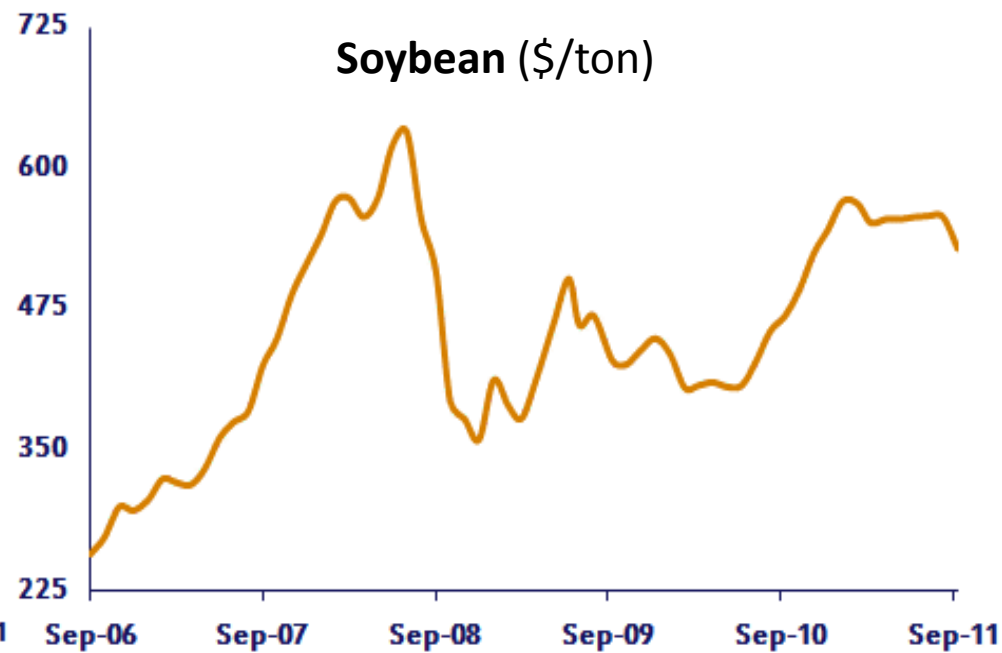
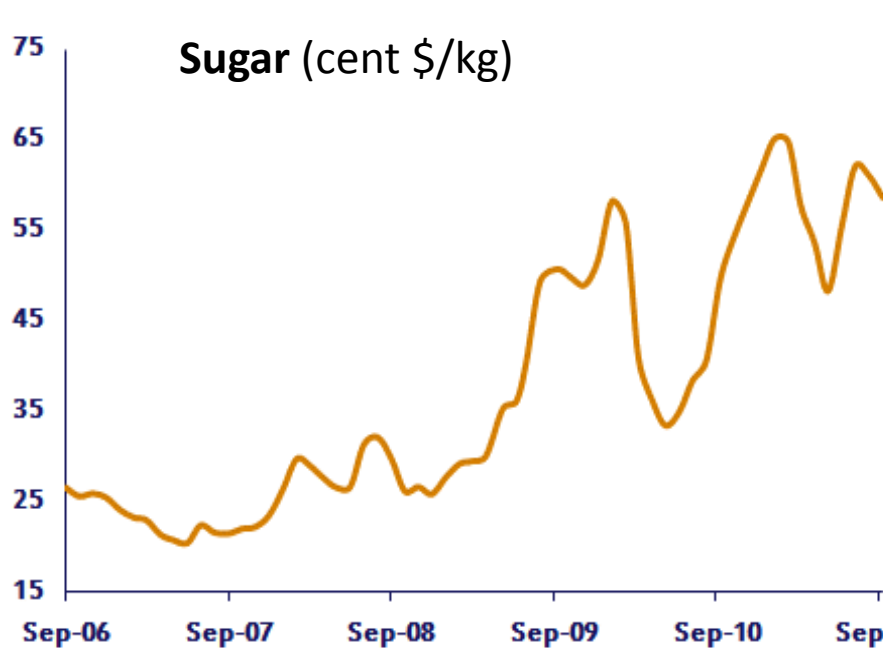
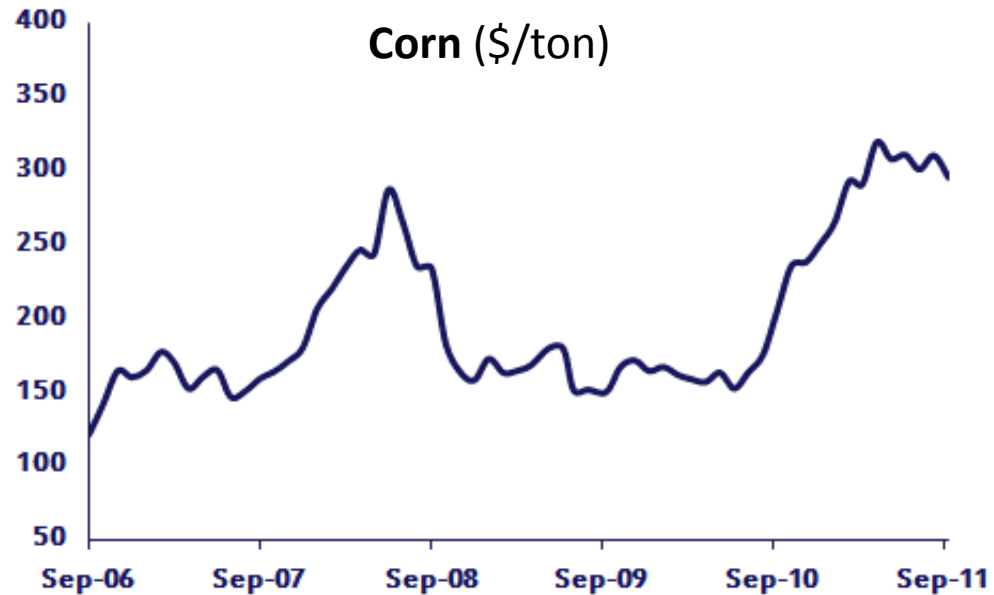
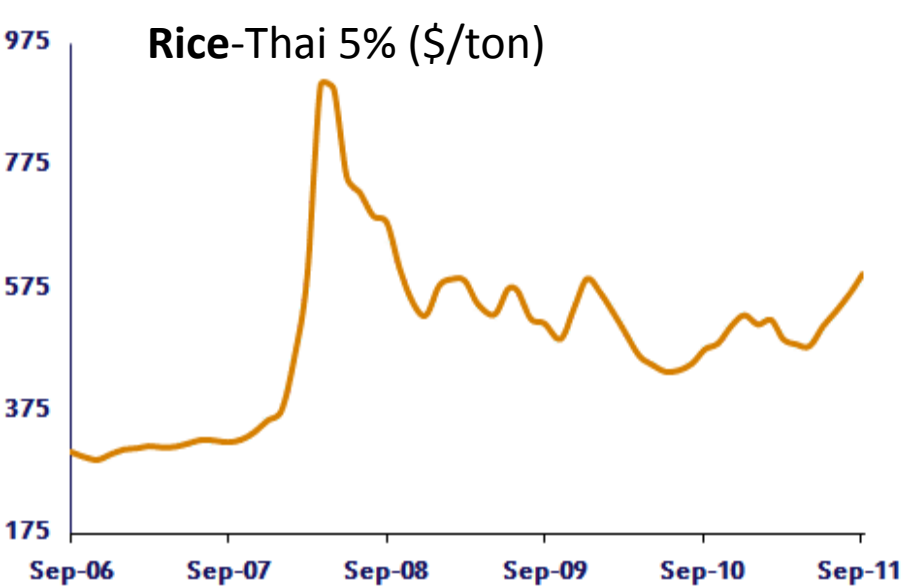
# Global Food Outlook (FAO Data)



# Global Price Fluctuation of **Cash Crops**

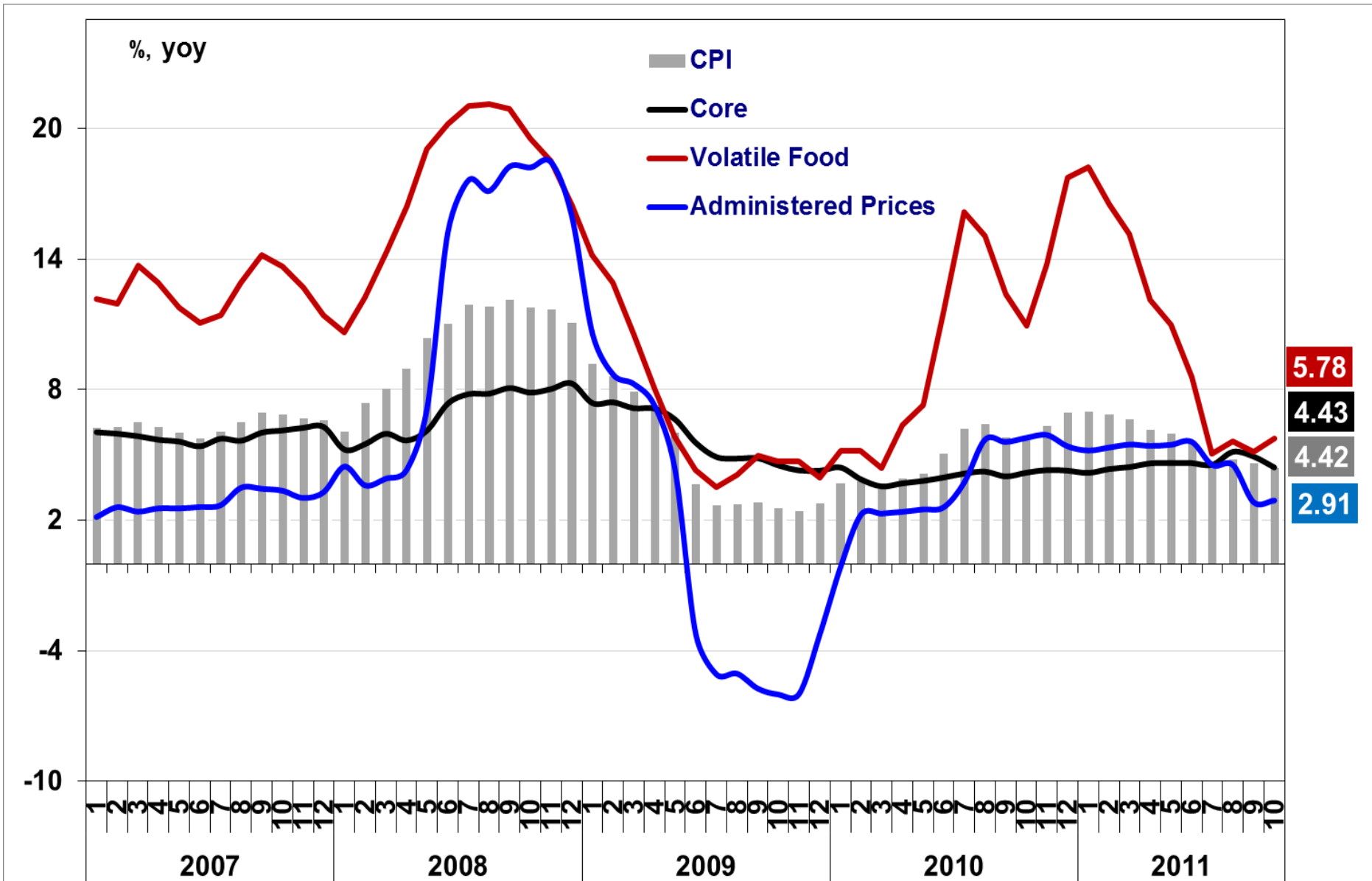


# Global Price Fluctuation of Major Foods



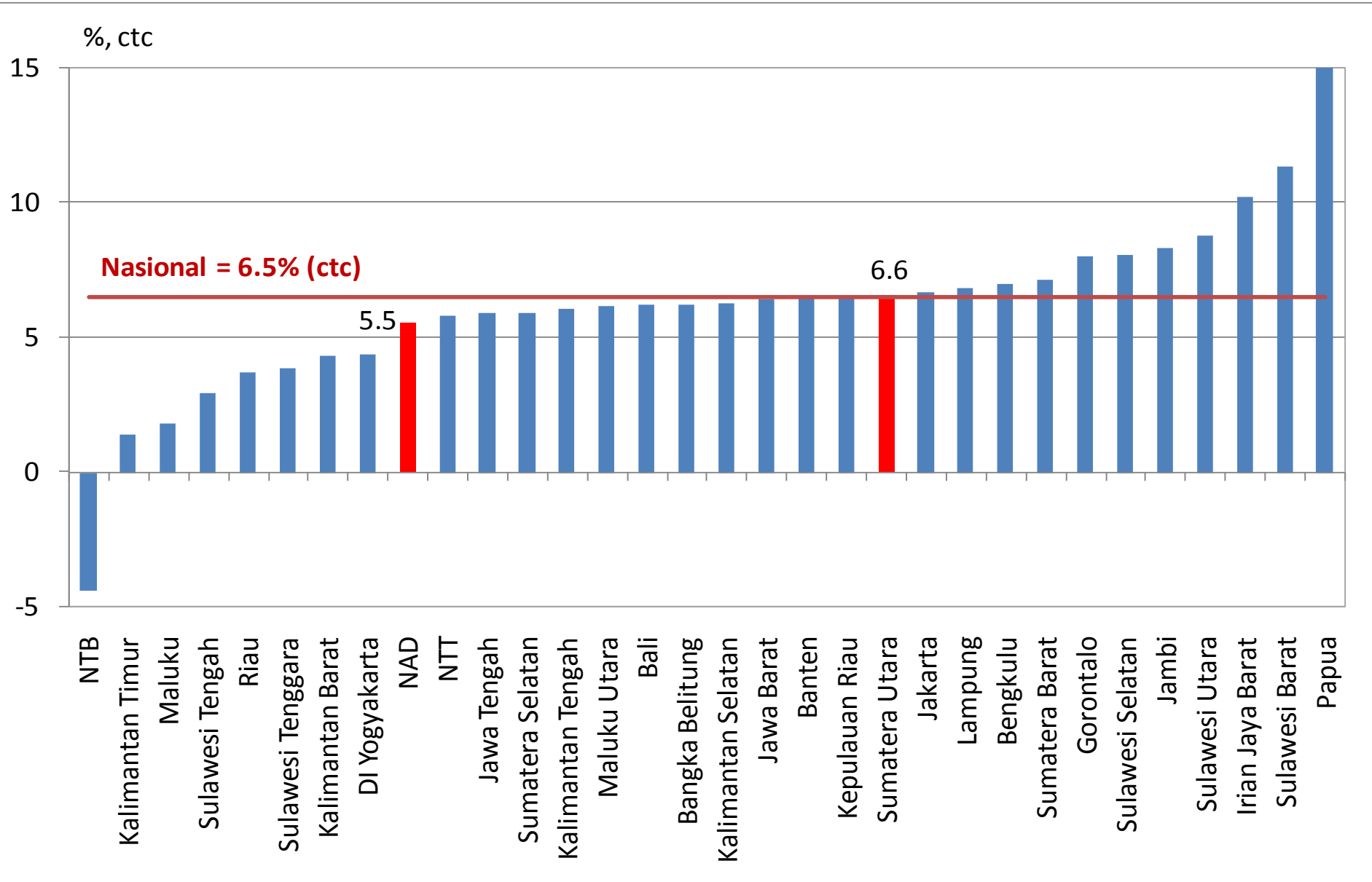
Sources: "Commodity Market Review" of the World Bank, 14 October 2011

# Domination of food price in the inflation rate



Source: Bank of Indonesia, 2011

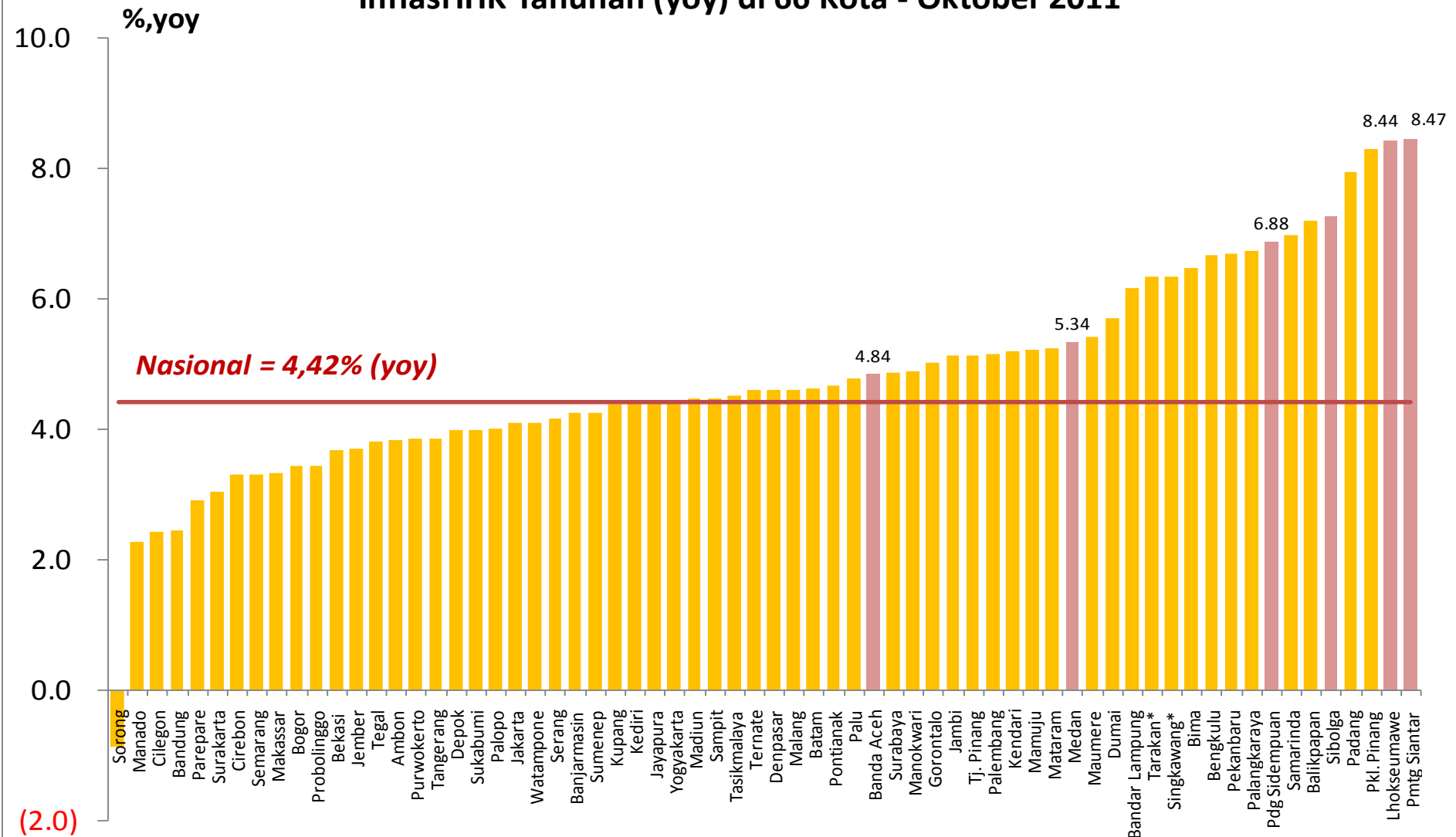
# Economic Growth 2011: National vs Province



Source: Bank of Indonesia, 2011

# CPI--Inflation Rate 2011: National vs Region

Inflasi IHK Tahunan (yoy) di 66 Kota - Oktober 2011



# Rice: Staple food and remains political

- Food crop contributes significantly to the overall agricultural performance. The present share of rice in the economy is not as large as that in the 1970s.
- Rice has been and remains a political commodity: All political leaders have used food security approach as main flavors of the economic development strategies.
- Estimate of rice production in 2011 is 65.4 million tons of non-husked rice or about 37,2 million tons of rice, sufficient for the total consumption of 27 million tons.
- General people is now more critical on the published data, as the government is planning to import the rice this year, although it is claimed only for buffer stock.
- Micro-problems of the rice economy mostly deal with production inefficiency at the farm sector, very small land holding size, and poor financial access.



# Rice: Staple, strategic and political crop

(Data: Harvested area, yield, and production of rice, 2002-2011)

Year	Harvested area (ha)	Yield (ton/ha)	Production (ton)	Growth (%)
2002	11,521,166	4.47	51,489,694	2.04
2003	11,488,034	4.54	52,137,604	1.26
2004	11,922,974	4.54	54,088,468	3.74
2005	11,839,060	4.57	54,151,097	0.12
2006	11,786,430	4.62	54,454,937	0.56
2007	12,147,637	4.71	57,157,435	4.76
2008	12,327,425	4.89	60,325,925	5.46
2009	12,883,576	5.00	64,389,890	6.75
2010	13,244,184	5.01	66,411,469	3.13
2011*	13.224.379	4,94	65.385.183	-1,63

Source: BPS (various years), \*Latest: Third Production Forecast, as of November 1, 2011

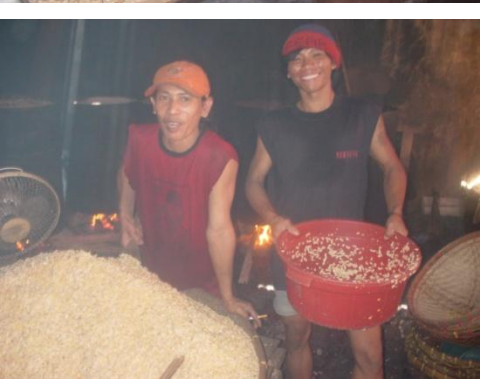
# Corn: Roles of Biotechnology?



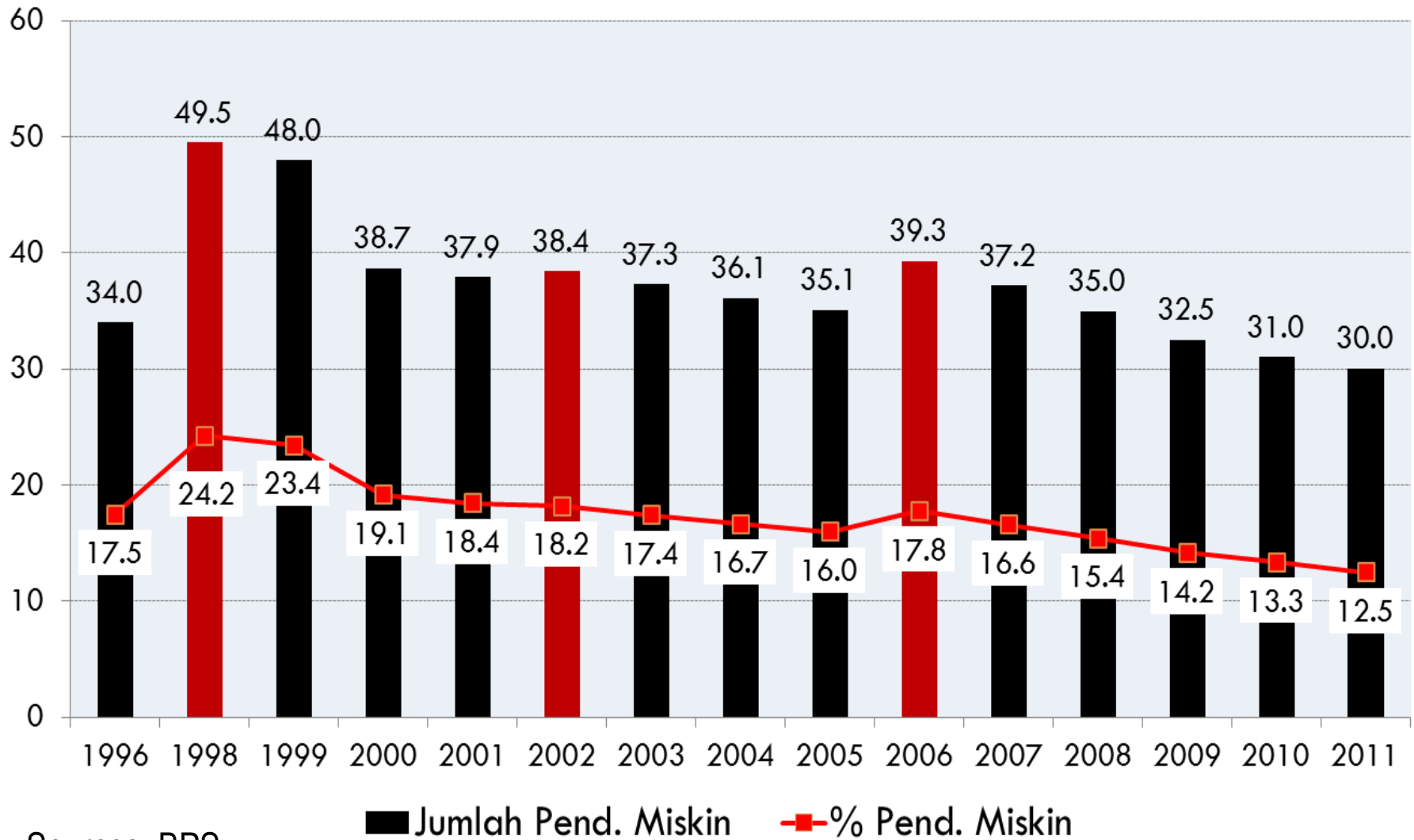
- Corn production in 2011 is forecast to reach 17.2 million tons (decrease 6%), due to long rainy season earlier this year. If the data are correct, the corn production level should suffice to fulfill consumption.
- The roles of hybrid seed (and other traditional biotechnology) in corn production have been significant in the last decades.
- Indonesia is now in preparation to increase the use of (modern) biotechnology where genetically modified organism has been in forefront public debates and high-level discussion.
- Corn production has significant impacts on poultry and livestock sectors, where feed industry has developed significantly in the last decades or so. Small-scale meat producers do not have to rely on imported feed, which experience significant price increase, especially during the global crisis.

# Soybean: Dependence on imports

- Soybean production is only 870 thousand ton (4 percent decrease), a long way to self-sufficiency, while the consumption is over 2.5 million ton.
- Indonesia has been importing soybean from the US, Argentina, and some from Brazil.
- During the 1980s and 1990s, soybean imports were controlled by the logistic agency (Bulog), but now are more open to any private sectors.
- The Indonesian Tofu and Tempe Cooperatives (Kopti) is interested in restoring the privilege of obtaining import rights, such as in the 1990s.
- The government has to carefully formulate trade policy on soybean import, as this commodity is one of SPs (special products), the country's commitment in the WTO negotiation.



# Accessibility: Poverty Incidence, 1996-2011

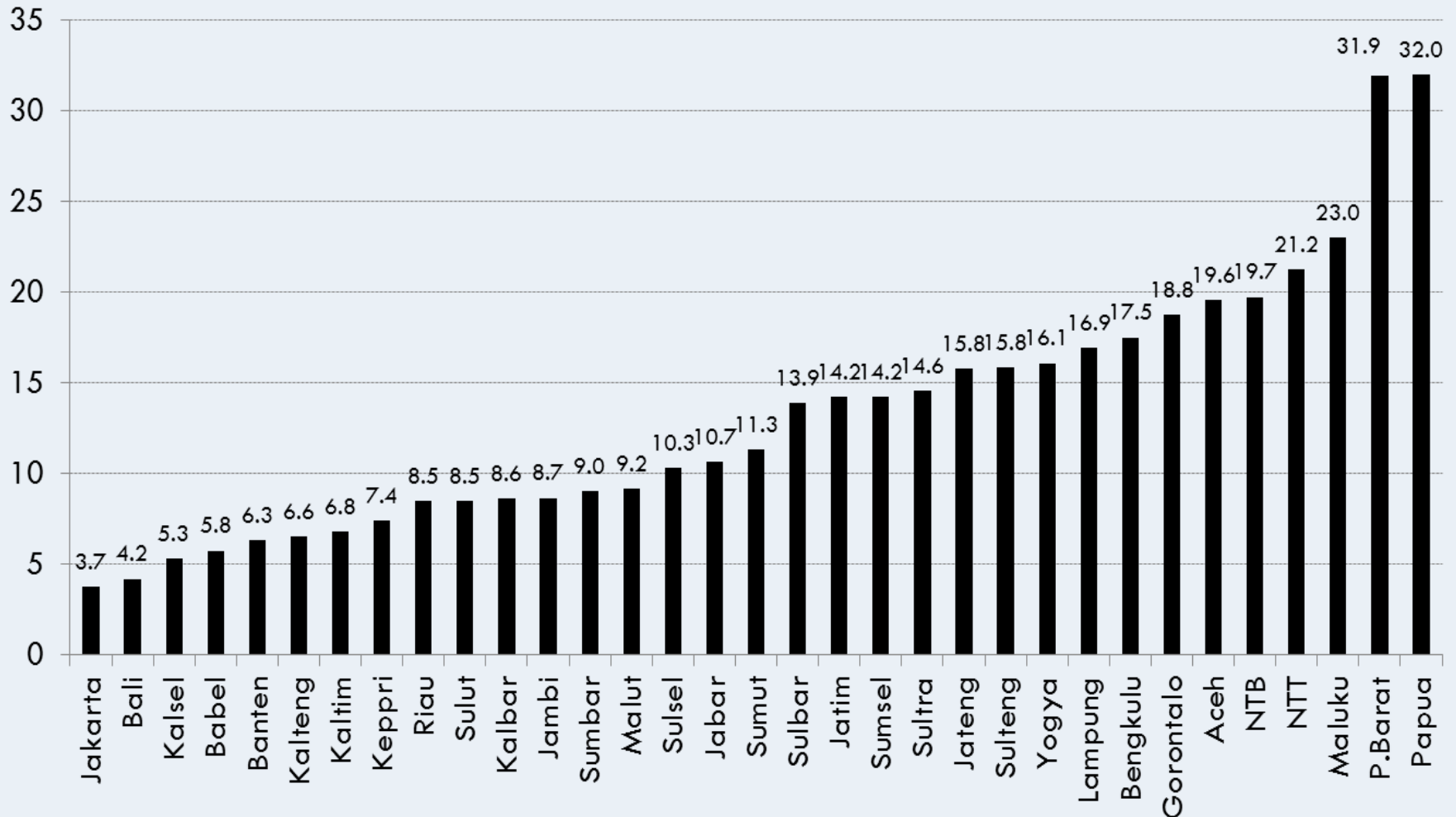


The poverty increase in 2006 due to the fuel-price (BBM) increase

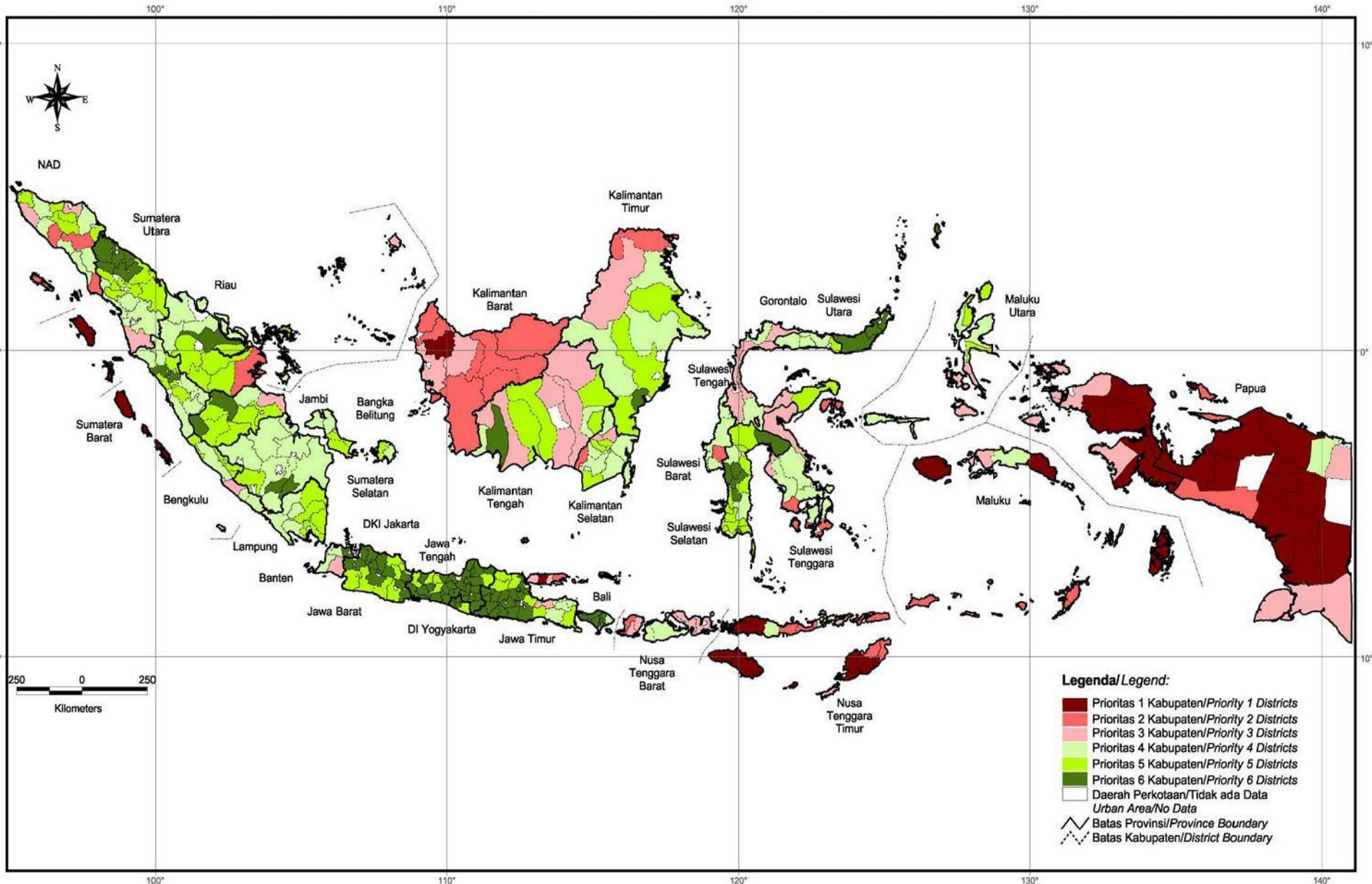
# High Disparity of Poverty among Province

(Jakarta = 3.75%, Papua = 31.98%, Indonesia = 12.49%)

(Data: Percentage of people below poverty line, March 2011)



# Food Insecurity and Vulnerability Atlas



Source: Agency for Food Security and WFP, 2010

# Closing Remarks: Policy Recommendation

- Food security policy has to focus not only on food availability, but also to improve food accessibility, price stability, and utilization.
- Reduce poverty (subsidizing the needy and empowering the active poor) and remove food insecurity, by implementing concrete actions to combat children malnutrition and preventing its future.
- On the farm, intercropping oil-palm with food crops and integrating oil-palm with livestock are among options to improve productivity.
- The industry has to strengthen research and development (R&D) to adjust its strategy both to the growing demand of world market and to deepen the industrial strategy for downstream products.
- Remove local regulations that hinder food distribution by improving infrastructures, developing food stocks at local level, and applying regional price reference for staple food.
- Empower the ABGC (academic, business, government and civil society) collaborations and networks, to push debottlenecking strategies in increasing productivity and adapting climate change.