The Minister of National Development Planning
Head of National Development Planning Agency

FOREWORD

The status of community nutrition is showing an improvement trend, which can be seen from the decrease of the prevalence of under nutrition or low weight among under-five. Cases of under-five malnutrition, measured by the prevalence of under nutrition and severe under nutrition, are used as indicator of hunger. This is because the indicator is closely related to food vulnerability within community. Another hunger indicator is the average consumption level of energy among population below 70 percent of the recommended dietary allowances. This condition will seriously affect to the achievement of other MDGs such as child mortality rate, and access to education.

In addressing nutritional problems, some related factors are among others, high number of poverty; poor environmental health; low coordination of inter sectors and inter programme, low involvement of community; poor food accessibility at household level especially for poor families; high prevalence of infectious diseases; inadequacy of mother care; and poor access of families to primary health care services.

The Constitution Act number 17 year 2007 on the National Long Term Development Plans 2005–2025 states that "development and improvement of nutrition should be implemented through inter-sectoral collaboration covering production, processing, distribution and consumption of food with adequate, balance and safe nutrition content". Therefore, food security is one priority of the National Medium Term Development Plans 2010–2014 and it is affirmed by the Presidential Regulation Republic of Indonesia number 5 year 2010. The Presidential

Instruction number 3 year 2010 instructs issuance of a National Action Plans for Food and Nutrition and Provincial Action Plans for Food and Nutrition with active involvement of districs and municipalities in its development process. The food and nutrition action plans are developed in action-oriented programs covering 5(five) pillars of action plans i.e. community nutrition improvement, increasing food accessibility, increasing quality and safety control, change of community behaviour towards clean and healthy life style, and strengthening food and nutrition institutions.

This action plan is developed as a guideline and direction in implementing food and nutrition development at national, provincial, district/municipality levels, not only for government institution and community but also for other related parties that are relevant to food and nutrition improvement. To complement this action plan, guidelines for local action plans will be developed to provide a clear operational local action plan documents which are in line with the national policies.

We hope that this National Plan of Action for Food and Nutrition (NPA-FN) 2011 – 2015 would be beneficial in addressing food and nutrition problems in Indonesia.

Lastly, we express our acknowledgement to representatives from the Ministry of Health, the Ministry of Agriculture, the Ministry of Internal Affairs, Food and Drug Control Board, experts from Bogor Institute of Agriculture, University of Indonesia, professional organizations such as the Indonesian Nutritionist Association, the Indonesian Food and Nutrition Association, the Indonesian Medical Nutrition Doctor Association, UNICEF, WHO, and WFP and other Non Governmental Organizations for their contributions of thoughts and hard working in finalizing this document.

Jakarta, December 2010
Minister of the National Development Planning /
Head of National Development Planning Agency

Prof. DR. Armida S. Alisjahbana, SE, MA

EXECUTIVE SUMMARY

In 2007, the prevalence of undernutrition and stunting among children under five was 18.4 percent and 36.8 percent respectively. By this figure, Indonesia contributed to 90 percent of nutritional problems among 36 countries in the world (UN-SC *on Nutrition* 2008). Although in 2010 the prevalence of undernutrition and stunting had decreased to 17.9 percent and 35.6 percent respectively, the disparity among provinces was still high and needed to be addressed through specific problem-based solvings focusing to vulnerable areas. (RISKESDAS 2010).

Nutritional problems are closely related to the availability and accessibility of food to people. Based on the data published by the Central Statistics Bureau (BPS), in 2009, number of the most vulnerable people having calorie intake less than 1,400 calorie/person/day was 14.4 percent. This figure increased slightly compare to the 2008 condition, which was 11.07 percent. The poor accessibility to food (the ability of households to meet food requirement for their family members), will threaten family to have diversed food consumption, balanced nutrition, and food safety at household level. In the end, this condition will contribute to more problems of undernutrition at community particularly to the vulnerable groups i.e. mothers, infants, and children.

The National Medium Term Development Plans (NMTDPs) year 2010 - 2014 has clearly mentioned that the food and nutrition development is to strengthen food security, health and nutritional status of community. Furthermore, the Presidential Instruction number 3 year 2010 on the Development Programmes with Equity, which is related to the Action Plans of the achievement of Millinium Development Goals (MDGs), affirms the need for development of a National Plan of Action for Food and Nutrition (NPA-FN) 2011- 2015 and Regional Plan of Action for Food and Nutrition (RPA-FN) 2011 – 2015 in 33 provinces of Indonesia.

It is hoped that outputs of the action plans will be bridging the MDGs goals which have been agreed upon in the NMTDPs 2010 – 2014 namely to reduce the prevalence of undernutrition in under five to 15.5 percent; to reduce the prevalence of stunting in under five to 32 percent; and to achieve food consumption intake to 2,000 calory/person/day.

In this Action Plans, the policy of food and nutrition is developed based on 5(five) pillar approaches of food and nutrition development which covers

the following: (1) community nutrition improvement; (2) food access; (3) food quality and safety; (4) clean and healthy life style (PHBS), and (5) Institualization of food and nutrition. The policy of food and nutrition is to improve community nutritional status especially mother and children, through food availability, accessibility, consumption, and food safety, clean and healthy life style including nutrition awareness, and followed by strengthening multi sectorals and inter programmes coordination mechanism and partnerships.

On the other hand, the national strategy, which elaborate the above policies, includes: (1) c**ommunity nutrition improvement**, focusing to pre-pregnant women, pregnant mothers, and children by improving sustainable health service availability and accessibility with particular attention to the intervention of effective nutrition to pre-pregnant women, pregnant mothers, infants and children under two years (2) **increasing diversed food accessibility** by improving food availability and accessibility with focus to the food-vulnerable family and the poor; (3) **development of food quality and safety** by improving food safety control with focus to standard-fulfilment street food and certified home industrial products; (4) **increasing clean and healthy life style (PHBS)** by empowering community and involving roles of formal and non formal leaders, especially in food consumption behaviour change, with particular attention to diversed local-based food consumption, clean and healthy life styles, and revitalization of integrated health service posts (posyandu); and (5) **strengthening food and nutrition institutionalizations** at national, provincial, and district/municipality levels with authority of formulating policies and programmes on foods and nutritions including the resource capacities as well as research and development activities.

Provinces are grouped into four strata, to implement policies and strategies at provincial level, based on the proportion of the most vulnerable people to food (cut off point 14.47 percent) and precentage of stunting among children under-fives (cut off point 32 percent). The provincial strata are as follows: (1) **Strata 1**: Province with prevalence of stunted under five $\leq$ 32 percent and proportion of people with average calory intake <1,400 Ccalory/capita/day is $\leq$ 14,47 percent ; (2) **Strata 2**: Province with prevalence of stunted under five is $\leq$ 32 percent and proportion of people with average calory intake <1,400 Ccalory/capita/day is >14,47 percent; (3) **Strata 3**: province with prevalence of stunted under five is >32 percent and proportion of people with average calory intake <1,400 Ccalory/capita/day is $\leq$14,47 percent;

and (4) **Strata 4**: province with prevalence of stunting of stunted under five > 32 percent and proportion of people with average calory intake < 1,400 calory/ capita/ day is > 14,47 percent.

These action plans are intended to be the guidelines in implementing food and nutrition development for government, non governmental organizations, private institutions, communities and other stakeholders either at national, provincial or district/municipal levels .

CONTENTS

LISTS OF ABREVIATIONS

INA	=	Iron Nutritional Anemia
RDA	=	Recommended Dietary Allowances
BF	=	Breast Feeding
ASEAN	=	Association of South East Asian Nations
Under two	=	Under two years of age
LBW	=	Low Birth Weight
W/H	=	Weight for Height
W/A	=	Weight for Age
FSC	=	Food Security Council
FA	=	Food Additives
CSB	=	Centre of Statistics Board
FDC	=	Food and Drug Control
D3	=	Diploma 3
D/S	=	Number of children under five years of age weighted compared to All children under five years of age in a specific area of the weighing sessions.
IDD	=	Iodine Deficiency Disorders
GMP	=	Good Manufacturing Practices
GRP	=	Good Retailing Practices
GDP	=	Good Distribution Practices
HR	=	Human Right
HDI	=	Human Development Index
HDR	=	Human Development Report
BMI	=	Body Mass Index
IQ	=	Intelligence Quotient
CED	=	Chronic Energy Deficiency
ANC -4	=	4th Visits of Ante Natal Care
PEM	=	Protein Energy Malnutrition
MoIA	=	Ministry of Internal Affairs
MoNE	=	Ministry of National Education
MoH	=	Ministry of Health

MoI	=	Ministry of Industry
MoAg	=	Ministry of Agriculture
Cal	=	Calory
Ob	=	Outbreak
NV	=	Neonatal Visits
NV1	=	First Neonatal Visits
VDA	=	Vitamin A Deficiensy
MUAC	=	Midle Upper Arms Circumference
NGO	=	Non Governmental Organization
LFS	=	Local Food Storage
MD	=	Foods Made in Indonesia
MDGs	=	Millenium Development Goals
WF	=	Weaning Foods
WNT	=	West Nusa Tenggara
ENT	=	East Nusa Tenggara
ECE	=	Early Childhood Education
GDP	=	Gross Domestic Product
BTHCL	=	Behaviours toward clean and healthy life
PHC	=	Primary Health Care
HIP	=	Household Industry Products
SFS	=	Supplementary Feeding Sessions
IHSPs (Posyandu)	=	Integrated Health Service Posts
DFP	=	Desirable Food Patterns
FAE	=	Field Agriculture Educator
Ppm	=	Part Per Million
HC	=	Health Centre
ADFC (P2KP)	=	Acceleration for Diversified Food Comsumption
RAP- FN	=	Regional Action Plans for Food and Nutrition
NPA-FN	=	National Plan of Action for Food and Nutrition
RISKESDAS	=	Basic Health Research
NMT-DP	=	National Medium Term Development Plans
NLT- DP	=	National Long Terms Development Plans
RMT- DP	=	Regional Medium Term Development Plans
SCN	=	Standing Committee on Nutrition
HR	=	Human Resources

IHDS	=	Indonesian Health and Demografic Survey
RTFU	=	Regional Task Force Unit
INS	=	Indonesian National Standard
NSES	=	National Socio Economic Survey
MSS	=	Minimum Service Standard
TBC	=	Tuberculosis
NE	=	Not Eligible
TGR	=	Total Goiter Rate
H/A	=	Height for Age
UNDP	=	United Nation Development Programme
UNICEF	=	United Nation Children's Fund
WB	=	World Bank
WRA	=	Women in Reproductive Age
WFP	=	World Food Programme
WHO	=	World Health Organization

LISTS OF TERMS

Anemia	Low concentrotion of Hemoglobin in blood, 50 % of incidence of Anemia is caused by iron deficiency.
LBW	Infant born with body weight less than 2,500 grams.
Food Diversification	Food Diversification is effort to increase diversified food consumption to achieve balanced nutrition principles.
Undernutrition	Disorder due to lack of nutrient required for optimum growth. Indicators that are used to measure under nutrition of children are height for age (H/A), weight for age (W/A), and weight for height (W/H) whereas BMI is an indicator used for adult.
Overnutrition	Excess of body weight of children compared to their height, measured by their weight for height based on WHO z-score standard. BMI is used to measure over nutrition for adult.
BMI	Body Mass Index is body weight in kilograms divided by square value of height in meter (kg/m^2).
Food Safety	Conditions and efforts needed to prevent biological, chemical pollutions and others that harm human health.
Food Security	Conditions in which foods are sufficient to household level in terms of quantity, quality, safety, distribution and afordability**.**
Energy Consumption	Total energy from foods that are consumed by population in Kilo Calory. (Ccal).

Food Consumption	Total foods and beverages that are consumed by population or individuals in grams per caput per day.
Protein Consumption	Total protein from food either animal or plant origin that are consumed in grams per caput per day.
Nutrient Deficiency	This consists of macro and micro nutrient deficiency. Macro nutrient deficiency in the past was known as protein energy malnutrition (PEM). At present PEM is no longer used and replaced by under nutrition (z- score W/A < -2 DS), and severe malnutrition (z–score W/A < -3 DS). This is because PEM in fact not only deficient in terms of calory and protein but also micro nutrients.
Balanced Nutrition	Recommended meal composition based on nutritional requirements of individuals and/or group of people to be healthy, smart, and productive based on balanced nutrition guidelines.
Recommended Dietary Allowances (RDA)	Nutrients and/or energy required by individuals in a population to be healthy.
Foods	Any substances originated from living matter and water, either naturally or processed to be used as meals and beverages for human consumption. These include food additives, raw foods, and other subtances that are used for preparing and processsing meals and beverages.
Staple Foods	Foods that are good source of carbohydrate consumed as main meals, snacks, and for breakfast.
Food Consumption Pattern	Foods that are normally consumed in terms their items and quantities by

	individuals or population in a certain frequency and period of time.
Desirable Food Pattern	Quantity of nine groups of food based on their energy contribution to meet nutritional requirement of population in view of their quantity, quality and vareity taking into account of their social, economical, cultural, religion and tastes.
Stunting	Growth faltering to reach optimum standard indicated by height for age (H/A) indicator.
Wasting	Optimum growth inadequacy measured by weight for age (W/A) indicator.
Xerophthalmia	Clinical signs of Vitamin A deficiency which cause anatomical disorders of eye ball and malfunctions of retina that lead to blindness.

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THE MINISTRY OF HEALTH
REPUBLIC OF INDONESIA

SPEECH OF
THE DIRECTOR GENERAL OF
NUTRITION AND MOTHER AND CHILD HEALTH

Nutrition improvement is very closely related to the ability of providing food at household level and the existence of disease particularly communicable disease. These two factors relate to people income, health services, knowledge and parenting applied in family. With the large dimention affecting to nutritional factors, the nutrition interventions should be implemented in multi discipline of knowledge and inter-sectoral collaboration of ministries/institution involving professional organizations, universities, community-based organizations, and community itself.

In terms of harmonization of the whole inter-sectoral activities, it needs coordination from planning, implementation and evaluation of activities. Therefore, all services to food and nutrition are equally devided to implement by all related ministries/institution in accordance to their respective roles and functions. For that reason, an integrated document in the form of National Action Plans-for Food and Nutrition (NPA-FN) is needed. Thus, we really appreciate and well receive the iniciative of the National Development of Planning Board to together develop this National Action Plans-for Food and Nutrition (NPA-FN) 2011 – 2015.

With this food and nutrition action plans, it is hoped that the achievement of 8(eight) goals of the millinium developments particularly goal number one, which is to decrease poverty and hunger in 2015 to become half from the situation in 1990, is accelerated and reached beyond the targeted

number. Further more, It is hoped that the existence of the National Plan of Action for Food and Nutrition (NPA-FN) 2011 - 2015 will also support acceleration of achievement of the Ministry of Health 's vision that is " Healthy community with self reliant and equitable ".

To all contributors of this document, either from the National Development Plan Board, Ministry of Health, Ministry of Internal Affairs, Ministry of Agriculture, Food and Drug Control Board, and the International Agencies, NGOs that all parties contributed competencies and experiences to prepare this document, I really acknowledged.

May the publication of this National Plan of Action for Food and Nutrition (NPA - FN) 20011 – 2015 be useful for the sake of nation prosperity and it is there fore, May the God Bless us.

DIRECTOR GENERAL OF NUTRITION AND MOTHER AND CHILD HEALTH

Dr. BUDIHARDJA, DTM&H, MPH

MINISTRY OF AGRICULTURE
REPUBLIC OF INDONESIA

SPEECH
THE HEAD of BOARD OF FOOD SECURITY

Food is one unique resource of humanities. Every individual has right to free from hunger and starvation. Food has very complex dimension not only from the sides of health and life, but also from the sides of social, cultural, and politic. It is therefore, the attainment of food and nutrition security can not be separated from efforts of improving individual and community health quality and efforts of improving competetitiveness of human resource, which later be the nation competetitivesness strength. Food can also be said as cultural product because food is resulted from active adaptation of human being/community with their environment, that is why the attainment of food security should be based on local resources and values, and thus it can become a media in developing the nation culture and civilization.

Indonesia is on the right tracks to achieve Millenium Development Goals (MDGs) number 1 that is to decrease extreme poverty and hunger to 10.3% in year 2015. Even, efforts to decrease the extreme poverty has successfully surpassed the target of MDGs number 1, where in year 2008 percentage of population with income less than 1 USD per day was 5.9%. The prevalence of severely malnourished children under-fives has also decreased significantly although it is not as much as the extreme poverty decline. The figure in 1990 was 31% to 18.4% in 2007. Where as, the MDGs target in 2015 is 15.50%. The things that should be given attention are the number of vulnerable population to food, with energy consumption less than 1,400 Ccalory/capita/day or less than 70% of the Recommended

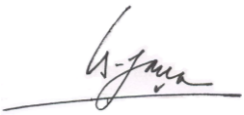
Dietary Allowances. The figure in 2009 was 14.47% while the MDGs target in 2015 is 8.5%. This means that more hardworks still need to be done to decrease number of vulnerable population to food.

The mandate of Constitution number 7 year 1996 on food, clearly states that food security development is directed to meet the basic needs of human being. On the other side, it also states ways on how to achieve the target development, by giving fair and even benefits with basis on self-reliance and non contradictory to community beliefs. Self reliant is not a physical-biological conception, but it is a phsycological-cultural conception, mindset or mental attitude, that is independence attitude refusing dependency of self-fate to other people; attitude of refusing subordination; attitude to refuse begging. The efforts of building community self-reliant are also affirmed in one article of the Constitution number 7 year 1996 that states the attainment of food security is a mutual responsibility of government and community.

The finalization of this National Action Plans for Food and Nutrition (NAPs-FN) has passed consultative procesess with various stakeholders including industrial partners. Role of the food industry in making self sufficiency to food is quite significant. Firstly, food industry is a machine to utilize national natural resources into food products with high nutrient content and high social class value. Secondly, food industry is also a trend-setter in directing to food self sufficiency. Therefore, this document can be used by all stakeholders to collaboratively reaching the food self-reliance.

At last, I extend my highest appreciation to the Ministry of National Development Plan or the National Development Plan Board that has been able to mobilize all of our national resources until this comprehensive NAPs- FN is now developed.

HEAD OF FOOD SECURITY BOARD



Prof. DR. Ir. ACHMAD SURYANA, MS

FOOD AND DRUGS CONTROL BOARD
REPUBLIC OF INDONESIA

SPEECH OF
THE HEAD OF FOOD AND DRUG CONTROL BOARD

Food and Nutrition Intervention is one important agenda in the national development. Food and nutrition are directly related to community health. Data shows 14.47% of Indonesian population is included in the very vulnerable to food group (calory intake is less than 1,400 Ccalory/caput/day), 4.9 % is severe malnutrition prevalence (BPS, 2009). In addition to that, information shows that food-borne diseases is the main public health problems.

Foods are also related to economy, primarily in agriculture; industry of food production and processing; and food-based business and trade activities. Food industry is not only managed by big factories but millions of small industries, home industries (at least recorded 950,000 food home industries (FHI) and food retailers (modern shop and traditional markets). This figure shows that food and nutrition intervention has wide and complex challenges and problems so it needs all involvement of various interest parties from central government, provincial/district level, including community/consumers from different community group and strata, private sectors and other related industries.

The development of the National Action Plans for Food and Nutrition (NAPs- FN) 2011 – 2015 as continuation of NAPs-FN 2006 – 2010 is meaningfully essential in terms of integrated intervention of food and nutrition by the central government as well as province/districts. A synergy and integration of food and nutrition developments will become a potential strength in the implementation towards the Equitable Development Programs to reach the MDGs, as stated in the World Food

Summit in 2009 that food security is achieved when all people, at any moment has physical access, social and economy for sufficient, safe and nutritious food to fulfil their food requirement and mainly focused to food for active living and fitness. In line with this, the pillars of quality control and food safety is important as part of the food security. In relation to the food safety, this document provide issues of food safety, analysis situation of food safety, important aspects of food safety, potentials of food safety development, indicators and components of food safety implementation.

A part from the food control, in general, the National Action Plans emphasizes monitoring of hawker food especially those directed for school children and products of household food industry (HFIPs) as children are the essential nation asset. It is also hoped by assuring safety of hawker food at school children, it will contribute to improvement of nutritional status. Food hygiene and sanitation of HFIPs should also become priority so that concrete steps are taken to ensure safety of the HFIPs products distribution.

Besides that, the pillars of food quality control and food safety also adopt the new approaches in achieving the MDGs i.e. implementation of food safety standards based on risk analysis, to continue innovative appropriate technologies, to empower local governments in improving food control, quantity and quality of food inspectors and to develop Indonesian Rapid Alert System for Food.

It is hoped that the document of NAPs-FN, especially those related to food quality control and safety taken for granted as guidelines for local governments to take decision that can be adopted in Regional Action Plans for Food and Nutrition (RAPs-FN) to ensure food safety for communities.

Finally, we express our thanks and appreciation and recognition to all parties for their collaboration and active involvement in finalizing this document as well as possible. Constructive critics and recommendations are needed especially in food quality and safety to have a better future.

HEAD OF FOOD AND DRUGS CONTROL

Dra. KUSTANTINAH, Apt., M.App.Sc.

MINISTRY INTERNAL AFFAIR
REPUBLIC OF INDONESIA

SPEECH OF
THE DIRECTOR GENERAL
VILLAGE AND COMMUNITY EMPOWERMENT

Food problems in Indonesia should receive serious attention. Many cases of under nutrition are not merely caused by the low understanding of healthy food consumption, but it is also caused by inappropriate implementation of food and agriculture. Generally, land ownership structure in Indonesia is very unfair to farmers, who averagely have only 0.3 hectare of agriculture field. While many big factories using their utility right, are able to have thousands of hectares for their utilities. This is causing farmes to have limited usage of their land and produce food and in turn force them to be part-time labor. When the price of food is high, low income farmers are unaffordable to meet their food requirements. This is an essential real cause of the increasing number of severe malnourished children in Indonesia. At the end the poverty and starvation is going to increase. The situation will become more serious with the uneven access of community to foods.

As an agricultural country with tropical climate and fertile soil, Indonesia should be a world prominent country in producing healthy and diversified food. Ironically, we remain dependent to imported food, due to reduced awareness of nationalism for protecting business of our local farmer in the country. Meanwhile, status of community nutrition is a determining factor to country productivity and economic growth. The declining progress, which we are facing now, is caused by low productivity of our nation at all levels, lack of integrated planning of central and local levels including maintaining energy supply, which added to powerlessness of our community.

As regulated in the Law number 32 year 2004 article 13 and 14 and the Government Regulation number 38 year 2007 about the division of responsibilites of government at central, provincial and district/municipaliy level, food and health sector handling become compulsory works under the authority of province and district/ municipality government.

The publication of NPA-FN 2011 – 2015 document is intended as guideline to stakeholders at various levels of government in developing, planning and solving problems related to food and nutrition. I urge governors, district/municipality leaders in charge to coordinate the inter-sectoral programmes and activities and to actively look for support from other parties including donor agencies and private sectors to develop food and nutrition in their own localities.

May the Almigthy God will continuously gives us blessing and guidance. Amin.

DIRECTOR GENERAL OF
COMMUNITY AND VILLAGE EMPOWERMENT

Drs. AYIP MUFLICH, SH, MSi

I. INTRODUCTION

A. Background

Economic growth in Indonesia has vastly increased in the last four decades marked by improvement of social-welfare of the Indonesian people. In year 2010, the Indonesian Gross National Income was US $ 3,956 per capita, while the average life expectancy was 71.5 years (UNDP, 2010). However, some development indicators still showed some concerns. One indicator accelerated for its target was reduction of number of poor people. The poverty level had decreased from 14.1% in 2009 to 13.3% in 2010 (BPS), however, more hardworks still required to accelerate the Millenium Development Goals (MDGs)'s achievement. The MDGs commitment is to reduce to 50% of the 1990 condition, that is to be 7.5% in 2015.

The condition of vulnerable group such as mothers and children remain of having health and nutritional problems, indicated by the high rate of: maternal and neonatal mortality; prevalence of under nutrition (W/A) and stunting (H/A) of under five; prevalence of iron-anemia undernutrition in pregnant mothers; iodine deficiency disorders in pregnant mothers and infants; and Vitamin A deficiency among under five. In 2007, children under five who suffered from undernutrition and stunting were 18.4% and 36.8% respectively, which made Indonesia included in the 36 countries that contribute to 90% of the global nutritional problems (UN-SC *on Nutrition* 2008). However, in 2010 the prevalence of undernutrition and stunting had decreased to 17.9% and 35.6 % respectively, however, there were still disparities among provinces to address by way of providing specific interventions at the vulnerable areas (Basic Health Research, 2010).

Food is one basic human need and its fulfillment is a right of each of Indonesian people. This is in line with the Law number 7 year 1996 on Food. By fact, the map of vulnerable population to food published by the Central Statistics Bureau in 2009 still showed a very concerning situation. Number of the very vulnerable population to food with calory intake less than 1,400 Ccalory per person per day reach 14.47%, having an increase compare to year 2008 of 11.07%. Low access to food, which mean capability of household to continuously fulfill foods need to each member of their family, threats to reduction

of diversed, balanced-nutrient and safe food consumption at household level. In the end, the situation will contribute to more complex of community nutritional problems, especially to the vulnerable groups i.e. mothers, infants and children.

Number of studies had shown that nutrititional problem was an intergeneration problem, which means when a pregnant mother is malnourished, then she will deliver a malnourished infant. Basically, nutrititional problem can be treated in a relatively short time. A package of intervention to address the problem is conducted through a c*ontinuum care* during the golden moment of lifes *(window of opportunity),* starting from fetus in the womb to newborn and until two years of age. In Brazil, the prevalence of stunting in under five decreased to more than 30%, from 37% in 1974 to 7% in 2006, through implementation of 4(four) priorities of care namely: (1) improving access of health services and continued care of nutrition to mother and child; (2) improving access of education and information to female adolescent and adult; (3) improving coverage of water supply and sanitation; and (4) improving family buying power (*Monteiro et al, 2010*). While Thailand had decreased to 50% of malnutrition in children within four years period only (1982-1986) providing focused services at the same group (SCN *News* No. 36 *mid*-2008). A study in Peru involving stunted children age 6-18 months, had shown that with appropriate interventions, height dropping on growth can be "chased" and by the age of 4,5-6 years, the stunted children can have the same intellengence as non-stunted children during their infant period *(Crookston et al, 2010).*

At present, status of nutritition in the world is showing two extreme conditions. Start from stravation until diet style trends i.e low fiber and high calory diet, thin-shape condition, short to obesity. On the other hand, number of communicable as well as non-communicable diseases are also increasing. It is very obvious that nutrition will give significant contributions to the care of these two diseases. To reach an optimum heatlh status, two sides of these diseases need to be more focused from the perspective of the nutrition approach, both to group of the rich and the poor (WHO, 2008).

Similar condition is also happening in Indonesia. While most of Indonesian people are malnourished especially mothers, infants and children, at the same time over nutritition problem is showing an increasing trends and causing double burden that hamper progress of development. An optimum nutritition status of community has widely

accepted as one predictor of qualified human resources, academic achievement and country's competitiveness. *(The Lancet, 37: 340-357).*

The National Mid-term Development Plan (RPJMN) 2010-2014 has clearly directed the food and nutritition development to improvement of food security and status of community health and nutritition.

The development of National Plan of Action for Food and Nutrition (NPA-FN) 2011-2015 was initiated by an evaluation of the national actions of the NPA-FN 2006-2010. Many progress had been achieved on community nutritition improvement, food accessibility, quality and food safety, clean and healthy life style (PHBS), and coordination of institutions of food and nutritition. The achievement were marked by the improvement of community nutrition status, increased number of food provision and adequacy to people need, issuance of various regulations related to food quality and safety, individual and family behavioral change to practice clean and healthy life style and increased nutrition awareness, and more existency of institutions/organization working on food and nutrition at various administrative levels of governance.

Nevertheless, many challenges were still identified, thus some recomendations of the NPA-FN 2006-2010 evaluation become the main focuses to describe in the action plan and becoming the priorities of the next five-year national development of food and nutritition. Association of food development, health and nutritition with poverty eradication, education, family empowerment and implementation of essential community must be clearly described to enable each working unit of the local authorities (*SKPD*) allocates supporting prioritized activities and give directions to local area development.

B. Objectives of of NPA-FN

To guide implementation of food and nutrititional development for government institutions, non-government institutions, private organizations, community and other players at level of national, province as well as district/municipality.

With this guidance, all players working in the food and nutritition development will: 1) understand the importance of food and nutritition as an investment of development; 2) be capable of

analyzing development situation of food and nutritition in every area to determine priority actions, be selective to appropriate and cost effective interventions, revitalize food and nutritition institution, monitoring and evaluation of food and nutritition programs; 3) improve coordination of food and nutrition actions integratedly.

C. New Approaches to accelerate achievement of indicators related to MDGs.

Referring to the President Instruction number 3, 2010 on the Programs of Development with Equity, the following issues are agreed: 1) development of national road map to accelerate the MDGs achievement; 2) Guideline of action plans of acceleration target achievement of MDGs at local area should be used as baseline of planning and coordination improvement to reduce poverty and improve people welfare; 3) budget allocation to support the MDGs achievement will be continuously increased, including provision of stimulants and supports for local government with good performance in the MDGs achievement; and 4) strengthening mechanism of *Corporate Social Responsibility* approach supporting the MDGs achievement (Bappenas, 2010).

With only five years left towards the year of 2015, various challenges of today must be translated into the annual agenda of NAP-FH 2011-2015 implementation. Hence, this document should be more oriented to structured activities, integrated in package of interventions, covering all levels of vulnerable people at priority areas with continuous approaches during the short golden period i.e. when fetus is in the womb, in infants and children under two years old, so it will give significant results towards the target achievement of MDG1. The indicator of success used is decreased number of malnutritition and stunted under five and number of people having calory intake to 2000 Ccal/person/day by 2015 increased, even before the targeted dateline.

The National Plan of Action for Food and Nutrition 2011-2015 need to be implemented in a systimatic way in line with the challenges faced and its activities are structured integratively under the five pillars of the action plan to achieve target of decreased number of malnutritition and stunting and increased number of calory intake of the Indonesian people (**picture 1**).

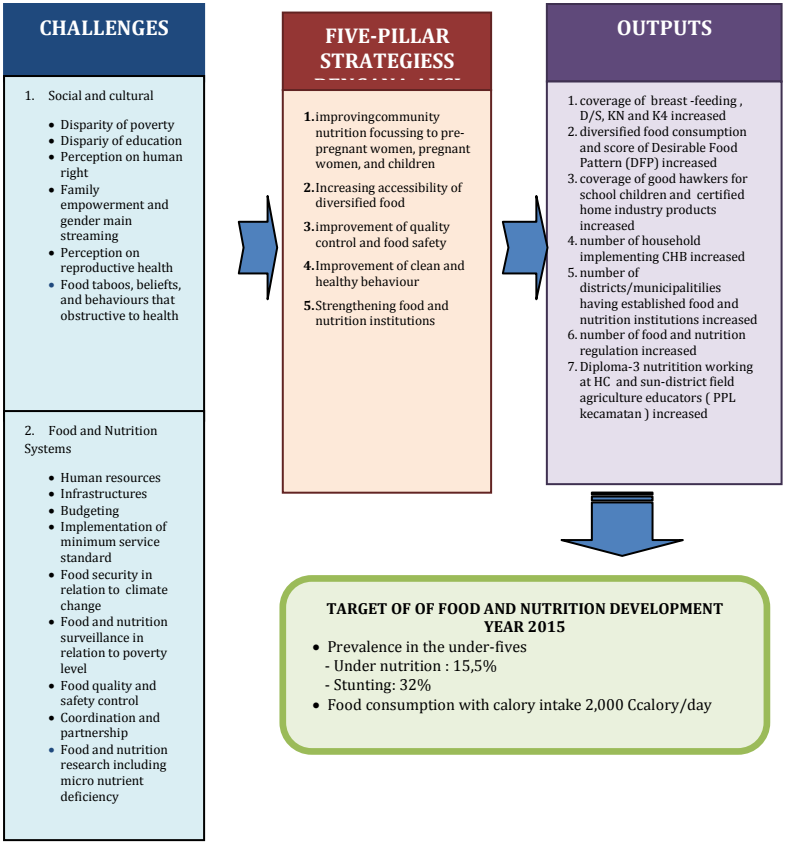
The present challenges due to disparities of poverty, education and knowledge among areas and people should be addressed by different

strategies. Similarly on social cultural issues that hamper acceleration of the MDGs achievement i.e. perception of human rights, perception towards reproductive health and gender mainstreaming, must be addressed exclusively.Various behaviours obstructive to health and nutritition, such as taboo to particular food, must also be addressed exclusively.

Referring to the results of assessment and analysis of nutritition and other related programs which were conducted to see preparedness of Indonesia in accelerating actions related to food and nutrition to the MDGs achievement, it is agreed to strengthen all the existed components of food, health and nutrition system. The components are human resources, infra-structures, finances, coordination and partnership, provision of health services, research and development (MoH, 2010). All the components should be focused to activities that reducing impacts of *climate change* to have food security at national level and at each areas; emergency health and nutrititional care during natural disaster; and community emporwement for eradicating family from poverty through food and nutrition awareness. Quality control and food security must be improved along with risk assessment. Similarly, researches on foods and nutritions including micro-nutrient problems have to be revitalized after being neglected for the last 10 years. Research and development have to be conducted to avoid disparities of *evidence-based policy options* mainly on tackling of Vitamin A deficiency, Iodine deficiency disorders (IDDs), and Iron nutritional anemia (INA).

The action plan of food and nutritition was developed in action-oriented programs, structured and integrated with the five pillars of action plan i.e. improvement of community nutrition; improvement of food accesibility; improvement of quality control and food security; improvement of clean and healthy lifestyles; strengthening of food and nutrition institution. With a clear framework implementation, all activities related to food and nutritition at district/municipality level will be coordinated to form synergic efforts which focused to the vulnerable areas and risk groups to cut the chain of nutritional problems in *life cycle*. It is hoped that outputs of the action plan would bridge the MDGs achievement as agreed in the NPA-FN 2010-2014 i.e. reduction of the malnutritition prevalence in under five to 15,5%, reduction of stunting prevalence in under five to 32%, and attainment of food consumption with calory intake of 2.000 Ccal/person/day.

Figure 1. Conceptual framework of Implementation of National Plan of Action for Food and Nutrition 2011-2015



With a relatively short time to reach the MDGs goals in 2015, fair development must be conducted through new approaches leading to improvement at the executive, legislative as well as community levels for implementation of focused, intensive and continuous programs. Those new approaches are:

1. Priorities of sustainable health and nutrition services are focused to the golden times i.e pre-pregnant mothers, during pregnancy (when fetus in the womb), during infancy and at children under

two-years age with a package of proven-effective nutritional health intervention

2. Improvement of food accessibility at household level in very vulnerable food areas and vulnerable food areas by developing self-food sufficient village and community food storage, acceleration of diversification of local foods production, more job opportunities through development of agricultural industries at villages.

3. Improvement of knowledge, skill, behavior and life style/food consumption habit of people towards more diversed, balanced-nutrient and safe foods.

4. Application of food safety standard based on risk assessment, continuity of appropriate-innovative technology, empowerment of local governments in improving surveillance, quantity and quality of food control, and developing food and nutrition preparedness system.

5. Application of clean and healthy behaviour through supporting efforts to health policy on food and nutritition, strengthening social control, application of clean and healthy behaviour at household and its internalization inside medical curricula of elementary and intermediate schools.

6. Improving partnerships and effective multi-sectoral collaborations within national institutions of food and nutritition, and formation of paralel organizations up to district level.

II. FOOD AND NUTRITION AS INVESTMENT OF DEVELOPMENT

A nation development is intended to improve prosperity of the whole population. A country's growth and welfare are very dependant to its human resource capability and quality. The capacity of human resource quality can be seen from the Human Development Index (HDI), while for the people's welfare, among others, can be seen from the level of poverty and status of community nutritition.

The Human Development Index (HDI) is used to clasify whether a country belongs to the developed, under developed or least developed country and also to measure impacts of economic policy towards quality of life. HDI is a comparison measurement of live expectancy, illiteracy, educational level, and living standard for all countries. HDI measures average accomplishment of a country within three basic dimensions of human development i.e. 1) healthy life and longevity measured by life expectancy at birth; 2) knowledge measured by illiteracy level of adult; and 3) proper living standard measured by natural algoritm of gross domestic product per capita within parity of buying standard.

The *Human Development Reports*, UNDP 2010, mentioned that HDI of Indonesia is catagorized as 'medium human development' and has taken rank 108 of 182 countries. While for other ASEAN countries, having position of 27 is Singapore, 37 Brunei Darussalam, 57 Malaysia, 92 Thailand, 97 Filipina, and 113 Vietnam.

Food and nutrition are very important components in achieving HDI for a country. The role of food and nutrition, as investments of a nation development, are explained below.

A. Food and Nutritition for Growth and Intelligence

Diversed, balanced-nutrient and safe food consumptions will fulfil nutrient needs of an individual to grow and develop. Nutritional condition of pregnant mothers will affect to brain development of her fetus since the forth week of conception to the delivery and until the child is two years old. Several researches have shown the importance of nutrients are not merely to physical development but also to brain development, behavioural growth, motorics and intelligence (*Jalal,*

2009). Martorell in 1996 has concluded that nutrient deficiencies during pregnancy and early childhood caused delay in physical, motoric and other cognitive developments. Besides, the nutrient deficiencies can also affect to social behavioral change, reduce concentration and learning ability leading to under study results. Other researches also conclude that the nutrient interventions will only be effective during pregnancy and within the first two-three years of child'slife.

Data from the Basic Health Research (Riskesdas) conducted in 2007 and 2010 had consistently shown that the average calory intake and protein of under five were still under the Recommended Dietary Allowance (RDA). The consequences were, girl under five and boy under five in Indonesia had average height respectively 6,7 cm and 7,3 cm shorter than the referral standard of WHO 2005, and worse to the age group of 5-19 years old as girls of this age group are 13,6 cm shorter while boys are 10,4 cm shorter than the WHO standard height. The group of short mothers are also proven to deliver 46,7% short infants. It is therefore, the inter-generation nutritional problems must get serious attention because these are proven to affect the quality of a nation.

A child with status of undernutrition or underweight based on measurement of *weight for age (w/a)* and short or very short (stunting) based on measurement of *height for age (h/a)* lower than the WHO standard, risks to lose his/her intelligence quotient (IQ) to 10-15 points.

Breastmilk is the most adequate food for infants because its nutrient contents are essential for baby's growth and development. The importance of giving exclusive breastfeeding to newborn until 6-months old and continue to child age 24 months has hold strong evindences. Several researches had proven that the exclusive-breastfed infants had better social and cognitive development compare to the milk-formula babies (*Michael S. Kramer, et al, 2003*). The long term effect of exclusive breastfeeding to child and adolescent mental health was cohort-investigated involving 2900 pregnant mothers for 14 years in Australia. The research published in 2009 concluded that short term breasfeeding (less than 6 month) became predictor of the upcoming various mental problems during childhood and adolescent such as autism, juvenile deliquency, agitation etc (*Wendy H. Oddy, et al, 2009).* Moreover, IQ of the

breastfed infant was found 13 points better than the non-breastfed one.

Iodine deficiency in fetus prolongs to failure in growth until two years of age may give bad effects to child's intelligence permanently. Iron deficiency anaemia in pregnant mother increase risks for her unborn to suffer from iron deficiency and badly affect to the baby's brain cell growth, which will consistently reduce the child's intelligence. In Indonesia, it has been long proven that anaemia in children is corellative to less cognitive achievement and caused to under accomplishment of education level of school children (*Soemantri, AG et al. 1989*). Low-birth-weight baby accompanied by anaemia, will be having physical and mental growth disorders as well as declined intelligence up to 12 points. In addition, the low-birth-weight baby will be having more risks to suffer from *diabetes* mellitus, coronary diseases and blood vessel, obesity, cancer and stroke during their adulthood (James et al, 2000).

The undernutrition condition of infant during its growth in the womb and after born, has great impact to its brain development. Infant, in the womb until it was born, has had 66% of brain cell number and about 25% of adult brain weight has been reached. The rest will be determined by nutritional conditions after birth. The brain development is occured rapidly in the week of 15-20 and 30 during pregnancy, and in the month of 18 after birth. Research in low-birth-weight babies showed a decrease of the big brain weight to 12% and small brain to 30%, also in the number of brain cell of the big brain to 5% and small brain to 31%. The measurement of intelligence level in children of 7-year old previously sufferred from severe protein-calory malnutritition (KEP) came up with average IQ of 102**,** in children with light KEP is 106 and children with good nutrition is 112. This shows that past nutritional condition can affect to the future level of intelligence.

B. Food and Nutrition for Health and Productivity

Factor of foods and infectious diseases, as direct impacts to nutritional problems, are inter related. Underfive, who do not receive sufficient balance-nutrient foods have low immunity against diseases and easily suffer from infections. On the other hand, infectious diseases such as diarhoea and acute respiratory infection (ARI) can disturb nutrient absorbtion to their body and causing malnutrition. Thus, prevention of infections can also reduce incidence of

undernutrition and malnutrition. Low-birth-weight babies due to protein-calory malnutritition in pregnant mother, can contribute to the increase of the infant and underfive mortality rate. Iron deficiency anaemia in pregnant mothers can increase risks of death during delivery and giving birth to anaemic baby. Vitamin A deficiency in infants and under five can reduce their immune system, increase risks to blindness, and increase risks to morbidity and mortality due to infections. (Tarwotjo, et al 1989).

Malnutrition in under five and pregnant mothers will increase family expenses and government to health financing because there will be many people easily fall ill due to under nutrition. Research on the impacts of anaemia at adult group showed the condition would reduce work productivity (Husaini et al, 1984). This will give serious impacts considering that, at the same time, number of anaemic people at productive age almost reach 52 million people and reduce work productivity to 20-30%. During malnutrition, individual loss to productivity is averagely more than 10% of their lifetime potential earning. By improving foods consumption and nutritional status, productivity of the poor can be increased for their capital to improve their economy and release themself from the cycle of poverty-malnutrition-poverty. The more number of the poor is improved for their food consumption and nutritional status, the less number of the poor. Efforts for poverty eradication that enable access for household to food will have great leverage in improving health and productivity (Bank Dunia, 2006).

C. Food and Nutrition as Determinants of Nation Competitiveness

The Global Competitiveness Report 2010-2011 released by the *World Economic Forum* in September 2010 mentioned that, Indonesian's position to competitiveness has significantly improved. In 2009, Indonesia's competitiveness ranks number 54 of 144 countries and in 2010 elevates 10 levels to number 44 with score 4,43. This position is better compare to India, although it is lower than China. Global competitivenes of India is at number 51 and China is at number 27. Indonesia's position is pretty good, and even it is considered as one country with good achievement. This, of course, must be maintaned and continuously improved, by conducting efforts of quality improvement of community food and nutritition. If level of food consumption is balanced and well nutrient, it will improve community health status which is one important indicator along with education in positioning nation competitiveness.

Inability to fulfil food needs in household particularly to pregnant mothers and under fives will cause malnutrition that affect to the birth of un-qualified young generation. If this problem is not addressed, within mid and long terms time, there will be a *generation lost* which will hamper sustainability of many activities of nation and country. The success of a nation development is determined by the availability of qualified human resources which are human resources with mental and physical fitness, sound health, bright and competent. The empiric evidences show that, these very much depend on good nutrition status which is resulted from the number and quality of food consumption. Undernutrition and malnutrition are directly affected by factor of food comsumptions and infectious diseases. Indirectly, it is affected by parenting, availability and consumption of diversed foods, socio-economic factors, cultures and politics. Undernutrition and malnutrition which continuously occure will become hampering factors to the national development.

Nutrition investment, as an effort to improve quality of human resource, has significant role in cutting cycle of poverty and malnutrition. Several bad impacts of undernutrition are: decreased working productivity, loss opportunity for education, and human resources loss due to high cost for health.

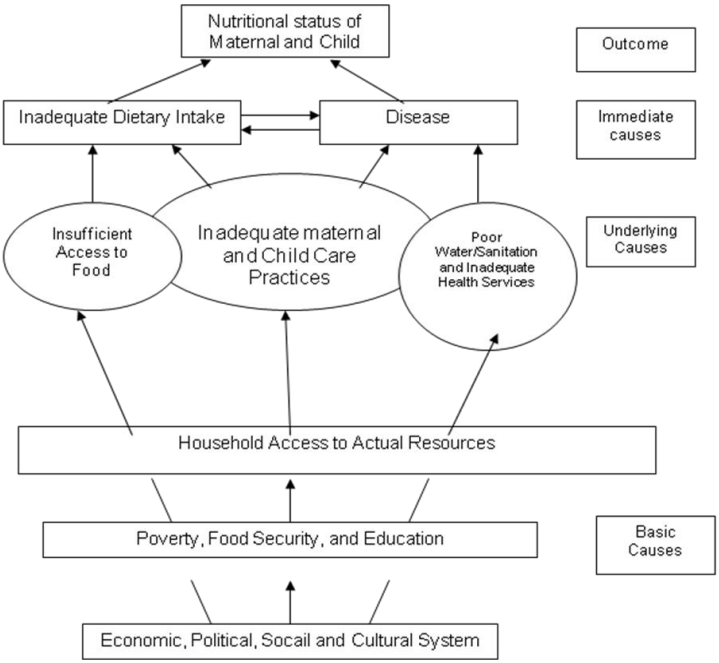
Efforts to improve quality of human resources are regulated by the Law 1945 (UUD 1945) article 28 H paragraph (1) which states that every person has a right to live prosperously and having health services is one basic right of human being. Therefore, fulfilment of foods and nutrition for people health is an investment of improving quality of human resources. Activities to ensure adequate foods and nutrition will support the commitments of achieving the *Millennium Development Goals* (MDGs), especially to the targetted year of 2015, i.e.: MDG1: eradicating extreme poverty and hunger; MDG4: reducing child's mortality; MDG5: improving mother's health; and MDG6: eradicating HIV/AIDS, malaria and other diseases.

III. SITUATION ANALYSIS OF FOOD AND NUTRITION IN INDONESIA

A. National Analysis

There are many factors causing nutritional problems. The figure below presents various factors causing undernutrition introduced by UNICEF and has been adjusted to the Indonesian situation. From this frame of thoughts, it can be seen that steps causing occurrence of undernutrition in mothers and children are direct causes, indirect causes, root problems and main problems

Figure 2. Frame of Thinking of Malnutrition Causes



*Source : UNICEF 1990, A*dapted to the Indonesian Condition

There are two direct factors affecting to individual nutritional status which are foods and infectious diseases which are inter-related. For example, infants and children who do not breastfed and receive inadequate complementary feedings have low immunity and easily infected by diseases. On the other hand, infectious diseases such as diarhoea and acute respiratory infection (ARI) hamper nutrient absortion to the body.

The first direct factor is food consumption which do not fulfil the amount and nutrient composition of the diversed, balance-nutrient and safe food standard. At the macro level, individual food consumption and family are affected by the food availability reflected by the level of food production and distribution. Availability of diversed foods at all times with sufficient amount and affordable to all household, really determine food security at a household and food consumption level of a family. For infants and children, in particular, a golden standard of foods has been developed i.e. 1) early breastfeeding initiation; 2) exclusive breastfeeding up to 6 months; 3) complementary feedings, derived from family food, for infants at 6 months old 4) continue breastfeeding until infant age 2 years old

The second direct factor is infectious diseases related to high incidence of communicable diseases and poor environmental sanitation. Therefore, universal coverage of immunization in children has great impact to number of morbidity incidences and it has to be supported by the availabilty of clean drinking water and hygiene sanitation, as one factor of the indirect cause.

The indirect factors, besides sanitation and clean water access are hand-washing with soap habit, closed defication, not smoking and inside-home cooking, good air circulation in house, sunlight penetration inside the house and clean environment. The other affecting factors are food availability, parenting of infants and children; coverage and quality of community health services. Parenting and environmental sanitation are affected by educational level, information access and family income level.

Instabilty of economic, political and social situation may be resulted from the low level of people's welfare, which is reflected by the low consumption of food and poor status of community nutrition. Therefore, addressing community nutrition problems is one important pillar for sustainable development of economy, political and social

welfares. Below is a description of foods and nutritional analysis based on the five pillar approaches:

1. Community Nutritition

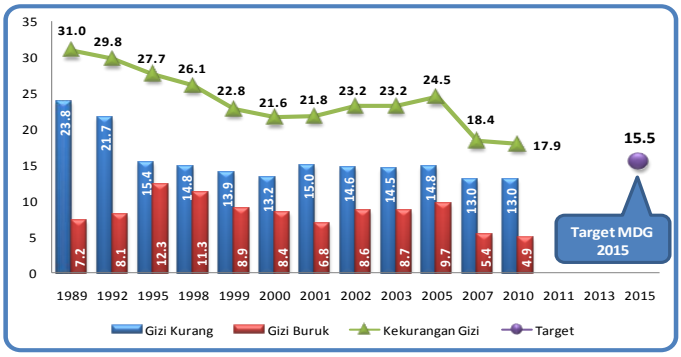
The basis of measurement reflecting condition of community nutrition is nutritional status of under five which is measured by weight and height in accordance to the age and compared to the referral measurement standard of WHO (2005). Likewise, the status of community nutrition can also be seen from the size of micro-nutrient problems at the vulnerable group i.e. iodine deficiency disorder (GAKY), *AGB*, and vitamin-A deficiency.

Nutritional condition of fetus in the womb is influenced by nutritional condition of pregnant mother and even by the nutritional condition of mother before her pregnancy. Chronic energy deficiency (CED) at childbearing-age mother (CAM) marked by the size of upper arm circumference (LiLA) less than 23,5 cm, puts mother at risks to deliver a low-birth-weight baby because the fetus has had *foetal growth retardation* in the womb. Nationwide, the CED and CAM have decreased in the last one decade, from 24,9 percent in 1999 to 16,7 percent in 2003 and 13,6 percent in 2007. Anaemic problems in the CAM need to be treated before a pregnancy to avoid fetus risking of iron deficiency. Severe anaemia in pregnant mothers increase risks of maternal death due to after-birth haemorrhage. Data of the Basic Health Survey (Riskesdas) in 2007 showed that in the city 19,7 persen of CAM are anaemic and 24,5 persen suffer from anaemia during pregnancy.

In general, the health condition and nutritional status of mothers, infants and children under five are improving reflected by the decreased maternal, neonatal, infants and under five mortalities. Based on the evaluation report of MDGs achievement, the MMR decreases from 390 in 1991 to 228 per 100.000 lifebirths in 2007. Similar situation also happens to the NMR, IMR and UMR in which respectively decline from 32; 68; and 97 in 1991 to 19; 34; and 44 per 1000 lifebirths (SDKI, 2007). The prevalence of undernutrition also declines from 31% in 1991 to 18,4% in 2007 and 17,9% in 2010. Although, this declined prevalences of undernutrition in children give hope that Indonesia is *on track* in achieving the MDG1 indicators, with target to 15,5 % in 2015 (**figure 3**), the disparity among provinces, however, from DI

Yogyakarta (10,6 persen) to NTB (30,5 persen), is still a concern (Riskesdas, 2010) as can be seen in the **figure 7** .

Figure 3. Current Trends of Prevalence of Under Nutrition among Children 0 – 59 Months



Source: National Socio Economic Survey, 1989-2005 and Basic Health Research, 2007 and 2010

On the other hand, the national prevalence of stunted under five can only be decreased from 36.8 percent in 2007 to 35.6 percent in 2010, while the target of NMTDPs in 2014 is to decline the prevalence to 32 percent. The disparity among provinces, from Yogyakarta, 22.5 percent, until East Nusa Tenggara (NTT), 58.4 percent **(as shown in figure 8)** needs action-oriented, specific and integrated programs at each governmental level in order to have synergic activities of inter government sectors with all stake holders for the acceleration of the MDGs achievement**.**

The prevalance of wasting and severe wasting, based on weight for height (W/H) indicator in under five, has not declined significantly for the last three years. According to the Basic Health Research 2010, around 13.3 percent of under five are still found wasting and severe wasting which need specific interventions at the vulnerable areas.

Malnutrition occurred due to severe undernutrition and if it leaves untreated, soon, will be causing death. Therefore, surveilance of malnutrition needs to be conducted in a better way so that all efforts to address malnourished under five are improving as well. The official health report of provinces,

mentioned that in 2008 number of under five with severe malnutrition in all areas of Indonesia who are found and treated, was 41.064 cases and in 2009 was 56.941 cases.

Iodine Deficiency Disorders (IDDs) can easily be treated through a standardized iodine-fortified salt. The problem of low consumption of *iodine-sufficient* salt (>30ppm) at household, was only 62.3 percent (RISKESDAS 2007) which are due to poor community participation, lack of iodine-salt consumption campaign and insufficient of favorable regulations. Another problem is the monitoring of iodine-salt consumption at community has not regularly implemented.

Xerophthalmia is a community health problem which has been successfully controlled since 2006 (micro nutrients study in 10 provinces). Nonetheless, a condition of vitamin A deficiency can reduce child's immunity and will lead to increasing number of mortality and morbidity. Therefore, vitamin A supplementation should always be distributed to under five age 6 – 59 months every six month, and recommended during the Vitamin A campaign month i.e February and August. The Vitamin A capsule should also be distributed to under five at endemic areas of measless and diarrhoea. Data of the RISKESDAS 2010 showed the coverage of national vitamin A distribution in under five was 69.8 percent. The disparity among provinces ranged from 49.3 percent to 91.1 percent. This national coverage declined from 71.5 percent. In 2007, there was only 44.6 percent of childbirth mothers received vitamin A supplementation and later increased to 52.2 % in 2010.

There was 26.3 percent of Iron Deficiency Anaemia (IDA) found in under five (Micro nutrient survey, 2006). An analysis of iron-folate tablets or ferrous sulfat tablets suplememtation and coverage of K4 pregnancy check-up showed a great disparity between the iron tablet and K4 coverage. The RISKESDAS 2010 confirmed the coverage of >90 iron tablet in pregnant mothers was only 18 %.

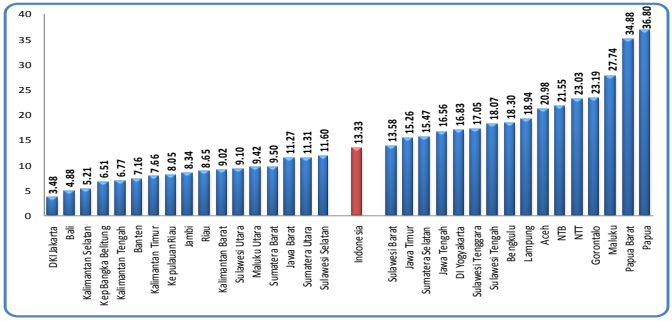
Although nutritional problems remain to be the public health problems, on the other side, there is a trend of an increasing prevalence of infants and children under two years of age who are overweight and obese, i.e 20 percent and 12.6 percent

respectively. This phenomenon would be a double burden to the future nutritional development.

Many factors contribute to the undernutrition in mothers, infants and children. Poverty is determined to be an important cause of undenutrition as the poor families have limited access to sufficient intake of foods in terms of quantity and quality, and the poor families are usually under educated manpower thus their level of knowledge on foods and parenting are not qualified. Besides, the poor family tends to believe that children are resources who will give additional income to the family. On the contrary, having more children will give more burden because a child who do not grow and develop optimally will be more susceptible to infectious diseases. Research showed that the poorest family in Indonesia spent almost 70 persen of their income for foods. The correlation is vivid to the high incidence of nutritional problems at children from this poorest families, which is 23,6 persen undernutrition and 47 persen stunted.

According to the BPS, in 2010 (**figure 4**), the eastern part of Indonesia still required serious attentions of the government, as its poverty rank was still above 20 percent in West Papua, Papua, Maluku, Gorontalo, NTT, NTB, and Aceh.

Figure 4. Percentage of Poor Population for Provinces, 2010



Source : The National Social Economic Survey (NSES) 2010

2. Food Accessibility

In average, the level of food consumption of Indonesian people has reached the minimum level of calory intake of 2.000 calori/Capita/day (**tabel 1**). This table also describes contribution of calory amount of each food group over a total calory per capita per day, which show the main source of food consumption in Indonesia is grain, mainly rice, while the consumption of other foods such as meat and vegetables are still low, meaning that there is an inbalanced food consumption in the community.

Table 1. Energy Contribution of Each Food Group on Average Food Consumption Patterns (Ccalory/capita/Day), in 2004-2008

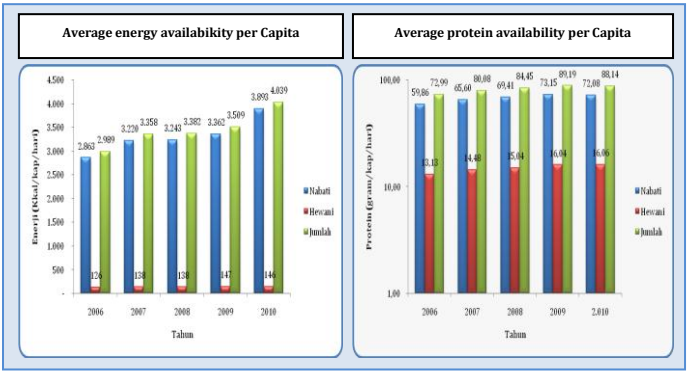
Group of food	2004	2005	2006	2007	2008	2009
Cereals	1.248,2	1.240,6	1.223,7	1.243,7	1.281,4	1.235,8
Tubers	77,3	72,7	61,2	62,3	62,1	47,7
Animal source of foods	134,1	138,9	129,3	155,3	156,6	148,0
Oils and fats	194,6	199,3	196,4	202,7	203,9	195,1
Fruits/oily seeds	47,3	50,6	44,7	46,8	41,7	37,3
Beans	64,3	67,5	66,2	72,6	62,3	57,5
Sugar	100,7	99,1	88,9	96,1	94,2	87,0
Vagetables and fruits	87,0	92,9	83,2	100,3	100,3	84,0
Miscellaneous	32,6	35,0	33,4	35,2	35,7	35,1
Total of Energy	**1.986,0**	**1.996,0**	**1.927,0**	**2.015,0**	**2.038,0**	**1.927,5**

Source: SCB, NSES Analysis of the Ministry of Agriculture

The average development of the energy provision from 2005 to 2010 had an improving trend. However, for the animal product, the increase was still small, which was 126 Kkal/capita/day in 2006 and in 2010 increased to 146 Kkal/capita/day (**figure 5**). The report of the Ministry of Agriculture in 2010 also showed that the increase of animal protein provision was quite small,

which was 13,13 gram/capita/day in 2006 and became 16,06 gram/capita/day in 2010.

Figure 5. Progress of Average Energy and Protein Availability per Capita



Source : Data Analysis of The Ministry of Agriculture, 2010

The high proportion of carbohydrate source in the food consumption pattern of community indicates that poverty is the main factor causing malnutrition. Although, contribution of the grains in the food consumption are quite high, the *Susenas* data shows a decline. This means that there is an improvement on the food consumption and reduction of dependency on the grain as the main source of energy. Based on the above analysis, the challenges on improving community nutrition are improving food consumption pattern in accordance to the standard of balance nutrition intake by increasing food accessibility and accelerating diversed food consumption.

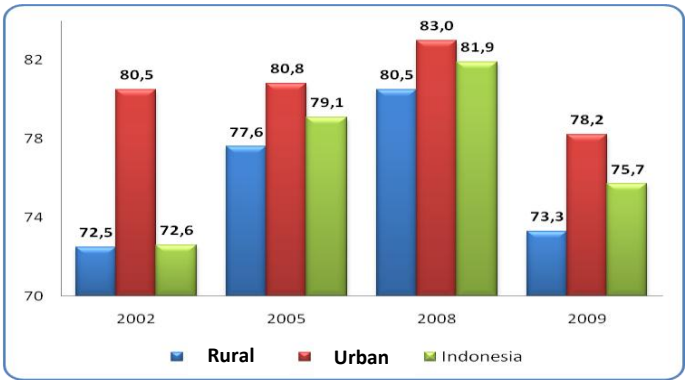
Food access (household) is a condition of resources capability (social, technology, financial, nature, manpower) which is adequate to get and/or to trade to have food sufficiency, including at household. The food access at one area may be sufficient, however all the families may not be capable and have adequate access in terms of quantity as well as diversity through the above mechanism. The issue of food access for poor family is a combination of poverty, less stable job, low cash and fixed income and limitation of buying power.

Food accessibilty and affordability to people are affected by various factors, which are: food prices, level of income or buying power, stability of social security, climate *anomaly*, natural disaster, location and topografy, provision of facilities and transportation access, road condition and others. The food issues are physically remained due to inadequate road infrastructure condition, port and transportation that make distribution cost of foods are expensive.

Food distribution facilities such as public market, storage and agricultural products processing are still limited in number. This limitation complicate people to store and process foods so that its quality and high value-added cannot be attained. The legal regulations also have not supported food distribution flow, many collections and retributions contribute to the increase of food distribution cost.

The facing challenges are the low quality of food consumption as measured by the score of the Diet Expectation (PPH) (**figure 6**), and limitation of adequate access for the poor and under educated people in getting safe and nutritious foods. The situation of community food accessibilty level can be seen from the level of community nutrition adequate number (AKG). Today, the AKG of Indonesia shows an improving tendency. Since 1999, percentage of population with AKG >90 percent keeps improving from 46,9 percent to 61,4 percent 2008, but it declines to 53,9 percent in 2009. This tendency is in line with the declining trends of precentage of population with <70 percent of AKG, which in 1999 was 18,95 percent, in 2008 declined to 11,07 percent and in 2009 increased to 14,47 percent.

Figure 6. Trends of DFP Score in rural and urban areas in 2002-2009



Source :SCB, NSES, Analyzed by Ministry of Agriculture

The above situation of food consumption shows that food access for people needs continuous improvements. From the geographical point of view, many areas with RDA < 70 percent in the eastern part of Indonesia should be getting more priorities than others. This situation indicates that various factors influence food accessibility to people.

Problems faced in improving food accessibility to people are chronics, of which, in general, cover some aspects such as physical, economical, and social aspects. The physical aspect includes road infrastructures and market facilities while the economical aspect covers the low buying power due to poverty and unemployment. The social aspect relates to the low educational level.

The main physical problems and challenges faced in relation to the improvement of food access to people are the disparity between local food availability and distribution to meet the local needs. These are caused by inequality of transportation facilities to support food distribution especially in distributing food commodities from the surplus to deficit areas. A number of areas especially in the eastern part of Indonesia, in fact have limited means of transportation, while the areas are experiencing food deficiency. As consequence, food accessibility is poor in these

areas. This physical barrier of transportation will later hamper growth of food markets in these food deficit areas. And this situation will create barrier to people for getting foods in accordance to the balanced nutrition guidelines and Desirable Food Patterns.

The economic problem and challenge which are due to the low income of people reduce the people's buying power to food commodities. The low buying power happen in rural as well as urban areas. This problem, among others, is also created by unemployment and poor economic condition of the area. The people's low buying power puts the level of food consumption in people under the recommended consumption for having healthy and active life. The other economic challenge which hampering food accessibility improvement, is poor resources available in the area to pursue impact of economic magnification to generate income sources and job opportunity.

The social problems and challenges which hampering food accessibility are mainly factors of under education level of the people. In general, the under educated level of people affect to the low capacity of individuals which limit their capabilities of getting sources of income (job). The under educated group, usually earn their living by primarily utilizing natural resources which make them lose opportunity to get the value added of economy. The undereducated people also hamper adoption process of technology which can boost productivity.

The other problem of food consumption is community culture that relates to food restrictions and beliefs in contrast to the nutrition and health.

3. Food Quality and Safety

Condition of food safety affects greatly to community health at all levels regardless of age and economic group. The food safety condition is very much influenced by environment and individual behavior who handle foods since harvesting until it is ready on dining table. Therefore, the improvement of food safety must be involving various institutions including provincial and district/municipality governments, as already described in the Government Regulation No. 28 in 2004 on Food Safety, Quality and Nutrition.

The food safety situation periode 2006 until 2010, could be seen from the increased number of food industrial products which had not fulfilled the safety standard from year to year. If the non safety standard products were elaborated further, they had excessively used food additives of swetener and preservatives (benzoat), misused of dangerous material i.e. formalin, boraxs, non food color additives and contained microbial polutants. The line of problems of food safety put in a row are: microbial pollutant, excessive use of sweetener, non food color additives, excessive use of preservatives (*benzoat*), and misuse of dangerous materials of boraks and formaline.

The cases of misuse of dangerous materials of formaline have been continuously reduced annually, as well as the excessive use of sweetener. Meanwhile, the non safety standard products related to microbial pollutant are still dominant. This can be an indication of hygiene condition and environmental sanitation which still a concern.

The result of analysis on condition of food production facilities at large, middle as well as small scales and home industry in 2006-2010, showed that these facilities still need improvement, especially on the home industry production (IRT) facilities. To this improvement, particularly, participation of provincial and district/municipality authorities are essential, because the food industries in this catagory receive their product certification from the local authorities. Based on the monitoring results, it is found that there are still many unregistered food productions at the local areas. Looking at this situation, it is necessary to empower provincial and district/municipalities authorities so that the food production facilities will receive their certification through an education.

The food safety monitoring of school children hawker is one strategic activity, taking into consideration that school children are the seed of the future generation. The type of sampling products are focused to the monitoring of misuse of dangerous materials sucah as color additives of *rhodamin* B and *methanil yellow*, boraxs and formaline. In addition, the monitoring on the use of food additives beyond the recommended value particularly preservatives and microbial pollutants is conducted. The monitoring activities of food safety are periodically implemented each year.

The results of monitoring found that there were a decreased number of the non safety standard products from year 2006 to 2009, although not significant. The food products containing dangerous materials are still fluctuating between 10 percent to 13 percent, while the products with excessive use of additives were also fluctuating at around 15 percent and 30 percent. The main problem of hawker product of school children seems to be microbial pollutants. An Intervention to improve hygiene and sanitation of hawker vendors of school children need to done.

Outbreaks incidence due to foods had occured several times and published in newspapers. The results of the outbreak monitoring specific at school areas and universities showed that most of the outbreaks occured in elementary school. The cause of this outbreaks were not clearly known, whether due to microbacterium or chemical substances.

The monitoring of iodine-salt consumption which is avalaible in the district/municipality were conducted both in quantative and qualitative ways. The result of *Riskesdas* 2007 showed that precentage of household which consumed standardized iodine-salt was 62,3 percent. To this fact, it is necessary to escalate monitoring and legal enforcement to ensure the circulated salt is those that fulfilled the standard of iodine-salt.

4. Clean and Healthy Lifestyle (PHBS)

Today, the substantial problem of nutrition and high number of nutrition-related diseases are correlated with social and cultural factors such as individual and family awareness to practice clean and healthy life style, including nutritional awareness. The Indicator of PHBS is hand washing habit, exclusive breastfeeding, utilization of *Posyandu* by family, use of contraception (family planning), physical activities, number of population above 10 years who smoke, number of population above 10 years who consume less vegetable and fruit, access to proper sanitation, and delivery assistance by health personnel.

The undernutrition problem in under five is the impact of less practice of exclusive breastfeeding up to 6 months and improper complementary feeding due to early or late feeding, insufficient amount to fulfill growth and development needs of infants at each stage of its age and imbalanced nutrients to meet calory, protein,

and micronutrient (vitamin and mineral) requirements. There are only 41 percent families practicing the correct infant feeding. The availability of diversed local food is accessible by some families as of the 41 precent families, who have given the suitable complementary feeding, apparently used local food sources which meet the need of 70 percent ferrous and 87 percent vitamin A. Poor practice of individual and environmental hygiene often caused infants and children suffering from diarrhoea and other infectious diseases and worsen their nutritional status.

The calory intake in pregnant mother is not sufficient by the finding of 44.4 percent pregnant mothers received calory intake below the minimum requirement. It clearly affected nutritional condition of the mothers and impacted their preparation to give breastfeeding for their babies. According to the results of the National Social and Economic Survey (*Susenas*), the coverage of exclusive breastfeeding up to 6 months ranged only 28.6 percent (2007), 24.3 percent (2008) and 34.3 percent (2009). The *Riskesdas* 2010 gave concerning facts because the early breastfeeding initiation (<1 hour after birth) was provided to 29.3 percent infants and only 74.7 percent received the cholostrum. The percentage of exclusive breastfed infants up to 6 months was only 15.3 percent. Eventhough, 54.8 percent mothers claimed to have given only breastmilk within the last 24 hours to their babies age 0-5 months, by the fact about 32 percent babies age 0-7 days had been given complementary feeding, whereas 85.8 percent were fed infant formula. Referring to the Law no 36 year 2009 on Health, Breastmilk is the right of babies and whoever or whatever institutions that obstruct breastfeeding will be charged legal penalty and fined. The coverage of exclusive breatfeeding are shaped by several factors, predominantly due to limitation of breastfeeding counselor who provide correct information to family, and education, socialization, advocation and promotion of breastfeeding as well as complimentary feeding had not been implemented with maximum capacity. The framework of government regulations on exclusive breastfeeding, in future, should be a guidelines of legal enforcement in provinces/districts/municipalities to elevate coverage of exclusive breastfeeding to at least 80 percent in 2015.

Though Posyandu was still the first choice for weighing under five (81 percent), there was only 56 percent of under five weigh for

four times or more, even, 1 of 5 (20,8 percent) under five had not been weigh for the last six months. The D/S indicator (number of weighed children towards total number of children in the area) should be the main performance indicator to monitor achievements of family and community empowerment.

Smoking behavior is also very concerning and it is increasing at relatively young ages. Number of smoking children age 5-9 years increased from 1.2 percent in 2007 to 1,7 percent in 2010. It was found that number of population age 15 years above who smoke in daily basis reached 28,2 percent and mostly smoke inside their house (85,4 percent). Level of household expenditures and smoking behavior of the family member had correlation with malnutrition incidence and stunting, whereas 16 percent of under five with malnutrition and 33 percent of stunted under five resided with smoking families (Riskesdas 2010).

On the other side, vegetable and fruit consumption was still low, which was 93 percent. This condition was worsen by the fact that almost half of Indonesian population (48,2 percent) had less physical activity. Correct hand washing habit was only practiced by 23 percent families and 71 percent families had already lavatory to bathing, washing and defecation. In general, there was only 1 of the 3 (38,7 percent) people who practiced the 10 indicators of PHBS. The above behavior, in actual, had strong correlation with the level of education and knowledge of family members.

5. Institutionalization of Foods and Nutrition

Started in 1974 by the issuance of the Presidential Instructions Number 14 on Improvement of Food Menu for Community then a Working Group of Function among Ministries was formed to coordinate activities of improvement community foods and nutrition. Followed by the Presidential Instructions number 20 year 1979 for formation of the Provincial Nutrition Improvement Agency at province and district/municipality level to coordinate activities of Family Nutrition Improvement by health sectors, family planning bureau, agricultural and religious sectors. For three decades, Indonesia had succeeded in improving community nutrition through growth and development monitoring activities and nutrition counseling, pregnant mothers check-up, contraception services, immunization and diarhoea control

conducted to nearly 240.000 posyandu by more than a million of village cadres. The Posyandu activities declined along with economic presure in community as the impact of the monetary crisis in 1998.

The Food Security Board under direct supervision of the President was formed by the Presidential Instruction number Nomor 83 in 2006, with its main duties to evaluate food security and formulate policies for improvement of food security assesed from the point of economy, politic, geographical location and nutrition views. The agriculture sectors was responsible in food production and performed coordination with the Local Institution of Food Security lead by governor. Standard of food industry and legal enforcement were conducted by the industrial sectors, while food quality and safety for people consumption were monitored by the Food and Drug Control Agency. Nutritional services and promotion was conducted by the health sectors.

*Stakeholder*s in foods and nutrition sectors including private sectors, universites and non government organization both national and international were involved in improving community nutrition, including at the time of malnutrition crisis in 1998 and during national disasters. The United Nations and development partners contributed to provide grants and technical assitances for improvement on foods, health and nutritions. Nevertheless, coordination of inter programs and inter sectors/units at government institutions as well as the United Nations and the development partners must continuosly developed. A coordination need to be develop to have effective coordination of inter-sectoral/units policies, facilitate coordination at the operational level and integrate related programs activities into reduction of undernutrition prevalence and escalation of calory intake for the whole family member susceptible to foods. (*Landscape Analysis on Nutrition*, Kemenkes, 2010).

At present, there is no reliable data available on nutritionist and nutrition-related resources and on realistic projections of nutrition resources needed in the facing of nutritional challenges including on resources working on Foods. Some main problems related to the management of human resources on Foods and nutritions are: 1) Lack of human resources planning based on program needs; 2) lack of analysis on job description for effective

and efficient performances of human resources in foods and nutritions. ; 3) Human resources provision and recruitment system with standard-competency-based is very much depend on the government budget allocation in provinces/districts; 4) Dificulty in maintaining foods and nutritions resources at villages due to the absence of career incentives. (adapted from the World Bank Report, 2010)

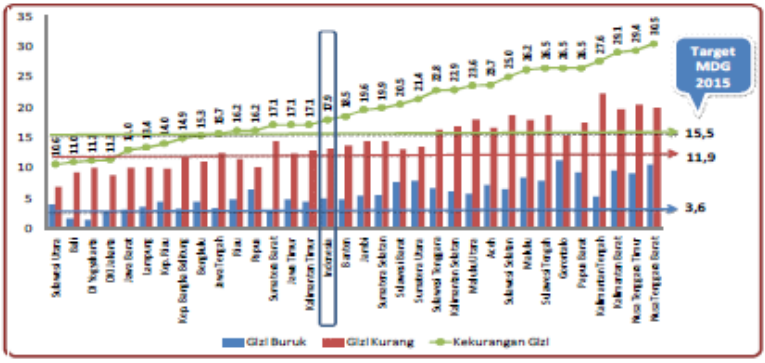
B. Regional Analysis

Nationally, there has been a decreased prevalence of malnutrition (based on weight for age) in under five from 18.4 percent in 2007 to 17.9 percent in 2010. Similar situation also happens in the decreased prevalence of stunting (based on weight for age) in under five from 36.8 percent to 35.6 percent.

Associated with the community nutritional problems is the imbalance food consumptaion. In the target of MDGs 1, indicator used is precentage of people who consumed energy less than the minimal requirement (<70 percent). The Riskesdas 2010 collected individual consumptions whereas its results are used to measure energy deficiency suffered by the concerned individuals. Bali province is the province with the lowest percentage of population who consume energy <70 percent and West Sulawesi province is having the highest precentage.

The Riskesdas 2010 also found that Bangka Belitung province has population who consume protein under the minimal requirements with the lowest precentage, while the highest precentage is with East Tenggara province.

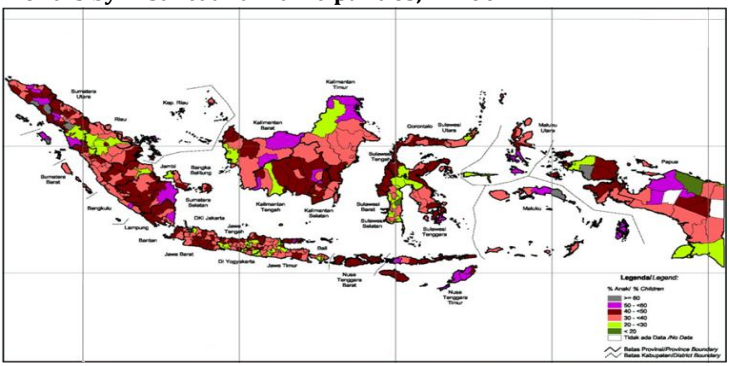
Figure 7. Prevalence of Under Nutrition among Children Under Five Years of Age by Provinces in 2010



Source : Basic Health Research (Riskesdas) 2010

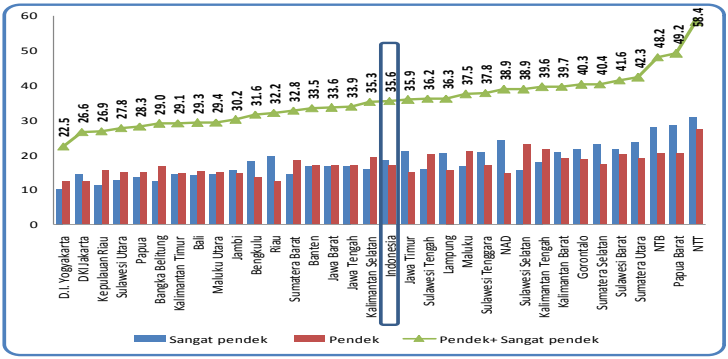
Though, the prevalence of under five with undernutrition and malnutrion has been signicificantly declined (figure **7**) in some provinces, however, the prevalence of stunted under five is still a concern. The prevalence of stunted under five is still significant (picture **9**), although it is less compare to the one of 2007. (figure **8)**

Figure 8. Prevalence of Stunting (H/A) among Children 0-59 Months by District and Municipalities, in 2007



Source : Basic Health Research (Riskesdas) 2007, analyzed by WFP

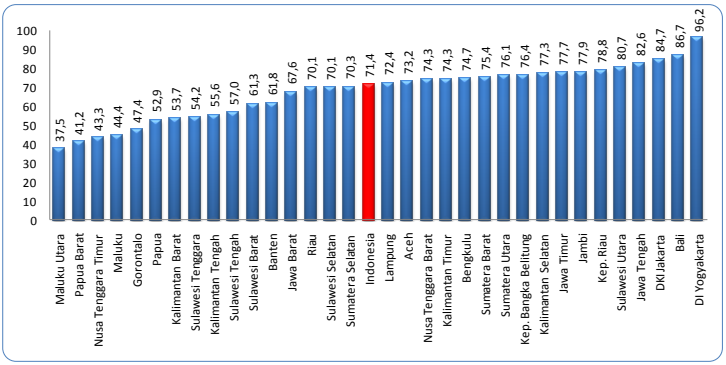
Figure 9. Prevalence of Stunting (H/A) among Children 0-59 Months by Provinves, 2010



Source : Basic Health Research 2010

Nutrition and health interventions are given to infants as soon as they are born to reduce any possibiliities of neonatal death, especially during the first 48 hours and the first 7 days after birth. The intervention opportunity is during the first neonatal visit (KN1). The Riskesdas 2010 showed that the neonatal visit during the first 6-48 hours were conducted to 71.4 percent neonatals, with the highest precentage, 96.2 percent in DI Yogyakarta and the lowest one n 37.5 percent in North Maluku (**figure 10**).

Figure 10. Percentage of infants Conducted Neonatal Visits during The First 6 – 48 hours (NV1) by Provinces, in 2010



Source : Basic Health Research 2010

The Law 32 Year 2004 On Local Government and Government Regulation Number 38 year 2007 on Tasks Divisions of Central, Provincial and District/Municipaliy Government, is an opportunity as well as challenge for community food and nutrition improvement in districts and municipalities. Based on the above legal documents, foods are the responsibility of local government, to enable the food and nutrition management more directional, specific and in accordance to each local conditions. Thus, the global commitments as well as the set targets are accelerated. However, seeing at problems development with their improvement efforts and changing situatian of state administration, it would become new challenges. This concern is based on the fact that the local government's priority towards nutrition improvements is not yet optimum, which among others affected by quality of human resources in managing food and nutrition programs. Therefore, with the present authority, it is necessary to have sistimatical efforts so that the well-running activities can be continued while those in contrast should have more innovative approaches and intensified acitivities.

The responsibility of various nutritional interventions at community lies in health sector, causing weak coordination of the working unit of local government (SKPD) in implementing nutritional improvement activities whereas it should be integrately conducted (*Landscape Analysis on Nutrition*, 2010). Nutrition intervention is one of the six primary health cares (PHC) adopted by the government along with the Alma Ata Declaration 1978, however, today, the PHC concept does not consequently implemented by Puskesmas which resulted to the lack of technical guidance to Posyandu.

To achieve targets of nutritional improvement (national as well as global targets), it is necessary to have focussed policies, strategies and programs which are integrated from central to local levels and supported by quality improvement of health and nutrition resources and availability of research and development activities to produce evidence-based policy.

Issues of foods and nutritions are multi-dimensions, multi-sectorals and multi-disciplines which need integrated and coordinatted management. Most of the countries associated foods and nutritions to human right own foods and community nutrition institutions. In countries whose adopted decentralization, the foods and nutrtitions institutions have very important roles to harmonize the policies, stategies, planning, monitoring and evaluation to reach the set targets.

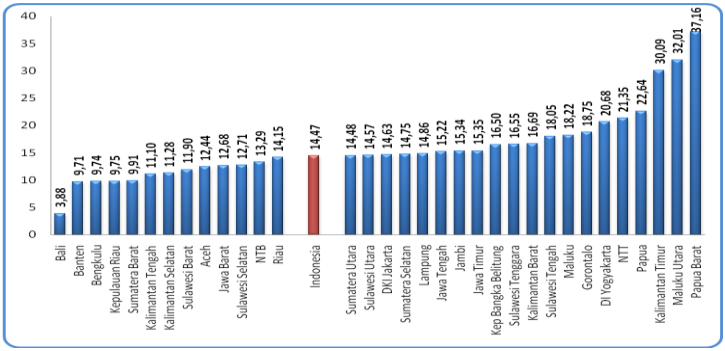
Besides, standard and license of manpower working in nutritional areas are closely monitored by a national agency to keep profesionalism. Foods and community nutrition institutions are also responsible to conduct research and development on nutrition which required sustainable researches from the cellluler or biological research to the nutritional application.

The poverty disparity by provinces must be anticipated through different strategies and intensively conducted by all sectors in integrated and sustainable ways, targeted to community empowerment to enable them free themself and their families from the poverty facilitated by the government.

In countries where human rights is highly escalated, the fulfillment of foods and nutritions is a basic human rights. In Indonesia, the Law Number 7 year 1996 on Foods strongly affirms the foods position as the basic human need and must always be available for each household in sufficient number, good quality, safe and accessible. Moreover, the Law number 11 year 2005 on Legalization of International *Kovenan* on the rights in economy, social and culture more clearly regulate the human rights, that is, it is a right of each individu to have living standard properly for themself and their family towards foods and each individu must be free from hunger.

The Disparity of population very vulnerable to food (calory intake <70 percent, Nutrition Sufficient Number (AKG) = 1.400 Ccal/person/day) by provinces in 2009 can be seen from the following figure **11**:

Figure 11. Disparity of The Very Vulnerable Population to Food by Provinces, in 2009



Source : NSES 2009

The condition of food indutries from large, middle to small scales as well as home industry in 2006-2010, are significantly better, but still need improvement, particulary the home industry productions. Specifically for improvement of facilities of the home industry productions, participations of provincial and district/municipality government are essentials, because the food industry in this catagory receive their product certification from the local government. There are still many industries in local areas found unregistered, then it is necessary to empower provincial, district/municipality governments so that all the food productions will get their certification with promotion.

Based on the data of calory consumption of the *Susenas* 2009 and data of stunted prevalence in underfive issued by the *Riskesdas* 2010, further provinces are catagorized as per the table **2**.

Table 2. Stratification of Provinces Based on Prevalence of Stunting of Children Underfives and Proportion of Very Vulnerable Population to Food

Status	Proportion of very vulnerable population to food ≤ 14,47 %	Proportion of very vulnerable population to food > 14,47 %
Percentage of Stunted under five ≤ 32%	**Strata1** 1. Kepulauan Riau, 2. Bengkulu, and 3. Bali.	**Strata 2** 1. Bangka Belitung, 2. Jambi, 3. East Kalimantan 4. DI Yogyakarta, 5. DKI Jakarta, 6. North Sulawesi, 7. North Maluku, and 8. Papua.
Percentage of Stunted under five > 32 %	**Strata 3** 1. Aceh, 2. West Sumatera, 3. Riau, 4. Central Kalimantan, 5. South Kalimantan, 6. Banten, 7. West Jawa, 8. South Sulawesi, 9. West Sulawesi, and 10. West Nusa Tenggara.	**Strata 4** 1. North Sumatera , 2. South Sumatera, 3. Lampung, 4. West Kalimantan, 5. Central Jawa, 6. East Jawa, 7. Gorontalo, 8. Central Sulawesi, 9. South East Sulawesi, 10. East Nusa Tenggara, 11. Maluku, and 12. West Papua.

Source : - Data of stunted children adapted from Basic Health Services 2010
- Data of proportion of very vulnerable population to food adapted from the NSES 2009
Note : very vulnerable to food condition is average energy consumption level below 1.400 Ccal/day

IV. ACTION PLANS

All member countries of the United Nation, in the General Asembly year 2010 agreed to reach the set targets of the MDG1, acceleration and sustainability of target achievement on foods and nutritions should be focussed to the following efforts:

1. Simultaneous improvement of productivity and quality of agricultural products will effect not only to hunger reduction but also to decreased number of maternal and child death resulted through nutrition improvement as well as increased family income and economic development. Related to these efforts, the cultivated farmers should have direct access to vertilizer, seeds, agricultural equipment, local water irrigation and after-harvest storage.
2. Food security is directed to equal access of diversed foods with reference to local food consumption and a range of nutritional needs at each group of community. The very vulnerable and vulnerable areas to foods receive main priorities in food distributions including complementary feeding to poor families and fortified foods distribution.
3. Package of intervetions with sustainable service approaches are focussed to pre-pregnant mothers, pregnant mothers, infants and two-year-old children.
4. Implementation of the golden standards of baby food through early breastfeeding initiation, exclusive breastfeeding up to 6 months, complementary feeding in stages from family food and breastmilk continued until the child age two years old, both in normal condition as well as emergency situation due to disaster.

With reference to the above global commitments, the national policy and strategy on food and nutrition for periode of 2011-2015 are formulated as per the following:

A. Objectives

1. to decrease prevalence of undernutrition in under five to 15,5 percent,

2. to decrease prevalence of stunted under five to 32 percent, and
3. to achieve food consumption with calory intake of 2.000 Ccal/person/day.

B. National Policy and Strategy of Food and Nutrition

The management of nutrition problems requires comprehensive and coordinated efforts, starting from diversed food production process, *pengolahan*, distribution until consumption of sufficient-nutrient foods and safety. Therefore, an inter-sectoral and inter programs collaborations mainly on agriculture, trading, industry, transportation, education, religion, population, child protectiona, economy, health, food surveillance and culture are very important in terms of sinchronization and integration of policies of community nutrition status improvement.

The concensus of the several global meetings to accelerate the MDGs have been responded by national commitment to provide resources mainly in priroritized sectors such as education and health, more job opportunities and reducing disparity of rich and poor families through programs of food distribution for the poor family, *keluarga harapan* program, programs to self-sustaining community and provision of basic needs subsidy for the poor.

Policy

Improving status of community nutrition especially mother and child through availability, accessibility, consumption and safety of foods, clean healthy life style incuding nutrition awareness, in line with strengthening mechanism of inter sectoral and inter programs coordination and partnerships.

Strategy

1. **Improvement of community nutrition**, particularly in pre-pregnant mothers, pregnant mothers and children through increasing availability and accessibility of sustainable health services focusing to effective nutrition interventions in pre-pregnant mothers, pregnant mothers, infant and children under two years old.

2. **Improving diversed food accessibility** through improvement of accessibility and accessibility of foods focusing to the vulnerable family to food and the poor.

3. **Improving quality control and food safety through** improvement of food security monitoring focusing to requirement-filled food hawkers and certified home industrial products (PIRT).

4. **Improving clean and healthy lifestyle (PHBS)** through improvement of community empowerment and roles of formal leaders especially on behavioral change or food consumption culture focusing to diversity of food consumption based on local resources, clean and healthy lifestyles, and revitalization of Posyandu.

5. **Strengthening Institutionalization of Food and Nutrition** through strengthening of institutionalization of food and nutrition at national, province and district/municipality levels with authority to formulate policies and programs of food and nutrition, including resources as well as research and development activities.

C. Policy and Strategy on Food and Nutrtition of Provinces

Based on disparities of poverty levels, nutritional status of under five and calory consumption eligible to the nutrition sufficient number (AKG) at provincial levels, it is therefore necessary to have provincial stratification referred to the the above indicators for formulating intense policies and strategies in each strata group based on the problems faced by the respective areas. In setting out acitivities, it is important to refer to the *RPJMN* 2010-2014 and *RPJMD* of each related sectors by focusing to high leverage activities in achieving the MDGs particulary to problem solvings activities of the local social cultures and the present systems of food and nutrition. Thus, it is hope that all activities are sustainable and significantly effect to the decrease of undernutrition and stunting in under five as well as in the problem of low intake of calory consumption by the local community.

It is recomended that each province to also implement district/municipality stratifications based on the MDGs' achievements to facilitate listing of indicators of main performances guiding to innovative activities with focus to problem solving priorities.

Table 3. Five Pillar Intervention Strategies with Stratification of Provinces

Stratification of Provinces	5 pillar strategy of Action Plans				
	Community Nutrition	Food Accessibility	Food quality and safety	clean and healthy lifestyle	Food and Nutrition Institutions
Strata 1	X	X	X	X	X
Strata 2	XX	XXX	XX	XX	XX
Strata 3	XXX	XX	XX	XXX	XX
Strata 4	XXX	XXX	XXX	XXX	XXX

***Note**: the number of "x" indicates the intensity of interventions that should be conducted*

Furthermore, with reference to the regional analysis, intensity and intervention, the policy and strategy of food and nutrition is categorized in the tabular 3.**.** This matrix describes application of the 5 pillar strategies of food and nutrition development at all strata of provinces with different intensity.

The following are the policies, strategies and names of provinces of in each the strata:

1. **Strata 1: Province with Prevalence of Stunted Under five ≤ 32 percent and Proportion of Population with average calory consumption < 1.400 Ccal/person/day is ≤ 14,47 percent**

   Policy: To continue reduction of prevalence of undernutrition in mother and children by maintaining consumption level of community, to contrbute to the acceleration of the achievement of the MDGs 1, 4, 5 and 6.

   Strategies:
   a. **Improving food accessibility** through development of district/municipality mapping based on indicators of prevalences of the stunted under five and calory consumption <1.400 Ccal/person/day to prioritize area management.
   b. **Strengthening institutionalization of food and nutrition** through harmonization of the Action Plan on Food and Nutrition at district/municipaliy leverl to reach the MDGs targets.

c. **Improving Clean and Healthy Lifestyle (PHBS)** through improvement of information access and education on PHBS on food and nurtition to individu, family, and community especially in addressing over nutrition and non-communicable diseases related to nutrition.
d. **Improving quality control and food saftey** through quality maintanance and food safety including hawker, home industry products and drinking water.
e. **Improving community nutrition** through measurement of lenght/height of children under two every six months during the month of vitamin A distribution.

Provinces: Kepulauan Riau, Bengkulu, dan Bali.

2. **Strata 2: Province with Prevalence of Stunted Under five ≤ 32 percent and Proportion of Population with average calory consumption < 1.400 Ccal/person/day is > 14,47 percent**

Policy: to continue reduction of prevalence of undernutrition in mother and children and by improving level of community consumption especially in very vulnerable areas to foods.

Strategies:
a. **Improvement of Institutionalization of food and nutrition** by improving resources including budget allocation and manpower on foods.
b. **Improvement of food accessibility** through: (i) improving diversed food accessibility to fulfill minimum calory intake of 2000 Ccal/person/day especially for poor household, remote areas and border areas, and (ii) accelerating diverse food consumption based on qualified and safe local resources.
c. **Improving quality control and food safety** through improvement of awareness on food safety
d. **Improvement of clean and healthy lifestyle (PHBS)** through improvement of community empowerment to reach self-sufficiency families especially adolescent and women in practicing clean and healthy lifestyle including nutrition awareness.
e. **Improving Community Nutrition** by focusing sustainable services for pre-pregnant mothers, pregnant mothers and children under two by providing package of interventions of health and nutrition services.

Provinces: Bangka Belitung, Jambi, Kalimantan Timur, DI Yogyakarta, DKI Jakarta Raya, Sulawesi Utara, Maluku Utara dan Papua.

3. **Strata 3: Province with Prevalence of Stunted Under five >32 percent and Proportion of Population with average calory consumption < 1.400 Ccal/person/day is ≤ 14,47 persen**

Policy: Accelerating reduction of prevalence of undernutrition in mother and children and maintaining community consumption to have calory intake 2000 Ccal/person/day.

Strategi:

a. **Strengthening Institutionalization of Food and Nutrtion** through (i) development of human resources mapping related to nutrition including Diploma-graduates (D3 gizi) and other health workers to identify disparity of job description and competency of personnel, and (ii) Assuring implementation of the minimun standard of services (SPM) in health and food sectors
b. **Improvement of Community Nutrition** through development of policy and strategy for actions covering all pre-pregnant mothers and pregnant mother with a package of reproductive health services and nutrition, including addressing of childbearing women with chronic energy deficiency anaemia, and improving family planning programs as well as supporting development and application of health policies related to food and nutrition including exlusive breastfeeding (0-6 months) and complementary feeding (6-24 months) based on local food resources, distribution of formula food to children, and iodine-salt consumption.
c. **Improvement of clean and healthy lifestyle (PHBS)** through community empowerment supporting to the PHBS on food and nutrition by improving partnershops of inter sectors, privates and participation of social community organization.
d. **Improving quality control and food security** through improvement of awareness on food security
e. **Improvement of food accessibility** by developing district/municipality mapping based on indicator of prevalences of the stunted under five and calory

consumption <1.400 Ccal/person/day to prioritize area management.

Provinces: Aceh, Sumatera Barat, Riau, Kalimantan Tengah, Kalimantan Selatan, Banten, Jawa Barat, Sulawesi Selatan, Sulawesi Barat, dan Nusa Tenggara Barat.

4. **Strata 4: Province with Prevalence of Stunted Under five >32 percent and Proportion of Population with average calory consumption < 1.400 Ccal/person/day is > 14,47 percent**

Policy: Accelerating reduction of prevalence of undernutrition n mother and children and improving availability and accessibility of diversed foods to fulfill the need of community consumption.

Strategies:

a. **Strengthening institutionalization of food and nutrition** through (i) improving partnership and multi-sectoral collaborations on food and nutrition at provincial levels in effective ways and parallel with district/municipality levels. (ii) Intensively monitoring of implementation programs related to poverty eradication inlcuding scaling up of budget allocation, which leverage main performance of districts/municipalities, (iii) updating job description of human resources related to food and nutrition at all levels (provinces, districts/municipalities, sub-districts and village/sub-villages) to fulfiil the resource gap in line with the direction of food and nutrition programs, including providing incentives to personnels working in the areas of un-covered populations, and (iv) improving advocation and socialization of health policy development supported to food and nutrition at all levels of administrations.
b. **Improving community nutrition** through improvement of provision and accessibility of sustainable health services for mother and children since fetus is in the womb, after delivery, in neonatal, infants and children under two with a package of effective nutritional interventions.
c. **Improving food accessibility** by improving diversed, safe and balanced-nutrient foods accessibility to meet the need of minimum calory intake 2.000 Ccal/person/day especially for the poor family, remote areas and border areas.

d. **Improving Clean and Healthy Lifestyle (PHBS)** by improving women's empowerment and families in applicating PHBS including nutrition awareness.
e. **Improving quality control and food safety by** increasing awareness on food safety

Provinces: Sumatera Utara, Sumatera Selatan, Lampung, Kalimantan Barat, Jawa Tengah, Jawa Timur, Gorontalo, Sulawesi Tengah, Sulawesi Tenggara, Nusa Tenggara Timur, Maluku, dan Papua Barat.

Based on the situation analysis on food and nutrition at national as well as regional levels, and formulation of policies and strategies of food and nutrition at national and provincial levels, a matrix of action plan on food and nutrition describing programs and activities, indicators, as well as annual targets with indication of budget allocations of related sectors to be involved in the implementation of action plan at national level i.e. Ministry of Health, Ministry of Agriculture, Ministry of Home Affairs, Ministry of National Education, Ministry of National Planning/National Planning Bureau, and Food and Drug Agency. The development of this program is based on the 5 pillar approaches of food and nutrition namely community nutrition, food accessibility, quality and food safety, clean and healthy lifestyle, and institutionalization of food and nutrition. In details, the national action plan on food and nutrition are described in the Matrix Action Plan Chapter V.

No.	Programmes/ Activities	Indicators	Targets						Budget Allocation (Billions Rup.)					Source of Finance	Executor
			Baseline	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015		
COMMUNITY NUTRITION															
1	Increasing promotion of community nutrition	1. Percentage of malnourished under five receiving standardized cares	100	100	100	100	100	100	536,0	564,0	643,0	66,0	-	APBN	MoH
		2. Percentage of infants aged 0-6 months exclusively breastfed	61,3	65	67	70	75	80							
		3. Coverage of household consumed iodized salt	62,3	75	77	80	85	90							
		4. Percentage under five aged 6-59 months receiving Vitamin A Capsule	75	75	78	80	83	85							
		5. Percentage of districts and municipalities implementing nutrition surveillance	100	100	100	100	100	100							
		6. Percentage of bufferstock of complementary feeding for disaster areas	100	100	100	100	100	100							
		7. Number (percentage) of Health Centre with trained personnels in the management of severe malnourished children	829 (10 percent)	1.986 (34 percent)	1.975 (58 percent)	1.975 (82 percent)	1.472 (100 percent)								
		8. Number (percentage) of local hospitals with trained personnels in the management of severe malnourished children	249 (50 persen)	65 (63 persen)	65 (77 persen)	65 (90 persen)	51 (100 persen)								
		9. Percentage of under five weighed at Integrated health service posts (D/S)	65	70	75	80	85	85							
		10. Percentage of health centres with trained personnels for growth monitoring	-	60	75	80	90	100							
		11. Percentage of cadres	35	40	70	100	100	100							

No.	Programmes/ Activities	Indicators	Targets						Budget Allocation (Billions Rup.)					Source of Finance	Executor
			Baseline	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015		
		training at the Integrated health service posts (Posyandu)													
		12. Percentage of health centres with lactation councellors	20	25	43	61	80	100							
		13. Percentage of health centres provide training to breast feeding support groups	100	100	100	100	100	100							
2	Improvement of maternal and child health	1. Percentage of pregnant mothers receive iron tablets (90 tablets)	-	74	78	80	81	85	490.0	520.0	537.0	547.0	-	APBN	
		2. percentage of CED pregnant mothers receive suplementary feeding packages	71,016 (2010)	120 Thousand	122 Thousand	124 Thousand	126 Thousand	126 Thousand							
		3. Percentage of infants aged 6-12 months and children aged 1-5 years recieve vitamin A capsule	-	78	80	83	85	85							
		4. Percentage of pregnant mothers with the 4th visit (K4)	61.4 (Riskesdas 2010)	88	90	93	95								
		5. Percentage of the first neonatal visit (KN1)	61.3 (Riskesdas 2010)	86	88	89	90								
FOOD ACCESSIBILITY															
1	Improvement of food availability	1. Number of self-sufficient food villages developed	1,750 Villages	2,550 Villages	3,350 Villages	4,150 Villages	5,000 Villages		192,24	198,36	206,16	214,24	-	APBN	Mo Ag
		2. Number of food storage developed in food vulnerable areas	-	700	800	900	1.000								
		3. Interventions of food vulnerable areas	350 Districts and municipals	400 Districts and municipals	425 Districts and municipals	450 Districts and municipals	450 Districts and municipals								
		4. Availability of food vulnerable data	33 Provinces	33 Provinces	33 Provinces	33 Provinces	33 Provinces	33 Provinces							
		5. Monitoring and establishment of data	33 Provinces	33 Provinc	33 Provinc	33 Provinc	33 Provin	33 Provin							

No.	Programmes/ Activities	Indicators	Targets						Budget Allocation (Billions Rup.)					Source of Finance	Executor
			Baseline	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015		
		on food availability and vulnerability (food and nutrition surveillantce systems)		es	es.	es	ces	ces							
2	Development of food distribution systems and food price stability	1. Community food distribution council (CFDC) in food producing areas	750 Villages	900 Villages	1,250 Villages	1,500 Villages	1,750 Villages		136.73	143.31	149.80	156.29	-	APBN	Mo Ag
		2. Data and information availability on food distribution, price, and accessibility	33 Provinces	33 Provinces	33 Provinces	33 Provinces	33 Provinces.	33 Provinces							
		3. Accomplishment of monitoring and establishment of food distribution, price and access.	33 Provinces	33 Provinces.	33 Provinces.	33 Provinces.	33 Provinces	33 Provinces							
3	Development of diversed food consumption and improvement of fresh food safety.	1. Number of accelerated diversed food consumption (ADFC) villages	2,000 Villages	4,000 Villages	6,000 Villages	8,000 Villages	10,000 Villages		203,00	259,53	332,02	406,37		APBN	MoAg
		2. Number of provinces/districts and municipalities promote diversed food consumption and food safety	33 Provinces / 383 Districts and municipalities	33 Provinces/ 400 Districts and municipalities	33 Provinces/ 425 Districts and municipalitiess	33 Provinces/ 450 Districts and municipalitiess	33 Provinces / 450 Districts and municipalities								
		3. Human resource recruitments/ field workers such as mentors (assistant of ADFC villages)	-	4,000 Villages	6,000 Villages	8,000 Villages	10,000 Villages								
		4. Number of provinces and districts and municipalities implement fresh food safety interventions at producer and consumer levels	33 Provinces	33 Provinces, 100 Districts and municipalitiess	33 Provinces, 150 Districts and municipalities	33 Provinces, 200 Districts and municipalities	33 Provinces, 250 Districts and municipalities								
		5. Accomplishment of monitoring and establishment of diversed food consumption and food safety (including	33 Provinces	33 Provinces	33 Provinces	33 Provinces	33 Provinces								

No.	Programmes/ Activities	Indicators	Targets						Budget Allocation (Billions Rup.)					Source of Finance	Executor
			Baseline	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015		
		diserable food pattern (DFP) scores and average energy consumption of population)													
		6. Data and information availability on diversed food consumption pattern and food safety	33 Provinces	33 Provinces	33 Provinces	33 Provinces	33 Provinces								
4	Management of cereal productions	Large of areas applied for appropriate and sustainable cereal cultivations (thousands of hectares) :							475,68	477,08	507,57	571,56		APBN	MoAg
		SL - PTT of non hybride paddy (thousands of hectares)	2,000	2,200	2,300	2,400	2,500								
		SL - PTT hybride paddy (thousands of hectares)	200	228.98	300	400	500								
		SL - PTT dry land paddy (thousands hectares)	300	350	400	450	500								
		SL - PTT hybride corn (thousands of hectares)	150	206.73	200	225	250								
		Development of increase production of wheat (thousands of hectares)	0.1	0.39	0.15	0.18	0.20								
		Development of increase production of sorghum (thousands of hectares)	0.1	0.13	0.15	0.18	0.20								
5	Management of various bean and tuber productions	Large of areas applied for appropriate sustainable cultivations of various beans and tubers (thousands of hectares) :							181,32	233,70	316,50	402,20		APBN	MoAg
		SL- PTT soy bean (thousands of hectares)	250	300	350	425	500								
		SL - PTT ground nut (thousands of hectares)	50	100	150	200	200								
		SL - PTT kacang hijau (thousands of hectares)	-	10	20	20	25								
		PTT green peas (thousands of hectares)	3.21	-	-	-	-								
		PTT casava (thousands of hectares	6.53	6.66	6.56	6.58	6.61								
		PTT sweet potato (thousands of hectares)	9.5	10.05	10.35	10.76	11.20								
		PTT local foods (thousands hectares)	0.05	0.06	0.08	0.09	0.10								
6	Increasing of sustainable productions, productivity and product quality of	Development areas for fruit plants	820	5,778	5,700	5,700	5,800		107,34	81,53	97,84	122,30		APBN	MoAg
		Developments of registration of fruit plants	2.382	720	800	825	900								
		Improvements of quality managements of fruit	96	279	300	400	500								

No.	Programmes/ Activities	Indicators	Targets						Budget Allocation (Billions Rup.)					Source of Finance	Executor
			Baseline	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015		
	fruits (National priority)	plants													
		Improvements of post harvest management of fruit plants	-	84,156	80,000	80,000	80,000								
		Development of packing house registration	-	10	5	5	5								
		Improvement of number of institutions fruit plant efforts	121	304	300	300	300								
7	Increasing in sustainable production, productivity and quality of products for vegetable and herb plantations.	Development of areas for vegetables and herb plantations	335	785	785	785	800		104,65	85,42	102,50	128,13		APBN	MoAg
		Development of registration areas for vegetable and herb plantations	372	1,000	1,200	1,400	1,800								
		Improvements of quality management for fruit plantations	-												
		Improvement of post harvest quality management for vegetable and herb plantations	-	265	280	290	295								
		Improvement of packing house registrations	-	20	5	6	7								
		Increase of number of institutions for vegetable and herb plantations	195	525	530	530	535								
8	Increasing of production, productivity and quality of seasonal plants	Increase of large of plantation areas (thousands of hectares)							132.17	50.24	52.76	55.39		APBN	MoAg
		Self sufficient of sugars	465	572	632	692	767								
9	Increasing of livestock productions through local based resource utilisations	Optimalisation of IB and INKA (package)	50	828	910	1,001	1,101		345.61	403.85	456.89	521.27		APBN	MoAg
		Development of livestock agribisnes through LM3 (group)	589	113	113	113	113								
		Development of dairy livestocks cultivations (group)	50	49	59	71	85								
		Development of goat/ sheep cultivations	-	100	110	121	133								

No.	Programmes/ Activities	Indicators	Targets						Budget Allocation (Billions Rup.)					Source of Finance	Executor
			Baseline	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015		
		(group)													
		Development of poultry husbandary cultivation (group)	230	251	350	410	470								
		Development of non poultry husbandary livestocks (group)	33	36	63	75	87								
10	Subsidized rice supply (SRS) for targeted poor households (TPH)	Number of TPH recieve the SRS	17.5	17.5					15.27					APBN	MoCPP/ Logistic affair Board
11	Development and management of fisheries	Number of productions of fisheries (millions tons)	-	5.41	5.44	5.47	5.5			1,637.9	2,145.4	2,556.7		APBN	MoF
12	Increasing of cultivated fishery productions	Volume of productions (millions tons)	-	6.85	9.42	13.02	16.89		683,2	865	1,058.6	1,208.0		APBN	MoF
13	Improvement of fishery product competetivenes ss	Volume of value added fishery processed products with package and quality assurance (million tons)	-	4.3	4.5	4.8	5.0							APBN	MoF
		Number of average fish consumption per caput nationally (kgs)	-	31.57	34.09	36.31	38.67								
14	Facilitation activities on strengthening and improving of incountry marketing of fishery products	Number of fish auctions and fishery markets that function properly	-	36 FAP; 7,000 markets	54 FAP; 7,000 markets	72 FAP; 7,000 markets	91 FAP; 7,000 market s		105.9	114.5	122.7	144.9		APBN	MoF
		Number of activities for fish eating habit movements (FEHM)	-	33 Provinc es	33 Provinc es	33 Provinc es	33 Province s								
15	Oceanic and fisheries educations	Number of group fishery potencials educated	-	400 groups in 50 locations	500 groups in 50 locations	600 groups in 50 locations	700 groups in 50 locations		60,6	91	119,5	141,9		APBN	MoF
FOOD QUALITY AND SAFETY															
1	Food and drug control	Proportion of foods eligible	-	80	85	88	90	93	464.8	599	647	725	1,000	APBN	FDC Board
2	Dangeurous Product and	Percentage of foods that contain	-	20	15	12	10	8							

No.	Programmes/ Activities	Indicators	Targets						Budget Allocation (Billions Rup.)					Source of Finance	Executor
			Baseline	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015		
	substance control	dangerous/prohibited pollutants													
3	Food certification and inspections	1. Percentage of food means of productions that meet the most recent GMP standard	-	55	60	65	70	75							
		2. Percentage of infant and child food productions that meet the most recent GMP standard	-	25	40	60	80	85							
		3. Percentage of means of food selling that meet GRP/GDP standard	-	15	35	45	55	60							
4	Improvement of number and competencies of food safety councelors (FSC) and District Food Inspectors (DFI)	Number of food safety councelors (FSC) and District Food Inspector	-	600 FSC and 600 DFI	1,350 FSC and 1,350 DFI	1,350 FSC and 1,350 DFI	1,350 FSC and 1,350 DFI	1,350 FSC and 1,350 DFI							
5	Technical guidance to household food industry products(HFIP)	1. Number of modules for application of food safety principles in production process in HFIP based on items of products.	-	60 Packages	140 Packages	140 Packages	140 Packages	120 Packages							
		2. Number of HFIP trained and facilitated on application of food safety principles of production process in HFIP based on items of products.	-	600 HFIP	1,725 HFIP	1,725 HFIP	1,725 HFIP	1,725 HFIP							
		3. Number of HFIP trained and facilitated on design and implementation of good manufacturing processes (GMP) in household food industries.	-	450 HFIP	3,000 HFIP	3,000 HFIP	3,000 HFIP	3,000 HFIP							

No.	Programmes/ Activities	Indicators	Targets						Budget Allocation (Billions Rup.)					Source of Finance	Executor
			Baseline	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015		
		4. Monitoring and verifications of GMP to household food industries	-	450 HFIP	3,000 HFIP	3,000 HFIP	3,000 HFIP	3,000 HFIP							
6	Technical guidance and monitoring to school canteens.	1. Number of school canteens trained and facilitated on applications of food safety principles in school canteens	-	600 Elementary schools	4,500 Elementary schools	4,500 Elementary schools	4,500 Elementary schools	4,500 Elementary schools							
		2. Monitoring and verifications of technical guidance in school canteens	-	600 Elementary schools	4.500 Elementary schools	4.500 Elementary schools	4.500 Elementary schools	4.500 Elementary schools							
BEHAVIOURS TOWARD CLEAN AND HEALTHY LIFE															
1	Guidance of BTCHL in food and nutrition	Percentage of households implementing BTCHL	48.47	55	60	65	70	75	183.8	185.8	204.9	220.0		APBN	MoH, MoAg, MoNE, MoR & MoIA
FOOD AND NUTRITION INSTITUTIONALIZATION															
1	Improvement of food and nutrition institutionalization	1. Number of provinces and districts that establish food and nutrition institutions	33 Provinces, 429 Districts	33 Provinces, Number of districts increased	33 Provinces, Number of districts increased	33 Provinces, Number of districts increased	33 Provinces Number of districts increased	33 Provinces Number of districts increased						APBN, PHLN, and private	NDPB, MoH, MoAg
		2. Number of health nutrition personnels (HNP) at health centres(HC)	-	< 1 HNP/ HC	< 1 HNP/ HC	< 1 HNP/ HC	< 1 HNP/ HC	< 1 HNP/ HC						APBN, PHLN, and private	NDPB, MoH
		3. Number of sub districts with agricultural field educator trained in food and nutrition	-	4,000 Villages, 1.250 Sub district	6.000 Villages, 1.500 Sub district	8.000 Villages, 1.750 Sub district	10.000 Villages 2.000 Sub district							APBN, PHLN, and private	NDPB, MoAg
		4. Number of provinces and districts with energy consumption data	-	33 Provinces, Number of districts increased	33 Provinces, Number of districts increased	33 Provinces, Number of districts increased	33 Provinces , Number of districts increased	33 Provinces , Number of districts increased						APBN, PHLN, and private	NDPB, MoH, MoAg
		5. Number of provinces with research agenda of food and nutrition	-	Increased	Increased	Increased	Increased	Increased						APBN, PHLN, and private	NDPB, MoH, MoAg

No.	Programmes/ Activities	Indicators	Targets						Budget Allocation (Billions Rup.)					Source of Finance	Executor
			Baseline	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015		
		6. Number of researches in micro nutrients at national level	-	Increased	Increased	Increased	Increased	Increased						APBN, PHLN, and private	NDPB, MoH, MoAg
		7. Vitamin A fortification to fried oil	On trial	On trial	Voluntary and conceptual arrangement	Voluntary and conceptual arrangement	Voluntary and conceptual arrangemer	Mandatory and Indonesian national standard						APBN, PHLN, and private	NDPB, MoH, MoI
		8. Policy concept of iron fortification to rice	On trial	On trial	On trial	conceptual arrangeme nt	Voluntary	Voluntary						APBN, PHLN, and private	NDPB, MoAg
		9. Number of provinces, districts adopted food and nutrition programs in Local midterm development plans	33 Provinces	33 Provinces, Number of districts increased	33 Provinces, Number of districts increased	33 Provinces, number of districts increased	33 Provinsi, Number of districts increased	33 Provinsi, Number of districts increased						APBN, PHLN, and private	NDPB, MoH, MoAg

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PROGRESS OF IMPORTANT FOODS AVAILABILITY

Commodities	Year						growth (%) '05-'10	Growth (%) '09-'10
	2005	2006	2007	2008	2009	2010		
Rice	30,663	30,841	32,371	34,166	36,207	37,096	3.9	2.46
Corn	11,039	10,234	11,709	14,379	15,536	15,725	7.84	1.22
Soy bean	731	677	538	704	884	821	4.29	-7.13
With sugars	2,221	2,284	2,424	2,677	2,823	2,620	3.54	-7.19
Cow's meat	255	282	242	279	288	310	4.48	7.61
Ground nuts	763	765	717	700	707	708	-1.44	0.23
Cassava	18,523	19,161	19,163	20,858	21,129	22,140	3.68	4.78
Sweet potato	1,634	1,632	166	1,656	1,811	1,813	2.16	0.11
Vegetables	8,738	9,146	9,077	9,634	10,203	10,230	3.24	0.26
Fruits	14,232	15,565	16,475	17,352	17,954	18,391	5.29	2.43
Fried oil (palm oil)	7,906	11,564	11,773	11,690	12,424	13,226	12.02	6.46
Chicken meat	620	694	714	744	749	829	6.07	10.78
Egg	953	1,098	126	1,221	1,295	1,267	6.16	-2.22
Milk	452	520	479	545	568	782	12.58	37.59

source: Data analysed by The Ministry of Agriculture, 2010

PROGGRESS OF IMPORTANT FOOD PRODUCTIONS

Commudities	Year						Growth (%) '05-'10	Growth (%) '09-'10
	2005	2006	2007	2008	2009	2010		
Rice	54,141	54,455	57,157	60,326	64,339	65,981	4.06	2.46
Corn	12,524	11,609	13,288	16,317	17,630	17,845	7.84	1.22
Soy bean	808	748	593	776	975	905	4.23	-7.13
White sugar	2,243	2,306	2,448	2,703	2,851	2,646	3.54	-7.19
Cows meat	359	396	339	393	405	435	4.48	7.61
Ground nuts	836	838	789	770	778	780	-1.36	0.23
Cassava	19,321	19,987	19,988	21,757	22,039	23,094	3.68	4.78
Sweet potato	1,857	1,854	1,887	1,882	2,058	206	2.16	0.11
Vegetables	9,102	9,527	9,455	10,035	10,628	10,656	3.24	0.26
Fruits	14,787	16,171	17,117	18,028	18,654	19,107	5.29	2.43
Fried oil (Palm)	8,099	11,487	12,061	11,976	12,728	13,550	12.02	6.46
Chicken meat	1,126	1,260	1,296	1,350	1,359	1,505	6.07	10.78
Eggs	1,052	1,204	1,382	1,324	1,405	1,379	5.87	-1.83
Milk	536	617	568	647	674	928	12.58	37.59

Source : Data Analyzed by The Ministry of Agriculture, 2010

FOOD-BALANCE SHEET OF IMPORTANT FOOD AVAILABILITY AND REQUIREMENT

Commodities	Year 2009					Year 2010				
	Availability (000 Tons)	requirement (000 Tons)	Availability to requirement (%)	Balance		availlability (000 Tons)	Requirement (000 Tons)	Availability to requirement (%)	Balance	
				Volume	(%)				Volume	(%)
Rice	36,207	32,195	112.5	4,012	11.06	37,096	32,586	113.8	4.51	12.16
Corn	15,536	15,799	98.3	-264	-1.7	15,725	16,472	95.5	-747	-4.75
Soy bean	884	2,198	40.2	-1,314	-148.52	821	193	42.5	-1109	-135.02
Ground nut	707	896	78.9	-189	-26.67	708	851	83.2	-143	-20.18
Cassava	21,129	21,175	99.8	-46	-0.22	2,214	23,043	96.1	-903	-4.08
Sweet potato	1,811	1,804	100.4	7	0.4	1,813	1,809	100.2	4	0.2
Vegetable	10,203	10,686	95.5	-482	-4.73	10,230	10,546	97	-316	-3.09
Fruits	17,954	18,553	96.8	-598	-3.33	18,391	18,747	98.1	-357	-1.94
Fried oil (Palm)	12,424	5,699	218	6,725	54.13	13,226	10,319	128.2	2.908	21.98
White Sugar	2,823	4,216	67	-1,393	-49.35	262	3,603	72.7	-983	-37.52
Cows meat	288	355	81	-67	-23.4	310	359	86.2	-49	-15.95
Chicken meat	749	1,007	74.4	-258	-34.5	829	1,019	81.4	-190	-22.89
Egg	1,296	2,056	63	-761	-58.7	1,267	2,081	60.9	-814	-64.28
Milk	568	1,954	29.1	-1,385	-243.71	782	1,859	42.1	-1077	-137.65

Source : Data analysed by Ministry of Agriculture, 2010

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