

Food Security in Indonesia (and International Food Trade)

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Indonesia



Definition of Food Security

- **"Food security" is defined as a state of affairs where all people at all times have access to safe and nutritious food to maintain a healthy and active life (FAO)**
- Food security has three dimensions:
- **Availability of sufficient quantities of food in appropriate quality, and supplied through domestic production or imports;**
- **Accessibility of households and individuals to appropriate foods for a nutritious diet; and**
- **Affordability of individuals to consume food according to their respective socio-economic conditions, cultural backgrounds, and preferences.**

Definision (2)

- USAID Definition:
 - “When all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life”
- A Better Definition of Food Security (Barichello)
 - *“food security is measured by the ratio of food expenditures to a family’s budget or income”*
 - Achieving food security: *keep food expenditure share of family income below some critical percentage*

Definision (3)

- The 1996 Indonesian Constitution No. 7 concerning Food defines food security as *“a condition where there is sufficient food for every household, which is reflected by availability of sufficient food, both in quantity and quality, that is safe, evenly distributed, and accessible”*.
- In this case, food consists of food and drinks in primary or processed form, including drinking water. Sequentially, the term food security in the said Constitution is delineated as follows:

1. Sufficient food security is defined as food availability in a broad sense, includes food and drink derived from plants, livestock, and fish and their derivatives, in amount suitable for each citizen to meet the demand for carbohydrate, protein, fat, vitamin, and mineral useful for growth, health, and physical and mental strength.
2. Availability of safe food implies availability of food that is free from biological, chemical, and other kinds of contamination that can disturb, damage, and endanger people's health. Furthermore, it should not be forbidden by religious law.
3. Availability of evenly distributed food means that food is available at all times in every location throughout Indonesia.
4. Accessibility of equally distributed food means that food is physically and economically accessible for every household in terms of accessible distance and price at all times.

Accessibility

- Technically, accessibility is a function of food distribution. Food production is conducted in certain areas with appropriate agro-ecosystem for each food crop.
- On the other hand, food consumers are evenly distributed in all regions. Therefore, food should be distributed in such a way so that every household has access to it.
- This can be implemented through a market mechanism. If the market is unable to function, the government's role is required to overcome market failure.

Accessibility (2)

- Economically, the main aspect in accessibility is capacity to buy food.
- This is connected with consumers' income and price of food or the community's real income in food.
- These economic variables are connected with several derivative variables, such as income share for food, relative price of food to other products, and relative price of a food precuts to other food Product

Food economic system

- Food security is achieved through efforts of food economic system, which consists of subsystems of availability, distribution, and consumption that interact continuously.
- Development of availability subsystem includes management of stability and continuity of food supply obtained from local production, reserve, and import and export.
- Development of distribution subsystem includes management that ensures people's physical and economic accessibility to food across region and across time, and stability of strategic food price.
- Development of consumption subsystem includes food management at the local level and household level to ensure individual's access to food in the amount, with nutrition, reliability, and variety that meet their need and choice.

Output of Food Security

- These three subsystems are implemented by many parties, such as producers, processors, traders, and consumers, assisted by institutions that mutually interact within regions and across regions.
- The expected output from food security development is the fulfillment of human rights to food at all times, with adequate amount, nutrition, and reliability in accordance with their choice for healthy and productive daily life.
- By satisfying the above need continuously, human resource quality of future generations is expected to improve.
- Development of other sectors shall be properly implemented to improve national economic security and national security.

Contribution of rice

- In general, food consumption is still dominated by carbohydrate foods, particularly rice.
- Rice alone contributes more than 60 percent of energy consumption, though the share of rice in household expenditures has gone down to about 7-11%, depending on whether one is referring to urban or rural areas.
- Daily food supplies has increased from 2,035-kcal/capita in 1968 to 2,887 kcal/capita in 1992. Until 1980 food energy consumption remained below 2,500 kcal/capita, but this was sufficient to meet the targeted daily calorie intake (actual consumption) of 2,150-kcal/capita/ day, a target considered adequate for Indonesians to lead a healthy life.

Supply and calorie consumption

- The total calorie supplies for the average Indonesian to day is close to the ceiling level of 3,000-kcal/ day.
- However, the consumption of the lowest income groups is still below 1,780 kcal/day, which is the minimum calorie intake required to prevent malnourishment (this is about 80% of the minimum requirement for daily calorie intake of 2,150 kcal). It is estimated that 3.34 % of the population is considered to be 'malnourished'. This group has the tendency to increase their energy consumption, particularly carbohydrates, when their income increases.
- In contrast, carbohydrate consumption among higher income groups has declined as this group has shifted to foods with more protein. This confirm that the aggregate calorie consumption will not change much from its present level and that an average daily energy supplies of 3,000 kcal per capita will become the ceiling level for energy consumption in Indonesia.

- Food energy supply is still dominated by cereals, particularly rice which accounted for more than 60% of total energy consumed.
- Rice consumption, particularly direct household consumption, has already reached its peak. As reported by the Central Bureau of Statistics, direct per capita household rice consumption increased from 112.42 kg in 1978 to 117.68 kg in 1990, after which it declined to 115.62 kg in 1994. In contrast, per capita rice consumption outside the household has increased from 6.860 kg in 1978 to 15.02 kg in 1994.
- The marked rise in per capita rice consumption outside the household is most likely due to the sharp increase of women participating in the labor market and urbanization, in addition to increases in per capita income.
- Average total per capita rice consumption (i.e. both inside and outside the home) is presently estimated at 131.81 kg/ year and it is expected to remain at this level up through the end of this century.

Rural and Urban Consumption

- When the data are desegregated into rural and urban rice consumption, it is found that per capita is lower in urban areas than in rural areas.
- However, consumption outside the household in urban areas is higher than it is in rural areas. The movement of labor from agriculture into industry and service concentrated in urban areas will increase rice (and food) consumption in the short run, but over the medium term, rice consumption will flatten out and then decreased as a result of rising incomes. Per capita apparent consumption reached its highest level of 155 kg/year in 1988, whereas household consumption was 135.27 kg/year in 1990.
- Since then, both apparent and actual consumption have been declining slowly. Average per capita apparent consumption for rice has also recently reached a stable level of about 147 kg/year, which is slightly below the level of consumption during the 1988-1992 periods.

- For the lowest income groups, which have a high positive income elasticity of demand for rice, average per capita rice consumption is expected to remain flat up.
- The belief that rice consumption will fall in coming years may require careful review, because of very strong pressure from lower income classes to push rice consumption up as a result of successful poverty alleviation programs in recent years.
- A similar trend for cereal consumption should also hold. The aggregate energy consumption, as measured by average daily calorie availability, also has reached a level of nearly 3,000 kcal, a level at which it is expected to stabilize. Nevertheless, calorie consumption from cereals should start decline. This trend is in line with the natural shift in consumption from staples into processed and protein-rich foods.

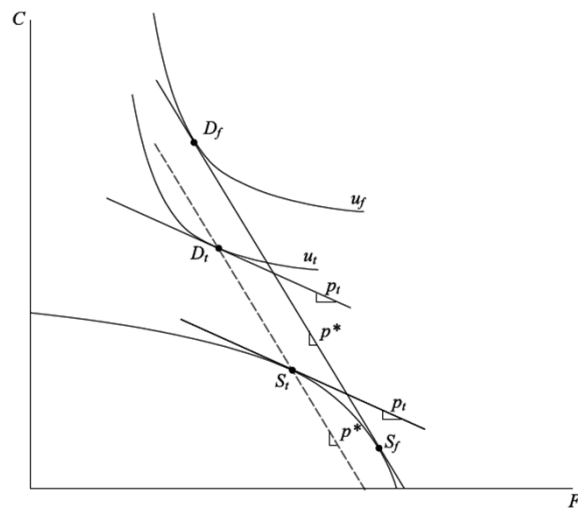
Food International Trade

- International trade for food
- Trade and world production of food
- Import as source of food availability

International trade for food

- International trade increase, both total and food (see table 13)
- USA is biggest both exporter and importer for food (see table 14)
- Indonesia is out of 15 top exporter and importer
- International trade will increase welfare

Figure 1. welfare effect of international trade with and without tariff



Further discussion see Masyhuri (2010)

Trade and world production for food

- Trade for food ranged from thin (Rice) to thick (coffee), see table 15
- Share of international trade to world production for food increase (table 13)

Import as source food availability

- Use of Comparative advantage
- Capability to import (export earning vs food import)
- Big enough of international trade volume

Disadvantage of food import

- Thinness of food international trade
- Price fluctuation (figure 2 and table 12)
- Foreign Government policies(protection, subsidy, regulation, etc.)
- International politic (embargo, political tension, war)
- International environment (climate change, flood, frost, other natural disasters, etc)

Use of import

- If the country has comparative advantage (CA), they should export not import
- If they don't have CA, they can Import safely, as long as volume of world trade is big enough compared to domestic consumption
- Import staple food or strategic food at minimum level

Import situation

- Agricultural/food trade is small
- Agricultural balanced of trade is surplus
- Food crops and animal husbandry subsector are deficit
- Large imports and biggest import dependency: wheat (100%), soybean (62%), beef(28%), sugar (13.5%), see table 5

Table 1. Total Availability of Food Supplies in Indonesia (Total Calories/caput/day)

- Average Cal/cap/day
- 1970-72 2.090
- 1980-82 2.510
- 1990-92 2.698
- 1998-99 3.194
- 2007-08 3.145
- Source: FAO – RAPA (1996), CBS Indonesia, Sudaryanto, 2009

Table 2. Number of People Under Poverty Line

Year	Number (Million)		% of total population	% rural poor
	Total	Rural		
1998	49.5	31.9	24.2	64.4
2000	38.7	26.4	19.1	68.2
2002	38.2	25.1	18.2	65.7
2004	36.1	24.8	16.7	68.7
2006	39.1	24.8	17.8	63.4
2007	37.2	23.6	16.6	63.4

Population in 2007: 225 million
Source : CBS, Indonesia

Table 3. Energy/protein availability & consumption, 2007

	Energy (Kcal/caput)	Protein (Gram/caput)
Availability	3035	80.33
Recommended	2200	57.00
Consumption	2015	57.65
Recommended	2000	52.00

- At National level food availability is more than enough (sufficient).
- At micro level, $\pm 20\%$ households consumed less than dietary recommended
- Problem: distribution and affordability.

Table 4. Indonesia Food production, 2007

Items	Volume (MT)	Growth (%/yr)
Paddy	57.16	4.96
Corn	13.29	14.45
Cassava	17.99	1.42
Sugar	2.45	1.33
CPO	17.40	5.68

Source: MOA, Indonesia

Table 5. Food import dependency,
2007

Items	Production (million ton)	% Import of Total Supply
CPO	17.40	0.0
Rice	32.37	4.0
Maize	13.30	8.1
Sugar	2.45	13.5
Beef	0.36	28.0
Soybean	0.59	61.8
Wheat	0.00	100.0

Source: MOA, Indonesia

Table 7. Rice production, Indonesia

Year	Harvested Area (M Ha)	Yield Rate (Qu/Ha)	Production (M Ton)	Growth (%)
2004	11.92	45.41	54.09	3.74
2005	11.84	45.74	54.15	0.12
2006	11.79	46.20	54.45	0.56
2007	12.15	47.05	57.16	4.96
2008*)	12.39	48.65	60.28 ^{*)}	5.45

*) Third Forecast
Source: CBS, Indonesia

Table 8. Rice supply and demand in Indonesia

(Million ton)

Food Balance	2005	2006	2007	2008*
Production (Paddy)	54.15	54.45	57.16	60.28
Production (Rice)	30.67	30.84	32.37	34.14
Consumption	30.59	30.99	31.50	31.70
Import	0.19	0.44	1.30	-
Ending Stock	2.04	2.32	4.49	6.93

*) Estimate (third round)
Source: MOA, Indonesia

Table 9. Rice productivity among asean countries, 2007

Member Countries	Production (mil ton)	Productivity (ton/ha)
ASEAN	182,29	3,98
1. Indonesia	57,16	4,71
2. Vietnam	35,79	4,98
3. Myanmar	31,43	3,92
4. Thailand	30,11	2,94
5. Phillipines	16,24	3,79
6. Cambodia	6,73	2,61
7. Malaysia	2,38	3,45
8. LAO PDR	2,38	3,56
9. Brunei D	1,00	1,13
10. Singapore	-	-

- Indonesia contribute 30% of the ASEAN rice production
- Paddy productivity in Indonesia was 20% higher than the average paddy productivity in ASEAN

Table 10. Trend of Rice Import, 1970-2008

Year	Import (000 ton)	Population (000)	Import/capita (Kg)
1970	956	119 998	7.97
1975	692	134 446	5.15
1980	2 012	150 128	13.40
1985	34	166 238	0.20
1990	50	182 117	0.27
1995	3 158	197 221	16.01
2000	1 355	211 559	6.41
2001	642	214 356	3.00
2002	1 799	217 131	8.28
2003	1 428	219 883	6.49
2004	237	222 719	1.06
2005	190	225 593	0.84
2006	438	228 503	1.92
2007	1 396	231 451	6.03
2008 *)	523	234 437	2.23

*) January-June 2008

Table 11. Impor of major food commodities, 2003-2008 (ton)

No	Commodities	2003	2004	2005	2006	2007	2008
1	Rice	1 437 757	246 257	195 015	439 782	1 396 598	297 719
2	Maize	1 371 126	11 150 94	234 706	1 842 957	771 706	466 518
3	Soybean	2 773 668	2 881 736	2 982 986	3 279 288	1 440 925	1 180 935
4	Sugar	1 271 288	634 900	1 347 313	992 639	3 088 238	1 099 056
5	Wheat	3 947 857	4 962 500	5 028 893	5 137 377	5 303 564	5 124 356
6	Beef	83 760	94 310	109 629	117 078	184 820	45 580
7	Milk	648 012	731 875	746 873	706 970	756 893	153 128

Source: Sudaryanto, 2009

Table 12. Comparison of international and domestic price trend, 2007- 2008

Commodity	International Price			Domestic Price		
	Growth (%/month)	Change (%)	CV (%)	Growth (%/month)	Change (%)	CV (%)
Rice	2.66	116.9	44.8	0.03	0.6	4.4
Soybean	1.4	39.7	21.6	1.35	45.7	23.5
Corn	1.29	45.3	21.2	0.76	8.0	12.0
Sugar	0.89	28.3	15.0	-0.02	-8.2	4.5
Cooking Oil	0.56*	35.7	23.6	0.91	36.9	16.2
Meat	1.00	39.4	15.6	0.3	-6.9	4.9

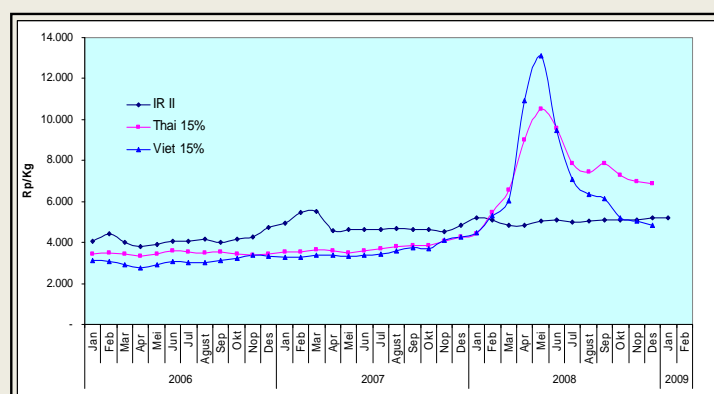
Figure 2. Comparison between international and domestic price of rice, 2006-2009

Table 13. World exports in agricultural products (index: 1990=100)

Agricultural products	1992	1994	1996	1997	1998	1999	2000	2001	
Volume world production	103	106	113	116	117	121	122	123	
Volume world export	110	120	130	137	140	141	147	149	
Unit value	99	100	112	104	97	93	89	88	
Value world export	108	119	145	143	136	131	132	131	

Source WIO (202) in Oosterveer, Peter. 2007. Global Governance of Food production and Consumption. Issues and challenges. Edward Elgar, Cheltenham, UK.

Table 14. Top 15 food exporting and importing countries(2000)

exporters	Value(\$bn)	Share in world (%)	importers	Value(\$bn)	Share in world (%)
USA	70.87	12.7	USA	66.69	11.0
France	36.52	6.5	Japan	62.19	10.3
Canada	34.79	6.2	Germany	41.54	6.9
Netherlands	34.14	6.1	UK	32.49	5.4
Germany	27.76	5.0	France	30.39	5.0
Belgium	19.86	3.6	Italy	29.39	4.9
Spain	16.88	3.0	Netherlands	20.90	3.5
UK	16.67	3.0	China	19.54	3.2
China	16.38	2.9	Belgium	18.52	3.1
Australia	16.37	2.9	Spain	16.98	2.8
Italy	16.09	2.9	Canada	15.27	2.5
Brazil	15.47	2.8	Korea, Rep.	12.99	2.1
Thailand	13.28	2.4	Hongkong, China	11.73	1.9
Argentina	11.97	2.2	Mexico	11.06	1.8
Denmark	10.94	2.0	Russia	9.87	1.6

Source: WTO (2001) in Oosterveer (2007).

Table 15. Approximate share of world production traded across borders

product	Production share traded internationally (%)
Coffee	80
Tea	40
Soybeans	30
Sugar	30
Bananas	20
Wheat	17
Food grains	11
rice	6

Einarsson (2000) in Oosterveer (2007).

Food Policy

International trade related Policies to Increase Food Security I (import)

- Trade-Related
- – Imports can give wider consumer choice, require holding smaller stocks, lower food costs, and allow country to exploit its comparative advantage, if the country has capability to import
- – May be more price risk using world markets
- If the international traded goods are very thin compared to domestic consumption
- Under imperfect competition
- Can be offset with small amount of import, private contracting, futures markets
- – Supply assurances from food exporters, to maintain export supplies under all market conditions, would help Multilateral supply assurance agreements

International Trade Related Policies to Increase Food Security II (food sovereignty)

- Keep ratio import to food consumption is minimum
- Keep ratio import to agricultural inputs is minimum

Other Policies to Increase Food Security III (stabilized food prices for consumers)

- Across-the-Board:
 - optimum trade barriers (e.g., lower tariffs when price is high, expand quotas)
- Provide a consumption subsidy
- Targeted Consumer Subsidy
 - Sell food item at subsidized price, but only to poor people
 - Sell low quality foodstuff at subsidized price (only poor buy it)
 - Use across-the-board subsidy but only to poor district
- Advantage of Targeting (negative: needs budget outlay)
 - Focuses on only those in need, so is cheaper to finance
 - Allows farmers to enjoy market prices yet cut prices to poorest
- maintain food stock at household, groups, local, district, province and national level to stabilize price and availability.

Other Policies to Increase Food Security IV (increase domestic production for strategic Food Import Substitutes)

- Increase domestic production efficiently: agricultural research and extension, rural infrastructure, incl.: irrigation, increased productivity and competition in post-farm gate sector
- Subsidies & protection to farmers
- agricultural land expansion (land clearing) outside Java
- prevent agricultural land conversion

Other Policies to Increase Food Security V (increasing household income)

- – Policies that increase overall macro economic growth rate for country
- Efficient macro policy including appropriate exchange rate
- Attention to industrial sector (agroindustry), and others
- Trade deregulation
- Investment in improved infrastructure, including rural areas
- Improve integration of urban and rural labor markets
- – Policies that alleviate poverty
- Investments in schooling and health, specifically including rural areas; focus on groups/regions judged to be food insecure
- Social safety net program (e.g.: raskin)
- Provide employment

NATIONAL POLICY ON FOOD SECURITY

Taken from Suryana, 2008

- Access to food is the most basic human right, hence a solid national policy on food security is required.
- Indonesia has more than 220 million people with 1.3% growth per year.
- To secure food availability, a sustainable food production growth more than 2% per year is needed.
- Without reformative action, this can lead to food scarcity, hunger, and starvation for millions of Indonesians.

APPROACHES

- Strengthening food supply by maximizing available resources in a sustainable manner.
- Improving food distribution system to guarantee a stable food supply and public access to food.
- Encouraging diversified food consumption.
- Preventing and resolving food scarcity.

A. POLICY ON SUPPLY SIDE:

- Set timetable for achieving food self sufficiency on five most important food commodities:
 - Rice (2005)
 - Corn (2008)
 - Soybean (2012)
 - Sugar (2009)
 - Beef (2010)
- Apply "promotion and protection" approach:
 - Promote investment and growth in food production through efficiency and competitiveness
 - Protect agriculture/farmers from hostile international markets through tariff and subsidy (import of staple foods is the last resort)

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- Implement **Five Efforts Principle (PANCA YASA)** as a strategic sets to revitalize agriculture development:
 - i. Development & rehabilitation of agricultural infrastructure (i.e. rural irrigation, farm roads)
 - ii. Empowering farmers' groups/organizations, especially in their ability to access and adopt recommend technology

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- The slide features a decorative header with a dark green curved bar containing the text "Continued ..." in a small, brown, serif font. Below this, the background is a light green grid of thin lines that curve upwards towards the top right corner. A dark green curved bar is also present at the very top of the slide area.
- iii. Revitalization of agricultural extension; especially in delivering technology and information related to agribusiness development
 - iv. Improving availability of agricultural finance and farmers accessibility to rural capital sources/institution
 - v. Improving market access for farmers, for both inputs and outputs

B. POLICY ON FOOD ACCESSIBILITY:

Twin Track Strategy :

- Promote sustainable rural and agricultural development to create job opportunity and generate income
- Distribute food aid for the poor and at the same time support and empower their capacity to develop their food security at household/community level

POLICY IMPLEMENTATION (PROGRAM)

- Expanding total agricultural area with minimal environmental impact.
- Conserving and rehabilitating existing agricultural land.
- Management and maintenance of water supply systems.
- Introducing improved varieties and cultural practices.
- Improving post-harvest technology.
- Strengthen extension systems and promote collaboration between farmers.
- Encourage investments and develop a conducive financing system.

A. PROGRAM ON FOOD PRODUCTION INCREASE

Empowering farmers to implement recommended technology on farming practices through:

- Increasing efficiency in technology and information delivery
 - Research-extension-farmer linkages
 - Field school on IPM and ICRM
- Improving accessibility and affordability of farm inputs
 - Subsidy on fertilizer (N, P, K), organics fertilizer, seeds (in selected area)

Continued ...

- Promoting better post harvest handling
- Providing output price incentive, through government procurement price for rice.

(BULOG buys 2.0-2.5 million mt of rice annually. Procurement price is set usually higher than market price during peak harvesting season)
- This program was designed as "a movement" conducted at various level of governments and stakeholders.

B. PROGRAM ON POVERTY ALLEVIATION

Directed toward three clusters of target group:
(SSN and PNPM/Community Empowerment)

i. Direct Assistance (provide "fish")

Target group: 19.1 million households

- Rice for the poor (RASKIN): 15 kg/month at subsidized price of Rp 1600/kg (\pm 1/3 of market price)
- Community Health Assistance (JAMKESMAS)
- School Operational Assistance (primary and junior high, BOS)
- Special assistance for 3.9 million of very poor households

Continued ...

ii. Self-help Community Empowerment (to provide "hook" and teach how to use it)

- Covering 5.270 sub districts (of total >7000)
- Provide Community Direct Assistance (BLM), Rp 3.0 billion/location/year to generate rural economy activities

iii. Micro and Small Scale Enterprise Empowerment

- Target Group: Micro and Small Scale Entrepreneurs
 - To promote economic growth and create job opportunity and source of income of the lower income class at village level
 - Provide micro credit (KUR) as working capital for micro and small scale economic activities, < Rp 5.0 million/person
 - Program designed by Ministry of Agriculture : Rural Agribusiness Development (PUAP) in 11.000 villages, provide working capital Rp 100 million/village

C. SHORT TERM ASSISTANCE : DIRECT CASH AID (BLT)

- This program was implemented as a compensation scheme for the poor to cope with possible adverse impact from fuel price increase.
- It was done twice (in 2005/2006 and in 2008) when the government increased administered fuel prices
- Target beneficiaries in 2008: 19.2 million households, given Rp 100.000/month for 7 months
- This program was effective in the short term. Based on evaluation result of the first DCA implementation, the money was used mainly to buy rice and kerosene

Reference

- Barichello, R.ichard. 2000. Evaluating Government Policy for Food Security: Indonesia . Presentation to IAAE Workshop on Food Security, Berlin August 12, 2000
- *Krisnamurthi, Bayu. 2003. Food Security, Presented at International Conference on Roles of Agriculture Project, organized by FAO, on Conference 20-22 October, 2003, Rome, Italy*
- Masyhuri. 2010. the Impact of ASEAN-China free trade area on Indonesian Trade. CWTS UGM.
- Masyhuri. 2008. Food security and Agricultural Development. Presented at the International Seminar: Paradigm of Agricultural Development: the Role and synergy between UN Agencies, Government, NGO, and Private Sectors', August 7th, 2008. Organized jointly between Embassy of Republic of Indonesia in Rome and UGM.
- Sudaryanto, Tahlm. 2009. Government policy response to the impact of global food security crises
- Surono, Sulastri. 1999. Food security and Social Safetynet Programs in Indonesia. Presented at the international seminar: APEC Study Center Consurtium, May 31th- June 2th, 1999 , at Auckland, New Zealand.
- Suryana, Akhmad. 2008. SUSTAINABLE FOOD SECURITY DEVELOPMENT IN INDONESIA: POLICIES AND ITS IMPLEMENTATION. Presented at High-level Regional Policy Dialogue Organized by UN-ESCAP and Government of Indonesia Bali, 9-10 December 2008
- Yu, Bingxin ; Liangzhi You , and . 2010. Shenggen Fan Toward a Typology of Food Security in Developing Countries . Development Strategy and Governance Division IFPRI Discussion Paper 00945 January 2010



Thank You
(Terima Kasih)

Maraming salamat po

CV

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