

FOOD SECURITY POLICY IN INDONESIA: possible contributions to feed the world



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II. FOOD SECURITY IN INDONESIA

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I. INTRODUCTION

11 National Development Priorities

(Presidential Degree No. 5 Tahun 2010 on Medium Term Development Plan 2010-2014)

- 1 Bureaucratic and Governance Reform
- 2 Education
- 3 Health
- 4 Poverty Eradication
- 5 Food Security
- 6 Infrastructure
- 7 Investment and Business Climate
- 8 Energy
- 9 Environment and Disaster Management
- 10 Left Behind, Frontier, Outer Most and Post Conflict Regions
- 11 Culture, Creativity and Innovation Technology

**Government Reg. No.38 of 2007
on Distribution of Central and Regional Government Affairs**
→ Chapter II Article 7 parag. 2 (m)

“Food Security is mandatory affairs of local government

Government Reg. No.3 of 2007 on Report of Regional Government Implementation to Central Government

→ Part 2 Article 3 parag. 2 (m)

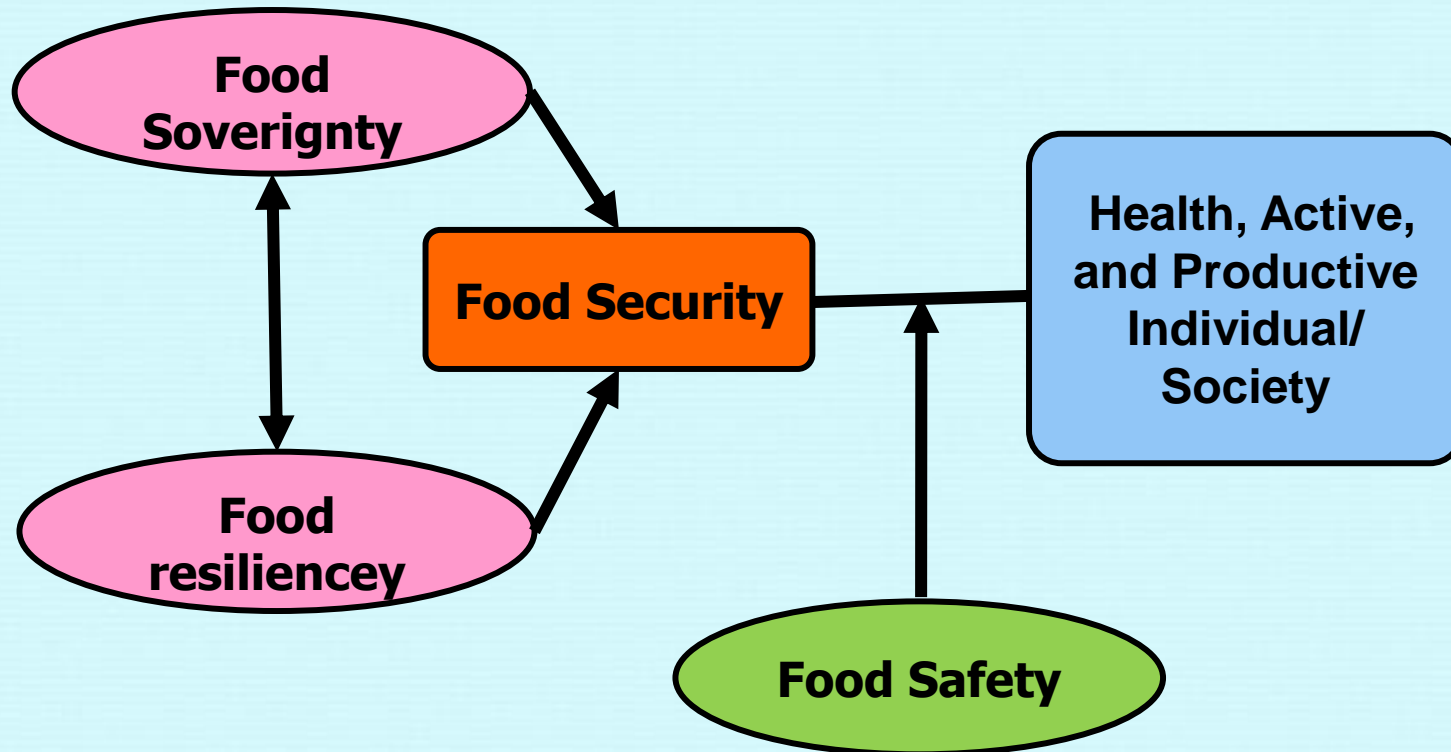
Head of Regional Government require to report the situation of regional food security as part of Report of Regional Government Implementation

Government Reg. No.41 of 2007 on Regional Instrument Organization
→ Article 22 parag. 5

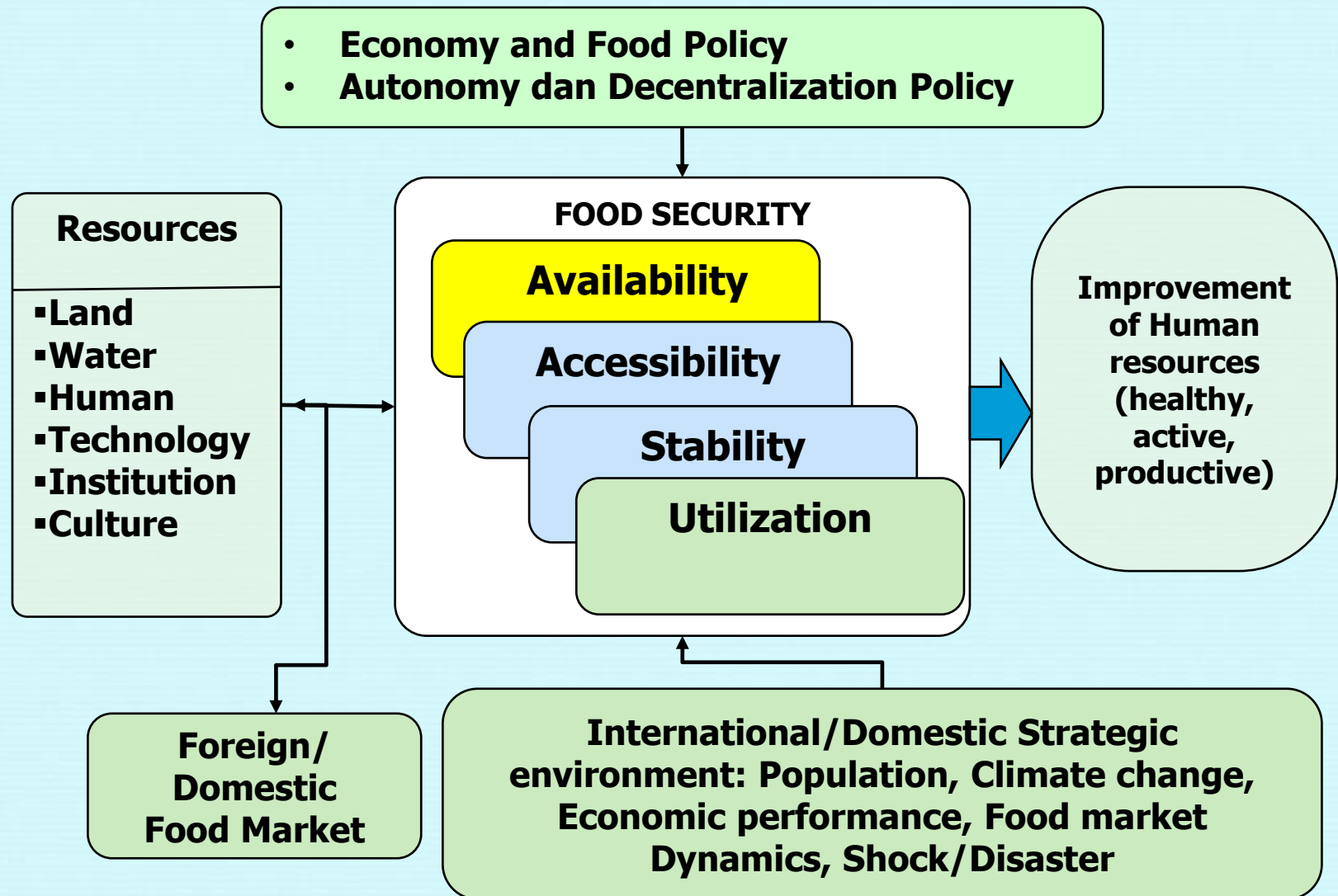
- **Included in organizing matters accomodated in the form of agency or office**
- **In order to implement Minimum Service Standard in food security area**

FOOD SECURITY DEVELOPMENT FRAMEWORK

The Parliament is in the process of revising new law on Food Security



National Food Security System



❖ DEFINITION

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life”

Availability	Access	Stability	Utilization
<ul style="list-style-type: none">• domestic production• import capacity• food stocks• food aid	<ul style="list-style-type: none">• poverty• purchasing power• transport and market infrastructure• food distribution	<ul style="list-style-type: none">• weather variability• price fluctuations• political factors• economic	<ul style="list-style-type: none">• care and feeding• food safety & quality• clean water• health & sanitation

▪ **Food Sovereignty**

Right of the state and nation in achieving food security:

- ✓ Being able to determine their own food policies
- ✓ Guarantee the right to food of its people
- ✓ Provisions to the public to determine their food business system according to the potential of local resources .

▪ **Food Resilience**

Aability of the state and the nation in producing a wide range of food to provide domestic supply and to ensure the fulfillment of adequate food at individual level by utilizing the potential of natural resources, human, social, economy resources and local wisdom with dignity.

II. Food Security In Indonesia

A. Production of 5 Strategic Food Commodities (2006-2011)

Commodity	Production (000 Ton)						Growth (%)
	2006	2007	2008	2009	2010	2011	06-11
1. Rice	54.455	57.157	60.326	64.399	66.469	65.385	3,77
2. Corn	11.609	13.288	16.317	17.630	18.328	17.230	8,65
3. Soybean	748	593	776	975	907	870	4,95
4. Sugar	2.306	2.448	2.703	2.851	2.214	2.228	0,07
5. Meat	396	339	393	405	417	449	3,05

Energy and Protein Availability

Year of 2006 - 2011

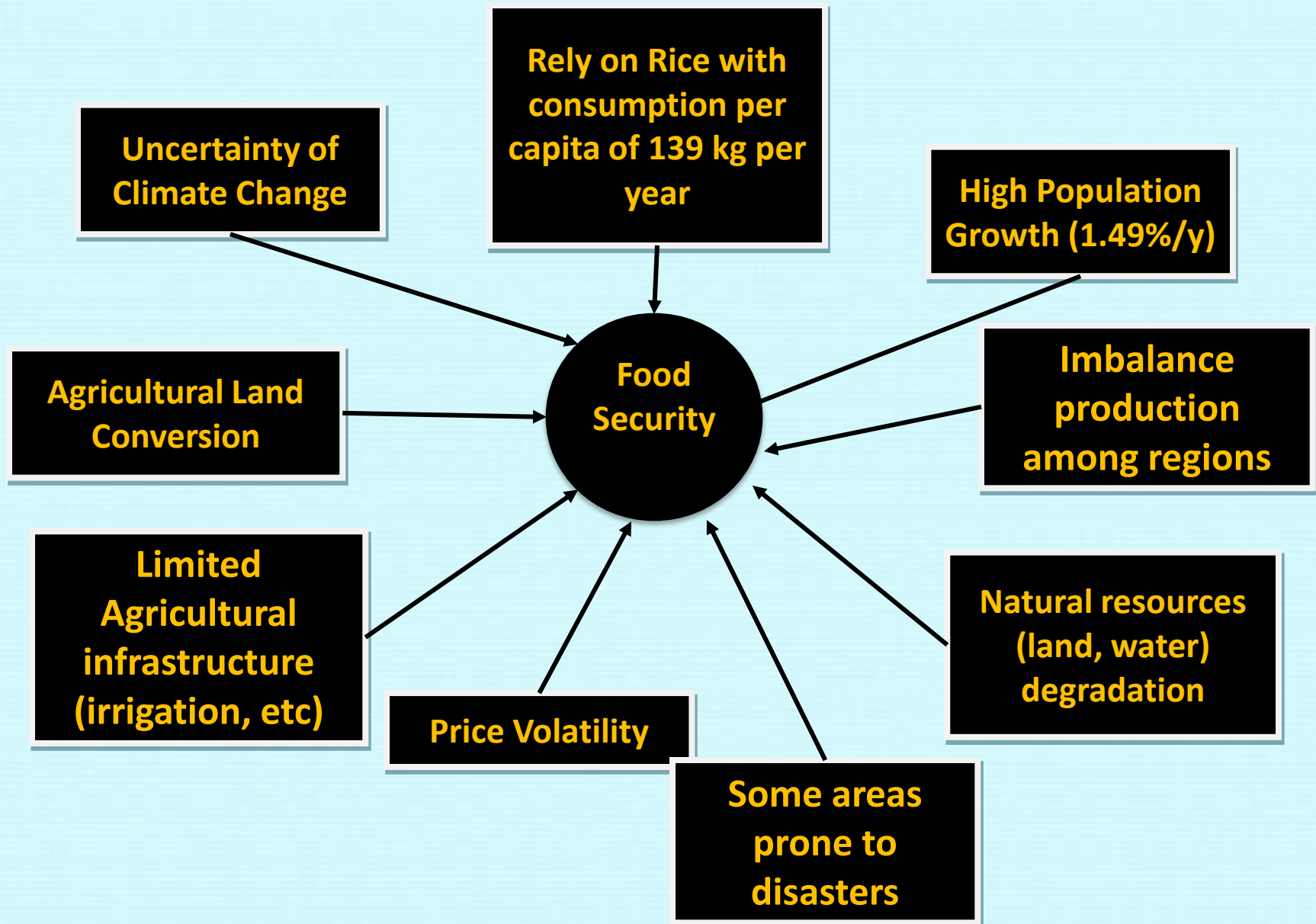
Year	Availability	
	Energy (Kcal/cap/day)	Protein (Gram/cap/day)
2006	3.166	76,49
2007	3.358	80,08
2008	3.453	84,08
2009	3.214	88,91
2010	3.310	94,58
2011	3.944	89,74

Source : FBS

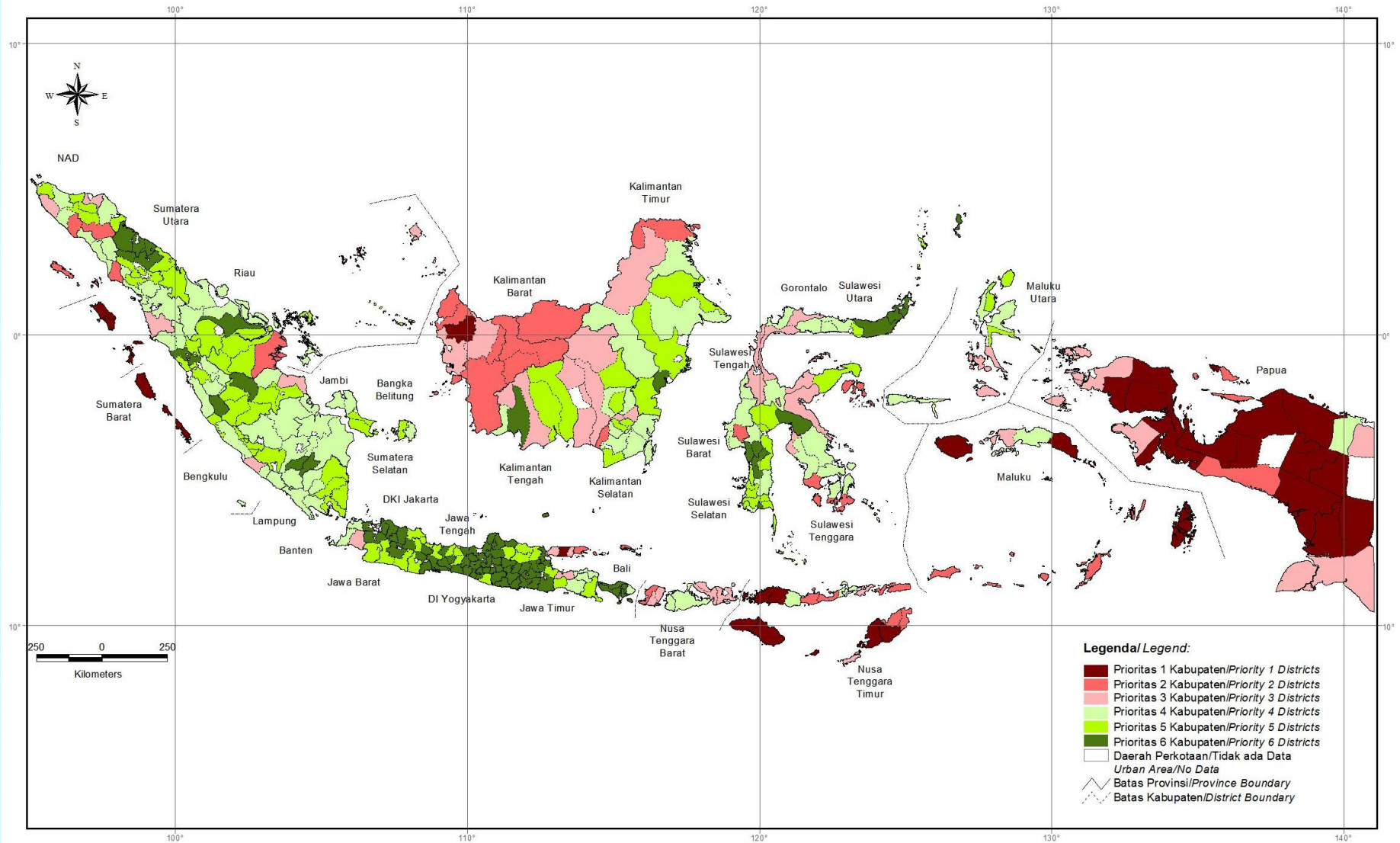
In the last 6 years, period of 2009-2011, percapita perday availability:

- ✓ Exceeds Recommended Daily Dietary Pattern (DDP), for energy 2.200 calories dan protein 57 grams;

B. Challenges and Problems of Food Security

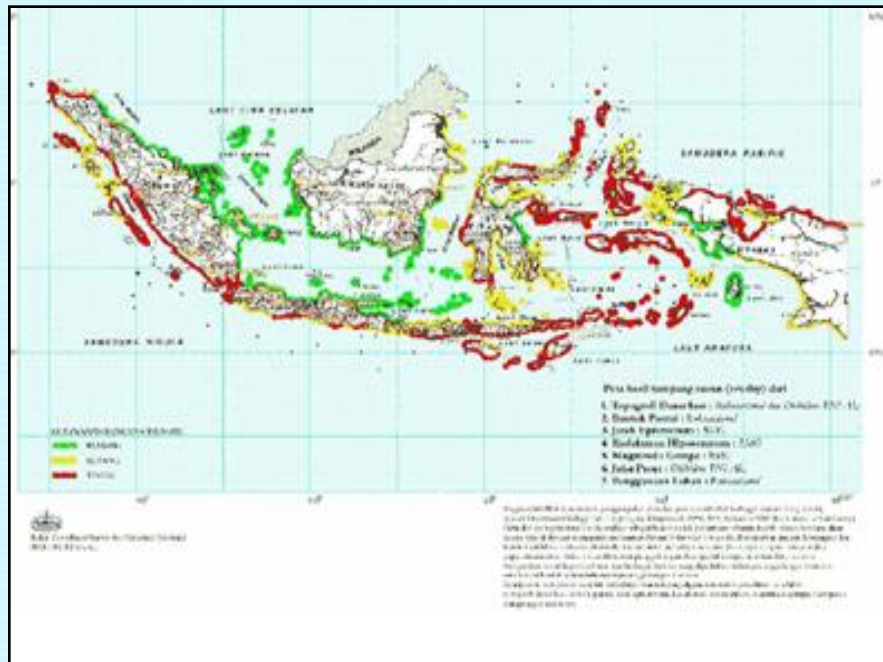


Food Security and Vulnerability Atlas 2009

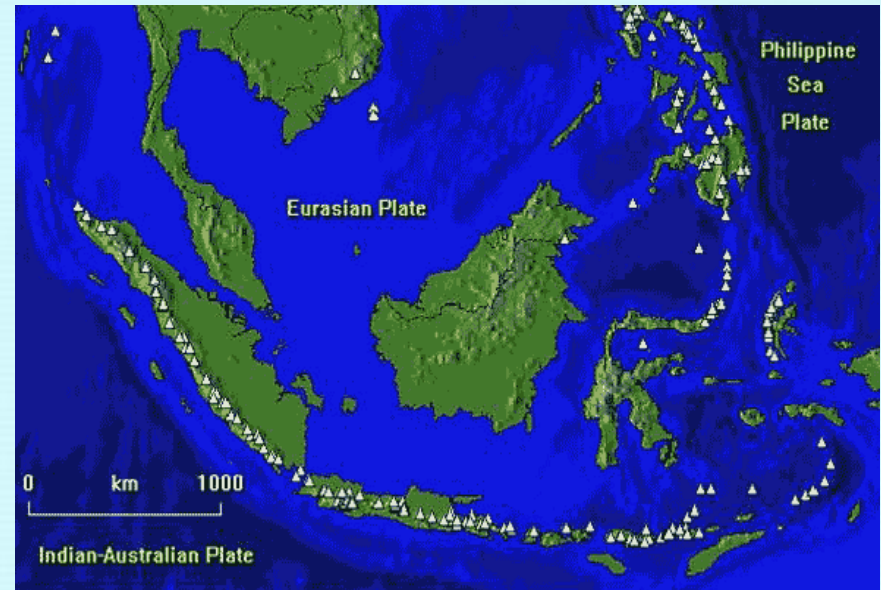


DISASTER PRONE REGION MAP IN INDONESIA

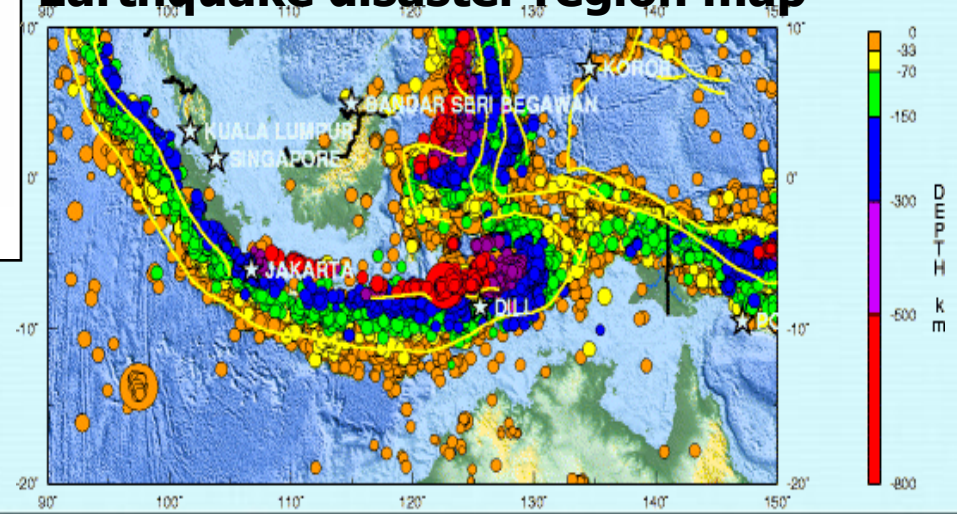
Tsunami disaster region map



Volcano disaster region map



Earthquake disaster region map



III. STRATEGY, POLICY AND PROGRAM OF FOOD SECURITY

A. Strategy

Twin-track Approach :

- Prioritizing rural and agricultural-based economic development to provide employment and income
- Fulfilling need of the poor and food insecure population through provision of direct assistance with empowerment approach so food security resiliency could be attained with dignity

B. Policy

✓ Food Availability

- Increase food availability based mainly from domestic food production to meet increasing demand. Import is the last resort.
- Self sufficiency for 5 strategic commodities (rice, maize, soybean, sugar, beef) in 2014.
- Increasing production of diverse food based on potential local resources and culture.
- Food assistance (social security network) for chronic food insecurity population (poor/food insecurity)
- Food assistance for quick/emergency response for transient food insecurity (due to disaster/emergency)

✓ **Food Access**

- Maintaining economic growth
- Improvement connectivity among regions → Master Plan of Acceleration of Economic Development (MP3EI) to encourage investment and regional development.
- Developing and revitalizing distribution institutions and public food reserve.

✓ **Stability**

- Improvement of the irrigation system and catchment areas to ensure water availability
- Development of national and regional food reserve based on common local food consumption (national: rice, regional: corn, maize, sago, etc)
- Improving mechanism and social safety-net systems
- Maintaining stabilization of supply and price of the 5 strategic staple foods over year and certain period

✓ **Food Utilization**

- Dissemination, promotion and education on consumption of varied food, nutritionally balanced and safe, at the same time promoting reduction of percapita rice consumption
- Optimizing the utilization of yard.
- Developing local flour-based processed food product
- Improving and supervision of handling fresh food safety

C. Agriculture Development Programs

Programs and activities of Ministry of Agriculture 2012 supporting the achievement of food security → MoA Four Success Target:

1) Self sufficiency and sustainable self sufficiency:

- ✓ Rice surplus 10 million ton at the end of 2014
- ✓ Sustainable maize self sufficiency
- ✓ Soybean self sufficiency in 2014
- ✓ Sugar self sufficiency in 2014
- ✓ Beef self sufficiency in 2014

2) Increasing food diversification

3) Increasing added value, competitiveness and export

4) Increasing farmer welfare

Seven Strategic Effort in Agriculture

1. Land Revitalization

- ☒ **To secure farmers right to land and secure land farmers' tenure**
- ☒ **To control land conversion from agriculture to non-agriculture utilization**
- ☒ **To limit land faction among family members**

2. Seed Revitalization

- ☒ **To ease famers access to seed**
- ☒ **To develop seed producers and industries in the region**

3. Infrastructure Revitalization

- ☒ **To rehabilitate irrigation**
- ☒ **To provide sustainable water source**
- ☒ **To improve agricultural rural road**

4. Financial Institution Revitalization

- ☑ To ease farmers' access to financial institutions**
- ☑ To develop localized farmers' financial institution**

5. Human Resource Revitalization

- ☑ To strengthen beaurocracy capacity**
- ☑ To strengthen extension services to increase farmers' capacity to adapt new technology (to increase productivity and to adapt and mitigate climate change)**

6. Farmers Institution Revitalization

- ☑ To strengthen farmers' organizations**

7. Research and Technology (to include processing industry) Revitalization

- ☑ To modernize farmers' processing technology**
- ☑ To develop food production diversification to increase demand of non-rice food)**

D. Sinergy and Coordination

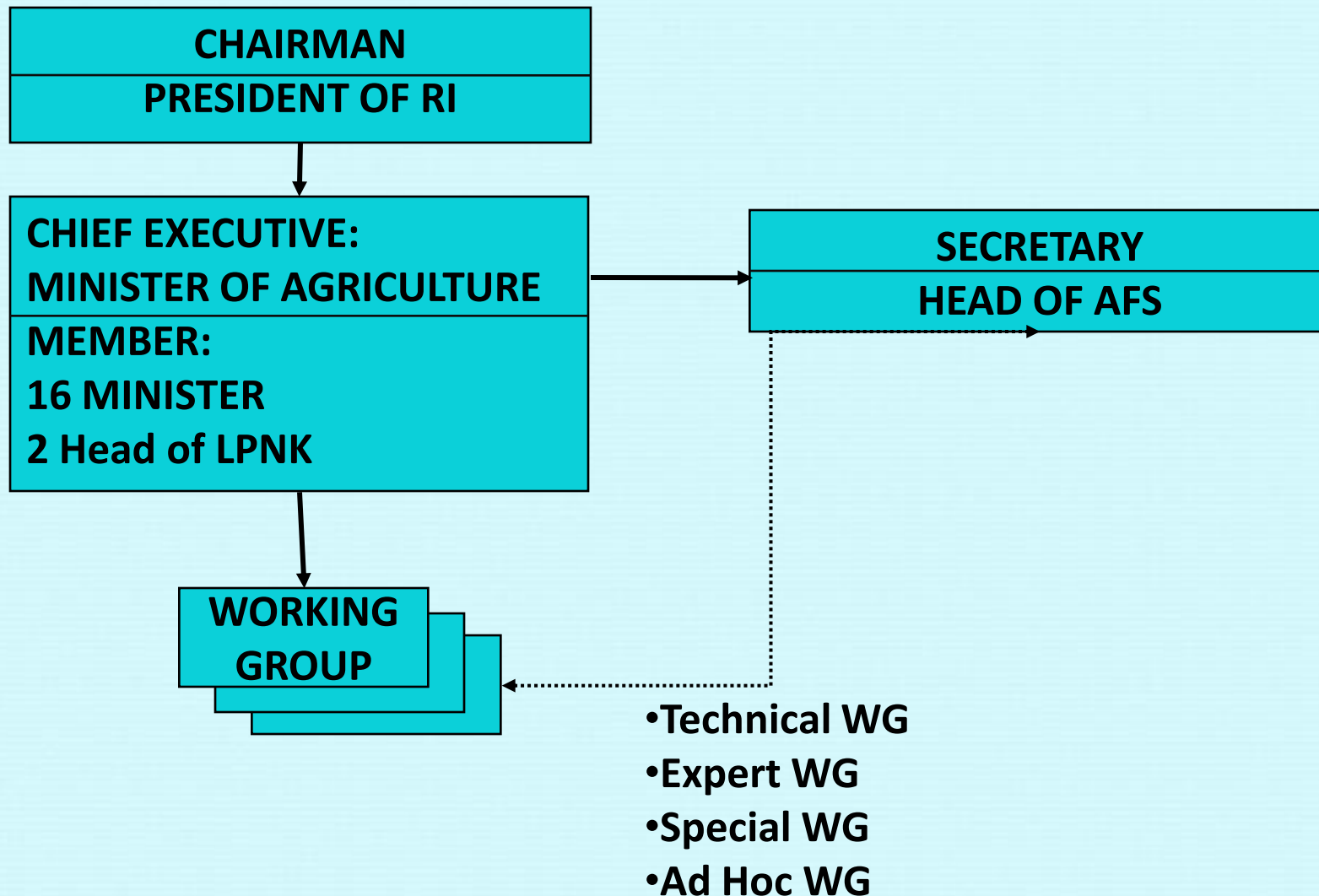
FOOD SECURITY COUNCIL:

Established by:

- ✓ Presidential Degree No. 83/2006 on Food Security Council (revising previous Pres Degree No. 132/2001).
- Agency for Food Security as ex-officio the Food Security Council Secretariat

FOOD SECURITY COUNCIL STRUCTURE

(ACCORDING TO PERPRES NO.83 YEAR 2006)



FSC Secretariat: ex officio AFS

Ministry/Institution

Food Security Council Member

16 Ministry:

1. Minister of Internal Affairs
2. Minister of Finance
3. Minister of Industry
4. Minister of Trade
5. Minister of Forestry
6. Minister of Marine and Fishery
7. Minister of Transportation
8. Minister of Public Work
9. Minister of Health
10. Minister of Social
11. Minister of Education and Culture
12. State Minister of Cooperation and Small and Middle Business
13. State Minister of Research and Technology
14. State Minister of National Development Planning/Head of National Development Planning Agency
15. State Minister of State-owned Enterprises
16. Minister of Manpower and Transmigration

2 Head of Non-Ministry Government Institution:

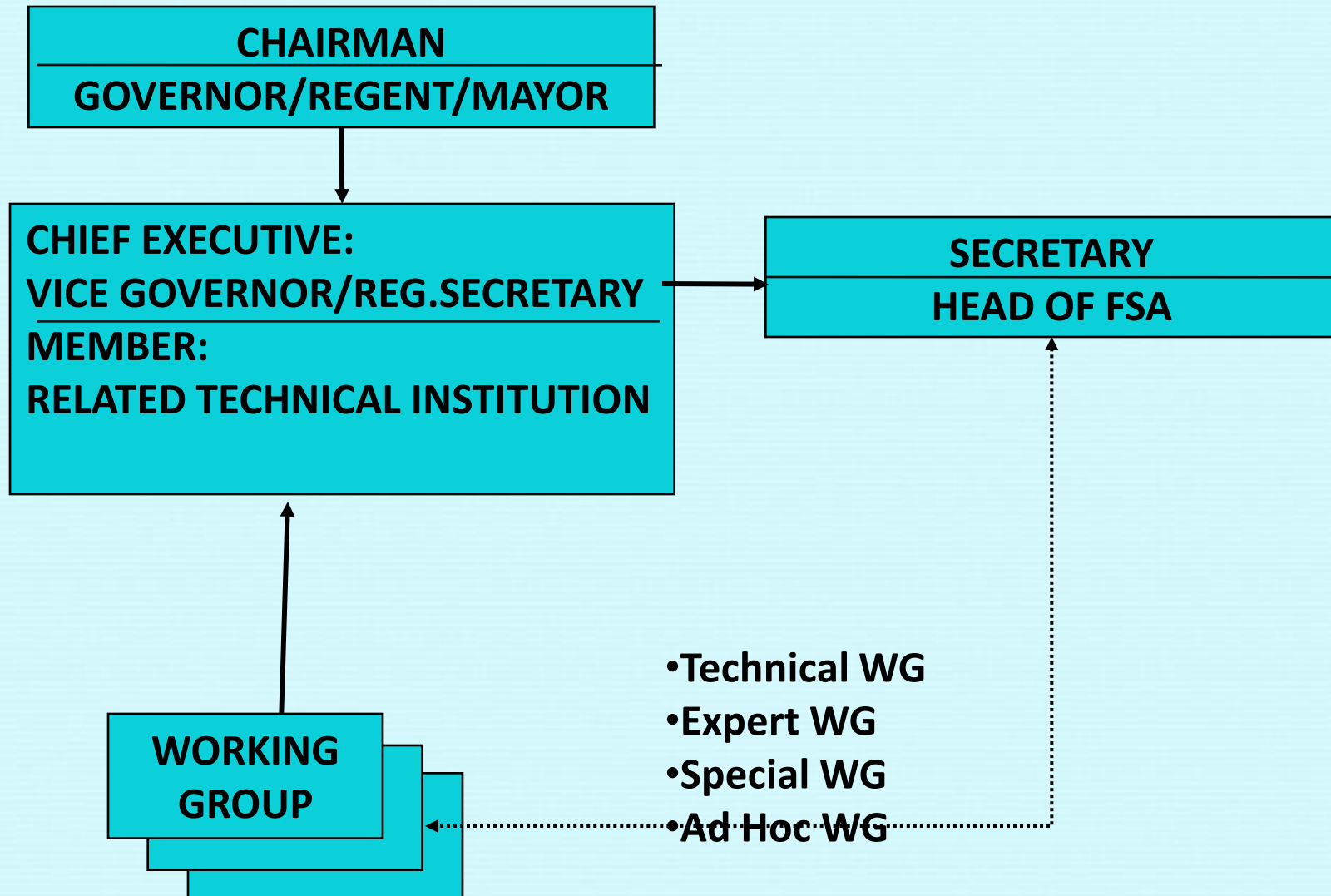
1. Head of Central Bureau of Statistics
2. Head of Agency of Drug and Food Control

FOOD SECURITY COUNCIL TASKS

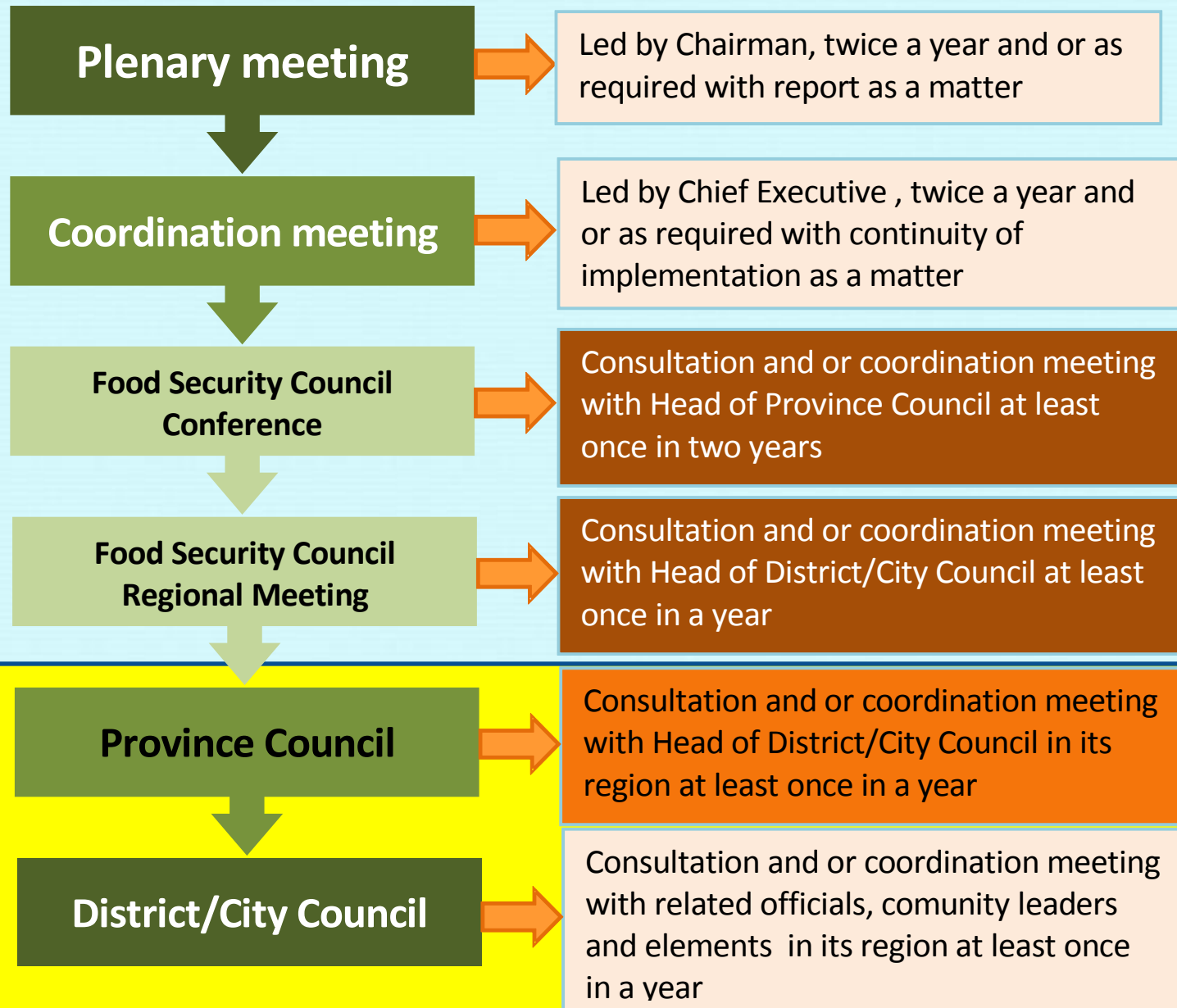
Food Security Council help President in:

- ☒ Formulation of the national food security policy, which include activities in the area of food availability, food reserves, food diversification, prevention and mitigation of food insecurity and malnutrition issues
- ☒ Monitoring and evaluation of the national food security
- ☐ Food Security Council held a plenary meeting at least twice a year.

PROVINCIAL AND DISTRICT/CITY FOOD SECURITY COUNCIL STRUCTURE



Mechanism of Central and Regional FSC Coordination

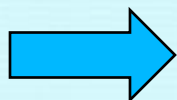


IV. FOOD SECURITY AND APEC

Niigata Declaration, 2010

- ☑ Shared Goal 1: Sustainable Development of the Agricultural Sector
- ☑ Shared Goal 2: Facilitation of Investment, Trade and Markets

Partnering with key stakeholders



Action Plan

Kazan Declaration, 2012

- ☑ **Increasing agricultural production and productivity**
- ☑ **Facilitating trade and developing food markets**
- ☑ **Enhancing food safety and quality**
- ☑ **Improving access to food for socially vulnerable groups of population**
- ☑ **Ensuring sustainable ecosystems based management and combating Illegal, Unreported and Unregulated (IUU) fishing and associated trade**

17 megadiversity countries → 9 in APEC

17 Megadiversity Countries:



Apec Economies

Australia

Brazil

China

Colombia

Democratic Republic of the Congo

Ecuador

India

Indonesia

Madagascar

Malaysia

Mexico

Papua New Guinea

Peru

Philippines

South Africa

United States

Venezuela

Country	Cultivated Land (km ²)	Cultivated land (%)	Arable land (km ²)	Arable land (%)	Permanent crops (km ²)	Permanent crops (%)	Other lands (km ²)	Other lands (%)	Total land area (km ²)
1Australia	471,550	6	468,503	6	3,047	0	7,146,380	94	7,617,930
2Brazil	661,299	8	586,036	7	75,263	1	7,795,211	92	8,456,510
3China	1,504,350	16	1,385,905	15	118,445	1	7,822,060	84	9,326,410
4Colombia	35,108	3	20,878	2	14,230	1	1,003,592	97	1,038,700
5Democratic Republic of the Congo	75,511	3	64,853	3	10,658	0	2,192,089	97	2,267,600
6Ecuador	29,124	11	15,808	6	13,316	5	247,716	89	276,840
7India	1,535,060	52	1,451,810	49	83,249	3	1,438,133	48	3,287,240
8Indonesia	330,037	18	201,456	11	128,581	7	1,496,402	82	1,826,440
9Madagascar	35,183	6	29,251	5	5,932	1	546,357	94	581,540
10Malaysia	75,567	23	17,939	5	57,628	18	252,984	77	328,550
11Mexico	268,072	14	243,457	13	24,615	1	1,654,968	86	1,923,040
12Papua New Guinea	8,559	2	2,219	0	6,340	1	444,301	98	452,860
13Peru	33,500	3	28,800	3	4,700	0	966,500	97	1,000,000
14Philippines	106,357	36	56,652	19	49,705	17	191,813	64	298,170
15South Africa	157,246	13	147,609	12	9,637	1	1,062,665	87	1,219,912
16United States	1,669,302	18	1,650,062	18	19,240	0	7,492,621	82	9,161,966
17Venezuela	32,900	4	25,138	3	7,762	1	849,150	96	882,050
WORLD	17,298,900	12	15,749,300	11	1,549,600	1	131,686,200	88	149,000,000
17 Megadiversity Countries	7,028,725	14	6,396,376	13	632,348	1	42,602,942	85	49,945,758
9 APEC economies Economies	4,467,294	14	4,054,993	13	412,301	1	27,468,029	86	31,935,366

Comparison:	Cultivated land %		Arable land %		Permanent crops %		Other lands %		Total land area %
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**9 APEC
economies to:**

The WORLD	25.82		25.75		26.61		20.86		21.43
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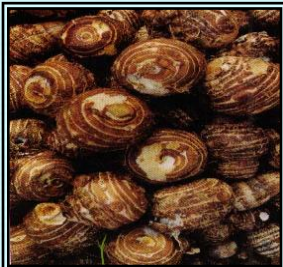
17 Megadiversity countries	63.56		63.40		65.20		64.47		63.94
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Ministry of Agriculture has began to explore those non-conventional food sources:

- 1) In Cooperation with the World Bank: Workshop on “Can Indonesia Feed the World?”, 27 June 2012.**
- 2) APEC Workshops on “the Potentials of Local Resources and Establishing Network Among Agricultural Research Centers on Food Diversification”, 20-21 September 2012.**

Indonesia is a country with a wealth of biological diversity no. 2 after Brasilia

- ✓ 800 species of plant food sources
- ✓ + 1000 species of medicinal plants
- ✓ Many thousands of species of algae

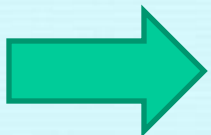


77 sources of carbohydrate
75 sources of oil / fat
26 nuts
389 fruits
228 vegetables
40 beverage ingredients
110 spices

Indonesia Potencies to Produce Flour to Feed the World

No	Commodity	Productivity (ton/ha)	Potency of Planting/year (x/year)	Production (kkal)	Capacities of food provision (person/ha/ year
1	Rice	3,15	2	22.491.000	50
2	Maize	4,41	2	32.281.200	72
3	Sweet Potatoes	11,41	2	27.155.800	60
4	Suweg	60,00	1	44.400.000	99
5	Cassava	19,60	1	30.184.000	67
6	Sago flour	25,00	1	88.250.000	196
7	Banana	14,67	1	17.750.700	39
8	Bread Fruit (Sukun)	16,00	1	20.160.000	45
9	Potatoes	16,50	2	20.460.000	45

	Extensification Potency	Availability of Land (Million ha)	Plants are expected to be cultivated *)	Capacities of food provision (person/ha/ year	Total Provision for World Population (Million People)
1	Wetland				
	❖ Swamp area	2,98	Sago	190	566
	❖ Non Swamp area	5,30	Maize	70	371
2	Dry land annual crops	7,08	Banana	40	283
3	Dry Land Yearly crops	15,31	Suweg, ganyong, arrowroot, etc.	90	1.378
	Total				2.598



Indonesia can feed ± 2.5 billions people in the world

Field Agriculture Best Practice



Jogjakarta: Planting on the land of sand



Sahara Desert

Perceived Benefits

- Contribute to enhanced sustainability of systems
 - Local food production
 - Preservation of biodiversity
 - Less inputs, more resistant to pests and diseases
- Healthy food
 - Organic
 - Vitamins and nutrients
 - Diversification of diets
- Economic opportunities
 - Feed
 - Food manufacturing
 - Industrial use



Agriculture Food Reserve Garden



Toward Resilience Food Security In APEC

1. More than 25 % arable land is in APEC economies and more than 64 % of it is in 9 megadiversity countries of (Australia, China, Indonesia, Malaysia, Mexico, Papua New Guinea, Peru, Philippines and United States)
2. APEC could explore new promising non conventional food sources (such as cereal, tubers etc), to feed the world so not to depend on the conventional food (rice, wheat) → reduce price volatility
3. More new technology to enhance better quality of food (golden rice, fortification to enhance flour with vitamin A, Fe, etc) → new technology
4. Developing local resources based food is essential to enhance resilience food security → cooperation on Best Practices

THANK YOU