

DRAFT RESEARCH REPORT

Food and Nutrition Security in Indonesia: A Strategic Review

IMPROVING FOOD AND NUTRITION SECURITY TO REDUCE STUNTING

SMERU-UKP4-WFP

RESEARCH REPORT

Food and Nutrition Security in Indonesia: A Strategic Review

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PREFACE

The Food and Agriculture Organization's (FAO) State of food insecurity in the world report (SOFI, 2014) highlighted that 68 percent of the undernourished 805 million people in the world live in Middle Income Countries (MIC). In 2012, 70 percent of an estimated 165 million stunted children under-five years old lived in MICs (UNICEF/WHO/World Bank Joint child malnutrition estimates, 2012). These countries benefit from dynamic economic growth but continue to be plagued by rising inequality and the double burden of malnutrition – undernutrition and overnutrition. To ensure sustainable and equitable growth, these countries need to break the intergenerational cycle of poverty and hunger, notably reducing stunting.ⁱ

The impact of stunting on development has been revealed only recently thanks to the Lancet's series on maternal and child nutrition (2008, 2013); which found that stunting is the most important determinant of human capital and economic growthⁱⁱ. Literature reviews and empirical studies assert that measures to curb stunting should focus both on supplying quality infrastructure, health, and education while improving the access of vulnerable populations to nutritious food and social services.

This Strategic Review is part of a broader exercise commissioned by the World Food Programme (WFP) in eight countries (Cambodia, China, Colombia, Ecuador, India, Indonesia, Mexico and Nigeria). It seeks to produce implementable recommendations to turn the tide in the battle against food and nutrition security and achieve the United Nations Secretary General's Zero Hunger Challenge (ZHC).

In Indonesia, the President's Delivery Unit for Development Monitoring and Oversight (UKP4) and the World Food Programme (WFP) commissioned the SMERU Research Institute to conduct an independent Strategic Review. SMERU's work utilized both analytical and consultative processes, engaging a broad range of stakeholders and inputs from sector experts.

Research and consultations took place between April and October 2014 under the leadership of the Head of UKP4 - Mr. Kuntoro Mangkusobroto, and the oversight of an advisory board composed of some of Indonesia's leading development practitioners and policymakers. The final findings of the report were reviewed by a broad range of stakeholders including United Nations agencies, private sector partners, donors and civil society organizations.

This Strategic Review, which is based on a comprehensive and holistic analysis of the food and nutrition security situation in Indonesia, aims primarily at identifying the bottlenecks towards full food and nutrition security while recommending specific actions that the country can undertake to achieve this objective. While the review is carried out by an independent research institute for the benefit of the Government of Indonesia, SMERU and the Advisory Board were also requested to identify areas in which WFP has a comparative advantage to support the Government together with other United Nations agencies.

ⁱ Stunting is defined as having a height-for-age that is more than two standard deviations below the median height-for-age of the reference population

ⁱⁱ "Height-for-age at 2 years was the best predictor of human capital and that undernutrition is associated with lower human capital." in Cesar Victor et. al, Maternal and child undernutrition: consequences for adult health and human capital, The Lancet, Volume 371, Issue 9609, January 2008

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LIST OF ABBREVIATIONS

ACDP	Analytical and capacity development partnership
ASEAN	Association of South-East Asian Nations
BKKBN	<i>Badan Koordinasi Keluarga Berencana Nasional</i> (National Family Planning Agency)
BKP	<i>Badan Ketahanan Pangan</i> (Food Security Agency)
BLSM	<i>Bantuan langsung sementara masyarakat</i> (an unconditional cash transfer program in 2008)
BLT	<i>Bantuan langsung tunai</i> (an unconditional cash transfer program in 2005)
B POM	<i>Badan Pengawas Obat dan Makanan</i> (National Agency for Food and Drugs Control)
BPS	<i>Badan Pusat Statistik</i> (Statistics Indonesia)
CoD	Cost of a nutritious diet
DKP	<i>Dewan Ketahanan Pangan</i> (Food Security Council)
FAO	Food and Agriculture Organization
GAIN	Global Alliance for Improved Nutrition
GDP	Gross Domestic Product
HPP	<i>Harga Pembelian Petani</i> (Farm-gate Price)
IDA	Iron deficiency anaemia
IFA	Iron and folic acid
IFPRI	International Food Policy Research Institute
IYCF	Infant and young child feeding
LDPM	<i>Lembaga Distribusi Pangan Masyarakat</i> (Community's Food Distribution Agency)
LPM	<i>Lumbung Pangan Masyarakat</i> (Community's Barn)
M&E	Monitoring and evaluation
MDG	Millennium Development Goals
MIC	Middle Income Countries
NGO	Non-governmental organizations
NTB	<i>Nusa Tenggara Barat</i> (West Nusa Tenggara)
NTT	<i>Nusa Tenggara Timur</i> (East Nusa Tenggara)
PHBS	<i>Perilaku Hidup Bersih dan Sehat</i> (Clean and Healthy Livestyle)
PKH	<i>Program Keluarga Harapan</i> (Family Hope Program – a conditional cash transfer program)
PNPM	<i>Program Nasional Pemberdayaan Masyarakat</i> (National Program for Community Empowerment)
PPH	<i>Pola pangan harapan</i> (Ideal food consumption pattern)
PSKK	<i>Pusat Studi Kependudukan dan Kebijakan</i> (Center for Population and Policy Study)

RPJMN	<i>Rencana Pembangunan Jangka Menengah Nasional</i> (National Medium-Term Development Plan)
RPJPN	<i>Rencana Pembangunan Jangka Panjang Nasional</i> (National Long-Term Development Plan)
RUTF	Ready-to-use food
SAM	Severe acute malnutrition
SKPG	<i>Sistem Kewaspadaan Pangan dan Gizi</i> (Food and Nutrition Surveillance System)
SUN	Scaling-Up Nutrition
SUSENAS	<i>Survei Sosial Ekonomi Nasional</i> (National Socio-Economic Survey)
TTS	<i>Timor Tengah Selatan</i>
UHC	Universal health coverage
UNICEF	United Nations Children's Fund
WFP	World Food Programme
WHA	World Health Assembly
WHO	World Health Organization
ZHC	Zero Hunger Challenge

EXECUTIVE SUMMARY

The economy of Indonesia grew by an average 5.5 percent from 2000 to 2014, becoming the largest in south-east Asia. Indonesia's middle income status offers opportunities and challenges: if all the required investments are made, Indonesia could become a high-income country in less than two decades; if opportunities are missed, growth may slow and Indonesia could lag behind its neighbours. This Strategic Review maintains that the reduction of malnutrition in general and stunting in particular is an investment that Indonesia cannot afford to ignore.

Economic growth in Indonesia has not been matched by investments in human development. For instance, Indonesia had the lowest expenditure on health as percentage of Gross Domestic Product (GDP) in 2009 (1.1%) of any Asian Development Bank member; its spending on social protection was also one of the lowest in south-east Asia (1.2% of GDP in 2012), with only Cambodia and Lao People's Democratic Republic lagging behind.

Limited investments in improving health and social services are reflected in malnutrition trends. In 2013, the prevalence of underweightⁱⁱⁱ among children under-5 was estimated at 19.6 percent, wasting^{iv} at 12.1 percent and stunting at 37.2 percent. The prevalence of stunting increased from 2007 to 2013, but wasting rates were stable. The percentage of overweight children under-5 slightly decreased from 12.2 percent in 2007 to 11.9 percent in 2013. If not significantly improved, these trends in nutrition will hamper Indonesia's development by undermining its economic competitiveness and the quality of its human capital. Stunting is likely to cause the most damage because it limits a child's cognitive and physical ability to achieve optimal growth, and reduces productivity in adult life.

The prevalence of stunting is stable in urban areas and becoming worse in rural areas; the deterioration is more rapid in rural areas as a result of differences in poverty rates and access to diverse diets, clean water and sanitation, and health services. Malnutrition in Indonesia is also distributed unevenly across income levels: with poor Indonesians at a 50 percent higher risk of being stunted than those in the upper wealth quintile. Nevertheless, even Indonesians in the top wealth quintiles have a surprisingly high prevalence of stunting which reaches close to 30 percent. This indicates that in addition to poverty, behaviour-related and consumption-related factors are significant determinants of malnutrition. In geographical terms, malnutrition is spread across Indonesia; but with regard to stunting, Nusa Tenggara Timur, West Sulawesi and Nusa Tenggara Barat bear the greatest burden. Increasing inequality, slow poverty reduction, high population growth and significant rural migration and urbanization are trends that could further exacerbate the nutrition status of Indonesians.

Indonesia has developed many policies and programmes to address food and nutrition insecurity. Its commitments and plans for ending food insecurity and malnutrition are laudable, but require a stronger leadership and a more clear distribution of roles and responsibilities in order to meet the high expectations of Indonesia's government and people.

This Strategic Review examines the existing policies and programmes and identifies areas for greater attention. For example, national food security policies tend to focus on food availability;

ⁱⁱⁱUnderweight is defined as having a weight-for-age that is two standard deviations below the median weight-for-age of the reference population

^{iv}Wasting is defined as having a weight-for-height that is two standard deviations below the median weight-for-height of the reference population

they are strongly associated with the agricultural sector and have few references to food utilization and health. Meanwhile, nutrition policy concentrates on health services, with no clear reference to the role of food. Greater synergies at the national level could improve coordination at the operational level.

Greater integration between programmes, less budget constraints, stronger implementation capacity and institutional arrangements would help to address some of the challenges in achieving tangible results. The most significant gaps in Indonesia's response to food insecurity and malnutrition include: i) miss-alignment of policy and programme design; ii) limited geographic coverage of interventions; iii) missed opportunities to leverage food security and social assistance programmes to address malnutrition; iv) low quantity and quality of personnel; v) lack of monitoring and evaluation mechanisms; vi) weak institutional arrangements; and vii) insufficient focus on behaviour change and education.

This Strategic Review concludes that the current response has not led to a substantial improvement in food and nutrition security in Indonesia. Although policies are often appropriate, turning them into government programmes is a challenge, particularly given the highly decentralized nature of government. The experience in other countries shows that implementing nutrition-specific interventions and disease control can help to reduce the prevalence of stunting by 36 percent at best (Bhutta and Khan, 2008). To eliminate malnutrition, therefore, policies relating to agriculture, food security, social protection and nutrition and health must be integrated and harmonized (International Food Policy Research Institute, 2013).

The Strategic Review therefore recommends that the current food security and nutrition framework be refined, with a view to:

- 1) Establishing effective and efficient institutions;
- 2) Improving programme design and implementation; and
- 3) Promoting social change based on enhanced nutrition outcomes.

To achieve change in each of these dimensions, this Strategic Review recommends six measures:

- 1.a. Establish institutions at the central and local levels with a full mandate for food and nutrition security, and enforce accountability.
- 1.b. Increase the budget for food security and nutrition, and enhance service providers quantity and quality.
- 2.a. Make social safety nets and disaster response and preparedness more sensitive to nutrition, while improving targeting and efficiency.
- 2.b. Prioritize and target food-insecure and nutrition-insecure districts with a comprehensive package of programmes for immediate alleviation of food and nutrition insecurity.
- 3.a. Promote a change of attitudes towards balanced nutrition through awareness-raising and education across all sectors of society.
- 3.b. Create a system for better collaboration and joint projects involving the public and private sectors, and the community.

CHAPTER 1. INTRODUCTION

1.1 Background

Indonesia has experienced impressive economic growth during the last decade. According to the Central Statistics Bureau/ *Badan Pusat Statistik* (BPS) and the World Bank, Indonesia's per capita gross national income increased from IDR 6 million in 2000 to IDR 31 million in 2013. Indonesia not only joined the group of middle-income countries, but also became the biggest economy in south-east Asia. Economic growth has brought about a decrease in poverty rates and an increase in the proportion of “middle class” citizens. The proportion of the population with expenditure levels between USD 2 and USD 20 perday increased from 37 percent in 2003 to 56.7 percent in 2013. The proportion of poor people continues to decline, moving from 18.2 percent in 2002 to 11.25 percent in March 2014 according to BPS. In line with these developments, Indonesia's human development index score increased from 0.540 in 2000 to 0.629 in 2012 (United Nations Development Programme, 2013); Indonesia remains in the “medium” human-development category.

Despite economic growth and improved welfare, food security and nutrition have at best remained unchanged whereas there have been substantial improvements in neighbouring countries. The Economist Intelligence Unit (EIU) 2014 Global Food Security Index¹ ranks Indonesia 72nd of 109 countries with a score of 46.5, well behind Malaysia at 34th and Thailand at 49th. Of the three components of the index, Indonesia scored relatively well in availability—51.1, followed by affordability—43.3, the lowest score was for food quality and safety—42. According to the International Food Policy Research Institute Indonesia's Global Hunger Index² score decreased from 15.5 in 2000 to 10.1 in 2013; but Indonesia remains among the countries with serious food security problems. These improvements occurred more slowly than in neighbouring Thailand, whose Global Hunger Index fell significantly from 10.2 in 2000 to 5.8 in 2013; Vietnam's index decreased from 18.1 to 7.7 in the same period.

Indonesia's Basic Health Survey (*Riske Kesehatan Dasar*; Riskesdas) in 2013 also revealed the extent of its nutrition crisis. Among children under 5, the prevalence of underweight is estimated at 19.6 percent, wasting at 21.1 percent and stunting at 37.2 percent. According to the standards issued by the World Health Organization (WHO), Indonesia faces a very severe wasting and stunting problem; the prevalence of underweight indicates medium severity.³ These alarming rates of undernutrition are coupled with the increasing prevalence of central obesity among 15 years old and older (from 18.8 percent in 2007 to 26.6 percent in 2013).

Low nutritional status, particularly among children, will impede Indonesia's development in the medium term and long term, undermining the competitiveness of the economy and the quality of its human capital, with the risk that the country becomes stuck in the middle income trap. In fact children with low nutritional status—particularly those who are stunted, do not achieve optimal growth in either intellectual ability or physical capability and are less productive when they join the workforce as adults (Lancet, 2013). Malnourished children are also likely to

¹An index developed by *The Economist Intelligence Unit* to serve as a measure for food scarcity, including the quality of nutrition and food security of a country.

²An index developed by the International Food Policy Research Institute (IFPRI) to measure the level of hunger based on region and country, including the components of *Undernourishment*, *Child Underweight*, and *Child Mortality*.

³For further information, see <http://who.int/nutgrowthdb/about/introduction/en/index5.html>

experience metabolic disorders and suffer from non-communicable diseases such as high blood pressure, type II diabetes and coronary heart disease earlier in adulthood than those who had access to good nutrition during childhood (Black *et al.*,2013). As a result health care costs will increase, undermining the financial viability of Indonesia’s universal health coverage scheme, whose roll-out started in 2014. At the same time, labour productivity will decrease as a result of illness. Given the complexity and the seriousness of the issues at stake, Indonesia must take immediate policy measures to end malnutrition. An analysis (Hoddinott *et al.*,2013) shows that every dollar invested to address stunting in Indonesia today will bring benefits worth USD 48 in the future. Of the 17 countries assessed, the cost-benefit ratio is highest in Indonesia.

On the other hand, various macro-economic and demographic factors could challenge the improvement of food and nutrition security. In terms of economic development, the quality of the current economic is less inclusive and has led to an increasing inequality, and slowing down of poverty reduction. Although the economy continues to grow at over 5 percent per year with predictions of growth at 5.3 percent in 2014 (World Bank, 2014), investment is likely to slow down in favour of consumption in the coming years. Growth seems to benefit the wealthiest: this is reflected by the Gini coefficient, which increased from 0.31 in 2003 to 0.41 in 2013. Greater inequality in incomes is also evident in that the wealthiest 20 percent of Indonesians accounted for 48.5 percent of total revenue in 2013, an increase from 42.19 percent in 2002, whereas the poorest 40 percent accounted for only 17.25 percent of total revenue in 2013 (see Figure 1). Income inequality requires serious attention: when it is not associated with inter-generational income mobility—that is, the possibility that poor people can increase their incomes from one generation to the next—it tends to trap people in poverty (Krueger, 2012) and increase social tensions, thereby slowing growth in the long term.

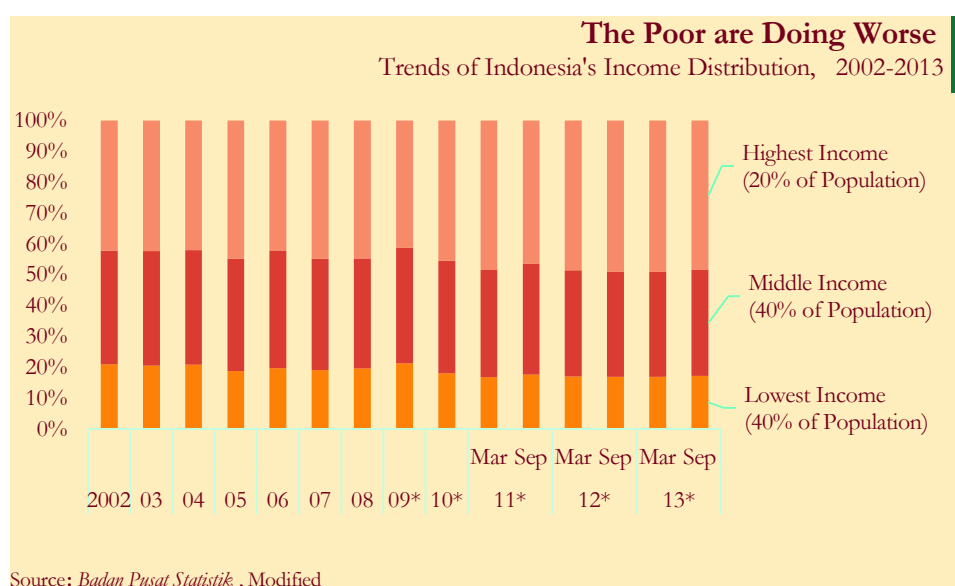


Figure 1. Trend of Indonesia’s Income Distribution, 2002-2013

The increase in income inequality seems to be closely related to the slowing rate of poverty reduction in the last five years (see Figure 2). Income inequality and poverty determine the accessibility aspect of food security and nutrition—a person’s ability to obtain food with adequate nutritional value. Although the poor may be able to meet basic food consumption needs in terms of calories, the food they usually consume does not satisfy their nutritional requirements.

This corroborates the 2011/12 Cost of the Diet study⁴ by the World Food Programme (WFP) and the Ministry of Health, which revealed sharp differences among regions in Indonesia in terms of households' ability to meet their nutritional needs. The study showed that 75 percent in South Central Timor/ *Timor Tengah Selatan* (TTS) in *Nusa Tenggara Timur* (NTT) province were unable to meet their nutritional needs, compared with only 20 percent of households in the city of Surabaya in East Java (Baldi *et al.*, 2013).

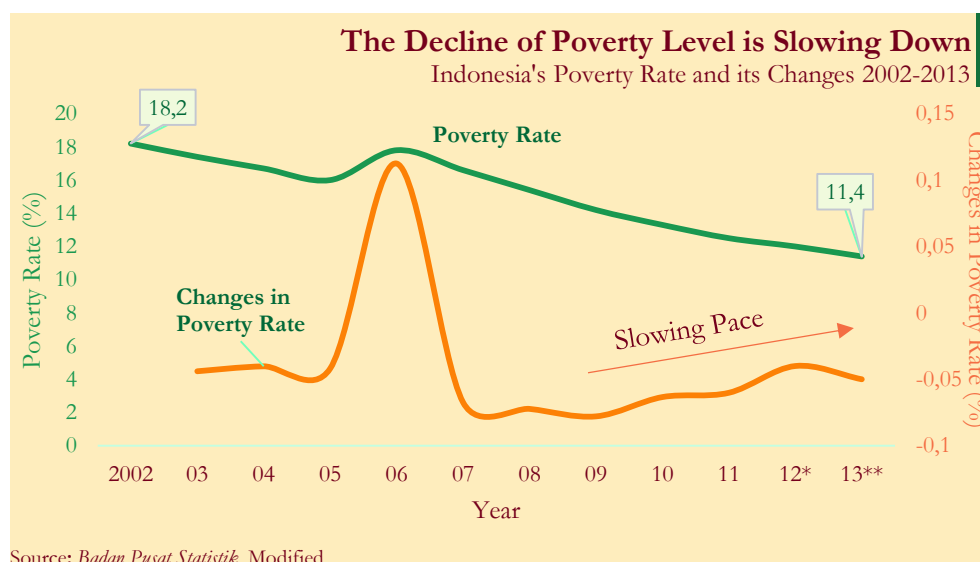


Figure 2. Indonesia's poverty level and changes from 2002 to 2013

Another consequence of economic growth that could affect the food security and nutrition situation is the participation of women in the work force. In 2012, 51.4 percent of the female labour force was employed; this figure had increased from 51.1 percent in 2008, but it remained well below the 84.4 percent participation of men in 2012. The increase in women's participation in the labour market will affect household food expenditure: Quisumbing *et al.* (1995) stated that a woman's decision to enter the labour market, especially in low-income households, will contribute to her own welfare and that of household members. Nevertheless, lack of male participation in child care and food preparation can reduce the quality of the food consumed by the household, especially children, when a mother joins the labour market.

In terms of population, the high rate of increase and uneven distribution will challenge food security and nutrition. On the basis of the 2010 census, the population of Indonesia amounted to 237 million people with a growth rate of 1.49 percent per year. The number is expected to exceed 300 million in 2035 (BPS, 2013: 23). In 2035, most of the population of Indonesia is expected to remain concentrated in Java (BPS, 2013: 23) (see Figure 3.). The increase of population will increase demand for food, and will exert pressure on the supply of residential land, roads and infrastructure, and could potentially reduce the area of land available for food production.

⁴The minimum cost of a nutritious diet (CoD) is the cost of a theoretical diet that satisfies all nutritional requirements of a model family at minimum cost based on the availability, price and nutritional content of local foods. Any other food basket at the same price will be less nutritious, and any other food basket of the same nutrient value will be more expensive. When combined with household income and expenditure data, the CoD can therefore be used to estimate the proportion of households that can afford an adequately nutritious diet in a particular area. The CoD is hence a tool that links nutrient availability with affordable access to food.



Figure 3. Projection of Indonesia's Population by Island, 2010–2035

Increased urbanization will also affect food security and nutrition. More people prefer to reside in urban area. It is reflected from the increase of urban population from 42.1 percent in 2000 to 49.8 percent in 2010. The BPS estimates that the number of people living in urban areas will reach 66.6 percent in 2035 (Figure 4). Urbanization can increase an individual's access to education and health services, thereby improving their productivity. But unplanned urbanization is accompanied with an increase in urban poverty as vulnerable populations migrating to cities to seek work often have to live in slums. Urban slums are affected by water supply and sanitation issues, which in turn affect the food security and nutritional status of the community. The relationship between water, sanitation, hygiene and nutritional status in Indonesia has not been adequately investigated, but there is some evidence suggesting a link between poor sanitation and stunting. Work on overall sanitation in East Java reduced open defecation among households by 6 percentage points, and reduced the prevalence of diarrhoea by 30 percent in the communities treated— 3.3 percent – compared with control communities – 4.6 percent – at the end of the intervention (Cameron *et al.*).⁵ A study of child poverty (SMERU-Bappenas-UNICEF) in 2010 showed that children in the poorest quintile living in urban areas have generally greater access to improved sanitation compared with children in the poorest quintile living in rural areas. But 46.06 percent of poor children in urban areas continue to live in housing with poor sanitation. And children living in urban areas have less access to clean water than those in rural areas, regardless of the income group of their household. In general, 39.67 percent of children in urban areas and 31.24 percent of children in rural areas had no access to clean water. With regard to food availability, rural households are more likely to produce food for their own consumption, but their dietary diversity tends to be low and they often turn to markets to satisfy all of their food requirements, making them net consumers. Poor rural households who migrate to cities have to rely entirely on markets and so have to achieve income mobility to access an adequate diet.

⁵Cameron, L., Shah, M., and Olivia, S. 2013. *Impact Evaluation of a Large-Scale Rural Sanitation Project in Indonesia, Water and Sanitation Program*. Impact Evaluation Series no. 83, policy research working paper WPS6360 in Background Study on Nutrition. Washington DC, World Bank. Available at:

<http://documents.worldbank.org/curated/en/2013/02/17288401/impact-evaluation-large-scale-rural-sanitation-project-indonesia> .

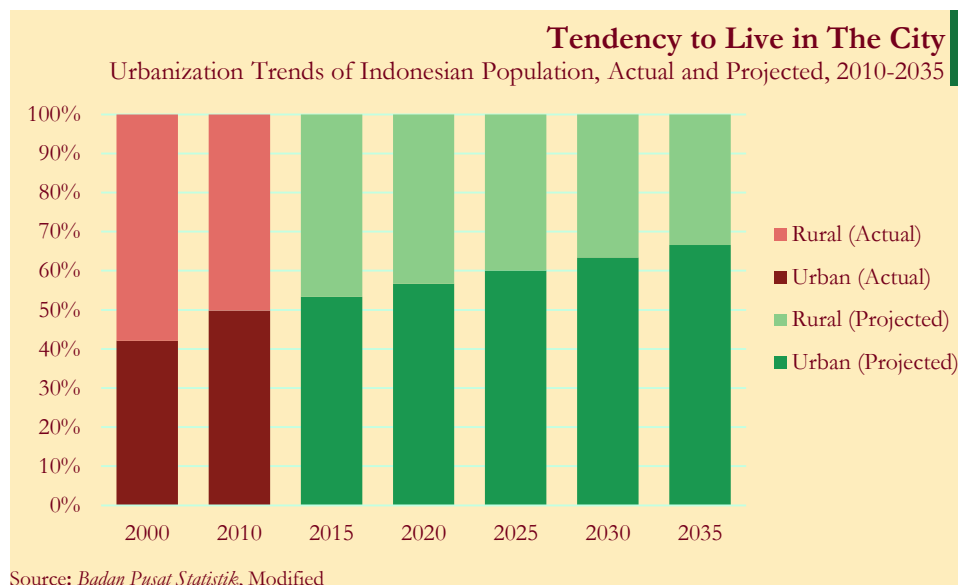


Figure 4. Urbanization Trends of Indonesian Population, Actual and Projected 2000-2035

Various changes at the macro level create new challenges in efforts to improve food and nutrition security. Indeed the failure of economic growth in supporting the improvement of food and nutrition security has not received sufficient attention of the policy makers. In this regards, the Government has introduced various policies and action plan to improve food and nutrition security. The Indonesia’s high political commitment as highlighted by EIU (2012), however, has not able to improve the food and nutrition security, particularly in reducing stunting. This strategic review therefore maps current policies and programmes and identifies gaps that limit their effectiveness with a view to suggesting an action-based roadmap to continuously improve food and nutrition security and reduce stunting.

1.2 Objectives

This review offers a comprehensive account of food security and nutrition in Indonesia and identifies approaches and programmes for reducing food insecurity and malnutrition, with a focus on the reduction of stunting, an indicator of chronic malnutrition, as the final target reference. Besides reflecting the state of food insecurity and chronic malnutrition, stunting is an indicator for measuring human capacity and productivity in the medium term and long term. Evidence confirms that stunting, in addition to being irreversible, is the best predictor of human capital in low and middle income countries⁶. By focusing on stunting as the final reference target, this review should be able to explore the various long-term and short-term aspects of food and nutrition security holistically. By doing so, it does not attempt to create a hierarchy between nutrition indicators; on the contrary, it only proposes to increase focus on stunting, which has been neglected so far.

⁶Victora CG, Adair L, Fall C, Hallal PC, Martorell R, Richter L, *et al.* for the Maternal and Child Undernutrition Study Group. Maternal and child undernutrition: consequences for adult health and human capital. *Lancet*. 2008; 371:340-57.

More specifically, this review includes:

- an analysis of the food security and nutrition situation in Indonesia;
- an assessment of progress in developing various national plans aiming at attaining food and nutrition security and progress in the implementation and outcomes of the policies and programs;
- identification of the main challenges and gaps in the implementation of food and nutrition security policies and programmes; and
- a summary of recommendations on policies and practical actions that critical to reduce food insecurity and malnutrition, including cooperation across institutions.

The review builds on the recent health sector assessment carried out for the 2015-2019 National Medium-Term Development Plan/ *Rencana Pembangunan Jangka Menengah Nasional* (RPJMN). Its recommendations complement this review and are referenced here.

The results of this study are also intended to inform the strategies of WFP’s Indonesia country office and other United Nations agencies and non-governmental organizations (NGOs). It also advocates for the adoption of a roadmap by the Indonesian Government for achieving Zero Hunger.⁷ Implementation of this study and its results are expected to enhance the working relationship between WFP and the Government.

1.3 Methods

This review of food security and nutrition in Indonesia has four stages: i) situation analysis; ii) response analysis; iii) analysis of gaps; and iv) recommendations (Figure 5).

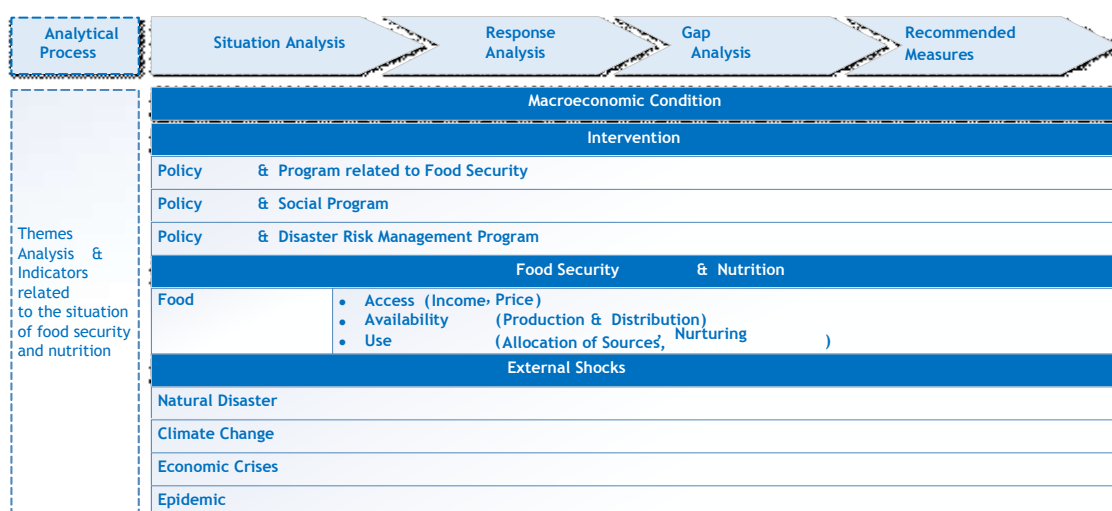


Figure 5. Scope of food security and nutrition assessment

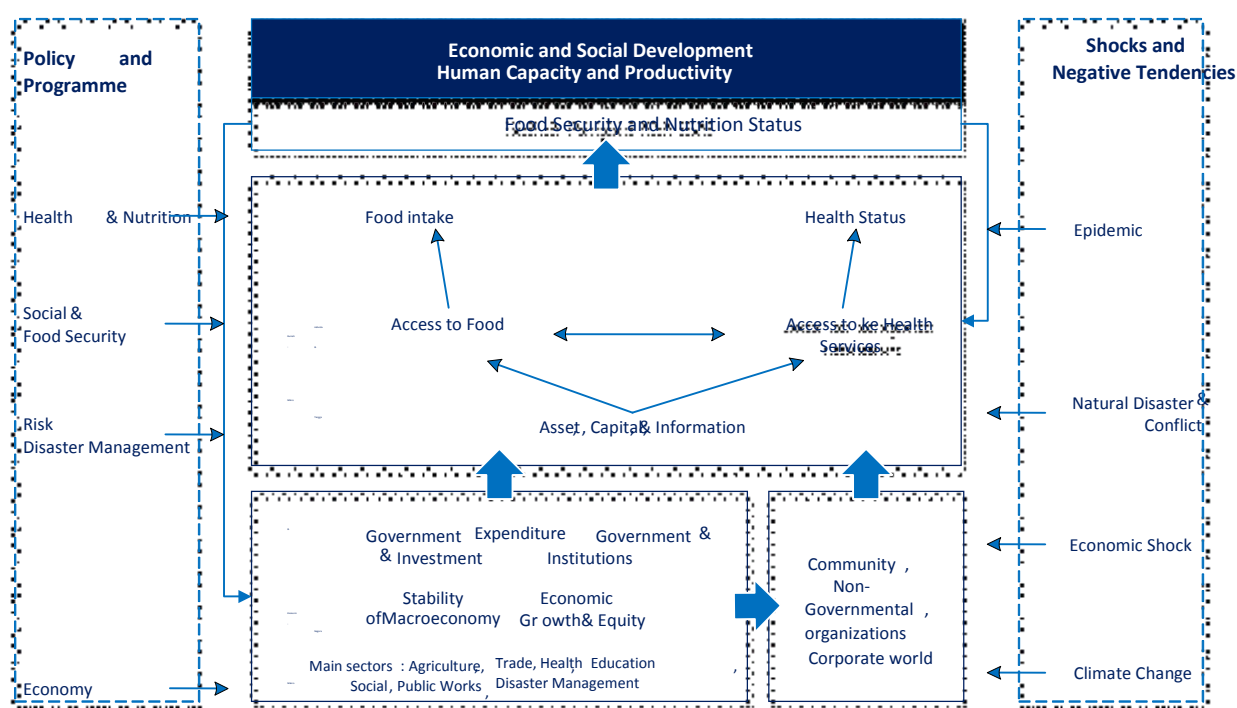
The research questions at each stage of the analysis are shown in Table 1.

⁷The United Nations Secretary-General’s Zero Hunger Challenge was launched in 2012. Its five objectives are likely to be incorporated into the sustainable development goals of the post-2015 agenda.

Table 1. Highlights Summary of Study

No.	Topic	Research Question
1	Situation Analysis	What are the problems facing Indonesia in terms of food security and nutrition? What causes these problems?
2	Analysis of Policies and Programmes	Which policies and programmes have been designed and implemented to overcome these problems? What are the results or effectiveness of these policies/programmes? What institutions are involved and what are their roles and responsibilities? What is their capacity to deal with issues of food and nutrition security?
3	Policy/Programme Gap Analysis	What are the weaknesses or deficiencies found in the policies/programmes that have been implemented so far? What factors are limiting their effectiveness?
4	Recommendations	What still needs to be done? Who will do it?

To ensure full understanding, this review highlights various aspects of food security and nutrition such as: i) food availability; ii) access to food; iii) food utilization and health conditions that affect the metabolism and the digestion of food. It also considers various changes in external conditions affecting food security and nutrition, and disaster risk management in that context. The analysis highlights the conditions at the household and individual level and at the macro level by studying the policies and programmes related to food security and nutrition in ministries and other institutions (Figure 6).



Source : IFPRI & WFP, Food and Nutrition Framework (Modified)

Figure 6. Analytical framework for an overview of food security and nutrition

This review was prepared between mid-April 2014 and September 2014. The analysis was based on secondary data, a literature review, interviews and a series of round table discussions. The research team was guided by an advisory board composed of eminent experts.

CHAPTER 2. ANALYSIS OF THE FOOD SECURITY AND NUTRITION SITUATION

2.1 Nutrition trends in Indonesia

Recent developments in the nutritional status of Indonesians, especially children, are alarming. Various nutrition indicators—prevalence of underweight, stunting, wasting, and overweight among children under 5—are stagnant or deteriorating. The prevalence of underweight increased from 18.4 percent in 2007 to 19.6 percent in 2013; the prevalence of stunting rose from 36.8 percent in 2007 to 37.2 percent in 2013. During the same period, although the prevalence of overweight among under-5 year old children slightly decreased from 12.2 percent to 11.9 percent, the prevalence of central obesity among population aged 15 years and above increased from 18.8 percent to 26.6 percent. Only the prevalence of wasting slightly decreased from 13.6 percent in 2007 to 12.1 percent in 2013.

Wasting reflects acute malnutrition resulting from shocks such as severe and protracted food shortages and disease, whereas stunting indicates chronic malnutrition as a result of long-term insufficient nutrient intake and/or infections. Both wasting and stunting reflect long-standing poverty, food insecurity, illness and/or inappropriate feeding. The prevalence of underweight is an indicator of general nutrition status that combines chronic and acute malnutrition (Riskesdas 2013: 211). Central obesity, however, indicates risk factor that is strongly associated with various chronic diseases (Riskesdas 2013: 226).

These indicators place Indonesia among the countries facing serious health problems. According to the WHO classification, malnutrition is very severe when the prevalence of underweight among children under 5 is between 20 percent and 29 percent, the prevalence of wasting is between 10 percent and 14 percent. In addition, the condition is considered severe if the prevalence of stunting among under-5 year old children between 30 percent and 39 percent, and considered serious if it reached 40 percent or more.

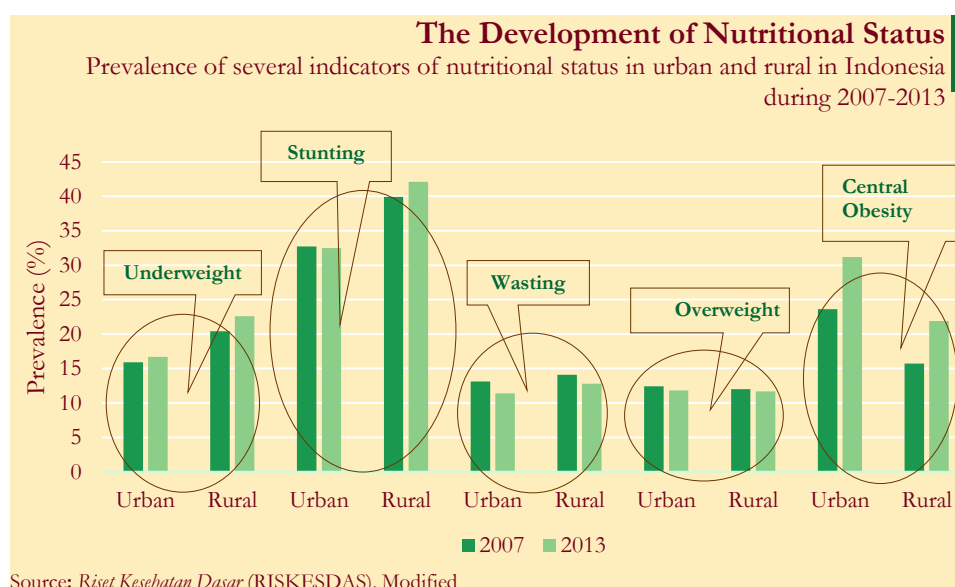


Figure 7. Prevalence of malnutrition in urban and rural Indonesia during 2007–2013

In general, the nutritional status of children is stable or deteriorating in rural and in urban areas (Figure 7); the exception is wasting, which is improving slightly across the country. The deterioration nonetheless appears to be more rapid and more intense in rural areas than in cities. Rural areas are characterized by limited access to public services such as schools, markets and hospitals, and by poor infrastructure and sanitation facilities. Rural households tend to be less informed about adequate nutrition and are poorer than urban households; they often rely on subsistence agriculture, which results in limited consumption of diverse foods. For rural households in particular, access to nutrient-fortified foods may be limited.

Even if nutritional indicators in urban areas appear to be better than in rural areas, they are also deteriorating. In terms of infrastructure, cities are served better than rural areas. But urban areas encounter problems related to access to clean water and sanitation, especially in slums. Consumption and use of infected water and poor hygiene increase exposure to disease and have a negative impact on health, in turn limiting the body's ability to absorb nutrients.

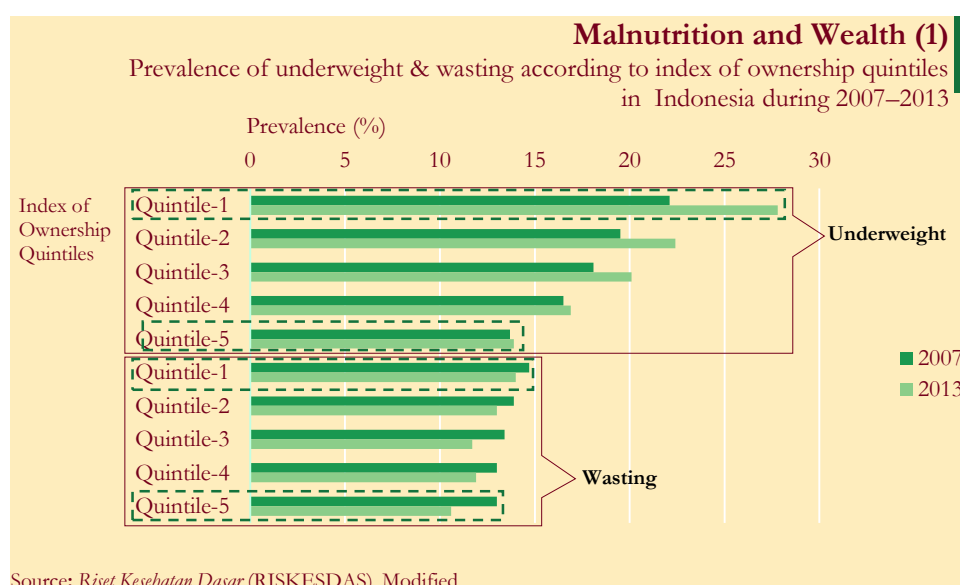


Figure 8. Prevalence of underweight and wasting according to index of ownership quintiles⁸ in Indonesia during 2007–2013

Malnutrition in Indonesia is distributed across the range of incomes, and even the richest quintiles suffer from high rates of malnutrition. The poorest and richest quintiles follow similar trends, with underweight increasing and wasting decreasing across all income groups. The decline in wasting was nonetheless highest in the highest-income households; very low-income households experienced the smallest decrease in wasting. High income appears to contribute to a small improvement in nutritional status, but there are clear indications that economic status alone cannot explain the prevalence of acute malnutrition in Indonesia.

Chronic malnutrition, measured by stunting, also occurs across all income groups (see Figure 9). The prevalence of stunting appears to be increasing among the poorest households, though there was a slight improvement among the richest, indicating that poverty is a determining factor in the increase in stunting in Indonesia. The poor not only suffer from inadequate housing, but they have limited access to clean water and adequate sanitation and less access to health and

⁸An index developed in the 2013 Riskeddas; it measures the economic status of a household on the basis of their assets: a higher quintile indicates more assets, and hence greater wealth.

education services, and their limited purchasing power reduces access to adequate nutritious food. These factors result in increased likelihood of stunting among poor households.



Figure 9. Prevalence of stunting and overweight according to index of ownership quintile in Indonesia during 2007–2013



Figure 10. Prevalence of central obesity according to index of ownership quintile in Indonesia during 2007–2013

The prevalence of overweight among children under five decreased slightly in all income groups from 2007 to 2013, with the smallest decrease occurring among children from the wealthiest households. Overweight is associated with increased risk of chronic diseases (Riskesdas: 226). In contrast, the prevalence of central obesity (overweight among adults) increased for all income groups, highlighting the double burden of malnutrition as stunted children are at an increased risk of becoming obese adults. As explained in WHO Child Growth Standards, this double burden of malnutrition often manifests itself as a life-cycle problem. Inadequate infant growth leads to under-nutrition in children in many developing countries, which if followed later in life by an increased intake of calories could result in overweight or obesity. It is not uncommon to see an under-nourished child in the same household as an overweight adult. As for Indonesia, low-income households saw the smallest increase in the prevalence of central obesity from 2007 to 2013, while the prevalence of central obesity raised sharply among higher income groups

during the same period (Figure 10). This highlights the role of the food sector in determining the nutritional status of Indonesians: as most Indonesians, especially those in the middle and highest income quintiles, depend on markets to fulfil their food needs, the quality of food products available on the market contributes significantly to undernutrition and overnutrition.

Malnutrition not only occurs in all income groups: it is spread across the regions of Indonesia, albeit at variable levels (Table 2). The prevalence of underweight increased in 27 of 33 provinces between 2007 and 2013. The provinces with the highest prevalence of underweight in 2013 were NTT, West Papua and West Sulawesi. The prevalence of stunting also increased in 22 provinces, with the greatest burden in NTT, West Sulawesi and West Nusa Tenggara/ Nusa Tenggara Barat (NTB). It means that 52 out of every 100 under-5 year old children in these provinces were stunted. In addition, although the prevalence of wasting declined at the national level, there were increases in wasting rates in five provinces; West Kalimantan, Maluku and Aceh had the highest prevalence.

Table 2. The Prevalence of Underweight, Stunting and Wasting in Indonesia, by Province, 2007–2013

Province	Underweight		Rank		Wasting		Rank		Stunting		Rank	
	2007	2013	2007	2013	2007	2013	2007	2013	2007	2013	2007	2013
Aceh	27%	26%	5	7	18%	16%	4	3	45%	42%	4	9
Bali	11%	13%	32	33	10%	9%	31	33	31%	33%	29	28
Bangka Belitung	18%	15%	20	31	11%	10%	29	28	36%	29%	23	29
Banten	17%	17%	26	25	14%	14%	22	10	39%	33%	16	27
Bengkulu	17%	19%	25	22	14%	15%	21	8	36%	40%	22	16
DI Yogyakarta	11%	16%	33	28	9%	9%	33	31	28%	27%	31	32
DKI Jakarta	13%	14%	30	32	17%	10%	7	28	27%	28%	32	31
Gorontalo	25%	26%	6	8	17%	12%	11	20	40%	39%	13	18
Jambi	19%	20%	19	19	19%	14%	3	11	36%	38%	21	20
Jawa Barat	15%	16%	29	29	9%	11%	32	26	35%	35%	24	25
Jawa Tengah	16%	18%	27	24	12%	11%	28	24	36%	37%	20	22
Jawa Timur	17%	19%	24	20	14%	11%	23	22	35%	36%	26	24
Kalimantan Barat	23%	27%	14	6	17%	19%	5	1	39%	39%	15	19
Kalimantan Selatan	27%	27%	4	5	16%	13%	13	12	42%	44%	9	5
Kalimantan Tengah	24%	23%	9	14	17%	12%	9	14	43%	41%	8	10
Kalimantan Timur	19%	17%	18	26	16%	12%	14	21	35%	28%	25	30
Kepulauan Riau	12%	16%	31	30	14%	12%	26	15	26%	26%	33	33
Lampung	18%	19%	23	21	14%	12%	23	19	39%	43%	17	6
Maluku	28%	28%	2	4	17%	16%	6	2	46%	41%	2	14
Maluku Utara	23%	25%	11	11	15%	12%	19	17	40%	41%	12	11
Nusa Tenggara Barat	25%	26%	8	9	16%	12%	16	18	44%	45%	6	3
Nusa Tenggara Timur	34%	33%	1	1	20%	16%	2	5	47%	52%	1	1
Papua	21%	22%	16	17	12%	15%	27	8	38%	40%	18	15
Papua Barat	23%	31%	10	2	16%	15%	12	6	39%	45%	14	4
Riau	21%	23%	15	15	22%	16%	1	4	33%	37%	27	21
Sulawesi Barat	25%	29%	6	3	17%	11%	10	27	45%	48%	5	2
Sulawesi Selatan	18%	26%	22	10	14%	11%	23	25	29%	41%	30	13
Sulawesi Tengah	28%	24%	3	12	16%	9%	16	31	40%	41%	11	12
Sulawesi Tenggara	23%	24%	13	13	15%	11%	20	23	41%	43%	10	7
Sulawesi Utara	16%	17%	28	27	10%	10%	30	30	31%	35%	28	26
Sumatera Barat	20%	21%	17	18	15%	13%	18	13	37%	39%	19	17
Sumatera Selatan	18%	18%	21	23	16%	12%	15	15	45%	37%	3	22
Sumatera Utara	23%	22%	12	16	17%	15%	7	7	43%	43%	7	8
Indonesia	18%	20%			14%	12%			37%	37%		

Source: Riset Kesehatan Dasar, Modified

Source: Riskesdas 2007 and 2013

Nutritional status is determined by several factors such as food availability, access to food, health and hygiene conditions, and lifestyle. In the following paragraphs, Spearman's rank correlation is used to examine the relationship between the prevalence of stunting and selected factors at the provincial level.

There appears to be a positive correlation between food availability and stunting. Availability was measured through a food production percapita proxy.⁹ The coefficient of correlation was 0.47, indicating that provinces with high food production per capitat ended to have high prevalence of stunting. The findings corroborate the argument that the availability of food in a region does not guarantee access to food for communities in that region. Furthermore, food availability also often measures the production of food commodities, especially staple foods, and so does not necessarily reflect or correlate with dietary diversity. This is confirmed by the fact that food-deficit regions such as eastern Indonesia have high stunting rates, whereas stunting is prevalent across all the regions in Indonesia, including those with production surpluses (Figure 11).

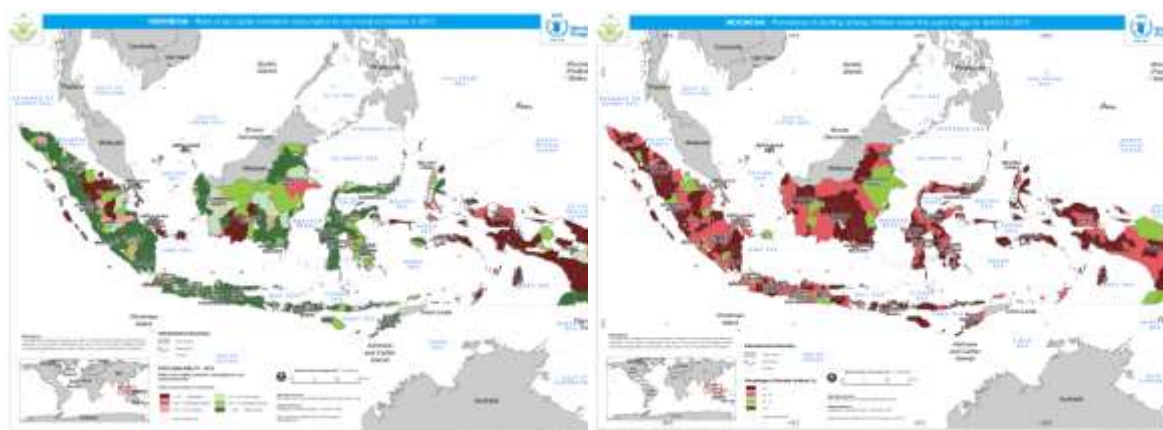


Figure 11. Distribution of the Prevalence of Stunting and Food Availability (Consumption/Production ratio) in Indonesia, by District, 2013

Source: WFP

High stunting rates appear to be prevalent in provinces with poor access to food. Per capita income and poverty rates reflect purchasing power, and can be used as a proxy to measure access to food. Analysis indicates a negative relationship between per capita income and stunting (Spearman's rho $[r]^{10} = -0.44$). This indicates that provinces with low per capita income tend to have high prevalence of stunting. Similarly, poverty rates have a negative relationship with stunting ($r = -0.46$). This implies that stunting is closely correlated with access to food.

This is corroborated when we look at the correlation between stunting and food expenditure per capita. The correlation coefficient is $r = -0.41$, indicating that provinces with low expenditure per capita on food are likely to have high prevalence of stunting.

Unlike per capita expenditure on food, per capita calorie consumption is not strongly associated with stunting ($r = 0.19$). The coefficient is low but positive, implying that stunting prevalence is likely to be higher in areas where per capita calorie consumption is high. But there are many statistical outliers, ie low prevalence of stunting associated with low per capita calorie consumption, and most of the provinces with high prevalence of stunting in fact have low per capita calorie consumption. This inconsistency may be explained by the fact that per capita calorie consumption is not an adequate indicator for stunting because it only describes energy

⁹This indicator is based on paddy rice, maize, cassava, sweet potato, poultry, eggs, cow's milk and meat.

¹⁰A non-parametric test used to measure the strength of association between two variables, where the value $r = 1$ means a perfect positive correlation and the value $r = -1$ means a perfect negative correlation.

intake rather than the nutritional value of the food—and the latter has a greater role in determining whether or not a person is stunted.

People in households with healthy habits and good hygiene are less likely to be stunted. Hygiene and healthy habits are reflected in the “clean and healthy behaviour”/ *Perilaku Hidup Bersih dan Sehat* (PHBS) index developed by the Ministry of Health.¹¹ This consists of ten indicators at the household and individual levels related to hygiene and health. The index has eight individual level indicators: i) hand washing; ii) defecation in a hygienic toilet; iii) consumption of fruit and vegetables; iv) daily physical activity; v) smoking; vi) delivery of babies by health workers; vii) breastfeeding; and viii) weighing of babies. There are two household indicators: use of clean water; and eradication of mosquito larvae (Riskeddas, 2013:149). According to the 2013 Riskeddas, a household has clean and healthy behaviour when it scores adequately on at least six of the ten indicators if the household includes children under 5, and five indicators if there are no children under 5. The correlation analysis shows that stunting is closely related to PHBS, with $r = -0.58$. In other words, stunting is more prevalent in provinces where household hygiene and health habits are inadequate. But in South Sulawesi and Gorontalo, prevalence of stunting and PHBS are equally high, indicating that PHBS alone cannot explain the prevalence stunting.

As elsewhere in developing countries, education is also a strong determinant of stunting in Indonesia.¹² Data on 590,570 households in Indonesia demonstrated that children whose mothers had greater formal education are 4.4% to 5% less likely to grow up stunted while controlling for wealth.

This analysis examined the link between stunting and a selection of determining factors. The results showed that the prevalence of stunting is higher in provinces with high percapita food production/availability, low food access indicated by low income per capita, high levels of poverty and low per capita expenditure on food, and inadequate health and hygiene habits. Stunting has a weaker correlation with percapita calorie consumption, which measures calories only and not diet diversity.

2.2 Food and Nutrition Security

2.2.1 Food Availability

Food availability at the national level, measured by food production, continues to face challenges. Of the five strategic food commodities—rice, soybeans, corn, beef and sugar—in which Indonesia aspires to be self-sufficient by 2014, only rice production has increased sufficiently to meet domestic demand, although imports are necessary to address seasonal fluctuations. The policy for rice self-sufficiency was developed during the 1965–1998 New Order era to protect Indonesia’s staple food and eventually to include other foods. But major gaps prevented achievement of the self-sufficiency target for soybeans, beef and sugar (Figure 12), and imports are required to satisfy demand for these foods.

¹¹Based on criteria developed by the Ministry of Health Centre for Health Promotion under and applied in the 2013 Riskeddas.

¹²Richard D. Semba et al., *Effect of parental formal education on risk of child stunting in Indonesia and Bangladesh: a cross-sectional study*. Lancet 2008;371:322–8

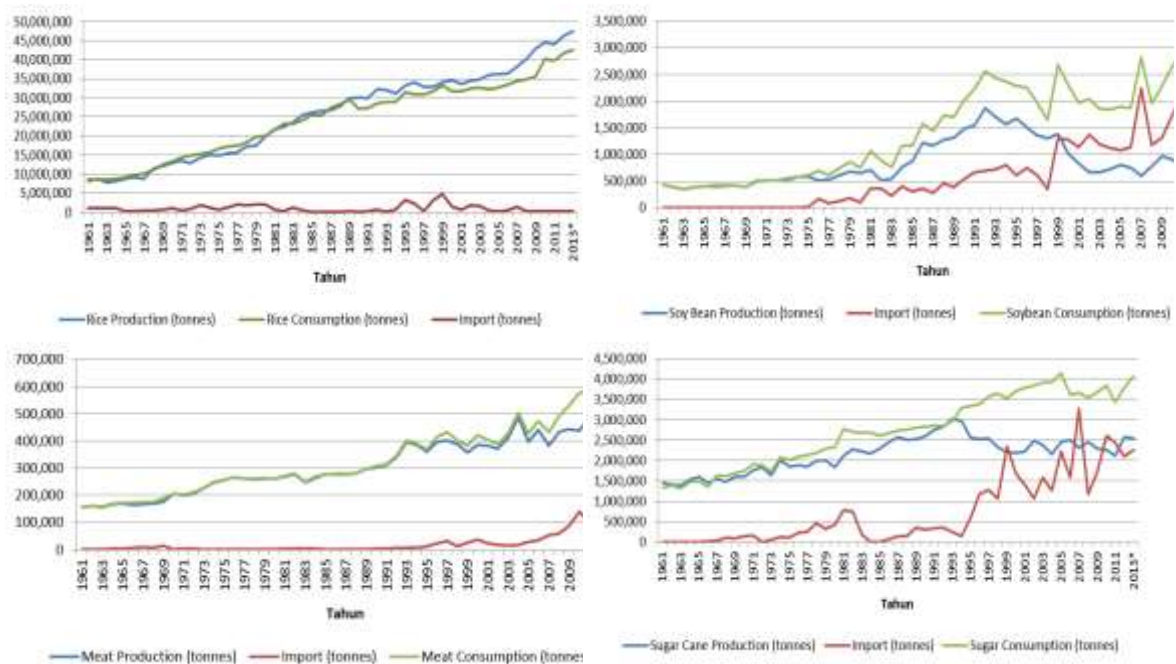


Figure 12. The Volume of Production, Consumption and Imports of Four Strategic Foods in Indonesia, 1961–2013

Source: FAO and Ministry of Agriculture, 2013.

Efforts to increase domestic food production could be constrained by water supply challenges. Indonesia has the fifth biggest potential water resources in the world, with average supply as much as 3,906 Billion M³ per year (Global Water Partnership/GWP, 2013:3). Currently, only around 17.9 percent of the total yearly water supply (691.3 Billion M³) is used for household utilization, cities, industry, and irrigation. Nevertheless, demand for water will increase as a result of population growth and economic growth and water resource management will prove crucial to meet this increase in demand. Water resource management in Indonesia continues to face several challenges including the uneven availability of water storage facilities and their poor conditions due to environmental damage and sedimentation. Furthermore, infrastructures for water distribution are not adequate to distribute water resources from water-rich areas to water-poor areas. It is necessary to develop water facilities and ensure their maintenance as water resources are essential to food availability (farm irrigation), food access (food transportation by water) and utilization (sanitation and hygiene).

Land availability is another challenge to food production in the coming years. Total agricultural land decreased from 40,031,166 Hectare in 2008 to 39,594,536 Hectare in 2012 (Agricultural land statistics, 2008-2012), with the biggest decrease in irrigated wetlands. The conversion of food crop land into non-food crop or non-agricultural land means that less food farmland is available. If not compensated with new land or increasing yields, production might decrease. Given the importance of rice in the Indonesian diet, the decline of the land used for rice crops from 11.5 million Hectare in 2002 to 8.08 million Hectare in 2012 is a worrying figure, despite the increase of production from 51.4 million ton to 68.74 million ton during the same period. From 2006 to 2013, the average yearly growth of rice farmland was 47,000 Hectare per year, while the average loss of rice farmland stood at 100,000 Hectare per year.¹³ Land conversions

¹³Preliminary figure, calculated by Litbang Kompas/BIM/YOH using data from BPS and Lakip Kementerian Pertanian 2012 [http://perpustakaan.bappenas.go.id/lontar/file?file=digital/138045-%5B_Konten_%5D-Lahan%20Pertanian%2020001.pdf] <downloaded at 11 November 2014>

are well spread out across Indonesia: according to 2011 village potential survey (*Potensi Desa/PODES*), 21.53 percent of all Indonesian villages experienced land conversion from agriculture to non-agriculture, while only 7.51 percent of all Indonesian villages experienced land conversion from non-agriculture to agriculture. To reach rice production targets and continue to increase supply in line with population growth, both intensification and extensification strategies will have to be deployed: these include ensuring that land conversions are not done at the detriment of agricultural production.

In addition to concerns about land availability, the supply of agricultural labor has been declining as the conversion of agricultural land to non-agricultural land forces agricultural labor to seek new jobs in other sectors. Agricultural labor is usually not skilled and faces difficulty converting to other jobs, resulting in loss of income and higher exposure to poverty and food and nutrition insecurity. The number of farming households has declined by 16 percent – 5 million households – in the past ten years. Viewed by sub-sector, food crops till dominate agriculture in Indonesia; but they are also experiencing the quickest decline with the loss of 900,000 businesses during the same period. The 2003 and 2013 agriculture censuses show that the decline is caused mainly by a decrease in the number of households land holdings of less than 0.1 Hectare.¹⁴

In the mean time, the population continues to grow. The 2010 population census showed that the population of Indonesia was 237 million, with a growth rate of 1.49 percent per year. The population is expected to exceed 300 million in 2035 (BPS, 2013: 23), most of whom will be concentrated in Java (BPS, 2013: 23). Demand in all sectors—employment, housing, food, health and education—will consequently increase. According to Pusat Studi Kependudukan dan Kebijakan (PSKK) of the Gajah Mada University, Indonesia's population is projected to reach 304.9 millions in 2035 with total rice consumption at around 42.3 million tonnes per year and rice production at around 59.4 million tonnes per year.¹⁵

2.2.2 Food Accessibility

In terms of access to food, one of the challenges is the increasing income gap among households. Indonesia's economic growth has not benefited all Indonesians equally, as indicated by the increase in the Gini coefficient from 0.33 in 2002 to 0.41 in 2013, indicating wide income inequality. And 20 percent of the richest Indonesians accounted for 48.5 percent of total revenues in 2013, compared with 42.19 percent in 2002; the next richest 40 percent, the middle-income group, accounted for 34.25 percent of total revenues in 2013, compared with 36.89 percent in 2002. The share of the richest 20 percent has increased over time, while the revenue of the middle income-group has remained relatively stable.

Income inequality is related to social issues such as violence and crime, and could affect community health (Castells-Quintana and Royuela, 2012; Wilkinson and Pickett, 2009). Stiglitz (2012) argues that an increase in inequality hampers economic growth and destabilizes the economy. If income inequality results in a lack of inter-generational income mobility, it contributes to the transmission of poverty from one generation to the next, thereby negating efforts to reduce poverty (Krueger, 2012).

¹⁴But the number of farming households with land of more than 30,000m² is increasing.

¹⁵However, Bappenas projected a decline in rice consumption at around 0.87 percent per year (Bappenas, Background Study RPJMN 2014-2019). With this declining rate, if in 2012 the Indonesians consumed 33 million tons of rice, Indonesia will need 26.75 million tonnes of rice in 2035.

In addition to income inequality, absolute poverty remains a major challenge. Poverty can be defined as the inability to meet basic needs. Indonesia's growth has resulted in a significant reduction of the national poverty rate: the percentage of the population living below the poverty line fell from 18.2 percent in 2002 to 11.4 percent in 2013, largely as a result of job creation (World Bank, 2014: 45). Nonetheless, the rate of poverty reduction decreased more slowly, from 7 percent in 2007 to 5 percent in 2013, suggesting that additional work is required to eliminate poverty in Indonesia. Poverty limits a household's ability to purchase sufficient quantities of nutritious food; and the poor are typically more vulnerable to malnutrition and food insecurity because they tend to have lower education levels and more household members to feed.

The volatility of food prices, especially for rice, meat, vegetables and fruit, constrains the nutritional security of poor households because they are forced to reduce the amount and quality of the food they consume. Given that poorer Indonesian households spend proportionately more on staples such as rice, price volatility could seriously threaten their food and nutrition security. Volatility is caused by domestic and international factors. As happened in 2008, uncertainty in world markets caused a significant increase in the price of rice in Indonesia. The Government tries to prevent price volatility but success is not guaranteed, especially if Indonesia cannot meet its self-sufficiency objectives and has to rely on imports.

Food prices also have a major role in the structural transformation of the economy, particularly the agricultural sector where low rice prices will cause farmers to diversify their crops away from rice and purchase rice on the market instead.

A household's purchasing power also depends on local food prices. The cost of delivering food to remote areas of Indonesia significantly increases local prices and reduces the purchasing power of poor people. In the remote Central Southern Timor (ITS) district in NTT, only 25 percent of the population can afford to buy food according to their nutritional needs, in contrast with 80 percent in Surabaya (Baldi *et al.*, 2013).

2.2.3 Consumption patterns

Household food consumption patterns in Indonesia vary with income and lifestyle. Food consumption is reflected in household expenditure data. Over the last decade, the share of non-food items purchased has increased while the share spent on food decreased. This is in line with Engel's law, which states that as income increases the proportion spent on food decreases. This shift generally reflects an improvement in standards of living.

The composition of food expenditures has also evolved, with a decrease in purchases of cereals and a significant increase in expenditure on processed food, the category on which households spent the most money in 2013 (Figure 13). Expenditure on other food items is also changing, but to a lesser extent than the change from cereals to processed food. Increased spending on processed foods implies that households prefer to purchase externally prepared food rather than allocate time to cooking at home. This phenomenon requires controls by communities and the Government to guarantee food safety. Diets heavily reliant on processed foods also often increase other health risk factors because of their high fat, salt and sugar content and may harm the body's capacity to absorb nutrients. Furthermore, the consumption of processed food is one of the main contributors to overnutrition problems as these foods tend to be energy-dense, and full of refined grains and sugars and fats. This emphasizes once more the role that the food industry has to play to contribute to the improvement of nutrition in Indonesia.

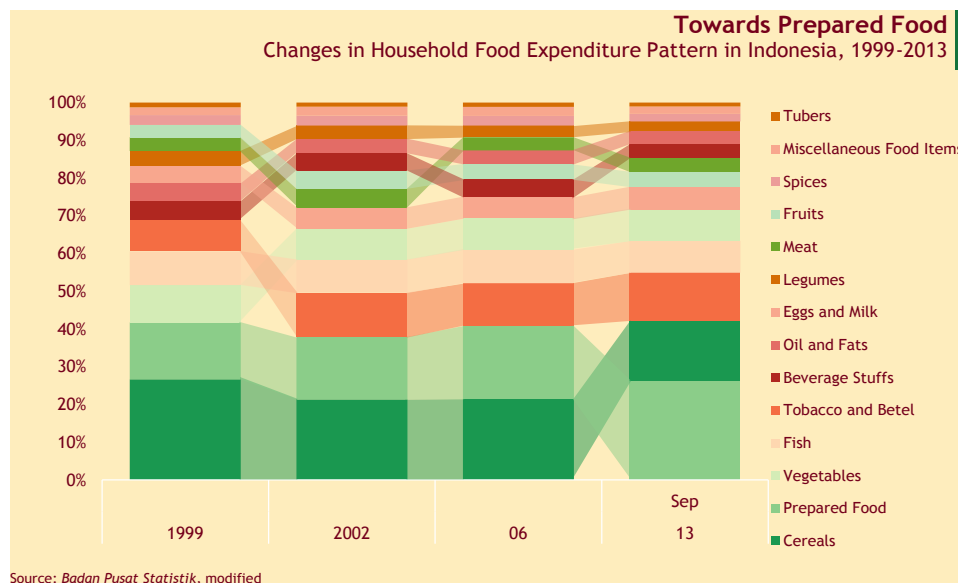


Figure 13. Changes in Household Food Expenditure Patterns in Indonesia, 1999–2013

Increased preference for processed foods may also be related to urbanization and the increase in women's participation in the workforce. In Indonesia, women have a more significant role in the household than men in terms of financial decision-making, particularly with regard to food. Households headed by men and those headed by women do not have the same patterns of food consumption (Figure 14). Differences include the following: i) households headed by men have increased expenditure on fish, oils and fat, tobacco and betel; ii) households headed by women have reduced their spending on vegetables, eggs, milk and fruit.

Quisumbing *et al.* (1995) found that household expenditure patterns vary if men or women control the budget.¹⁶ Women tend to spend a higher proportion of income on food and health-related items for children; men tend to spend most of their income on personal items.

Household food expenditure also varies by income group. The 2012 National Socio-Economic Survey showed that the poorest households spent 29.1 percent of their income on cereals, whereas the richest allocated 37.7 percent of food expenditures – the largest share – to processed foods. Although cereals account for the largest proportion of food expenditure in the poorest households, they were in third place in the richest households after tobacco and betel. The significant proportion of expenditure on tobacco and betel diverts resources from nutritious foods and is associated with an increased risk of illness.

¹⁶Study carried out in Brazil, Guatemala, Kenya, Niger, Rwanda and Taiwan.

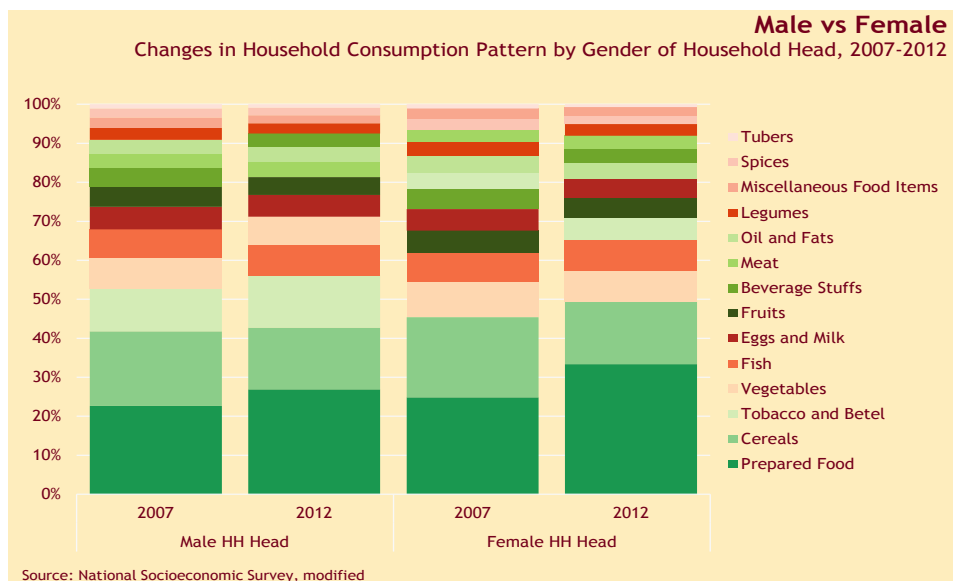


Figure 14. Changes in Household Food Expenditure Patterns by Gender of Household Head, 2007-2012

Food consumption patterns are changing, albeit slowly, as indicated by the dietary diversity score/ *pola pangan harapan* (PPH), which remains below its ideal value of 100.¹⁷ According to the Food Security Agency/ *Badan Ketahanan Pangan* (BKP), the PPH score increased slightly from 75.7 in 2009 to 81.4 in 2013. Previous data also show the domination of cereals in food consumption in households headed by men and by women. Even though the score is increasing, household consumption patterns have not reached the ideal. In view of the importance of nutritional adequacy, the Government should focus more on food diversification.

2.3 Food utilization and health conditions related to nutrition

Malnutrition, and particularly stunting, is a direct consequence of inadequate dietary intake and disease. It is also caused by underlying factors such as household food insecurity, inadequate health services and hygiene and poor care practices, and the general quality of the environment. If people, particularly children and pregnant and lactating women, do not consume foods that meet their nutrition requirements, the likelihood of stunting in children is increased. A balanced diet consists of different food groups in sufficient quantity, hygienically prepared and safe for consumption. Health conditions are also determinants of nutritional status. An individual's overall health depends on the use of health services such as immunization, check-ups and treatments, the quality of living conditions in households and communities, and hygiene and care practices.

Environmental conditions and hygiene and care practices are improving in Indonesia, but not enough to reduce stunting: 33 percent of the population, for example, have no access to safe drinking water, and 34 percent do not have access to a private toilet equipped with a septic tank (Risksdas, 2013). Almost half of the population do not wash their hands adequately. These

¹⁷Ametric developed by the Food Security Agency to assess dietary diversity. Scores range from 0 = no food diversification to 100 = the ideal. Standard weights and measures of the score are: Cereals 275 gr/capita/day; tubers 100 gr/capita/day; animal-based 150 gr/capita/day; oil and fats 20 gr/capita/day; oily seed/fruit 10 gr/capita/day; sugar 30 gr/capita/day; legumes 35 gr/capita/day; fruits and vegetables 150 gr/capita/day

conditions increase the risk of disease, which in turn reduces people's capacity to absorb nutrients; this applies particularly to children.

Care for sick children and their mothers are still inadequate. The 2012 demographic and health survey showed that mothers and children continue to be exposed to risks as reflected in the following facts:

- i) 25 percent of infants with symptoms of upper respiratory tract illness are not taken to health facilities for treatment;
- ii) 35 percent of children under 5 suffering from diarrhoea are not taken to health facilities for treatment;
- iii) 63 percent of children aged 6-23 months are not fed appropriately based on WHO recommendations on infant and young child feeding practices;
- iv) 59 percent of children under 6 months are not exclusively breastfed;
- v) 50 percent of children aged 6-8 months are not given food rich in vitamin A;¹⁸
- vi) 14 percent of children under 3 are not given food rich in iron;¹⁹
- vii) The prevalence of anaemia in women of child bearing age, which can lead to malnutrition in the foetus, is still high: 22.7 percent of non-pregnant women aged 15 and over are anaemic; the figure for pregnant women is 37 percent; and
- viii) Only 23 percent of pregnant women receive iron supplements, of whom 67 percent take them for fewer than 90 days.

2.4 The effect of natural disasters and climate change on food and nutrition security

Natural disasters and climate change affect food security and nutrition, and in Indonesia many provinces with chronic nutritional problems are also vulnerable to disasters. Indonesia is exposed to major risks because it lies on the "ring of fire" at the junction of three tectonic plates (*Badan Penanggulangan Bencana Nasional/ BNPB*, 2014). In addition to recurrent shocks, Indonesia experiences regular floods and droughts that cause human suffering and economic damage. These result in loss of assets and income among vulnerable households, temporary displacements that increase exposure to disease and inadequate food consumption, price increases, production shortfalls and food shortages. Climate change is likely to increase the frequency and intensity of such shocks in Indonesia.

Damage to land is another consequence of natural disasters in Indonesia. Between 2000 and 2014, 1.6 million hectares were degraded as a result of drought, and 1.3 million hectares were damaged by flooding (BNPB, 2014). Land damage disrupts planting, and consequently reduces production. In addition to production shocks, disasters also threaten the livelihoods of farmers and agricultural labourers, who lose assets and income. And when disasters strike, food shortages are likely and food prices tend to increase, reducing people's purchasing power and

¹⁸To minimize morbidity and mortality of children, the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO) recommend that children should be breastfed for at least six months. Solid food should only be given after age 6 months, and breastfeeding should continue well into the second year of life. For further information, see WHO (2005) *Guiding Principles for Feeding Non-Breastfed Children 6-24 Months of Age*

¹⁹Micronutrient, i.e. Vitamin A and Iron, deficiency has serious consequences for childhood morbidity and mortality. Low iron intake among under five (U5) children also contributes to anemia and affects cognitive development.

forcing them to adopt negative coping strategies such as reducing the amount and quality of food consumed.

Provincial vulnerability to disasters is measured by the ratio of the number of villages experiencing more than one disaster to the total number of villages in a province. Provinces with a high ratio that also suffer from food and nutrition insecurity require special attention: these include West Sumatra, NTT, NTB, West Kalimantan, Central Sulawesi, South Sulawesi, Gorontalo and West Sulawesi.

CHAPTER 3. RESPONSE ANALYSIS

Food and nutrition security is a complex matter involving a number of ministries and agencies. This chapter focuses on policies and programmes that directly and indirectly affect food security and nutrition. The first section is a general overview of policies; the subsequent sections consider policies and programmes related to food availability, access to food, food utilization and health-related nutrition. The second section examines the institutional structure for food and nutrition security at the national and local levels. Cross-sector linkages affecting food and nutrition security are presented in Appendix (1); and a list of the programmes discussed is given in Appendix (2).

3.1 Overview of Food and Nutrition Security Policy

The Food Law – Act No. 18 of 2012, replacing Law No. 7 of 1996 – is the Government's main policy instrument for food and nutrition security. It emphasizes that "Food is the most essential human need and its fulfilment is part of human rights guaranteed in the 1945 Constitution of the Republic of Indonesia as a basic component in creating quality human resources". The Food Law regulates food planning, availability, affordability, consumption, nutrition, institutional arrangements and monitoring. It concerns food sovereignty, food self-reliance, food security and food safety. "Food sovereignty" is defined as the right of the state and the nation to determine their own food policies independently, uphold people's right to food and provide for its people the right to determine appropriate food systems using local resources. "Food self-reliance" is the ability of the state and the nation to produce domestically a variety of foods that can supply food needs up to the individual level by utilizing natural, human, social and economic resources and local wisdom with dignity. Based on the designation adopted by the World Food Summit in 2009, food security is defined as the fulfilment of food needs for a whole country down to the individual level through the availability of sufficient food of adequate quality that is safe, diverse, nutritious, equitable and affordable, does not conflict with religion, beliefs or communal culture, and that enables individuals to live healthy, active and productive lives in a sustainable manner. In addition to defining the main principles of food security in Indonesia, the Law also mandates the Government to intervene in the food sector to achieve food self-sufficiency and food security. To accomplish this, the Government manages national food reserves (Article 23), regulates the food trade to stabilize supplies and prices of major foods (Article 51), and maintains price and supply stability of staple foods at the producer and consumer levels (Article 55).

Other laws also regulate aspects of food and nutrition security. Laws governing food production, for example, include: i) Law No. 41 of 2009 on Land for Sustainable Agriculture: this regulates the protection of agricultural land and the extension of crop lands through the conversion of abandoned or non-food land into agricultural land; ii) Law No. 12 of 1992 on Plant Cultivation Systems: this establishes supplying food needs as a major objective of small farmers, but allows farmers to cultivate crops of their choice in contrast to previous practice; and iii) Law No. 45 of 2009 on Fisheries: this sets priorities for fish production for domestic consumption. In the context of disasters, Act No. 24 of 2007 on Disaster Management establishes people's right to receive assistance for basic needs such as food, health, water and sanitation in the event of a disaster. It also states that disaster management should provide protection for vulnerable groups. Food safety is regulated by Law No. 8 of 1999 on Consumer Protection. Act No. 36 of 2009 on Health also governs food and beverage safety, public nutrition, infants' right to breastfeeding, and maternal and adolescent health; it also articulates

the Government's responsibility for ensuring the availability of health services and access to information and education, and the role of healthcare facilities in improving and maintaining the health of the population.

Food and nutrition security policies in Indonesia are also influenced by regional and international commitments and initiatives such as the Millennium Development Goals (MDGs), the Association of South-East Asian Nations (ASEAN) Integrated Food Security Framework, the ASEAN plus Three Emergency Rice Reserve, the Zero Hunger challenge and Scaling-Up Nutrition (SUN). The Government's commitment to the MDGs is evident in its serious effort to achieve them by 2015, with a particular focus on MDG 1 – the elimination of extreme poverty and hunger.

Indonesia supports the five targets of the Zero Hunger Challenge: i) zero stunted children under 2; ii) 100 percent access to adequate food for all people throughout the year; iii) 100 percent sustainable food systems; iv) 100 percent increase in the productivity and incomes of small farmers; and v) zero food wasted. The challenge calls on all stakeholders to increase efforts to eliminate hunger in our life time through the reduction of poverty, increased investment in agriculture and rural development, the creation of dignified employment and the provision of social security. The targets are likely to become part of the Sustainable Development Goals, which will be formally adopted in the post-2015 development agenda.

The Integrated Food Security Framework has four components for cooperation: i) food aid in times of disaster or scarcity; ii) development of a sustainable system of food trade; iii) an integrated food-security system; and iv) development of agricultural innovations. Implementation is supported by the Strategic Plan of Action on Food Security in the ASEAN Region, which is revised every five years.

Indonesia also participates in the SUN movement through Presidential Decree No. 42 of 2013 on the National Movement for the Acceleration of Nutrition Improvement, which governs the improvement of nutrition as a basis for the development of human resources, society, culture and the economy. It supports the World Health Assembly's (WHA) six targets for malnutrition, covering acute and chronic malnutrition, anaemia, low birthweight, exclusive breastfeeding and child overweight.

Policies, strategies and programmes in the field of food and nutrition security in the National Long-Term Development Plan/ *Rencana Pembangunan Jangka Panjang Nasional* (RPJPN) 2005–2025 are translated into RPJMN and national action plans/ *Rencana Aksi Nasional* (RANs), particularly the RAN for food and nutrition (*Rencana Aksi Nasional Pangan dan Gizi*, RAN-PG). This is complemented by the RANs for disaster risk reduction (*Rencana Aksi Nasional Pengurangan Risiko Bencana*, RAN-PRB) and climate change adaptation (*Rencana Aksi Nasional Adaptasi Perubahan Iklim*, RAN-API).

The improvement of food and nutrition security is a priority programme in the RPJPN 2005–2025, which links the achievement of food self-sufficiency to the advancement of human development in Indonesia. The main targets related to food security are as follows:

- a. The achievement of fair and equal development, indicated by food self-reliance. This target will be addressed through the development of: i) the food-security system to ensure food security and food self-reliance; and ii) domestic production capabilities, supported by food-security institutions, to ensure the availability of sufficient quantities of safe, affordable and diverse food of good quality at the household level.

- b. An increase in Indonesia's global competitiveness by enhancing the quality of its human resources. This means that: i) national development and public policy should always consider the public health implications of policies, especially those that are development-oriented; and ii) improvement of nutrition should be implemented in all dimensions—food production, processing, distribution and consumption.

In a country prone to natural hazards such as Indonesia, food and nutrition cannot be separated from disaster management. The targets of the RPJPN include: i) mitigation of the polluting effects of disasters in coastal and marine areas; ii) development of disaster mitigation that takes the geology of Indonesia into account with a view to creating a beautiful and sustainable country; iii) a focus on social welfare in disadvantaged groups and people living in disaster-prone areas; and iv) increased community participation and partnerships among stakeholders in times of disaster and during prevention and post-disaster recovery.

The RPJPN targets are translated into RPJMNs, which detail activities for five-year cycles. The 2010–2014 RPJMN established food security and health as a national development priority. The development of the food sector aims to create the conditions for food self-reliance and adequate nutrition. The objectives are to: i) improve the nutritional status of mothers and children in food-insecure segments of the population; ii) improve poor households' access to food; iii) achieve and maintain self-sufficiency in rice, establishing a surplus of 10 million metric ton, and other major foods; iv) ensure that food prices are affordable for lower middle income households; v) establish terms of trade that promote farmers' prosperity; and vi) increase the competitiveness of Indonesian foods and the comparative advantage of the agricultural sector in regional and global markets.

Revitalization of the agriculture sector to improve food security is to be achieved by:

- a. Implementing regional and national agriculture development plans;
- b. Improving infrastructure through the construction and maintenance of roads, irrigation networks, electricity grids, communication technology and national information systems to improve the quantity and quality of production and marketing;
- c. Improving agricultural research and development to produce better seeds, enhance the quality of agricultural products and increase the productivity of farmers;
- d. Encouraging public and private investments in food, agriculture and rural industries and providing adequate and timely financing schemes, input subsidies, technology improvements and post-harvest facilities at affordable prices;
- e. Enhancing the quality and diversity of diets to improve PPH; and
- f. Adopting measures to anticipate and adapt to the effects of climate change on food and agricultural systems.

In the areas of health related to food security and nutrition, the Government plans to enhance general health through preventive and curative approaches, improved public health and enhanced living conditions. Work to prevent the deterioration of health includes the expansion of clean water supplies, the improvement of housing conditions by eliminating slums and the achievement of all MDGs. To improve public health, the Government plans to increase the availability and quality of health services and medicines, and to promote national health insurance for all poor households. Health development goals include: i) increasing life expectancy; ii) reducing the rate of maternal mortality; iii) reducing the rate of infant mortality; iv) reducing the prevalence of malnutrition among children under 5; and v) reducing the total fertility rate. Target (iv) will focus mainly on reducing the prevalence of underweight among children under 5.

Table 3. Main Development Targets 2010–2014 RPJMN for Health and Food

Area	Objective	
	Baseline (2008)	Target for 2014
Health		
Life expectancy (years)	70.7	72.0
Maternal mortality rate per 100,000 live births	228	118
Infant mortality rate per 1,000 live births	34	24
Prevalence of underweight among children under 5 (%)	18.4	<15.0
Food/agricultural production	% growth per year	
Rice	3.22	
Corn	10.02	
Soybeans	20.05	
Sugar	12.55	
Beef	7.3	

Source: 2010–2014 RPJMN.

Two other areas related to food and nutrition security in the RPJMN are disaster management and poverty alleviation. Development priorities for disaster management and the environment aim to: i) improve the quality of the environment and the management of natural resources in urban and rural areas, and reverse the rate of environmental degradation; and ii) augment capacities to manage climate change, and expand reforestation, afforestation and carbon emissions reduction. To achieve these goals, the Government has the following priorities: i) improve the management of peatlands; ii) increase work to prevent deforestation; iii) minimize forest fires; iv) control environmental damage in the 11 disaster-prone watershed areas; v) ensure that the early-warning systems for weather and climate are functional; and vi) improve disaster-management capacities.

With regard to poverty alleviation, the Government intends to improve income distribution and reduce the proportion of people living below the national poverty line to between 8 percent and 10 percent in 2014, from 14.1 percent in 2009. This will be achieved through social protection programmes based on household support and community empowerment, and the expansion of economic opportunities for low-income households.

The RAN-PG, produced for 2001–2005, 2006–2009 and 2011–2015, is intended to harmonize and coordinate food security and nutrition policies and programmes carried out by various sectors and stakeholders. It guides the implementation of food security and nutrition activities carried out by the Government, provinces, districts and communities. The 2011–2015 plan has five objectives: i) improve nutrition; ii) increase access to food; iii) enhance food safety and quality controls; iv) promote optimum hygiene and healthy lifestyles; and v) enhance food and nutrition institutions.

In line with the RAN-PG, the Government issued Presidential Decree No. 42 of 2013 on the National Movement for the Acceleration of Nutrition Improvement. This is the local version of SUN: it brings together government bodies, civil society, the private sector and communities to raise awareness about malnutrition and to coordinate the improvement of nutrition in Indonesia, particularly during the first 1,000 days – the window of opportunity during which stunting in children can be prevented. The Decree also mandates activities such as national and regional awareness campaigns, advocacy and socialization across sectors and institutions, coordination, training, discussions and the adoption of recommended nutrition-specific and

nutrition-sensitive interventions. The SUN movement has also influenced the writing of the next five year RPJMN (2015–2019), which is expected to be approved by the new President. The reduction of stunting is expected to be more prominent in the next RPJMN.

Disaster-response policies are set out in the disaster risk reduction action plan (RAN PRB) while policies for climate change are stated in the RAN-API. The RAN-PRB for 2010–2012 has three main activities: i) reduction of disaster risk factors through social and economic development, improvement of food security, diversification of livelihoods, production and income sources, construction of social-support networks and improvement of post-disaster recovery; ii) prevention and mitigation of disasters through environmental management with a view to enhancing food security and public health in drought-prone areas in Central Java, East Nusa Tenggara and Yogyakarta; and iii) identification, assessment and monitoring of disaster risks and implementation of early-warning systems with a view to monitoring hazards and food availability on the Information System for Disaster Mitigation website.

The RAN-API focuses on adaptation to climate change through economic resilience, which also enhances food security by: i) reducing food losses; ii) developing new regions for increased food production and aquaculture in areas with low climate risks, while minimizing negative effect on the environment; and iii) developing healthy, nutritious, balanced and diverse food-security systems for farmers, fishers and communities. These objectives will be achieved by: i) adapting farming systems to climate change; ii) researching and applying technology for adaptation to climate stress; and iii) optimizing genetic, land and water resources.

3.2 Food availability policies and programmes

Food security policies and programmes focus on achieving self-sufficiency in strategic foods: those specified in the 2010–2014 RPJMN include paddy rice, corn, soybeans, sugar and beef. On the basis of ongoing discussions, the 2015–2019 RPJMN might add fish to these strategic foods. Food production is to be increased by providing fertilizer, fertilizer subsidies, seeds and seedlings, and loans, and by freeing land for agriculture, improving irrigation networks, promoting public and private investments in agriculture, and adapting to climate change.

The attention to the food sector in annual government work plans increased between 2010 and 2014. In the 2010 work plan, development of the food sector was a multi-sectoral priority; agricultural development was a pillar of economic recovery. From 2011, however, the food sector was a development priority on its own.

Two ministries are largely responsible for food production in Indonesia: the Ministry of Agriculture and the Ministry of Marine Affairs and Fisheries.

In the 2010–2014 strategic plan of the Ministry of Agriculture, enhancement of food security is contingent upon achieving food self-sufficiency through increased domestic food production and reduced dependence on food imports. This objective is challenged by the continuous expansion of demand in line with population growth and increased incomes, and the inability of the supply side to increase production accordingly. To address this challenge, the plan includes the following activities that focus largely on self-sufficiency in the five strategic foods by investing in programmes that:

1. increase production and improve the quality of crops and overall agricultural productivity; targets include: i) achieving sustainable domestic production that covers

- domestic needs; ii) minimizing losses caused by pests and climate change; and iii) minimizing post-harvest losses;
- 2. focus on improving the production, productivity and quality of sustainable crops; and
- 3. aim to achieve self-sufficiency in beef and to increase the supply of safe and healthy animal food for human consumption by: i) increasing the availability of food sourced from animals; ii) increasing the share of domestic livestock in sourcing food from animals; iii) increasing the availability of animal protein from cattle; and iv) increasing the availability of domestic beef.

Under the Ministry of Agriculture, the BKP monitors food security with a focus on availability and accessibility. It maps food security indicators up to the district (*kabupaten*) level, but not in cities (*kota*). The BKP manages other programmes in food insecure areas such as the Food-Resilient Villages Programme (Demapan). But in 2012 these activities had little effects, largely because of their limited coverage: they were implemented in only 143 of 410 districts and cities.

The 2010–2014 strategic plan of the Ministry of Marine Affairs and Fisheries prioritizes the revitalization of fisheries with a view to: i) achieving food self-sufficiency; ii) increasing production; iii) improving the competitiveness and value-added of fisheries through industrialization; iv) developing *minapolitan*²⁰; v) increasing fish consumption per capita; and vi) preserving natural resources and the environment. The ministry plans to increase the value of the fisheries sector by 7.25 percent and the terms of trade of farmers to 115 in 2014.

Three major programmes of the Ministry of Marine Affairs and Fisheries are directly related to food security:

1. developing and managing the sector to increase the productivity of fisheries and fishermen and their welfare in a sustainable way; targets include increasing volume from 5.4 million MT in 2013 to 5.5 million MT in 2014, increasing the value of production and increasing the incomes of fishermen and their terms of trade;
2. improving aquaculture production by increasing the volume from 13 million MT in 2013 to 16.9 million MT in 2014 and increasing productivity and the value and quality of products; and
3. increasing the domestic and international competitiveness of fishery products; this includes: i) increasing the export value of fishery products from USD 5 billion in 2013 to USD 6 billion in 2014; ii) increasing the volume of processed products from 5 million MT to 5.2 million MT; and iii) increasing average national per capita consumption of fish from 35.14 kg to 38 kg.

According to the EIU (2012), food production in Indonesia has been increasing at a stable rate. The food produced and available in Indonesia provides 2,585 kcal/person/day, well above the Food and Agriculture Organization of the United Nations (FAO) minimum requirement of 1,820 kcal/person/day (EIU, 2012). But Indonesia has not been able to meet the production and availability targets set in the RPJMN. The 2013 Bappenas evaluation of the RPJMN showed that only two of the nine targets for improving food availability were achieved – the increases in beef and fish production. The other seven targets – increasing the contribution of agriculture to gross domestic product, increasing production of rice, corn, soybeans and sugar, improving farmers’ terms of trade and repairing irrigation networks – will not be achieved in 2014.

²⁰According to the Regulation of the Minister of Marine Affairs and Fisheries No. 12 of 2010, *minapolitan* is the conception of economic development based on marine and fishery areas based on the principles of integrated, efficiency, quality and acceleration

The mid-term evaluation of the RPJMN showed that Indonesia's food security programmes remain fragile, and that the targets for improving domestic production will not be reached. Using the Food Security Index, the Economist ranks Indonesia sixth in ASEAN, behind Singapore, Malaysia, Thailand, Vietnam and the Philippines, in terms of consumer purchasing power, food availability, import tariffs, agricultural research budgets, corruption and the quality and safety of food.

Despite plans to increase production and the perception of Indonesia as a fertile country, Indonesia in fact imported 29 types of food with a total value of USD 7.2 billion between January and October 2013. The list was dominated by wheat – USD 2 billion, sugar cane – USD 1.42 billion, soybeans – USD 862 million, corn – USD 700 million, and milk - USD 688 million. Other widely consumed foods such as salt, fresh and dried chili, cassava, coffee, tea, coconut, cocoa and pepper were also among the imported products.

Numerous internal and external factors cause the gaps between domestic supply and domestic demand. Internal factors include rapid population growth, land conversion, shortage of farmers and inadequate irrigation networks. External factors include low global prices for certain foods and the competitiveness of some foods from neighbouring countries.

The contrast between the objectives and targets in policy papers and the results achieved to date suggest that programme design and implementation suffer from significant gaps. Agricultural research, for example, even when funded and carried out, has not improved the productivity of farmers and its results are not shared with them, mainly because of dysfunctions in the agricultural extension system. Agricultural extension in Indonesia has been flawed since the 1990s, mainly as a result of frequent institutional changes that result in loss of institutional memory and discontinuity of activities. These defects are exacerbated by decentralization, which relegated agricultural extension to the district and city levels and resulted in weaker planning capacities, smaller budgets and human resource problems. Attempts to improve agricultural production and productivity cannot succeed until these agricultural extension issues are resolved.

Other obstacles to achieving food availability targets include administrative difficulties associated with the expansion of cultivable land, the conversion of land to non-agricultural use, inadequate roads, inadequate fishery and aquaculture infrastructures, low credit absorption, inefficient seed and fertilizer distribution systems and the slow increase in farmers' terms of trade. The EIU (2012) also emphasized that Indonesia allocates only 18 percent of agricultural gross domestic product to research and development, placing it last of the 26 middle-income countries assessed.

Even though the aim is self-sufficiency in strategic foods, the importance of diversifying food production and promoting local agriculture continues to be underestimated. Diversification is mentioned in planning documents, but in practice it tends to be crowded out by self-sufficiency objectives and receives limited resources: only 10 percent of resources are allocated to improving diversified production.

To summarize, Indonesia is unlikely to achieve most of the self-sufficiency targets in the RPJMN by 2014. This is largely a result of structural problems such as inadequate infrastructure and insufficient cultivable land, and practical issues relating to resources and investment in research and development. This should not, however, be seen as a failure so much as an

opportunity to review self-sufficiency objectives holistically to optimize Indonesia's resources and capacities and increase investment in local and diversified food production.

3.3 Policies and programmes focusing on access to food

Access to food is a function of food prices and the consumer's purchasing power. Food prices paid by poor and vulnerable groups are on average higher than the general price index, resulting in the decline of the purchasing power of the poor. Rising inequity in Indonesia means that the upper wealth deciles have increased their expenditure by 4 percent to 7 percent per year, but the lowest decile have increased theirs by only 1 percent (National Team for Accelerating Poverty Reduction [TNP2K], 2014).

As noted above, the Food Law authorizes the Government to intervene in the market to control prices and ensure access to food. The 2011–2015 RAN-PG aims to achieve equitable access to diverse and mainly locally sourced food that fulfils the nutritional needs of all Indonesians, especially the poor and food insecure. The targets include: i) food-resilient villages (Demapan), which also affects the availability of diverse food at the local level; ii) community food stores; iii) production of alternative staple foods and development of agro-industries in rural areas; iv) addressing food insecurity; v) an alert system for food security and nutrition; vi) community food distribution agencies in food-producing areas; vii) monitoring of distribution and prices; and viii) providing information on food distribution, prices and access.

To ensure that food is affordable, the Government's market interventions focus on the five strategic staple foods, particularly the rice sector where the Government intervenes at the production, supply-chain, pricing and trade levels. Other foods are subject to government intervention only in terms of regulating imports and in reaction to price surges.

Food prices in Indonesia are a function of local demand and supply, government interventions and the trade policy. Indonesia's average tariffs on agricultural imports are 8.4 percent, well below the world average of 16.2 percent (EIU, 2012). But Indonesia resorts more frequently to non-tariff trade barriers in the form of import restrictions, complex regulations and administrative requirements. This results in prices that are sometimes higher than world prices, for example for rice, with the objective of creating incentives for farmers to increase domestic production. Nevertheless, most subsistence farmers – an estimated 60 percent to 65 percent – are net consumers of food: they may hence suffer from high food prices, with no guarantees that they will benefit from the higher producer prices.

Given the importance of rice in Indonesia's culture and diet, the Government seeks to stabilize prices and supply through national rice stocks managed by the State Logistics Agency (Bulog). Bulog is the sole agency allowed to import rice to maintain national stocks (see Box III-1); in 2014 it is expected to import 500,000 MT to anticipate a decline in production caused by drought related to El Niño, because it is also responsible for maintaining minimum rice reserves for emergencies. The Government controls the price of domestic rice by regulating imports and setting a farm-gate price (HPP). To increase incentives for domestic rice production, for example, the Government banned rice imports in 2004; this caused rice prices to double between 2003 and 2007, keeping the price of Indonesian rice above world market levels (EIU, 2012).

The Role of Bulog in National Food Security

The Government of Indonesia first set up food governance structures during the colonial administration. Following the establishment of the Council of Food Ingredients and the Executive Agency for Food Affairs in 1960, the Government established Bulog in 1967 in the belief that the stabilization of food prices is a precondition for the general stabilization of the economy.

Bulog was expected to regulate national food supplies and stabilize prices: it was therefore given extensive powers by the New Order government and was placed under the President as an autonomous institution independent of any government departments. It also had access to extra-budgetary funds, controlled many subsidiary agencies and was in charge of increasing food production, maintaining rice stocks and buffer stocks, holding and managing inventory, and controlling the prices of rice, sugar, wheat flour, soybean, feed and other foodstuffs.

As a result of the economic crisis in 1997/98, the signing of a Letter of Intent with the International Monetary Fund and demands for reform, Bulog's privileges and monopoly were abolished. It was transformed in 2003 into a public company with a view to increasing its efficiency, accountability and transparency.

Since then Bulog is responsible for administering the rice market, managing government rice stocks, purchasing and distributing rice and implementing the *Beras untuk Rakyat Miskin* (known as *Raskin*) a subsidized rice programme. But Bulog still has the role of stabilizing food prices, especially rice, as a public service obligation. Various studies have shown, however, that Bulog has limited ability to stabilize food prices at the farm and consumer levels.²¹ Other research shows that many of Bulog's warehouses are inadequate.²²

Questions have been raised on the role of Bulog in enhancing national food security. On the one hand, Bulog was required to stabilize rice prices despite its limited ability, and on the other it was allowed to conduct commercial activities as a company. These two roles could be contradictory in practice and undermine the achievement of food-security objectives.

The Government has several instruments for stabilizing food prices and protecting the interests of farmers and consumers. The most common instruments are trade policy governing import restrictions, tariffs, non-tariff barriers to trade, incentives and disincentives through taxation, production subsidies, guaranteed purchase prices and direct market interventions. The Government issued, for example, temporary partial restrictions or total bans on the import of foods such as beef, onions, garlic, oranges, apples and frozen potatoes in 2012. The prices of various foods rose dramatically when the import bans were imposed: the increases in the prices of beef, chili, garlic and shallots, which only constitute 5 percent of the consumer price index food basket – accounted for 50 percent of the food inflation (World Bank, 2013). These price increases might in theory encourage domestic production in the long-run, but in the short term and medium term they resulted in shortages and reduced purchasing power, including that of poor producers. High food prices could explain aspects of the slowing pace of poverty reduction in the past, given that poor households spend the largest proportion of their income on food. The Government's response was to re-start imports for certain foods to bring down domestic prices.

These policy instruments are standard ways whereby governments safeguard domestic markets. But they do not always deliver their expected outcomes, and the interests of certain groups are privileged to the detriment of others – as with beef import quotas in 2013 – especially when they are neither well targeted nor employed pre-emptively. As a result they do not always reduce volatility in domestic food prices, which continues to be determined largely by demand trends,

²¹See Christophe Gouel (2013) Food price volatility and domestic stabilization policies in developing countries; Eric Dodge and Sinafikeh Gemessa (2012) Food Security and Rice Price Stabilization in Indonesia: Analysis of Policy Responses; Bustanul Arifin (2011) The "Regulation" of Rice Market in Indonesia; C. Peter Timmer (2014) Rice price stabilization in Indonesia: A century-long perspective

²²Internal monitoring and evaluation by *Unit Kerja Presiden Bidang Pengawasan dan Pengendalian Pembangunan* (UKP4). Also see *Identifikasi Anthropoda Hama dan Musuh Alami pada Gudang Perum Bulog dan Gudang Gabah Mitra Kerja di Kabupaten Jember*, Wiranata, Roza Anugraha et al., Brawijaya University (accessed at 23 October 2014).

and which increases dramatically in anticipation of national holidays such as Ramadan; nor do they provide for seasonal trends or disaster needs.

To enhance food accessibility, BKP implements three main programs namely Food-resilient village (Demapan), Community food distribution institution/ *Lembaga Distribusi Pangan Masyarakat* (LDPM), and Community food reserves/ *Lumbung Pangan Masyarakat* (LPM). Demapan ran from 2006 to 2014, covering 3,249 villages in 410 districts in 33 provinces. It targeted villages with a poverty rate above 30 percent and at risk of food insecurity, supporting the procurement of inputs, agricultural trade, access to loans and savings, the manufacture of derivative products and livestock fattening with a view to increasing household incomes and access to food. Communities are expected to take over the project after four years of implementation through the food self-reliance movement (Food Gema).

LDPM was introduced in 2009 in districts producing rice and maize as a continuation of the Institute of rural economy enterprises. It aims to increase farmers' productivity and enhance their role in the supply chain by: i) helping farmers' groups (*gapoktan*) to develop food-distribution businesses and manage food reserves; ii) revitalizing local economies by promoting trade; iii) empowering farmers to add value to their products through training in storage, processing and packaging; and iv) increasing farmers' access to markets. Social assistance under LDPM should enable farmers' groups to maintain reserves to provide access to food during shortages. By 2013, LDPM had empowered 1,340 farmers' groups – 512 in 2009, 204 in 2010, 235 in 2011, 281 in 2012 and 75 in 2013 – in 28 provinces. The number of participating groups depends on the budget allocated in a given year. On average, 90 percent of farmers' groups achieve self-sufficiency after benefiting from the programme for three consecutive years (Ministry of Agriculture, 2013).

The scheme was developed in 2009 in food insecure villages with a view to: i) increasing the volume of community food reserves; ii) improving the management of food reserves; and iii) upgrading the capacity of public institutions to maintain optimal and sustainable food reserves. The duration of support is expected to be three years, but progress has been slow because resources are limited. By 2012, achievements had included: i) the construction of seven storage barns in Papua and two in West Papua; ii) assistance for 613 groups in 31 provinces for the procurement of grains and staple foods for existing community reserves; and iii) enhancement of the business capital of 418 groups managing community food storage barns.

Internal monitoring and evaluation show that these programmes have helped communities to improve their food security and resilience. Some reports, however, emphasize the limited impact of these programmes (SuaraMerdeka, 12 April 2012). In the absence of a comprehensive evaluation of BKP programmes a preliminary assessment could only note their limited coverage, indicating that impact at the national level would inevitably be limited (BKP, 2012). Broader targets such as developing 2,600 community barns and 17 provincial food reserves were set by BKP in 2012, but have not so far been implemented.

3.3.1 Social Protection Programmes to Increase Food Access for the Poor

The Government has developed social assistance schemes to increase access to food for the poor and for food insecure households, in line with the 2011–2015 RAN-PG and to balance the interests of consumers and producers; they include Raskin, unconditional cash transfers – *bantuan langsung tunai* (BLT) or temporary direct cash transfers *bantuan langsung sementara*

masyarakat (BLSM) – and Family Hope Programme conditional cash transfers/ *Program Keluarga Harapan* (PKH). The National Programme for Community Empowerment/ *Program Nasional Pemberdayaan Masyarakat* (PNPM) is also one of the Government’s main tools to reduce poverty and transfer resources to vulnerable communities.

1. Raskin receives the largest budget allocation – Rp21.5 trillion in 2013 and Rp18.8 trillion in 2014– and is the only food-based social-assistance programme in Indonesia. It was launched in July 1998 as a special market operation of the Social Safety Net to reduce the impact of the 1997/98 economic crisis, distributing subsidized rice to prevent vulnerable households from moving back into poverty. In January 2002 the programme changed its name to Raskin and its functions expanded from an emergency safety net to a regular social protection programme intended to improve the food security of poor households and increase their incomes by providing subsidized rice.

Raskin was adjusted several times between 1998 and 2014, primarily in terms of the number of targeted households, the price and quantity of subsidized rice and the frequency of distributions. These adjustments reflect improvements in targeting data, changes in the poverty rate and the market price of rice, and variations in the available budget. But even though the nutritional status of Indonesians has changed and knowledge about the causes and effects of stunting has improved, no changes have been made to the food basket. Raskin still delivers rice only and does not support vulnerable groups such as pregnant and lactating women and young children.

Between 1998 and 2006, the average number of targeted households was 9.1 million per year. These were selected from the pre-prosperous and prosperous family categories in the National Family Planning Board household database.²³ Between 2007 and 2009, an average 17.8 million households per year were targeted, selected on the basis of data from the 2005 Socio-Economic Data Collection (PSE05); these accounted for 47 percent to 83 percent of all households recorded in its database, depending on the available budget. In 2008, BPS updated PSE05 into the Social Protection Data Collection. All the households in the data collection were targeted from 2010 to mid-2012, an average of 17.5 million households per year. In July 2012, the Government introduced the Integrated Database for Social Protection under the guidance of TNP2K. Between 2012 and 2014, Raskin reached 15.5 million households per year, covering 28 percent of all Indonesian households in the lowest income category in theory. Research shows that in practice, given the large inclusion error, many non-poor households were included. This new initiative is intended to improve the coverage and the accuracy of targeting, and particularly to minimize exclusion errors.

Until 2007, Bulog planned and implemented Raskin. From 2007, the Coordinating Ministry for People's Welfare (Kemenkokesra) was designated to coordinate implementation of Raskin; Bulog was assigned a distribution function. Raskin’s central

²³According to the National Board on Family Planning/ *Badan Koordinasi Keluarga Berencana Nasional* (BKKBN), there are 5 stages of family welfare: 1) Pre-prosperous family, defined as a family whose income cannot meet the minimum basic needs, food, clothes, housing, and health; 2) Prosperous level I, defined as a family whose income can meet the minimum basic needs, but cannot meet the sociopsychological needs, such as education, family planning, family interaction, environmental interaction, and transportation; 3) Prosperous level II family, defined as family whose income can meet the basic needs and sociopsychological needs but cannot meet the developmental needs such as investments and information; 4) Prosperous level III family, defined as a family whose income can meet every need but has no money left for social activities; 5) Prosperous level III plus family, defined as a family whose income can meet every need and can give money for people and take part in social activities.

budgetary authority was also changed several times, from the director of Bulog to the deputy for coordination of social protection and public housing under Kemenkokesra; since 2012, the central budget authority has been the Director General of Social Empowerment and Poverty Alleviation in the Ministry of Social Affairs.

In practice, eligible households are entitled to purchase 15 kg of Raskin rice per month at distribution points for Rp 1,600/kg, compared with the market price of Rp 9,000/kg. But these entitlements are not always received by eligible households as a result of implementation constraints such as mis-targeting, ration miscalculation and a reduction in the subsidy reflecting a higher-than-planned purchase price and distribution issues. In fact a significant number of ineligible households end up receiving Raskin. As inclusion errors increase the number of beneficiary households, the ration per household is reduced because the quantity of available rice is fixed. According to *Survei Sosial Ekonomi Nasional* (SUSENAS) 2013 data, 80 percent of households in the lowest expenditure decile buy Raskin – but so do 10 percent of households in the highest expenditure decile. As a result of targeting errors, the average Raskin ration purchased by households is between 30 percent and 60 percent of the planned 15 kg monthly ration. Households also pay a higher price than that fixed by the Government: in 2013, Raskin rice cost an average Rp 2,262/kg instead of the prescribed Rp 1,600. A study by TNP2K and Prisma Journal of Institute for Social Economic Research Education and Information (LP3ES) showed that 54 percent of distribution points do not carry out routine distributions and that another 62 percent sell rice that does not meet quality standards because it is broken, odourless, colourless or infested with lice. Various attempts have been made to correct these defects, for example by introducing the Social Protection Card and redesigning Raskin distribution modalities so that local companies distribute rice to beneficiaries.

2. The PKH, introduced as a pilot in 2007, is intended to reduce poverty, maternal mortality and infant and child mortality, and ensure completion of basic education. This conditional cash transfer programme targets very poor households with children of primary and junior school age, or pregnant women. It is managed nationally by the Directorate of Social Welfare under the Ministry of Social Affairs. Eligible households are entitled to an income transfer of between Rp 600,000 and Rp 2.2 million per year, depending on household characteristics. The three annual allowances are channelled through the post office. Coverage is very limited, though it has increased year by year from 720,000 households in 2010 to 1.12 million in 2011, 1.52 million in 2012, 2.4 million in 2013 and 3.2 million in 2014.

Households must satisfy several conditions to receive PKH benefits. Health-related requirements include four pre-natal visits, iron supplementation for pregnant women, births assisted by a professional health worker, medical examinations, complete immunization and growth monitoring of children under 2 and vitamin-A supplements for children aged 6–59 months. Education-related conditions include mandatory enrolment of children aged 7 to 15 in elementary and junior high schools, and an attendance record above 85 percent of school days.

A SMERU qualitative study in 2010 indicated that PKH contributed to an increase in attendance at health facilities and attendance by midwives. The supply of basic health services required by PKH has increased at health centres (*posyandu*), but human resources and infrastructure were inadequate. It also appears that the conditions were not enforced: in theory, the cash transfer is conditional upon satisfying the conditions, but there is little information on households excluded because they did not do so.

Although PKH is intended to improve health outcomes, it does not target malnutrition. Furthermore, despite increased access to health services, little was done to improve the quality of those services. Therefore, PKH Prestasi was introduced as a pilot to enhance the availability and the quality of health services. It included nutrition education for extension workers in two districts so that they could deliver nutrition awareness and counselling for participating households. More emphasis has also been given to raising awareness by local governments and media on nutrition issues.

3. Direct assistance in the form of unconditional cash transfers to poor households is given on a temporary basis. The cash transfers are usually utilized as a counter measure to price increases, particularly of fuel oil. Between 2004 and 2014, the Government disbursed three rounds of direct cash assistance: BLT from 2005 to 2006 and from 2008 to 2009 and BLSM for four months in 2013, mainly to suppress inflation caused by rising fuel prices. These distributions reached 15.5 million households, 25 percent of those in the lowest income decile. In 2013 targeting was based on the Integrated Database for Social Protection, which is also used for Raskin. Targeted households received Rp 150,000 per month for four months.

Implementation of BLSM was assessed by SMERU in four districts in 2013 and ten in 2014. The results showed that targeting was in general effective in including poor and very poor households, but exclusion errors and a limited number of inclusion errors were evident. Benefits were used by households to meet daily consumption needs; this included food, whose quality usually improved for one or two days after receipt of the transfers, often through purchases of chicken or fish. The cash was also used for expenses related to schooling and health, to pay debts and increase business savings (SMERU, 2013).

4. PNPM is a community block grant programme that has built on the Sub-district development programme (Kecamatan Development Programme, 1998) and the Urban poverty programme (1998) and expanded significantly since 2007 to cover a wide range of development themes (infrastructure, agriculture, health, education, etc.) and geographic areas. PNPM allocates block grant funds to communities based on proposals that are shaped by a facilitated community-based decision-making process. Ultimately, PNPM aspires to reduce poverty among vulnerable communities by generating jobs, providing loans, improving access to markets and supply of clean water, and health and education services. PNPM Generasi is a sub-component of PNPM that was introduced in 2007 and that aims to allocate grants towards the improvement of 12 selected health and education indicators²⁴. In 2012, PNPM Generasi covered only 8 provinces, 290 sub-districts and 2,892 villages in Indonesia.

PNPM is funded by the Government and a multi-donor World Bank PNPM support facility fund. In 2012, the Government of Indonesia contributed USD 44.3m whereas the multi-donor fund invested USD 28.1 million. The programme has succeeded at improving the access of women and children to health services, but its coverage remains limited. Overall, during its execution period PNPM Generasi has enabled 1.6 million women and children to receive nutrition counseling and support, 1 million children under 5 to obtain Vitamin A supplements, 770,000 pregnant women to receive iron

²⁴Indicators include: four prenatal and two postnatal visits for pregnant women; iron supplementation during pregnancy; delivery assisted by a trained professional; complete child immunization; vitamin A for children under 5; school enrollment and attendance; etc.

supplements, and 365,000 children to receive immunizations. It also helped 185,000 underweight children reach a normal weight and provided training and operational support to over 59,000 community health volunteers.

3.4 Policies and programmes to improve food utilization, food quality and safety and health-related nutrition

The 2010–2014 RPJMN targets the improvement of the nutritional value and diversification of household diets. The BKP Accountability Report (*Laporan Akuntabilitas Kinerja Instansi Pemerintah*, Lakip) goals in 2012 were to: i) achieve a minimum energy consumption of 2,000 kcal/person/day, with a minimum of 52 g of protein per person per day; ii) reduce the consumption of rice by 1.5 percent per year, and promote consumption of tubers, animal protein and fruit and vegetables to increase the average PPH from 86.4 in 2010 to 93.3 in 2014; and iii) increase surveillance by communities of fresh food safety.

The BKP introduced the Accelerated Diversification of Food Consumption (P2KP) programme to achieve these targets: P2KP increases food availability at the local level, and makes diverse foods accessible to poor households. It is regulated by the contracts between the Ministry of Agriculture and the President for the period of 2009–2014, and uses local resources to increase the diversity of food consumed by households. The three components are: i) optimal utilization of home gardens as an alternative source of nutritious and balanced foods; ii) promotion development models for local staple foods, mainly through the introduction of processing techniques; and iii) promotion of P2KP activities.

Scheme (i) was to cover 5,000 villages in 497 districts in 33 provinces in 2013; the processing techniques model developed 4,720 small-scale food enterprises in 329 districts in 33 provinces in 2010–2012. In 2013, 100 provincial, district and city governments published regulations to support implementation of P2KP, which was also promoted in the media.

Given its small coverage (11,028 villages in 484 districts/cities in 33 provinces in 2013), P2KP had limited effects in terms of improving PPH²⁵ between 2009 and 2012: the score increased from 75.7 in the first quarter of 2012 to 81.4 in 2013, but it remains well below the 2014 target of 93.3 and the 2015 target of 95. Consumption of animal foods, vegetables and fruits is limited in Indonesia because poor households eat mainly cereals and grains, especially rice. In view of this, Raskin does not contribute to increases in PPH because it promotes consumption of rice in poor households and encourages its consumption in regions where it is not the staple food.

Other initiatives to increase dietary diversity include the “Eat Fish” (Gemarikan) campaign of the Ministry of Marine Affairs and Fisheries, which seeks to develop the fishery sector and increase the consumption of fish by organizing markets and awareness campaigns across Indonesia, and the Forum for Improving Fish Consumption (Forikan). According to Bappenas in 2013, national fish consumption per person increased from 30.48 kg in 2010 to 31.64 kg in 2011, but SUSENAS data do not show a significant change in daily fish consumption per person, which changed from 7.63 g in 2010 to 7.56 in September 2013.

Food safety remains an issue in Indonesia. The institution responsible for monitoring food safety in Indonesia is the Food and Drug Monitoring Agency/ *Badan Pengawas Obat dan Makanan*

²⁵See footnote 12.

(BPOM). BPOM regularly conducts surveillance of food that contains hazardous materials. To support its effort in assuring food safety, BPOM launched 5 main programs in 2014, including: product registration (e-reregistration of traditional medicine and health supplements); food safety information system (Indonesia Rapid Alert System for Food and Feed); food safety reporting and compliance (e-MESO and BPOM's contact center); and development of community participation for food safety (Food Safety to Village Level [*Masuk Desa*], FSMD). Moreover, to ensure the safety of food consumed by children (especially those at school) the BPOM also launched the National Action Plan for Children's School Food Snacks which aims at ensuring that the food consumed by students is safe. However, only 16,990 primary schools out of the targeted 180,000 primary were covered by the programme in 2014 (Kompas, 2014).

As discussed earlier, the 2010–2014 RPJMN aims to reduce national-level underweight to 15 percent and stunting to 32 percent by 2014. To achieve this, the Government adopted several policies and programmes between 2010 and 2014: these included projects promoting an integrated approach to improving maternal and child nutrition, increasing the availability and equitable distribution of treatment, medicines and drugs, and addressing malnutrition through SUN. The main activities under the Directorate of Nutrition of the Ministry of Health are:

1. Infant and young child feeding (IYCF) practices such as increasing exclusive breastfeeding for infants under 6 months by introducing regulations, building the capacities of health personnel and promoting exclusive breastfeeding. Regulation no. 33 of 2012 established the duties and responsibilities of central and local governments in the development of breastfeeding programmes through advocacy, socialization and training of facilitators and counsellors. Coverage increased from 32 percent in 2007 to 42 percent in 2012 (Demographic and health survey, 2012) but it remains well below the 75 percent government target for 2014.
2. Providing treatment for acute malnutrition. The Government's protocols establish that: i) cases of malnutrition accompanied by medical complications such as anorexia, severe anaemia, dehydration, fever and loss of consciousness should be prioritized in hospitals, clinics and therapeutic feeding centres; and ii) cases of malnutrition without complications can be treated with guidance from health workers and volunteers. Indonesian regulations confirm that malnourished individuals should receive ready-to-use food (RUTF), and according to the Ministry of Health data, all 42,702 cases of severe acute malnutrition (SAM) in children under five years old were treated in 2012 (reported through the SMS Gateway system). Nevertheless, the number of cases reported through the Ministry is way below the estimated number of cases of SAM based on Riskesads 2013 data (over one million children), suggesting that most malnutrition cases remain unreported, and undetected or untreated. By December 2012 the Government had trained 5,876 health workers and 98 facilitators in the management of child malnutrition and had established 170 therapeutic feeding centres in 28 provinces and 109 community feeding centres in West Java, East Java, West Kalimantan and Southeast Sulawesi.
3. Vitamin A supplementation. This provides a high-dose vitamin A capsule every February and August for children aged 6 to 59 months and nutrition counselling on the benefits of consuming vitamin A-rich fortified palm oil developed in cooperation with the private sector. Only 61 percent of children aged 6 to 59 months received vitamin A supplements in 2012 (IDHS 2012), well below the 2012 target of 80 percent.
4. Controlling iodine deficiency disorder (IDD), especially in areas where it is endemic. The consumption of iodized salt is regulated nationally and locally: monitoring results show that

77.1 percent of households consumed salt with sufficient iodine in 2013 (Risksedas, 2013)—well below the universal salt iodization target of 90 percent. Another 14.8 percent have consumed salt without sufficient iodine content and 8.1 percent consumed salt without any iodine. The province with the lowest consumption of iodised salt was Aceh (45.7 percent).

5. Treating iron deficiency anaemia (IDA) in pregnant women and infants. The prevention and control of IDA in pregnant women has been addressed since 1975 through the distribution of iron and folic acid (IFA) supplements during pregnancy. However, in 2012, only 33 percent of pregnant women took iron tablets or syrup for the recommended duration of 90 days or more (IDHS 2012), well below the recommended targets. Improvements in coordination and implementation of this activity, especially focusing on improving the low compliance, are still needed to ensure full coverage of iron supplementation as it is a standard component of antenatal care. IDA is the most common micronutrient disorder among children and adults. The consequence of IDA are devastating: inhibited growth, impaired cognitive development, poor mental and motor performance, reduced work capacity, and an overall decreased quality of life (Macdougall et al., 1975; Newhouse et al., 1989; Preziosi et al., 1997; Soewondo et al., 1989; Walter et al., 1989; Zhu & Haas, 1997).²⁶ Several studies have found that iron supplementation reduces impaired growth among children (Soewondo et al., 1989).

Additionally, to address the problem of micronutrient deficiencies and anaemia in young children, the Government provides micronutrient powder called Taburia for children between 6 and 59 months old, with priority for those 6-23 months old. A study (Jahari and Prihatini, 2009) on the impact of Taburia supplementation on hemoglobin concentration among children under 5 from poor households in North Jakarta has found that Taburia effectively increases the children's hemoglobin. It found that the average hemoglobin levels of the children increased from 10.5 mg/dl to 12.0 mg/dl. Moreover, the proportion of anaemia (Hb < 11 mg/dl) decreased significantly from 62.3% (baseline) to 24.7% (endline evaluation).²⁷

Taburia supplementation does not cover all of Indonesia, but is expanding. In 2010 it was implemented in 6 districts in 3 provinces (South Sumatra, South Sulawesi and NTB). In 2011 the implementation expanded to 24 districts in 6 provinces (North Sumatra, South Sumatra, West Kalimantan, South Sulawesi, NTT and NTB).

6. Improving mother and child health. There are 18 activities, which usually aim to improve the health and nutrition of pregnant and lactating women and their children, and enhance pre-natal and post-natal care and the monitoring of children's growth. One of the most comprehensive is the Planning and Childbirth Complications Prevention Programme, which includes pregnancy monitoring, emergency obstetric care and neonatal care; it is associated with other activities for improving delivery conditions. Around 83 percent of births in the past five years were delivered by professional birth attendants, below the target of 89 percent. But there are major disparities among regions. Only 74.6 percent of women in rural areas were assisted by a professional during delivery, compared to 91.8 percent of women in urban

²⁶Taken from Christopher V. Charles (2012) 'Iron Deficiencies Anemia: A public Health Problem in Global Proportions, Public Health – Methodology, Environmental and System Issues, Prof. Jay Maddock (Ed.) [<http://cdn.intechopen.com/pdfs-wm/37291.pdf>] <11 November 2014>

²⁷Abas Basuni Jahari dan Sri Prihatini (2009) 'Efek Program Pemberian Taburia Terhadap Kadar Hemoglobin Balita pada Keluarga Miskin di Jakarta Utara,' Puslitbang Gizi dan Makanan, Kementerian Kesehatan Republik Indonesia.

areas. The proportion of women receiving assistance during delivery among the lowest wealth quintile is only 57.5 percent compared to 96.6 percent among the highest wealth quintile. Neonatal first visits are an essential activity intended to minimize infant mortality by checking conditions 48 hours after delivery, for example by providing counselling, promoting exclusive breastfeeding and administering vitamin K1 injections and immunization against hepatitis B. As with births, 80.1% of women conducted neonatal first visits but wide disparities persist between rural and urban areas and poor and wealthy populations

At the community level, the Ministry of Health developed the Nutrition-Conscious Household Activity (Kadarzi) under the Alert Village programme in 2007. Kadarzi aims to improve the household nutrition, feeding and supplementation practices and increase the consumption of diverse and fortified foods.

In line with Indonesia's participation in SUN, the National Movement for the Acceleration of Nutrition Improvement gathered stakeholders to plan and coordinate measures to improve nutrition, with particular attention to the first 1,000 days of life. The movement in Indonesia has adopted the global nutrition targets of the World Health Assembly (WHA), namely child stunting, wasting, and overweight, and maternal anemia, low birth weight, and exclusive breastfeeding. Goals to be achieved by 2025 are to: i) reduce the proportion of stunted children under 5 by 40 percent; ii) reduce the proportion of wasting among children under 5 to less than 5 percent; iii) reduce low birth weight by 30 percent; iv) prevent increases in the proportion of overweight children; v) reduce the proportion of women of childbearing age suffering from anaemia by 50 percent; and vi) increase the percentage of children under 6 months who are exclusively breastfed.

Although many individual programme targets have been achieved, the nutritional status of children in Indonesia appears to be stable or deteriorating, as is the case for stunting prevalence, which has increased. The Background Study on Nutrition of the Health Sector Review for the RPJMN (2014) found that existing nutrition-specific interventions were not reducing the prevalence of malnutrition because of their limited scope and quality. Of the ten nutrition-specific interventions recommended by the Lancet nutrition series in 2013, eight were either not included in the RAN-PG, were only partially implemented or were of unknown status. Nutrition interventions that were not implemented included the provision of multiple micronutrient supplements for pregnant women, calcium supplements for mothers at risk of low intake, balanced energy supplements for mothers, preventive zinc supplements for children aged 12 - 59 months and treating moderate acute malnutrition. Interventions that were partially implemented were complementary feeding education for food-secure populations, food supplements for food-insecure populations and management of severe acute malnutrition. Completed interventions were provision of iodized salt, promotion of exclusive breastfeeding for infants under 6 months, breastfeeding to children under 2, and provision of Vitamin A supplements for children under 2.

The Government also implements supplementary feeding for school children (PMT AS) through school meals. The activity was introduced in 1997, but the Government stopped funding it in 2000. In 2010–2011, the Government revived PMT AS with a focus on locally sourced food; in 2010 PMT AS reached 1.2 million pre-school and elementary school children under the Ministry of Education and Culture and 180,000 students of Islamic pre-school (Raudhatul Athfal) and Islamic Primary School (Madrasah Ibtidaiyah) under the Ministry of Religious Affairs; the budget was Rp 300 billion (USD 34 million), covering 27 districts in 27 provinces. But funding was suspended, and local governments were left to seek their own financing. An evaluation of PMT-AS identified three main operational issues which led to poor

programme outcomes: 1) funds arrived too late in the school year; 2) schools were given insufficient guidelines, training and support; 3) there was no effective monitoring of the programme to identify and escalate potential issues and trouble-shoot.²⁸

In some areas, PMT AS is carried out in cooperation with non-governmental, international or private-sector partners: in NTT and Papua, for example, WFP works with the Government to provide local food-based school meals.

As shown in this section, various plans and protocols are in place, but Grant (2014) noted that lack of commitment and limited planning, implementation, monitoring and evaluation capacity, especially at the provincial and district levels, significantly reduce their effectiveness. When services are delivered they are often of unequal quality, especially in nutrition, for which there is a lack of trained nutritionists. The 2013 Indonesian Nutrition Capacity Assessment indicated that there were not enough nutritionists at health centres, and when there were their training was often have outdated or inadequate.

3.5 Institutional arrangements for food and nutrition security

Food and nutrition security in Indonesia is currently handled by the Food Security Council/*Dewan Ketahanan Pangan* (DKP) established by the Presidential Decree no.83 of 2006. The DKP, which is chaired by the President, advises on the formulation of policies governing the supply and distribution of food, the development of food reserves, food diversification and the control of food quality. It is also in charge of monitoring and evaluating food security improvements and coordinating stakeholders at the national, provincial and district levels.

Day-to-day operational management of DKP is the responsibility of the Ministry of Agriculture assisted by a secretariat supplied by BKP, which is itself a unit of the Ministry of Agriculture. BKP organizes daily operations such as carrying out assessments and developing, monitoring and overseeing food security policies and programmes. The DKP should be replicated at the regional level, but this is not the case in all provinces; where they do exist local BKPs carry out the work of the central BKP, otherwise they are replaced by other agencies with similar functions.

The BKP is also a full member of the central DKP; the other members are the Minister of Interior Affairs, Minister of Finance, Minister of Industry, Minister of Trade, Minister of Forestry, Minister of Maritime Affairs and Fisheries, Minister of Transport, Minister of Public Works, Minister of Health, Minister of Social Affairs, Minister of Education, Minister of Cooperatives and Small Medium Enterprises, Minister of Research and Technology, Minister of State for National Development Planning/Head of National Development Planning Agency, Minister for State-Owned Enterprises, Minister of Manpower and Transmigration, Head of the Central Bureau of Statistics and the Head of the Food and Drug Supervision Department. The chairman of the DKP established working groups of experts, community organizations and relevant businesses: the three current groups are an experts group, a technical group and the special working group on the empowerment of community food security. The DKP organizational chart is shown below.

²⁸Evaluation of the supplemental food for school children program, Education sector analytical and capacity development partnership (ACDP), Ministry of Education and Culture, 2013

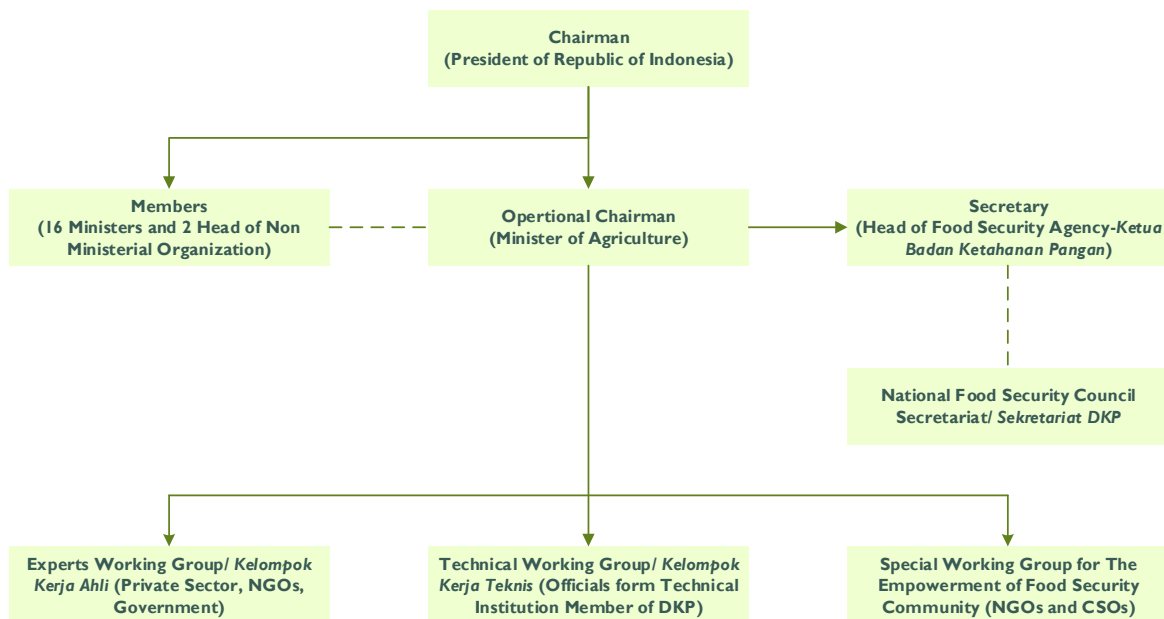


Figure 15. Structure of the National Food Security Council

In view of its structure, DKP has a central role in food and nutrition security in Indonesia: it is chaired by the President at the central level, and by governors or heads of districts at the local level. Provinces and districts are responsible for reporting on the development of their foodsecurity activities. Coordination at the district level is ensured by local working groups of agencies and departments established by DKP chairpersons.

The 2011–2015 RAN-PG highlighted the importance of enhancing food and nutrition security institutions for effective and efficient response and of training local governments to develop their own food and nutrition action plans. The Government has also established obligatory minimum service standards for food security at the province and district levels. Basic services involve ensuring that food is available with sufficient reserves, that it is distributed to households, that it is accessible, that it is safe and diverse and that food insecurity is addressed. But because the implementing agency is responsible for its own compliance with the minimum service standards, the extent to which they improved the quality of local services in the food-security sector is uncertain.

The Food and Nutrition Surveillance System/ *Sistem Kewaspadaan Pangan dan Gizi* (SKPG) is implemented at the national, provincial, and district levels by a cross-sectoral working group coordinated by BKP or other agencies. An evaluation workshop in November 2013 highlighted that the main issue limiting the effectiveness of the Food and Nutrition Security is cross-sectoral data which requires strong stakeholder coordination. Additional issues that were highlighted include: government support is not consistent across all districts and is usually contingent on the head of district’s preference; inefficient governance due to frequent staff rotation; insufficient funds; limited training opportunities to improve staff capacity; delay in data transmission as well as the absence of a central data warehouse and the inefficiencies of paper-based data collection system in a vast country.

Various limitations reduce the effectiveness of institutions in managing food insecurity in Indonesia. The DKP is expected to only convene twice a year and thus has limited capacity to ensure regular cross-sector coordination, especially when it is not chaired by the declared chairman as is often the case. Its mandate has focused on food production with limited interest

in nutrition and food access issues. Parallel institutional arrangements also exist, but are not always in harmony: Presidential Decree no. 42 of 2013 on the National Movement to Accelerate Nutrition Improvement, for example, appointed the Coordinating Minister for People's Welfare to the chair of the movement. The food-security institution mandated by the Food Law to answer directly to the President by 2015 is yet to materialize.

CHAPTER 4. GAPS IN THE FOOD SECURITY AND NUTRITION RESPONSE

The Government undertook to reduce food insecurity and malnutrition in its 2005–2025 RPJPN, supported by various measures such as the Food Law, national regulations and participation in SUN. These commitments were not always implemented, however, through policies and programmes. The Government formulated the Roadmap to Accelerate the Achievement of the MDGs, for example, and issued Presidential Instruction 3/2010 to ensure that the MDGs were implemented at the local level through regional action plans. More recent initiatives such as the Zero Hunger Challenge (ZHC) are yet to be adopted and translated into policies and programmes. Despite the various commitments and regulations, food and nutrition security targets were not achieved, and challenges persist. The gaps include weak alignment of policy and programme design with strategic vision, absence of gender analysis; weak synergies among policies and programs; limited programme coverage, lack of nutrition sensitivity in programmes, lack of qualified personnel, poor monitoring and evaluation mechanisms, weak institutions and governance and insufficient focus on behaviour change and education.

This chapter focuses on analysing the main gaps – for example those between central policies and programmes and implementation at the local level – that impede the achievement of food security and nutrition in Indonesia.

4.1 Policy and programme design gaps

The range of policies and programmes at the central level do not amount to a comprehensive policy on food and nutrition insecurity. National food security policies tend to focus on food availability and are strongly associated with the agricultural sector, with weak references to utilization and health; the nutrition policy, on the other hand, concentrates on health, without clear reference to the role of food availability and accessibility. These weak synergies at the national level often impede coordination at the operational level.

Current action plans and initiatives include the National Food and Nutrition Action Plan (RAN-PG), provincial food and nutrition action plans (RAD-PG), the National Movement for the Acceleration of Nutrition Improvement (*Kebijakan umum Ketahanan Pangan*) and the White Book of Development and Application of Science and Technology for the Food-Security Sector (2005–2025). These plans are not integrated with each other, however, and sometimes overlap. They are not well positioned in the national development planning system in Law 25 of 2004, and they have neither budgets nor a resource allocation strategy, so implementation at the local level is uneven. They can be compared to “wish lists”, which often remain unimplemented. In terms of content they suffer from defects such as advocacy for the adoption of policies and programmes that are already in place.

Programme implementation suffers from similar problems, especially with regard to coordination and monitoring and evaluation. Implementation of the RAN PG, for example, requires full coordination across ministries and agencies, but to be successful this needs a coordination team whose composition and mandate are enshrined in law. In this particular case, however, coordination is based on Bappenas regulation Kep.8/M.PPN/HK/2012, which does not provide for powers to ensure inter-ministerial and inter-agency coordination. At the regional and local levels, implementation of RAD-PG depends on the personal commitment of local leaders: this is reflected by the fact that only 10 percent of districts had developed RAD-PGs,

and the rest are still without multi-sector plans to address food insecurity and malnutrition (Background Study on Nutrition, 2014). And more often than not these plans do not assign timelines, responsibilities and budgets.

In regard to policy and programme design, their potential to be nutrition-sensitive and therefore to contribute to nutrition outcomes is often insufficiently exploited. Social protection programmes such as Raskin, PKH and BLSM transfer resources to vulnerable households and could improve their access to food and social services. But they improve household consumption only marginally and are not designed to improve nutritional status. Raskin, which reaches 15.5 million poor households, could be an excellent platform for improving nutrition outcomes if it were to be redesigned with this objective in mind. The PKH has improved nutrition outcomes, but despite its rapid scale-up it does not reach enough households. PKH also could be adjusted to incorporate nutrition and dietary diversity objectives more explicitly. The BLSM was implemented ad hoc and the poor were unable to count on it; and there is little evidence that the transfer is actually spent on improving diets or that it improves health and education outcomes. The size of the transfer may be too small, and it may discourage beneficiaries from seeking additional income (Bazzi, Sumarto and Suryahadi, 2013).

The main nutrition interventions implemented by the Government to improve the health of individuals and their nutrient intake include: i) programmes to reduce iron and folic acid deficiencies and chronic energy deficiencies; ii) the protection of pregnant women against malaria; iii) the promotion of exclusive breastfeeding; iv) the promotion of adequate complementary feeding for children; v) clean water and sanitation; vi) family planning; and vii) the treatment of acute malnutrition.

But implementation of these programmes was not always successful, and their effectiveness was often questioned. Some were poorly implemented as a result of inefficiencies in the distribution systems, inaccurate beneficiary data and weak implementation capacity. The programmes were often implemented without coordinating them with projects to improve water and sanitation facilities or to promote access to health services, availability and affordability of complementary foods at the local level or nutrition and health education and awareness. Before the launch of the National Movement to Accelerate Nutrition Improvement, programmes did not target stunting directly but focused on reducing the prevalence of underweight. Weight for height was not routinely measured, many health clinics (*posyandu*) had no height measures and staffs were not trained to measure height. In line with the Government's intentions, the focus is now on stunting in policy documents such as RAN-PG and RPJMN 2015–2019. Implementation is still at an early stage, however.

With regard to quality control and food safety, large-scale programmes are lacking. Even though the BPOM has a surveillance system that includes the local level, it is not activated; and it covers a limited area and only a small selection of foods.

A disconnect between strategic vision and implemented programs is also reflected in the limited scope and scale of programs on behavior change and education, and the absence of gender analysis. Work on socialization is limited and do not utilize education channels. Gender issues and women's empowerment are often neglected, though there is evidence that stunting and malnutrition are closely linked with women's health and household roles, especially childcare and feeding. The quality of care provided by mothers and other household members depends on cultural factors, household gender dynamics, caregivers' levels of education and knowledge, household welfare and socio-economic conditions. Little has been done to improve the quality of care in households, in spite of these conditions. As noted earlier, increased participation by

women in the labour force means that caregiving is likely to be shared among household members, who must be prepared to take it on.

This is an area where the Government can lead, and there should be a substantial role for the private sector. Currently, however, the Government has not yet called on the private sector to support it in its goal of improving dietary diversity and healthy behaviour. As a subscriber to the Scaling-Up Nutrition movement (SUN), Indonesia could create a SUN business network as a platform to discuss, plan and monitor private sector contributions to addressing malnutrition. As demonstrated in this report, malnutrition in Indonesia is spread across the income spectrum and the solution should therefore assign an important role to markets to improve the nutrition status of the population. The private sector has potential to both support the development, the availability and the affordability of nutritious food products and refrain from distributing and promoting unhealthy food.

In addition to these challenges, many programmes suffer from three major shortcomings: bureaucratic rigidity, a one-size-fits-all approach and minimal investment in capacity building and knowledge-transfer. Bureaucratic rigidity is reflected in budget regulations: agricultural policy planning and the associated budget, for example, are not aligned with the agriculture calendar, which means that inputs and services are often provided when farmers no longer need them. Procurement regulations are another bureaucratic challenge. While some programs such as PNPM and Demapan involve the community and can be tailored to local needs, others such as Raskin adopt a one-size-fits-all approach that often ignore community needs, which reduce effectiveness. And the design of programmes emphasizes corrective measures and physical interventions, with limited investment in knowledge-transfer, capacity-building, awareness campaigns or behaviour change communication: this significantly limits the effects of food and nutrition security programmes, which rely extensively on behaviour change.

4.1.1 Weak Synergies Among Policies and Programs

The proliferation of policies and plans does not guarantee the elimination of food and nutrition insecurity. On the contrary, weak synergies and discord among the policies and plans obstruct implementation. Food self-sufficiency policies, for example, focus on increasing the production of staple foods but are not harmonized with food diversification programmes that seek to enhance local production of alternative foods. This results in competition for limited resources. Food self-sufficiency policies aim to achieve production targets, but diversification policy is intended to improve the PPH. The two targets are not intrinsically contradictory, but they could be achieved together if the policies were harmonized.

In addition, food diversification programmes are not adequately socialized. Campaigns to promote the consumption of alternative foods often do not sufficiently highlight the appeal of the products, nutrition benefits, ease of access or affordability.

Work on improving food self-sufficiency is not integrated with policies and programmes on land and area planning. In some cases area planning encouraged land conversions, contradicting the agrarian land policy and the development of sustainable agriculture. Plans to increase food production were not supported by measures to improve land ownership, certification of farmers' land or the mapping of agricultural land. The plans were not backed by adequate infrastructure or incentives to stimulate the production system. Other issues also hamper food self-sufficiency targets: these include insufficient investment in the development of premium seeds, resulting in seed imports, limited use by farmers of fertilizers and seeds as a result of faults in the distribution chain, and a weak irrigation network of which 50 percent is damaged.

Irrigation is the responsibility of districts, but this does not mean that the Government should not help to improve it.

Concerning food availability, efforts to improve food self-sufficiency are not integrated with the policies and programs on land and spatial planning. In some cases, spatial planning encouraged land conversions, thus contradicting the land policy (agrarian reform) and the development of sustainable agriculture. Plans to increase food production were not supported by clear measures to improve land ownership, the certification of land owned by farmers and the mapping of agricultural land. These plans were also not always backed by the development of the necessary infrastructure and incentives to stimulate the production system. Other issues also hamper food self-sufficiency targets, including insufficient investment in the development of premium seeds resulting in seeds imports, limited use of fertilizers and seeds by farmers due to leakages in the distribution chain, and the weak state of the irrigation network (50% of the network is damaged). Although irrigation is under the authority of the district/city, the central government could also engage in improving it.

With regard to food accessibility, the Government's price stabilization policies such as HPP and *Harga Eceran Tertinggi* (price ceiling policy) have not prevented price volatility. These two policies do not control price increases resulting from supply and demand mechanisms. A BKP analysis found that between end of 2006 and early 2007, the market price of rice was 40 percent higher than the HPP price. More often than not the Government is reactive rather than proactive, correcting price increases only when they occur. Reducing prices once they have increased is more difficult than preventing excessive volatility. When conditions return to normal, vulnerable people perceive their purchasing power as considerably reduced. Despite the array of food price stabilization instruments, preventive measures such as monitoring have not detected exceptional trends in food prices, and there has been no improvement of the production and supply chain for foods prone to price volatility such as soy, chili, onion and garlic. In May 2013, the Government released a regulation to stabilize the price of soybeans— Ministry of Trade Regulation 23/2013 – which regulated the supply chain and procurement at the farm level. But it could only control domestically production, whereas most of the soybeans consumed in Indonesia are imported.

4.2 Implementation Gaps

The programmes face several implementation problems: budget constraints, limited coverage, insufficient and often untrained personnel, beneficiary targeting errors, inadequate monitoring and evaluation (M&E) and limited socialization. Budgets for food and nutrition security are held in the Ministry of Agriculture, the Ministry of Social Affairs, the Ministry of Health and the National Disaster Management Agency. Between 2010 and 2013 the estimated budget accounted for only 1.75 percent of the total state budget. In view of the limited resources, most national programmes are limited in coverage and are still in the pilot phase. Even programmes conducted by BKP to improve food security do not have wide coverage.

In terms of capacity, the small number of dedicated staff, their training and education levels, and their public communication skills constitute barrier to achieving programme targets. There is limited knowledge about food security and malnutrition issues, especially stunting, among government officials, extension workers and the general public. At the village level there are few incentives to support the performance of staff in *posyandu* and the Pembinaan Kesejahteraan Keluarga: even though they are the front line of programme implementation they are regarded merely as volunteers and their payments vary from one village to another.

Inclusion and exclusion errors in beneficiary targeting are also common. Only poor households in the *Pendataan Program Perlindungan Sosial* database are eligible for Raskin benefits, for example, but in practice ineligible non-poor households also receive the rice, and the Government has done little to address this. This means that poor households receive less than their entitlement, because a fixed quantity of rice has to be shared among more households.

All the programmes have embedded monitoring and evaluation (M&E) systems, but they focus on administrative reporting and rarely cover programme performance and impact evaluation. The M&E systems are rarely used to improve programme implementation, either by design or in practice. It is not surprising that M&E is usually received insufficient resources. In addition, because M&E is carried out internally and not by independent parties, the objectivity might be compromised.

Communication on food security and nutrition programmes, including that carried out by non-governmental partners and communities, is weak at the central, regional and local levels. Government officials often lack knowledge about food security and malnutrition, and often limit it to food availability and rice production. Communities and individual beneficiaries of government programmes do not usually receive sufficient information about food and nutrition security, and awareness campaigns and training do not materially change their behaviour. Hitherto the various information media have not been fully exploited to convey food and nutrition security messages.

4.3 Institutional Gaps

Indonesia's plans to end food insecurity and malnutrition are laudable, but they require strong leadership and clear distribution of roles and responsibilities. These enabling conditions have not yet materialized. Current arrangements include the DKP chaired by the President at the national level, governors at the provincial level and mayors at the district level. If it were to function properly and meet regularly it could ensure coordination at the executive level, but it does not guarantee cross-sector coordination – and that is a prerequisite for the success of any food and nutrition security intervention. A divide exists between DKP representatives and the units responsible for planning and implementing food security and nutrition activities. The DKP executive director, for example, is the Minister of Agriculture: this raises questions about its capacity to mobilize other ministries and facilitate cooperation across sectors. Similarly, BKP has a coordinating role: but given that it reports to the Ministry of Agriculture its success as a coordinator enabling equal representation of all interests is questionable.

In the context of decentralization, national-level arrangements have a limited role in promoting food and nutrition security. Local institutions could adapt programmes and policies to their needs to improve their impact, because the present structures do not always support food and nutrition security. First, involving local institutions depends largely on the leaders' personal commitment to food and nutrition security so the situation is different in different districts. Second, many districts have no local BKP or other government institution with BKP functions. Third, some districts assign BKP functions to departments and units below the *dinas* (*office at district/subdistrict/city level*) level and hence limit their capacity to carry out their functions. Finally, financial and human resources constraints hamper coordination among local agencies. Fewer than 10 percent of districts have so far developed their own RAD-PG; and provincial and national level RAD-PG lack budgets, timelines and allocations of responsibilities. Insufficient

trained staff, which rotate too often, and inadequate financial resources often mean that local-level food and nutrition security plans are not implemented as intended in central planning.

Table 4. Recapitulation of Food and Nutrition Security Units at the Provincial and District Levels

No.	Unit	Provinces	Districts
1	<i>Badan Ketahanan Pangan (BKP)</i>	21	39
2	<i>Badan Ketahanan Pangan dan Unit Kerja Lain (Agency for Food Security and Other Affairs)</i>	7	79
3	<i>Badan Unit Kerja Lain dan Ketahanan Pangan (Agency for Other Affairs and Food Security)</i>	2	70
4	<i>Dinas Unit Kerja Lain dan Ketahanan Pangan (Dinas for Other Affairs and Food Security)</i>	2	12
5	<i>Sub Dinas Ketahanan Pangan (Food Security Sub-Dinas)</i>		7
6	<i>Bagian/Bidang (Division)</i>	1	59
7	<i>Kantor Ketahanan Pangan (Food Security Office)</i>		96
8	<i>Kantor Ketahanan Pangan dan Unit Kerja Lain (Office for Food Security and Other Affairs)</i>		17
9	<i>Kantor Unit Kerja Lain dan Ketahanan Pangan (Office for Other Affairs and Food Security)</i>		15
10	<i>Seksi/Sub Bagian/UPTD Ketahanan Pangan (Section/Subdivision/Local or Technical Implementation Unit)</i>		12
Total		33	407

Source: Ministry of Agriculture (2012).

To guide the work of these institutions and ensure the success of food security and nutrition programmes, the Government has set minimum service standards for the food security sector in Regulation of the Minister of Agriculture 65/Permentan/OT.140/12/2010 and for the health sector in Ministry of Health Decree No.1457/Menkes/SK/X/2003, with implementation guidelines for public nutrition. The minimum service standards guide local governments by clarifying the level of service to be provided for citizens and setting out the requirements for planning, budgeting, implementation, reporting and accountability. Since 2011, minimum service standards have been adopted by 13 ministries and agencies, but implementation is not monitored and there is no accountability. According to the Regulation of the Minister of Interior Affairs 79/2007 on Guidelines for Planning the Achievement of Minimum Service Standards, local governments must monitor and evaluate activities to ensure that they are applied, but M&E is difficult to carry out in the absence of reporting templates and information management systems (Ministry of Home Affairs, 2011).

These institutional arrangements do not include clear mechanisms to enforce accountability. Many successful programmes are recognized and rewarded, for example by the Adhikarya Pangan Nusantara or the Indonesian MDG Awards. Even so, there are no systematic accounts of programmes that do not achieve their targets or adopt measures to remedy failures.

The Government is developing the SKPG to collect and disseminate food insecurity and malnutrition indicators at all levels, but it is not implemented in all regions and is poorly coordinated because working group members come from various sectors, and suffers from sector bias and bureaucratic rigidity. An assessment by SMERU in three districts in West Java and South Kalimantan found that socialization of food security programmes and SKPG had

been incorrectly conducted: it was evident that village authorities had not heard of SKPG and did not understand food security and nutrition issues. Local officials appeared to have no standard understanding of food insecurity and its characteristics; they did not respond uniformly with regard to detecting and addressing food insecurity and malnutrition. The responses of local governments to incidents and complaints were constrained by rigid bureaucracy that caused long delays between the time incidents were recorded and actual response.²⁹

To sum up, Indonesia has developed many of the policies needed to address food and nutrition insecurity, stunting in particular, but they have not resulted in the allocation of adequate resources to properly designed programmes that address the causes. Programmes often predate policy, and have not been adjusted in accordance with developments. There is a significant gap between policy and action. And even if policies are up to date, in the decentralized administrative environment responsibility for implementing them and allocating budgets rests with heads of district and district parliaments, whomay not understand or share the priorities. There is no institutional home for food and nutrition security that addresses availability, access and utilization across sectors and ministries. In effect, the transmission mechanism from policy to programmes is broken. In many cases, the level of services provided is not properly measured and as a result it is difficult to hold institutions and leaders accountable.

²⁹SMERU, Institute of Development Studies. 2013. *Life in a Time of Food Price Volatility*.

Available at: <http://policy-practice.oxfam.org.uk/our-work/food-livelihoods/food-price-volatility-research>

CHAPTER 5. RECOMMENDATIONS AND MEASURES TO IMPROVE FOOD AND NUTRITION SECURITY

This review shows that the current response in Indonesia has not met the high expectations that it would substantially improve food and nutrition security. Policies are usually appropriate, but translation into government programmes is often poor or slow and complicated by decentralized administration. The experience in other countries shows that implementing nutrition-specific interventions and disease control only reduces the prevalence of stunting by 36 percent (Bhutta and Khan, 2008).³⁰ Therefore, to eliminate malnutrition, policies on agriculture, food security, social protection, nutrition and health must be integrated and harmonized (IFPRI, 2013).

Despite the proliferation of policies and programmes, tangible results have not been achieved largely because of the lack of integration between programmes, budget constraints, implementation difficulties and weak institutional arrangements. It is therefore recommended that the current food security and nutrition framework be reviewed to: i) establish a more effective and efficient institutional setting; ii) improve programme design and implementation; and iii) promote social change on the basis of enhanced nutrition outcomes (Figure 16).

This report concludes by setting out in the following sections six recommendations addressing these three issues (Figure 16).

- 1.a. Establish institutions at the central and local levels with a full mandate for food and nutrition security, and enforce accountability.
- 1.b. Increase the budget for food security and nutrition, and increase the quantity and quality of personnel providing food and nutrition related services.
- 2.a. Make social safety nets and disaster response and preparedness more nutrition sensitive, while improving targeting and efficiency.
- 2.b. Prioritize and target food-insecure and nutrition-insecure districts with a comprehensive package of programmes for immediate relief of food and nutrition insecurity.
- 3.a. Promote a change of attitudes towards balanced nutrition through awareness-raising and education in all segments of society.
- 3.b. Create a platform for better collaboration and promote more joint projects by the public and private sectors, and the community.

³⁰The model showed that existing interventions that were designed to improve nutrition and prevent related disease could reduce stunting at 36 months by 36 percent

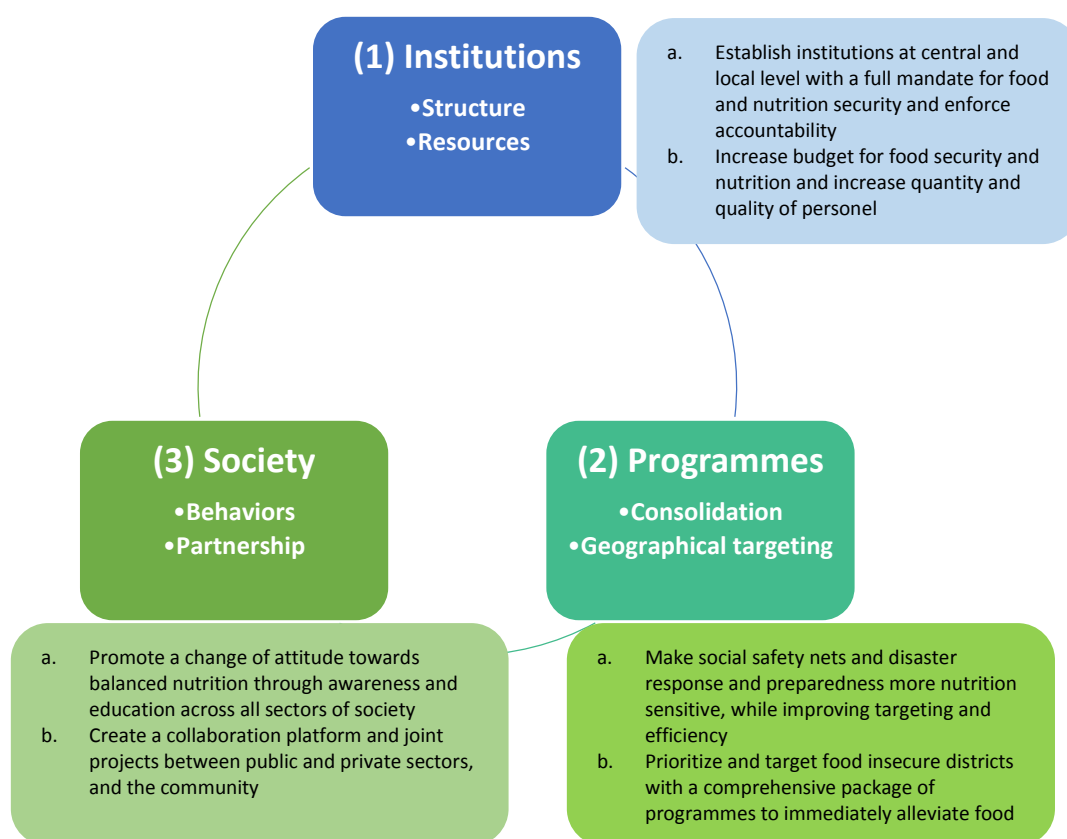


Figure 16. Recommendation Framework for Food and Nutrition Security Improvement

The following passage details each of the recommendation, while the action plan is presented in Appendix (3).

Recommendation 1.a: Improve the institutional arrangements for food and nutrition security

An efficient institution with a clear mandate is required to improve the coordination and implementation of policies and programmes at the central and local levels. As noted previously, the Food Law – Law 18 of 2012 – states that such an institution reporting to the President should be created no later than 2015. But neither the Food Law nor its implementation regulations have specified the form of this institution.³¹ In view of the current arrangements described in this paper, particularly those of the DKP, the new institution should be granted the authority and the powers to:

- i) Coordinate the work plans of all institutions addressing food security and nutrition, for example by setting common targets and integrating/coordinating resources;
- ii) Set targets in collaboration with local authorities for food and nutrition security improvement at the provincial, district and city levels;

³¹ An expert suggests that the current law implies that the agency would be an agency at the ministerial level, such as Statistics Indonesia and BNPB (interview, 6 October 2014).

- iii) Convene a group for cooperation and dialogue involving civil society, NGOs, donors and the private sector with a view to finding sustainable solutions to food and nutrition insecurity;
- iv) Monitor and evaluate the implementation of programmes, measure progress regularly and report the findings to the President and the public in a transparent manner; and
- v) Create and apply incentives and penalties to reward successful implementation and sanction failures.

The institution would design Indonesia's food and nutrition security strategy and coordinate a common action plan, with targets, budget allocations and a timeline. Such an institution should be designed and established based on a more thorough and inclusive review of the current institutional arrangement. This report makes suggestions as to the format that the institution could take, based on examples from other countries. The options include the following:

- i) A ministry of food security and nutrition with the authority to carry out food security and nutrition programmes. This could be a combination of existing ministries dealing with food production - such as Ministry of Agriculture and Ministry of Maritime Affairs and Fisheries, with work units and departments dealing with food distribution, food safety, food consumption, and nutrition security. This option may not be supported widely in the Government, and it would be challenging to restructure the various units. But if it should materialize, the ministry would be able to run food security and nutrition programmes effectively and efficiently, provided it focuses equally on the full range of issues from production to access and utilization.
- ii) A senior cabinet minister (could be a coordinating ministries) with the portfolio that would involve coordinating, overseeing and implementing the food security and nutrition programmes of various ministries and institutions, which would include the Ministry of Agriculture, the Ministry of Maritime Affairs and Fisheries, the Ministry of Industry, the Ministry of Trade, the Ministry of Health, the Ministry of Education and Bulog operating through the Ministry of State-Owned Enterprises. This option would not require a major change in the current system and is likely to encounter less resistance. But the mandate of the institution would have to be defined by the President, and be given adequate human and financial resources.

The second option is advisable in the short term; the first would be viable in the long term.

In parallel, every provincial and district government should establish a food and nutrition security institution, as stipulated by Government Regulation No. 38 of 2007. In addition to reporting to the local government head, these institutions would have to coordinate with and report to the national food and nutrition security agency. They would also have to report periodically and transparently to the public, and provide access to clear and transparent complaint mechanisms. In line with national action plans, local food security institutions would formulate, coordinate and implement their action plans on the basis of clear targets and budgets with a view to enhancing food and nutrition security by involving various interest groups, among them local governments, NGOs, community members, academia and the private sector.

Recommendation 1.b: Increase financial and human resources allocated to food security and nutrition

As stated earlier, every dollar invested to address stunting in Indonesia will bring benefits worth USD 48 in the future (Hoddinott et al, 2013). This investment would support Indonesia's efforts to avoid the "middle-income trap".

To do this, Indonesia must improve the quality and quantity of personnel and increase its financial investment in food security and nutrition. This review shows that some well-designed programmes suffer from budget shortages and could only be effective if scaled-up. As Indonesia's economy grows and structural and subsidy reforms are carried out, the resulting fiscal space could allow the Government to increase the food security and nutrition budget, provided the political will is there.

But financial investments will not be enough if measures are not taken to improve the quality of services. In addition to the shortage of field personnel in agricultural extension or nutrition counselling and monitoring, current incentives favour volunteers to the detriment of professionals and technical experts. Personnel are often unqualified or inadequately trained to occupy their positions. The staffing structure should be revised to attract qualified individuals, and a certification system for food security and nutrition personnel is required to ensure the quality of services. Further investments should seek to improve the overall quality of services through for example, improved facilities and regular training of staff.

Recommendation 2.a: Increase the nutrition-sensitivity of social safety nets and disaster response and preparedness, while improve targeting and efficiency

All ministries and agencies implementing programmes related to food security and nutrition³² must ensure that they are nutrition-sensitive and help to reduce chronic malnutrition/stunting as well as prevent obesity.³³ The focus hitherto has been on reducing underweight levels and planning documents have not been clear on identifying the multiple facets of malnutrition and setting targets to tackle all of these facets. In view of the changes in nutrition situation in Indonesia, stunting is currently the biggest single threat to Indonesia's development while obesity is an increasing concern. A change of approach is therefore required to eliminate the double burden of malnutrition. Indonesia must therefore invest equally in preventive and therapeutic interventions, treating and preventing acute malnutrition and reducing the factors that cause chronic malnutrition and obesity.

Revising programmes to increase their impact on nutrition is an opportunity to improve their overall effectiveness, streamline their design and fix implementation defects. This could be done by:

- i) Enhancing the design, targeting and alignment of programmes, especially those with limited coverage where targeting errors are detrimental;
- ii) Including specific nutrition targets and objectives in nutrition-sensitive programmes in agriculture, social protection and education;
- iii) Improving implementation arrangements to ensure that beneficiaries receive appropriate entitlements at the right time; and

³²The ministries of agriculture, maritime affairs and fishery, transport, trade, health, public works, education, religious, social, women's empowerment and child protection, as well as BKKBN and BNPB.

³³Nutrition treatment targets have hitherto focused on undernourishment reflecting nutritional problems in general; they do not reflect chronic nutritional problems. There was no advocacy for using stunting as an indicator of chronic malnutrition until 2010, following various studies in *The Lancet*.

- iv) Improving the quality of M&E and feedback mechanisms to ensure that programmes can adapt to achieve their targets.

Existing programmes that focus exclusively on particular aspects of food security and nutrition—availability, access, utilization, health, environment, behaviour, disaster risk management and social assistance – must be integrated as much as necessary at all levels from the central level to the district, household and individual levels. The needs of pregnant and lactating women and children under-2 must be specified and addressed in all food and nutrition security programmes to ensure that they can prevent stunting. The programmes should be linked to long-term plans that support job creation and enhance livelihoods so that structural issues are addressed and the inter-generational cycle of poverty is interrupted.

In particular, social protection schemes and disaster risk management need to be applied proactively to support the reduction and prevention of stunting. Social protection schemes should continue to focus on the poorest 20 percent of households because stunting prevalence is higher among low-income households and deteriorated rapidly from 40.5 percent in 2007 to 48.4 percent in 2013. The integrated database developed by TNP2K ensures that these households are targeted. Programmes should, however, be more nutrition-sensitive and should ensure that households have access to nutritious and adequate food, with counselling and health services for pregnant and lactating women and children under-2 in particular.

The various social assistance programmes should use harmonized targeting techniques based on the integrated database to minimize targeting errors and overlaps. They could add nutrition-sensitive components such as nutrition counselling and education, and promote care and fulfilment of nutritional requirements in accordance with nutrition standards recommended by WHO and FAO.³⁴

Programme-specific improvements should include one or a combination of the following:

1. Raskin

- i) Fortify Raskin rice. Ongoing trials supported by the Asian Development Bank show that the cost of rice fortification is high, and that technology, equipment and supervision challenges persist. Further research is needed to find ways to minimize the cost of fortification and guarantee its success.
- ii) Improve Raskin distribution to make it more accessible to poor households by fixing distribution points and respecting distribution schedules, providing smaller packaging and distributing it only to social assistance card holders.
- iii) Include other foods in the basket, particularly fortified foods that contain all the nutrients needed to reduce stunting during the first 1,000 days. This could be done by distributing other subsidized foods or providing a food voucher for nutritionally vulnerable household members such as pregnant and lactating women and children.
- iv) Partially replace rice with other staple or non-staple foods, in line with the food diversification policy.

2. PKH

- i) Include supplementary food or vouchers for target food insecure groups to increase their dietary diversity and prevent stunting.

³⁴See: Lindsay Allen, *et al.*, 2006.

- ii) Expand nutrition education and counselling, which have been piloted in two districts, and assess the effectiveness of adding more nutrition-related conditionality focused on children under-2, and pregnant and lactating women in areas with high stunting prevalence.
- iii) Increase programme coverage to reach all of the poorest 20 percent of Indonesians.

3. Universal health coverage (UHC)

- i) Ensure that the full set of essential nutrition interventions, especially the treatment of acute malnutrition is included in the benefits of UHC recipients.
- ii) Add regular nutrition monitoring to the package of services received by the recipients of Government funded health insurance (Badan Penyelenggara Jaminan Sosial) premium, particularly to monitor the nutrition of children and pregnant and lactating women.

4. Demapan

- i) Use the unified database to target poor community members more accurately.
- ii) Provide beneficiaries with nutritional counselling and education and nutrition monitoring through existing group counsellors.
- iii) Expand coverage.

5. P2KP

- i) Use the integrated database to target households.
- ii) Increase coverage to reach all the poorest 20 percent of households.

Disaster risk management programmes also need to take nutrition into account. Emergency assistance mechanisms after disasters in the form of cash, such as BLT or BLSM, or in the form of food need to be standardized and implemented on the basis of agreed protocols that ensure transparency as well as positive effects on nutrition outcomes. BNPB must ensure that nursing mothers can continue to breastfeed, and that complementary foods are provided for particular categories of beneficiary in the food basket or through public kitchens; the present approach whereby everyone eats the same meal cooked in a common pot should be discontinued. This applies particularly to young children and pregnant and lactating women.

Recommendation 2.b: Prioritize and target food-insecure districts with a comprehensive package of programmes to alleviate food insecurity immediately

This review shows that some districts require more urgent actions than others, though a nationwide approach is needed. Priority districts with high food insecurity and malnutrition should be identified and targeted with a package of measures: i) to improve the situation in the short term and medium term; and ii) to ensure that poor and wealthy households affected by malnutrition are reached. The package would integrate all existing nutrition-specific and nutrition-sensitive programmes as well as to improve implementation and monitoring with a view to eliminating food insecurity and malnutrition.

There are various methods for selecting priority districts. According to Riskesdas data from 2013, there are 245 districts in Indonesia – almost half of all districts, with stunting rates above the WHO critical threshold of 40 percent. In view of this, a combination of several indicators such as stunting and poverty level should be used. Simulations based on various indicator combinations are given in Appendix (4).

Priority districts shall receive an integrated package of interventions related to food availability, access and utilization and to health-related nutrition-specific. These areas will receive dedicated funding and capacity-building support from the Government, with a focus on mobilizing all segments of society, including communities and the private sector. Enhanced monitoring as well as feedback and accountability systems would also have to be established.

Implementing districts would need to be empowered and held accountable for the success of the interventions, possibly under the new institution described in Recommendation 1a). Programmes and targets based on local customs, baseline conditions and analysis of local causes of food insecurity and malnutrition would be specified for each district. Special funds would be allocated to the implementing agency for food and nutrition security. Financial and programme performance monitoring would be regularly enforced. Priority districts would be required to increase the number and capacities of staff and maximize coordination among related work units as well as with the community and non-government actors.

The basic package of interventions should at least include:

i) Increased food production and diversification

To improve local availability of nutritious and diverse foods, existing programmes implemented by the Ministry of Maritime Affairs and Fisheries and by the Ministry of Agriculture- including the BKP–P2KP, SKPG and Demapan – should be expanded and integrated in priority districts. Community grants in these districts could be used to support the improvement of food security and nutrition at the village level.

ii) Control of food safety and monitoring of food prices and stocks

The priority package will improve the organization and performance of local institutions that monitor food prices and stocks, and control food safety.

iii) Nutrition monitoring

Nutrition monitoring by health facility staff will be improved, with a focus on women of childbearing age, pregnant and lactating women and children under-5. Results should be reported transparently for immediate action when malnutrition or micronutrient deficiencies are detected. Special funds must be allocated to augment staff numbers, build capacities and improve the current incentives system. Clear referral systems should be established to ensure that individuals with nutrition problems are referred to the relevant facility to receive treatment and/or counselling at no cost, covered under the newly introduced Universal Health Coverage (UHC).

iv) Provision of supplementary food

Supplementary feeding should be provided to communities with high malnutrition and food insecurity. This can be done by distributing fortified rice in priority districts through Raskin if it is not done nationally, establishing supplementary feeding programmes in schools and clinics, and distributing food stamps or vouchers tied to nutritious food groups for poor families.

v) Disaster risk management and social protection

In priority districts that are prone to disasters, the regional disaster management agencies must cooperate with the food security agency and social services to develop protocols to ensure immediate and effective nutrition-sensitive social assistance in a disaster.

Recommendation 3.a: Promote a change of attitude to balanced nutrition through awareness-raising and education in all segments of society

The above policies should be complemented with actions to change attitudes among decision-makers and the general public. Indonesians must shift their focus from eating excessive amounts of rice to obtain their calorie requirements to consuming a balanced and nutritious diet, and must adopt healthy lifestyles, as stipulated in Guide for Balance Diet (*Pedoman Gizi Seimbang*) produced by Ministry of Health. The diet should be adapted to the needs of men and women of all age groups and to local conditions.

In line with this change of attitudes, the production of diverse foods should be increased to cater for additional demand. A balanced and diverse diet measured by PPH and promotion of hygiene and healthy lifestyles are integral to this change. To make it possible, budgets for related fields should be increased and greater emphasis placed on:

- i) promoting the production and consumption of a variety of foods other than rice: self-sufficiency in rice is essential, but the focus should be on increasing rice production and also encouraging the production of alternative foods;
- ii) raising awareness of macro-nutrient and micro-nutrient requirements, especially protein, vitamins and minerals, to be obtained by preparing and consuming natural ingredients, especially those obtained locally; and
- iii) raising awareness of healthy diets and lifestyles and, adequate feeding hygiene practices, with focus on the special nutritional needs of women and children during the first 1,000 days of life, promoting access to adequate sanitation and clean water, and increasing disease controls and physical activity.

These promotional programmes should reach all Indonesians. As this review shows, stunting is not confined to the poorest Indonesians: prevalence is high even among wealthy quintiles, reaching 29 percent and 32.3 percent in the two highest income groups. Promotional activities would contribute significantly to reducing stunting among the wealthy groups because stunting is more likely to be caused by consumption patterns, behaviours and care practices rather than limited access to food. Awareness campaigns would also seek to reduce the prevalence of overweight and obesity by disseminating information on balanced diets and healthy lifestyles.

Instruments to deliver this recommendation include formal and informal education for government personnel involved in agricultural extension, nutrition, education, health and social work and the general public, with special attention to adolescents, women of childbearing age, pregnant and lactating women and caregivers.

The institution in charge of food security and nutrition described in Recommendation 1.a would be responsible for coordinating the promotion campaign; it would be implemented by government agencies at the central and local levels with the involvement of NGOs, private sector partners, academia and donors. The promotion campaign recommended in this report should be harmonized with other campaigns such as the SUN first 1,000 days and expanded to reach all income groups and all regions.

Specific roles and activities include:

i) Central and local government

- a. The Ministry of Education should increase nutrition education in the curriculum in primary and secondary schools with a focus on undernutrition and overnutrition. This could be combined with school feeding programmes.
- b. The Ministry of Health should educate health workers in malnutrition, particularly in stunting and overweight, and organize prevention campaigns in health facilities across the country.
- c. The National Family Planning Board should provide nutrition education for family planning workers and include balanced nutrition messages in its awareness campaigns.
- d. The Ministry of Religious Affairs should include information on balanced nutrition in marriage preparation sessions and other events involving community members.
- e. BNPB should integrate messaging on nutrition and balanced diets in disaster preparedness and response activities.

ii) NGOs:

NGOs should provide practical information for the public about the importance of balanced nutrition and adequate hygiene and feeding practices. They could integrate such messaging in community-level activities.

iii) Schools and academia

- a. The education sector should provide practical information and education for students on balanced nutrition and diets and adequate hygiene practices;
- b. It should also increase research on the subject to understand local causes of malnutrition and provide personnel to support awareness campaigns.

iv) The private sector

Private-sector media, companies and food producers should support the campaign, for example with promotional materials, financing or behaviour change communications. The food industry has specifically an important role both in producing and promoting healthy food (*see Recommendation 3.b for more details*).

These promotional activities could be coupled with awards for positive contributions to stunting reduction and the promotion of balanced and healthy diets and lifestyles.

Recommendation 3.b: Create a collaboration platform and joint public-sector/private-sector projects

Non-government stakeholders – NGOs, higher education institutions, communities and the private sector—must be included in work to increase food and nutrition security, reduce stunting and halt the rise of obesity. Each would participate according to their expertise and comparative advantage. Increasing food production, for example, requires the involvement of research institutions and the business sector to create high-quality seeds and to develop and apply improved cultivation techniques.

With the increasing consumption of processed foods, the nutritional composition of diets is increasingly determined by the food industry, whether large-scale, small-scale or micro-scale. Collaboration with the food industry is thus necessary. Facilitated by the Government, who is the final owner of public health issues, the collaboration should seek to maximize the private

sector's potential in curbing malnutrition and minimize its activities with potential to harm the individual's nutrition status. Concretely, changing behaviour in a country where most individuals rely on the market for food consumption and where processed foods are increasingly important in the Indonesian diet requires that the private sector and the Government work together to:

- 1) establish advertising regulations limiting the exposure of the population, especially children, to unhealthy food and banning the promotion of products that are not recommended by international guidelines for infant and young child feeding;
- 2) mainstream nutritional labelling to increase the awareness of consumers;
- 3) regulate and monitor the use of health labels and claims on food products; and
- 4) establish clear food standards to limit the use of harmful ingredients in food products.

In parallel, the Government and the private sector would work together to improve the availability of healthy nutritious products, especially through fortification and specialized nutrition products for pregnant and lactating women and children.

A change in eating habits and lifestyles also calls for the involvement of communities—especially community leaders—and NGOs working at the community level, particularly to reduce the recent rising trend in obesity levels. Their roles will determine local interventions because behaviour change is strongly associated with culture and can vary significantly between regions.

Cooperation with stakeholders should be coordinated by government institutions responsible for food and nutrition security at the national and regional levels. The task of ensuring food and nutrition security is too great for the Government to accomplish alone. The Government must therefore mobilize actors from civil society, academia and the private sector to develop joint plans. The SUN networks could serve as platforms for organizing the private sector and civil society with a view to establishing a joint plan for food and nutrition security. The roles of international and donor institutions should also be increased in line with their fields of expertise and comparative advantages.

The food and nutrition security institution proposed in Recommendation 1a. should be able to leverage private sector capacity to influence consumer behaviour and to advise the private sector – especially the food production sector – as to the formulation and promotion of affordable food products in line with international standards. The private sector has an important role in creating and influencing consumer tastes, and it could do so more responsibly as part of government-led initiatives to achieve food and nutrition security for all Indonesians.

CHAPTER 6. THE CONSEQUENCES FOR WFP IN INDONESIA

WFP is the largest humanitarian organization in the world and the front-line agency of the United Nations in the fight against global hunger. It is committed to working with governments, partners and communities to ensure that all people at all times have access to nutritious food. When disasters strike, WFP re-establishes the food security of affected populations, reduces risks and increases resilience to break the cycle of hunger and malnutrition. It also works with governments to reduce acute and chronic malnutrition.

WFP has been present in Indonesia since 1964. It continues to work in partnership with the Government to achieve sustainable, comprehensive food and nutrition security in Indonesia. Its contribution includes strategic and operational activities. In one of its largest programmes in Indonesia, WFP responded to the 2004 tsunami by distributing food and implementing recovery activities in affected communities. Prior to that and in response to the Asian Financial crisis, WFP supported the Government's Special market operation for subsidized rice in urban areas as of 1998 and handed activities over to the Bulog/RASKIN in 2005. Its current focus, reflected in its 2011–2015 country programme, is to support the Government in: i) vulnerability mapping and analysis; ii) disaster risk reduction and adaptation to climate change; and iii) reduction of malnutrition and provision of school feeding. WFP operations involve technical assistance, knowledge transfers, capacity building and pilot projects in food-insecure areas to be replicated and scaled up by the Government. In 2014, WFP had 70 staff in offices in Jakarta and sub-offices in Jayapura in Papua, Kupang in NTT and Mataram in NTB.

This review highlights some of the barriers impeding Indonesia's work to achieve food and nutrition security. On the basis of its comparative advantage WFP can contribute to achieving a number of the recommendations, as detailed below.

- i) Increasing the nutrition-sensitivity of social protection programmes and disaster management
 - a. Supporting food security and nutrition institutions in the development of strategies and plans³⁵ for food and nutrition security. WFP can use its expertise to enhance the nutrition-sensitivity of existing programmes and to improve M&E. This report argues that Indonesia's social safety nets could be leveraged more effectively to improve nutrition outcomes by increasing access to the right food at the right time. WFP has extensive experience of working with governments to ensure that social safety nets deliver improved food and nutrition security outcomes.
 - b. Increasing the capacity of BNPB to coordinate all humanitarian actors for a more effective and efficient nutrition-sensitive response and helping BNPB to strengthen the capacity and readiness of *Badan Penanggulangan Bencana Daerah's* to prepare for and respond to disasters.
- ii) Supporting the prioritization of food-insecure districts
 - a. Working with food security institutions to identify priority areas and make implementation and monitoring arrangements.

³⁵Based on existing plans such as RAN-PG, with improvements such as specific activities and budget allocations.

- b. Helping to build local government capacities to enhance the resilience of communities and adapt their livelihoods to climate change.
- c. Supporting the development and implementation of work plans in priority districts and adapting them to local conditions. WFP's contribution could focus on the introduction or resumption of nutrition support for pregnant and lactating women and young children and supplementary school feeding using local food, in line with the national school feeding programme policy.

iii) Enhancing public-private partnerships

WFP has worked extensively with international and Indonesian private organizations to improve the quality of commercial complementary foods in Indonesia. WFP helped to formulate and produce Indonesia's first complementary food: the peanut-based lipid nutrient supplement. WFP co-chaired together with the Global Alliance for Improved Nutrition (GAIN) the global SUN business network, and could leverage the role jointly with GAIN to help the Government of Indonesia mobilize the private sector in seeking and implementing solutions to Indonesia's food and nutrition security challenges. WFP can use its expertise to advise on coordination and the use of market-based mechanisms to improve food and nutrition security in Indonesia.

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Peraturan Presiden No.83/2006 tentang Dewan Ketahanan Pangan.

Instruksi Presiden No.3/2010 tentang Program Pembangunan yang Berkeadilan.

Peraturan Menteri Dalam Negeri No.18/2011 tentang Pedoman Penyediaan Makanan Tambahan Anak Sekolah.

Peraturan Menteri Dalam Negeri No.79/2007 tentang Pedoman Penyusunan Rencana Pencapaian Standar Pelayanan Minimal.

Peraturan Menteri Kelautan dan Perikanan No.3/2014 tentang Rencana Strategis Kementerian Kelautan dan Perikanan tahun 2010-2014.

Peraturan Menteri Kelautan dan Perikanan No.12/ 2010 tentang Minapolitan.

Peraturan Menteri Perdagangan No.23/2013 tentang Program Stabilisasi Harga Kedelai.

Peraturan Menteri Pertanian No.83/2011 tentang Rencana Strategis Kementerian Pertanian 2010-2014.

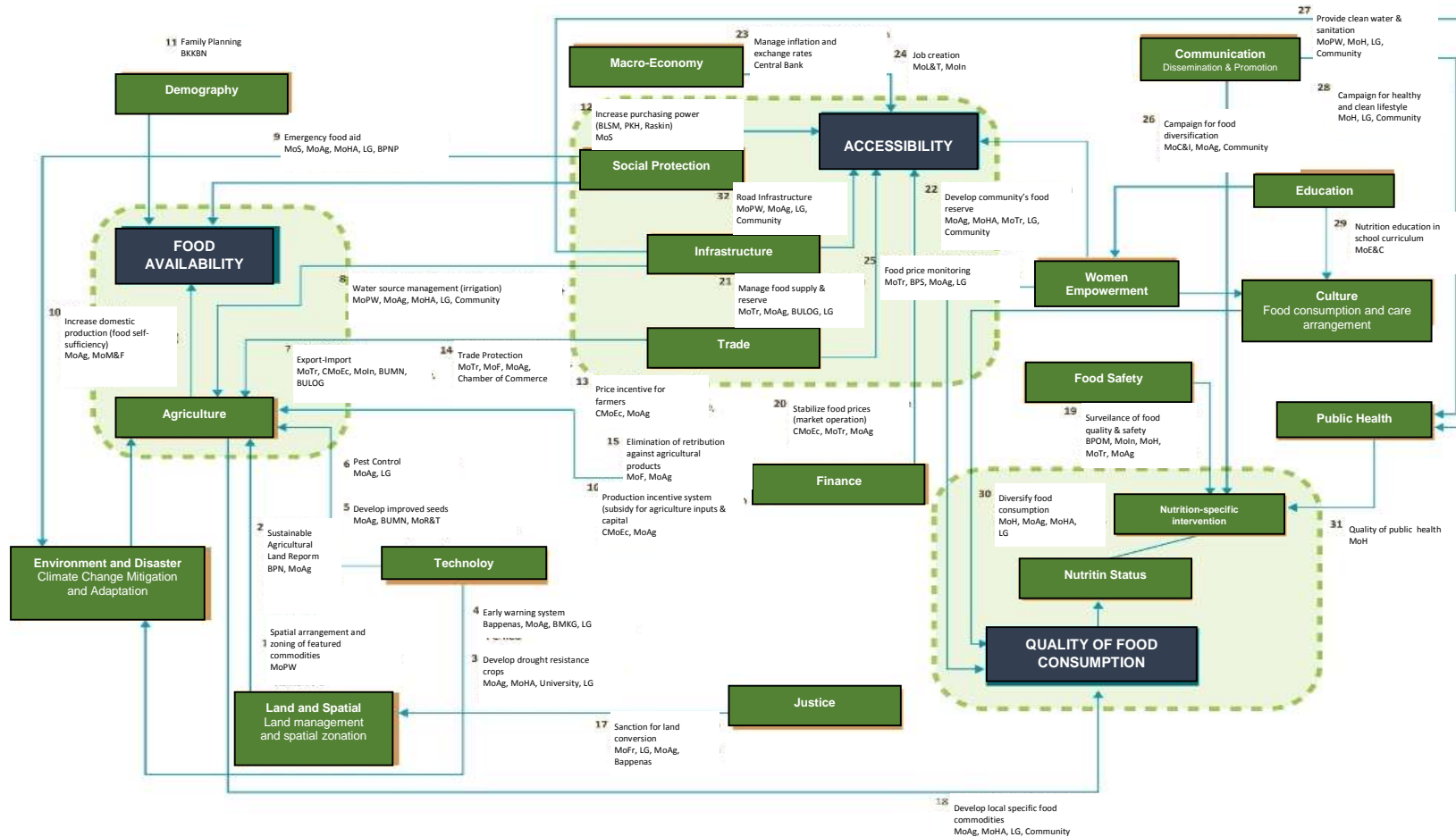
Peraturan Menteri Pertanian No.65/2010 tentang Standar Pelayanan Minimal Bidang Ketahanan Pangan Provinsi dan Kabupaten/Kota.

Keputusan Menteri Negara Perencanaan pembangunan Nasional/Kepala Badan perencanaan Pembangunan Nasional No. 8/2012 tentang Pembentukan Tim Koordinasi Monitoring dan Evaluasi Pencapaian Rencana Aksi Nasional dan Daerah Pangan dan gizi 2011-2015.

Keputusan Menteri Kesehatan No.1457 /2003 tentang Standar Pelayanan Minimal Bidang Kesehatan di Kabupaten/Kota.

APPENDICES

Appendix 1: Interconnection across Programs and Sectors related to Food and Nutrition Security that have been Implemented in Indonesia



Appendix 2: List of programs/activities related to food and nutrition

No	Group of Programs/ Activities	Program/ Activity	Ministry/ Institution
1	Spatial Zoning, Zoning on featured commodities	<ul style="list-style-type: none"> - Develop regional spatial zoning as requested by Law 26/2007 on Spatial 	Ministry of Public Works, National Land Agency (BPN), National Development Planning Agency (Bappenas), Statistics Indonesia (BPS), Ministry of Forestry, Ministry of Agriculture, Ministry of Environment, Ministry of Justice and Human Rights, Provincial Government, District Government
2	Sustainable Land Reform of Agricultural Land	<ul style="list-style-type: none"> - Develop land reform and reorganizing ownership, control and utilization of land for business and for agriculture in accordance to Law 5/1960 on Land (<i>Pokok-Pokok Agraria</i>) - Develop local and regional spatial arrangement as required by Law 26/2007 on Spatial (<i>Tata Ruang</i>) - Improve land administration and affordable land certification - Develop local and regional spatial plan that will support zoning of featured commodities 	BPN, Bappenas, BPS, Ministry of Forestry, Ministry of Agriculture, Ministry of Public Works, Ministry of Environment, Ministry of Justice and Human Rights, Provincial Government, District Government
3	Development of Drought Resistant Plants Varieties	<ul style="list-style-type: none"> - Research and development of drought resistance food crops varieties and increase the efficiency of the use of surface and ground water 	Ministry of Agriculture, Ministry of Research and Technology, Indonesia Institute of Science (LIPI), Universities, Provincial Government, District Government
4	Early warning system	<ul style="list-style-type: none"> - Develop early warning system, starting from the technical aspect of cropping pattern, Water-saving measures, and water retention during raining period, until preservation of water sources in headwater and conservation forest 	Ministry of Agriculture, Geophysics and Meteorology Climatology Agency (BMKG), Ministry of Public Works, Bappenas, Provincial Government, District Government
5	Development of Quality Seeds	<ul style="list-style-type: none"> - Develop local specific quality improved seeds, develop mass production of local specific quality improved seeds 	Ministry of Agriculture, Ministry of Research and Technology, LIPI, Universities, Government own enterprises (BUMN), Provincial Government, District Government
6	Pest Control	<ul style="list-style-type: none"> - Integrated Pest Control 	Ministry of Agriculture, Provincial Government, District Government
7	Export-Import	<ul style="list-style-type: none"> - Regulate Export and Import of Food 	Ministry of Trade, Coordinating Ministry of Economic Affairs, Ministry of Industry, BUMN, Logistic Agency (Bulog)

No	Group of Programs/ Activities	Program/ Activity	Ministry/ Institution
8	Management of Water Resources (Irrigation)	<ul style="list-style-type: none"> - Improve irrigation management system, water management, and sustainable rehabilitation of water sources, at least to reduce the impact of severe drought - Develop and rehabilitate irrigation infrastructure - Preserve water sources and manage watershed 	Ministry of Public Works, Ministry of Agriculture, Provincial Government, District Government, Community
9	Emergency Food Aid	<ul style="list-style-type: none"> - Provide temporary shelter - Disaster emergency response - Provide tools and logistical supports in disaster prone regions 	Ministry of Social Affairs, Ministry of Agriculture, Ministry of Home Affairs, Provincial Government, District Government, National Agency for Disaster Management (BNPB)
10	Increase Domestic Production (Food Self-sufficiency)	<ul style="list-style-type: none"> - Increase production and productivity for self-sufficiency of strategic food commodities (rice, maize, soybean, sugar cane, meat) - Manage production of cereal crops - Manage production of legume and tumbler crops - Sustainable increase of fruits production, productivity and quality - Sustainable increase of vegetables and medicinal plant production, productivity, and quality - Increase production, productivity, and quality of horticulture - Increase production of livestock based on local resources - Expand and manage fisheries - Improve production of aquaculture - Increase competitiveness of fisheries products - Provide facilitation for strengthening and expanding domestic market for fisheries products - Extension work for fisheries and marine - <i>Desa Mandiri Pangan</i> (Food self-sufficient village) 	Ministry of Agriculture, Ministry of Marine and Fisheries
11	Family Planning	<ul style="list-style-type: none"> - Family Planning 	National Agency for Population and Family Planning (BKKBN)
12	Increase Purchasing Power	<ul style="list-style-type: none"> - Provide subsidized rice for targeted (poor) households (Raskin) - <i>Program Keluarga Harapan</i> – PKH (Family Hope Program – a conditional cash transfer program) - Temporary direct (unconditional) cash transfer to the community (BLSM) 	Bappenas, Ministry of Social Affairs, National Team for Accelerating Poverty Reduction (TNP2K), BULOG, PT.Pos (Post Office)
13	Price Incentive for Farmers	<ul style="list-style-type: none"> - Provide price incentive for farmers (Government purchasing price —HPP, maximum retail price —HET, etc.) 	Ministry of Trade, Ministry of Agriculture
14	Trade Protection	<ul style="list-style-type: none"> - Policy for protecting the marketing of a minimum four strategic commodities (rice, maize, soybean, and sugar cane), to support the competitiveness of strategic national products 	Ministry of Trade, Ministry of Agriculture

No	Group of Programs/ Activities	Program/ Activity	Ministry/ Institution
15	Elimination of Retribution for Agricultural Products	<ul style="list-style-type: none"> – Elimination of retribution against raw agricultural products 	Ministry of Trade, Ministry of Home Affairs
16	Production System Incentive (subsidy for agricultural inputs and capital)	<ul style="list-style-type: none"> – Provide incentive for production system, including agricultural inputs (fertilizer and seeds) in order to provide balanced fertilizers and agricultural business capital scheme/financing agricultural institution 	Coordinating Ministry for Economic Affairs, Ministry of Agriculture, Banking
17	Sanction for Land Conversion	<ul style="list-style-type: none"> – Apply strong sanction to those who convert fertile technically irrigated land to non-agricultural purposes – Implement progressive tax to those who convert fertile land by developing regulation and strongly enforcing the tax against land or business that will hamper/incriminate the conversion of fertile land 	BPN, Bappenas, BPS, Ministry of Forestry, Ministry of Agriculture, Ministry of Public Works, Ministry of Environment, Ministry of Justice and Human Rights, Provincial Government, District Government
18	Developing Local Specific Food	<ul style="list-style-type: none"> – Develop local specific food 	Ministry of Agriculture, Ministry of Home Affairs, Provincial Government, District Government, Community
19	Supervision of Food Quality and Safety	<ul style="list-style-type: none"> – Supervise and develop food products quality standard – Supervise product and dangerous substances – Food inspection and certification – Increase numbers and competence of food safety extension workers and food inspectors at district level – Technical assistance to food home industries (IRTP) – Technical assistance and monitoring school canteens – Building healthy and clean lifestyle (PHBS) on food and nutrition 	Food and Drug Supervision Agency (BPOM), Ministry of Industry, Ministry of Health, Ministry of Trade, Ministry of Agriculture
20	Food Price Stabilizing (Market Operation)	<ul style="list-style-type: none"> – Sell rice and/or cooking oil, flour (or other commodities, such as soybean and sugar) in cheaper price in time of food price volatility 	Ministry of Trade, BULOG
21	Managing the Supply of Food Stock	<ul style="list-style-type: none"> – Develop distribution system and food price stabilizing – <i>Lembaga Distribusi Pangan Masyarakat</i> – LDPM (Community's food distribution institution) – Develop food stock at every government levels (region and village) – Manage food supply and buffer stock to protect food price stability 	Ministry of Trade, Ministry of Agriculture, BULOG, Local Governments

No	Group of Programs/ Activities	Program/ Activity	Ministry/ Institution
22	Monitoring Food Prices	<ul style="list-style-type: none"> – System monitoring of basic needs market (SP2KP) – Food price panel 	Food Security Agency (BKP), Ministry of Agriculture, Ministry of Trade, BPS, Provincial Government, District Government
23	Protecting Inflation rate and Exchange Rate	<ul style="list-style-type: none"> – Manage inflation and exchange rate 	Ministry of Finance, Coordinating Ministry of Economic Affairs, Indonesia Central Bank (BI), Bappenas, Ministry of Trade, Ministry of Agriculture, Ministry of Energy and Mineral Resources, Ministry of Labor and Transmigration, Ministry of Home Affairs
24	Job Creation	<ul style="list-style-type: none"> – Job creation – <i>Program Nasional Pemberdayaan Masyarakat - PNPM Mandiri</i> (Community Driven Development) – <i>Program Penempatan dan Perluasan Kesempatan Kerja</i> (Job creation and placement program) 	Ministry of Labor and Transmigration, Ministry of Industry, Ministry of Home Affairs
26	Campaign for Diversification Food Consumption	<ul style="list-style-type: none"> – Improve nutrition communication, information and education systems – Disseminate and promote, and national campaign against diversified food consumption through printed and electronic media, as well as direct communication with the community 	Ministry of Communication and information, Ministry of Agriculture, Community
27	Provision of Clean Water and Sanitation	<ul style="list-style-type: none"> – Penyediaan Air Minum dan Sanitasi Berbasis Masyarakat – PAMSIMAS (Community based provision of drinking water and sanitation)) – Increase the numbers of drinking water providers – Increase the numbers of sanitation services – Increase the number of assisted local government/local government's water providers 	Ministry of Public Works, Ministry of Health, Provincial Government, District Government, Community
28	Campaign for Healthy and Clean Lifestyle	<ul style="list-style-type: none"> – Healthy village program – Campaign for germs killing (disinfectant) – Healthy market program 	Ministry of Health, Ministry of Communication and information, Private Sector, Provincial Government, District Government, Community
29	Nutritional Education in School Curriculum	<ul style="list-style-type: none"> – Incorporate the subjects on diversified, nutritious, and balanced food in school curriculum 	Ministry of Health, Ministry of Education and Culture, Ministry of Communication and information, Ministry of Agriculture, Provincial Government, District Government, Community
30	Diversification of Food Consumption	<ul style="list-style-type: none"> – Develop diversification of food consumption and increase the safety of fresh food – Percepatan Penganekaragaman Konsumsi Pangan - P2KP (Acceleration of food consumption diversification) 	BKP, Ministry of Agriculture, Provincial Government, District Government

No	Group of Programs/ Activities	Program/ Activity	Ministry/ Institution
31	Quality of Public Health	<ul style="list-style-type: none"> - Improve Peningkatan public nutrition coaching - Handling of disruption due to lack of iodized salt - Fulfillment of Vitamin A - Improve mother and child health - Protect against lack of iron, folic acid, and deficiency of energy-protein and chronic deficiency of energy - Exclusive breastfeeding 	Ministry of Health
32	Road Infrastructure	<ul style="list-style-type: none"> - Road management program 	Ministry of Public Works

**Appendix 3:
Draft Matrix of Stunting Action Plan, 2014-2019**

ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
Kluster 1 - Societal Change				
K1PXX Developing module/manual on stunting	Ministry of Health	Ministry of Culture, and Elementary and Secondary Education; National Family Planning Coordinating Board (BKKBN)	Availability of module/manual on stunting for program implementers, and socialization of the module/manual	TARGET: Comprehensive modules/manuals available for the need of campaign, children education, family education, program implementers (including health worker, teacher, extension worker) education
K1PXX Adding nutrition component in national curriculum	Ministry of Culture, and Elementary and Secondary Education	Ministry of Religious Affair, Ministry of Agriculture, Ministry of Health	Integration of nutrition component into national curriculum	TARGET: 1. The nutrition component added to the curriculum training module for elementary, secondary, and high school teacher 2. The nutrition component added to textbook and student worksheet for elementary, secondary, and high school children

ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
K1PXX School feeding (Pemberian Makanan Tambahan Anak Sekolah—PMT-AS)	Ministry of Culture, and Elementary and Secondary Education	Ministry of Religious Affair, Ministry of Agriculture, Bureau of Logistic (Bulog), Ministry of Health	Number of school children who get nutritional supplement through the PMT-AS	TARGET: 1. xxx number of school children in targeted districts (districts vulnerable to food and nutrition insecurity) have been received PMT-AS 2. Central government budget for PMT-AS in targeted districts have been allocated 3. PMT-AS have been distributed to xxx number of school children in targeted districts
K1PXX Increasing knowledge of health worker about stunting	Ministry of Health	Ministry of Culture, and Elementary and Secondary Education	Number of health worker who have been given training on stunting	TARGET: xxx number of health worker have been received training on child growth monitoring and nutrition counseling with the focus on the prevention of stunting
K1PXX Stunting prevention campaign in various health facilities	Ministry of Communication and Information	BKKBN, Ministry of Home Affair, Ministry of Health	Number of integrated health post (<i>posyandu</i>) at village level and community health center (<i>puskesmas</i>) at sub district level hosting stunting prevention campaign	TARGET: xxx number of <i>posyandu</i> and <i>puskesmas</i> hosting campaign to increase awareness on stunting, which designed together by the central, provincial, and district government

ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
K1PXX Stunting prevention information in married preparation session	Ministry of Religious Affair	Ministry of Health, Ministry of Communication and Information	The number of marriage headman who have been given training on malnutrition in married preparation session	TARGET: 1. xxx number of marriage headman can give counseling on malnutrition 2. xxx counseling sessions delivered by trained headman
K1PXX Increasing knowledge of family planning extension worker on stunting	BKKBN	Ministry of Home Affair, Ministry of Health	The number of family planning field workers who have been given training on stunting	TARGET: 1. xxx family planning field workers able to give counseling on stunting 2. xxx counseling session delivered
K1PXX Increasing knowledge of the disaster management extension worker on stunting	BNPB	Ministry of Home Affair, Ministry of Health	The number of disaster management extension workers who have been given training on stunting	TARGET: 1. xxx disaster management extension workers plans and responses consider impact on nutrition

ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
K1PXX Improve the information on the prevention of stunting in disaster management	BNPB, Ministry of Communication and Information	Ministry of Home Affair, Ministry of Health	The integration of planning for disaster management and prevention, with the action on the improvement of awareness on its impact to nutrition	TARGET: xxx number of disaster management planning incorporate nutrition impact component into
K1PXX Improving information on the prevention of stunting in higher education	Kementerian Riset dan Teknologi dan Pendidikan Tinggi	Ministry of Religious Affair, Ministry of Health	The number of malnutrition awareness and prevention campaign have been hold in high schools in targeted districts	TARGET: 1. xxx number of districts that have organized campaign 2. xxx number of school participating in campaign
K1PXX Cooperation with private sector and non-governmental organization for stunting prevention campaign (public private partnership—PPP)	Ministry of Communication and Information	Coordinating Ministry of Human Development and Culture, Ministry of Agriculture, Ministry of Health, BKKBN, Ministry of Home Affair, Ministry of Industry, Ministry of Trade	PPP partners design, manage, fund jointly projects to curb stunting	TARGET: 1. xxx number of private sector partners involved in government campaigns for stunting reduction 2. xxx number of cooperation agreement have been signed by privates sector partners for stunting reduction
	Ministry of Health			

ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
K1PXX Platform for the cooperation of government - private sector for stunting alleviation		Coordinating Ministry of Human Development and Culture, Ministry of Agriculture, Ministry of Health, BKKBN, Ministry of Home Affair, Ministry of Industry, Ministry of Trade	Platform set and has clear mandate and functional workplan	TARGET: 1. xxx number of projects jointly funded/organised by PPP platform participants
K1PXX Cooperation with private and state owned media, and non government organization on the socialization of stunting and campaign on healthy diet for stunting prevention	Ministry of Communication and Information	Coordinating Ministry of Human Development and Culture Ministry of Health BKKBN Ministry of Home Affair	The number of campaign in stunting awareness and prevention in media	TARGET: 1. xxx number of campaign in media 2. xxx number of local health food campaign in media
K1PXX Reviewing fortification and energy sufficiency standard for packaged food	BPOM	Ministry of Agriculture, Ministry of Health, BKKBN, Ministry of Home Affair, ...	Availability of review on fortification and energy sufficiency standard for package food	TARGET: 1. Report review on fortification and energy sufficiency standard for packaged food are available
K1PXX "Stunting Prevention Award"- for province/district	Coordinating Ministry of Human Development and Culture, Ministry of Health	Ministry of Agriculture, Ministry of Health, BKKBN, Ministry of Home Affair, ...	The number of award given each year	TARGET: 1. Availability of criteria, rule, and baseline for the Stunting Prevention Award

ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
successful in stunting alleviation				2. Award given each year 3. xxx number of districts participating in the award
Kluster 2 - Programme				
K2PXX Fortification of Raskin	Ministry of Social Affair	Bulog, Ministry of Agriculture	Cost-efficient fortified rice is developed, produced and distributed through Raskin	TARGET: 1. xxx beneficiaries received fortified rice (increase by 10% every year)
K2PXX Evaluation of Raskin	Ministry of Social Affair	Bulog, Ministry of Agriculture	Independent evaluation looks into the performance of Raskin and its impact and issues recommendations to improve it	TARGET: 1. Availability of independent report evaluation on Raskin 2. xxx number of recommendations are issued to improve Raskin and adapt its objectives to current Indonesian challenges such as stunting and obesity
K2PXX Distribution of food/nutrition supplement through Raskin or PKH	Ministry of Social Affair	Bulog, Ministry of Agriculture	Specialized food is distributed through the most effective and efficient channel, including possibility of market-based mechanisms	TARGET: 1. Availability of review on the most efficient and effective distribution mechanism of specialized food (through PKH, Raskin, or vouchers) 2. The implementation of specialized food distribution programs in targeted districts

ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
				3. xxx number of beneficiaries receive supplementary food through Raskin/PKH/vouchers
K2PXX Addition of nutritional component in PKH	Ministry of Social Affair	Ministry of Home Affair, Coordinating Ministry of Human Development and Culture	PKH is also a platform to prevent and detect malnutrition and refer to adequate programmes	TARGET: 1. Growth monitoring is introduced as a condition for beneficiaries as well as nutrition counselling and education services 2. Clear referral mechanisms are established so beneficiaries that have nutrition issues can benefit from complimentary services 3. Number of PKH recipients benefiting from nutrition counselling and complimentary nutrition services
K2PXX Improving the coverage of PKH	Ministry of Social Affair	Ministry of Home Affair, Coordinating Ministry of Human Development and Culture	PKH reaches the poorest 20% of Indonesians in all areas, with roll out first in the least developed districts	TARGET: All of eligible Indonesians in 20% lowest income category receive PKH benefits
K2PXX Addition of a component for handling malnutrition (Moderate Acute	BPJS	Ministry of Health	Protocols to screen and treat malnutrition and to counsel on malnutrition prevented are effective across Indonesia	TARGET: 1. Availability of BPJS service protocols Tersedianya protokol layanan BPJS to screen and treat

ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
Malnutrition and Severe Acute Malnutrition) for BPJS Health beneficiaries				acute malnutrition, complemented with referral and nutrition counseling mechanism 2. xxx number of BPJS beneficiaries benefit from services for screening, treatment and prevention of malnutrition
K2PXX Addition of nutrition surveillance component for family members of recipients of subsidies BPJS (women of childbearing age, pregnant women and children under five)	BPJS	Ministry of Health	BPJS beneficiaries adhere to pre-natal and post-natal check-ups, and to child growth monitoring	TARGET: 1. xxx number of children and women of childbearing age benefiting from BPJS benefit from nutrition monitoring services and counselling
K2PXX Integration of integrated poverty database with Independent Village Food Program (Demapan) and Food Diversification Program (P2KP)	Ministry of Agriculture	TNP2K, Ministry of Social Affair, BPJS, Coordinating Ministry of Human Development and Culture, National Statistics Agency	The use of a unified poverty database as the basis for social assistance through food-resilient villages (Demapan) and social assistance P2KP	TARGET: 1. Beneficiaries for Demapan and P2KP targeted through a unified database 2. Errors of inclusion of ineligible beneficiaries and exclusion of eligible beneficiaries are minimal at X% 3. No duplication of benefits

ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
K3PXX Programs in increasing agricultural production, and nutritional diversification	Ministry of Agriculture	Ministry of Agriculture, Ministry of Public Works and Public Housing	Production of nutritious food (staple, vegetables, fruits, legumes) increases at local and national level	TARGET: xx% increase in production of commodities per year
K3PXX Adding component on nutrition improvement in PNPM Perdesaan by supporting the small farmers to produce nutritious crop	Ministry of Home Affair	Ministry of Finance	PNPM finances projects that increase the productivity of smallholder farmers	TARGET: xx% increase on productivity of smallholder farmers in areas supported by PNPM
K3PXX Mapping targeted area using development indicators	BAPPENAS	Coordinating Ministry of Human Development and Culture, Ministry of Home Affair, National Statistics Agency, TNP2K	Urgency, coverage, and package of services to limit food insecurity and stunting is prioritized by district based on an indicator	TARGET: 1. Indicator developed 2. Indicator used to prioritize districts
K3PXX A depth review on food and nutrition insecurity in targeted districts	BAPPENAS	Coordinating Ministry of Human Development and Culture, Ministry of Home Affair, Ministry of Health, Ministry of Agriculture	Clear understanding of conditions and characteristics of food insecurity and malnutrition in priority districts and design of locally adapted tools to end it	TARGET: xxx number of reports that look at the causes of food insecurity and malnutrition in high priority districts are prepared and published and used as program and policy tools
K3PXX Developing a market	Ministry of Social Affair	Coordinating Ministry of Human Development and	The number of specialized nutritious food distributed	TARGET: 1. Availability of review on the most

ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
based mechanism for food stamps program		Culture, Bulog, Ministry of Agriculture, Ministry of Health	effectively and efficiently (including the possibility of distribution through market mechanism)	efficient and effective distribution mechanism of specialized food (through PKH, Raskin, or vouchers) 2. The implementation of specialized food distribution programs in targeted districts 3. xxx number of beneficiaries receive supplementary food through Raskin/PKH/vouchers
K3PXX Improving monitoring and evaluation mechanism of the related programs	BAPPENAS	Coordinating Ministry of Human Development and Culture, Ministry of Home Affairs, National Statistics Agency, TNP2K	Clear monitoring and evaluation mechanisms are designed and implemented across all programmes w/ feedback & complaints in place	TARGET: 1. Guidelines and tools to conduct M&E are implemented across all programmes 2. Evaluation findings used to improve implementation
K3PXX Preparing <i>Disaster Risk Management (DRM)</i> for poverty alleviation social assistance programs	BNPB	Ministry of Social Affairs, Coordinating Ministry of Human Development and Culture	Existing social safety nets (Raskin, PKH, BLT, etc.) are used to transfer resources to disaster-affected populations	TARGET: number of beneficiaries receive income transfers through SSN during emergencies
K3PXX Programs on increasing fisheries production with nutrition diversification	Ministry of Maritime Affairs and Fisheries	Ministry of Maritime Affairs and Fisheries	Increasing production at local and national level	TARGET: xx% increase on production of fish commodity per year

ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
K3PXX Programs on village physical access and logistic improvement	Ministry of Public Works and Public Housing	Ministry of Public Works and Public Housing, PT PT Indonesian Port, Ministry of Transportation	Increase connectivity between and within region	TARGET: 1. xx km village/farm road built in targeted districts 2. xx number of seaport built 3. xx number of river port built
K3PXX Development and revitalization of village market	Ministry of Trade	Ministry of Industry; Ministry of Village, Disadvantage Regions, and Transmigration	Availability of village-level market	TARGET: xxx number of village level market built and revitalized in 5 years
K3PXX Increasing the number of working opportunity and working placement	Ministry of Manpower	Ministry of Manpower, Ministry of Agriculture, Ministry of Industry	Increase on number of working opportunity and increase workers' wealth	TARGET: Availability of working opportunity for xxx% of work force and decreasing number of unemployment as much as xxx% per year
K3PXX Improving the slum settlement areas	Ministry of Public Works and Public Housing	Ministry of Public Works and Public Housing, Ministry of Public Works and Public Housing	Improvement of slum settlement areas	TARGET: Decrease on number of slum settlement as much as xxx% per year Development of livable housing xxx per year Development of water and sanitation facilities xxx per year
	BPOM			

ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
K3PXX Improving monitoring and regulation on food safety and quality, expansively and periodically		Ministry of Health, Ministry of Trade, Ministry of Home Affairs Private Sector	Implementation of monitoring and regulation on food safety and quality, expansively and periodically	TARGET: 1. Availability of a prudent regulation on food safety 2. Availability of report on the review of nutrition quality and food safety (including food sold by informal stalls)
K3PXX Development of local food using local specific characteristic	Ministry of Agriculture	Ministry of Agriculture, Ministry of Maritime Affairs and Fisheries, Ministry of Home Affairs, Districts Government, <i>Private Sector</i>	The availability of variety local food, which widely available and affordable	TARGET: xxx number of local food listed in BPOM and Local Trade Office per year
Kluster 3 - Institutional Set-Up				
K4PXX Giving mandate for coordinating/senior minister and local institutions to integrate and monitor programs	Ministry of XXX		Senior ministerial level accountability established with clear structure between local and central governments	TARGET: 1. Institution created (if applicable) and mandate given 2. Collaboration and reporting structure and mechanism from central to local defined

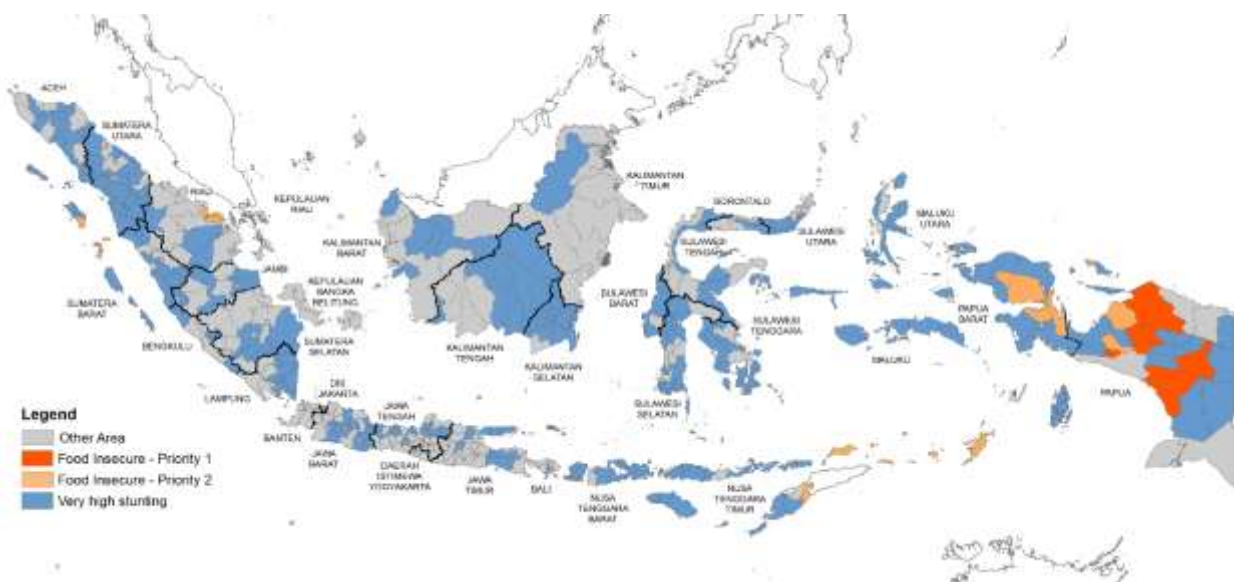
ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
K4PXX Monitoring the programs performance and accountability	Ministry of XXX		Individual performance record established for each associated institution on central and local levels, reviewed by ministerial body mandated with FNS on a regular basis	TARGET: 1. Performance targets established and agreed 2. IT supported monitoring tool implemented 3. Monthly performance reviews 4. Incentives for top 10% performing districts established 5. Penalties for 10% least performing districts
K4PXX Budget allocation	Ministry of XXX	Ministry of Finance, BAPPENAS	Sound funding plan established by mandated institution including increased coverage of social safety nets, immediate allocation of funds	TARGET: 1. Funding requirements detailed until RKA-KL for all food and nutrition programs 2. Availability of funding document detailed until 3 digits (DIPA) and budget allocation successfully negotiated and monitored
K4PXX Improving human resource capacity of related ministries and institutions, and allocating human	Ministry of XXX	Ministry of Administrative and Bureaucratic Reform	Defining responsible individual and their training needs, holding trainings with significant attendance	TARGET: 1. xxx number of of staff obtained personal training plans 2. xxx number of of staff trained according to the respective training requirement

ACTION PLAN	RESPONSIBLE AGENCY	RELATED AGENCY	SUCCESS CRITERIA	SUCCESS INDICATOR
1	2	3	4	5
resource dedicated for food and nutrition issues (<i>dedicated personnel</i>)				
K4PXX stating the role and the activity of food and nutrition security office in targeted districts	Ministry of XXX	Ministry of Home Affair	Establishing functional FSO in every priority district	TARGET: xxx number of coverage of priority areas with activated food security offices

Appendix 4: Options for Priority Kabupaten/Kota Prioritas

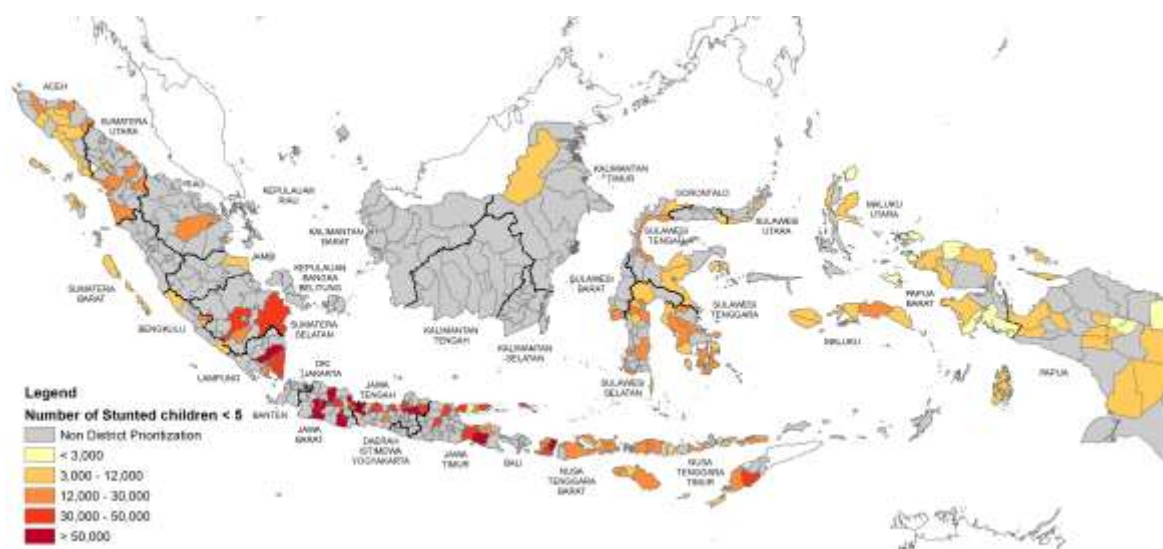
Option 1: Kabupaten/Kota with stunting > 40% -- 245 kab/kota

Row Labels	Count of Selected district	Average of Stunting2013 (%)	Min of FSVA2013	Average of POVERTY 2011 (%)	Sum of Stunted children <5	
ACEH	12	47.8	47.8	0	21.4	121,822
BALI	1	41.0	41.0	6	5.4	15,610
BENGKULU	4	46.3	46.3	4	16.8	30,698
DKIJAKARTA	1	41.3	41.3	0	11.5	867
GORONTALO	2	44.5	44.5	4	19.4	21,496
JAMBI	5	47.2	47.2	3	7.8	63,015
JAWA BARAT	10	42.6	42.6	0	12.4	641,984
JAWA TENGAH	10	45.8	45.8	0	16.8	358,443
JAWA TIMUR	10	46.6	46.6	3	19.7	365,578
KALIMANTAN BARAT	5	47.1	47.1	3	8.1	79,083
KALIMANTAN SELATAN	10	47.9	47.9	3	5.9	122,238
KALIMANTAN TENGAH	10	44.9	44.9	0	6.5	70,187
KALIMANTAN TIMUR	1	40.3	40.3	5	12.7	3,002
LAMPUNG	9	45.1	45.1	0	13.9	232,733
MALUKU	9	44.9	44.9	0	27.2	55,071
MALUKU UTARA	6	45.5	45.5	2	14.4	36,870
NUSA TENGGARA BARAT	7	49.0	49.0	3	22.1	190,944
NUSA TENGGARA TIMUR	18	54.1	54.1	2	22.6	270,392
PAPUA	24	43.3	43.3	1	36.5	96,992
PAPUA BARAT	11	45.0	45.0	0	32.5	40,697
RIAU	4	45.4	45.4	2	16.1	78,092
SULAWESI BARAT	4	50.5	50.5	3	12.5	64,292
SULAWESI SELATAN	15	45.2	45.2	3	12.6	207,325
SULAWESI TENGAH	5	47.0	47.0	3	19.1	55,184
SULAWESI TENGGARA	9	45.3	45.3	0	15.1	100,105
SULAWESI UTARA	5	46.9	46.9	5	11.3	23,349
SUMATERA BARAT	9	46.0	46.0	0	10.8	117,647
SUMATERA SELATAN	4	43.2	43.2	5	12.4	108,858
SUMATERA UTARA	25	48.0	48.0	0	14.7	416,555
Grand Total	245	46.5	46.5	0	18.1	3,989,127



Option 2: Stunting > 40%, Poverty rate > national average – 151 kab/kota

Province	Number of Districts	Average Stunting Rate 2013 (%)	Average Poverty Rate 2011 (%)	Total Stunted Children (US)
ACEH	12	47.79	21.4	121,822
BENGKULU	4	46.29	16.8	30,698
DKI JAKARTA	1	41.29	11.5	867
GORONTALO	2	44.45	19.4	21,496
JAMBI	1	48.49	11.6	9,775
JAWA BARAT	7	43.15	13.7	443,701
JAWA TENGAH	8	46.63	18.6	338,605
JAWA TIMUR	10	46.61	19.7	365,578
KALIMANTAN TIMUR	1	40.27	12.7	3,002
LAMPUNG	6	46.93	16.7	197,358
MALUKU	7	48.55	25.8	47,581
MALUKU UTARA	4	43.06	17.0	14,599
NUSA TENGGARA BARAT	7	49.02	22.1	190,944
NUSA TENGGARA TIMUR	15	55.29	24.8	231,664
PAPUA	15	51.23	34.7	73,380
PAPUA BARAT	8	47.99	28.2	35,931
RIAU	1	44.39	11.9	17,520
SULAWESI BARAT	2	53.55	18.4	33,914
SULAWESI SELATAN	9	45.58	15.0	117,468
SULAWESI TENGAH	5	47.02	19.1	55,184
SULAWESI TENGGARA	7	45.55	16.8	79,380
SULAWESI UTARA	2	44.80	16.0	7,300
SUMATERA BARAT	1	40.90	18.9	4,268
SUMATERA SELATAN	3	42.42	13.5	81,741
SUMATERA UTARA	13	49.13	18.0	168,191
Grand Total	151	48.01	21.1	2,691,966



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