

Review Article

Food and nutrition security and poverty alleviation in the Philippines

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Poverty, food and nutrition insecurity remain as critical problems in the Philippines. The average Filipino in 1997 needed an annual income of at least P7710 to meet food requirements or P11 319 to meet both food and non-food requirements. Approximately 4 511 000 families (31.8%) are poor and most of these are in the rural areas. Economic growth in the country has been characterized as a 'boom and bust' cycle with growth derailed by a combination of natural calamities, adverse domestic political factors, energy shortages, and external shocks such as the Asian currency crisis. In 1988 the gross national product (GNP) reached a peak of 7.2% and then declined to less than 1% in 1991. The economy started to recover in 1992, and the GNP peaked at 7.2% in 1996. The Asian financial crisis, compounded by the drought in 1998, led to a fall in the output of the agricultural sector by 6.6%. A stronger world economy, however, in 1999 helped the Philippine economy to recover. The Food Balance Sheet 1997 indicates that there has been a steady increase in the aggregate net food supply in 1992–1997 with the cereals group contributing approximately 25% of the total food supply. Translating this into calorie supply, this has provided approximately 2400 kcal/person per day or approximately 25% more than 2000 kcal/day. The fact that mean per capita intake is low indicates a gap between supply, distribution and consumption. The 1998 Food and Nutrition Research Institute survey showed that nutritional deficiencies still persist. Among 0–5-year-old children, underweight was approximately 32.0%; stunting 34.0% and wasting 6.0%. Underweight among 6–10-year-olds was 30.2% while stunting was 40.8%. Vitamin A deficiency, iron deficiency anaemia and iodine deficiency disorder continue as public health concerns. Food security and poverty alleviation are among the top priority programmes. The Medium-Term Philippine Development Plan (1999–2004) enunciates the country's vision of creating a modern and humane society through improved quality of life characterized by food-secure and poverty-free Filipinos, in an ecologically healthy state. The different government programmes are the following: the Agriculture and Fisheries Modernization Act of 1997 provides the blueprint for developing and modernizing the agriculture and fisheries sectors; the National Anti-Poverty Alleviation Commission was created as the coordinating and advisory body for the implementation of poverty eradication programmes of the different sectors; the vision of the Medium-Term Philippine Plan of Action for Nutrition is of a nutritionally improved country whose people are well nourished, healthy, intelligent, and socially and economically productive with a strong sense of human dignity.

Key words: alleviation, food, nutrition, Philippines, poverty, security.

Introduction

Poverty, food and nutrition insecurities remain as critical problems in the Philippines. Eradicating these devastating problems will require well-thought-out policies, and, in order to design and implement them in a rational fashion, policy-makers need sound information.

In the Philippines, many people are experiencing the general trend of the relationship of poverty, food and nutrition insecurity. Poor people have difficulties in accessing food, hence they become nutritionally insecure. This paper is presented following a problem–solution framework (Fig. 1).

Poverty

Economic growth in the Philippines has been characterized as a 'boom and bust' cycle with growth derailed by a combination of natural calamities, adverse domestic political

factors, energy shortages, and external shocks such as the Asian currency crisis. In 1987 the economy started to pick up and the gross national product (GNP) reached a peak of 7.2% in 1988. Growth, however, was not sustained as the balance of payments crisis, political instabilities and power shortages struck the domestic economy. In 1991 the GNP had declined to less than 1%. The economy started to recover in 1992, as reforms for sustained economic growth with corresponding measures to improve income and wealth were put in place.

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This resulted in an annual average GNP growth of 4.1% for the period of 1993–1998, which peaked at 7.2% in 1996. The Asian financial crisis, compounded by the drought in 1998, led to a fall in the output of the agricultural sector by 6.6%. However, a stronger world economy in 1999 helped the Philippine economy to recover (Fig. 2).¹

Recognizing that poverty alleviation involves more than just increasing the incomes of the poor, the human development index (HDI) was conceived to measure the performance of the country in terms of three outcomes: the state of health; the level of knowledge and skills; and the level of real income per capita. In 1994 and 1997 the Philippine HDI was noted as 0.494 and 0.625, respectively.¹

Understanding the issue of poverty in the Philippines is about determining who are the poor; where are they; and how do they live.

Who are the poor?

The income to meet food requirements is called the subsistence threshold, while income to meet both food and non-food basic requirements is called the poverty threshold. The two subcategories of the poor in the Philippines are the poor and the subsistence poor.

The poor. These are the population or families who have earnings less than the poverty threshold or the minimum income required to afford basic food and non-food requirements.

The subsistence poor. These are people who have incomes that are less than the required subsistence threshold or income required to at least acquire basic food requirements.¹

Based on the latest poverty estimates, the average Filipino in 1997 needed an annual income of at least P7710 to meet the basic food requirements or P11 319 to meet both food and non-food requirements. Generally, income thresholds in urban areas are higher than in rural areas. In 1997 the urban poverty threshold was at P12 577 while the subsistence threshold was at P8304. In the rural areas, the poverty and subsistence thresholds were P10 178 and P7172, respectively. Given these thresholds, approximately 4 511 000 families or 31.8% of the total number of families in the country are estimated to be poor. Of these families, 2 295 000 are merely subsisting.¹ The family poverty incidence in 1991 was 39.9% and it declined to 31.8% in 1997.²

There were 4 274 000 Filipinos who were unemployed in 1998, reflecting an unemployment rate of 13.3%.²

Where are the poor?

Based on the 1994 and 1997 Family Income and Expenditure Survey (FIES), poverty remains primarily a rural issue. In 1994, 66.5% of the population resided in the rural areas while only 35.5% were in urban areas. In 1997 the rural poor grew to 73.2% while the urban poor declined to 26.8% of the total population (Fig. 3).¹

How do they live?

The majority of the rural poor are those engaged in the agriculture, forestry, and fishery sectors. Initial results of the

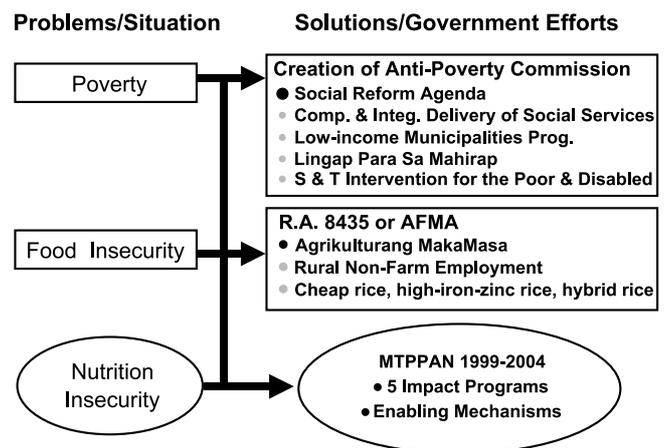


Figure 1. Poverty, food and nutrition insecurities: problem solution framework.

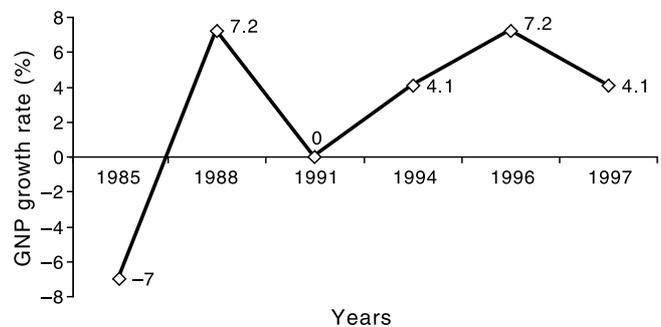


Figure 2. Gross national product, the Philippines. Source: National Anti-Poverty Action Agenda, National Anti-Poverty Commission Secretariat, Manila, Philippines, 1998.

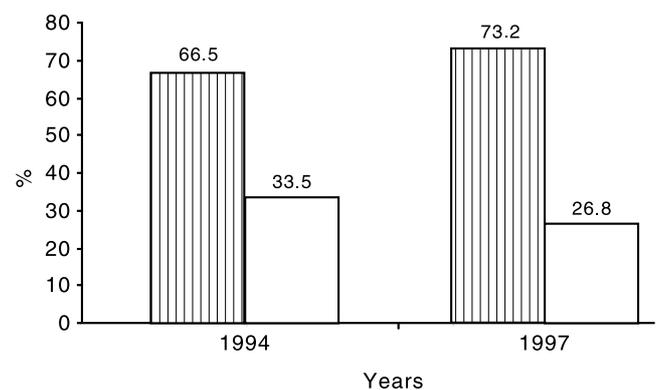


Figure 3. Poor sectors by location. (▨), rural; (□), urban. Source: National Anti-Poverty Action Agenda, National Anti-Poverty Commission Secretariat, Manila, Philippines, 1998.

1998 Annual Poverty Indicators Survey (APIS) on the lowest 40% income stratum revealed the following.¹

(1) Most families were engaged in family sustenance (74.2%) and entrepreneurial activities (70%).

(2) In all regions except the National Capital Region (NCR) and Autonomous Region of Muslim (ARMM), working children came from families in the lowest 40% income group.

(3) The major reasons for not attending school are the high cost of education and the lack of interest in going to school.

(4) The poor families have houses made of light materials.

(5) Among the poor people, the access to electricity is much lower.

(6) Most poor families in all regions depend more on shared community water supply.

Food insecurity in the Philippines

Food security is a state in which all people have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.³ Food insecurity exists therefore when people are undernourished due to the physical unavailability of food, their lack of social or economic access, and/or inadequate food utilization.⁴

Food supply

The Food Balance Sheet (FBS) 1997 (FBS) indicates that there has been a steady increase in the aggregate net food supply in the country from 1992 to 1997 or an annual average increase of 6.1%; with the cereals group contributing approximately 25% of the total food supply. Translated into calorie supply, the FBS shows that the food supply can provide the caloric needs of the population. By 1997, total per capita calorie supply was recorded at approximately 2400 kcal/person per day, or approximately 25% more than the 2000-kcal recommended daily allowance (RDA). Therefore there is enough food but the fact that the mean per capita intake is low indicates unequal distribution of food.⁵

In the Philippines, demand for rice during the next 25 years is expected to increase by 65%. In one generation, for example, the Philippines population will grow from today's 76 million to 115 million. The Philippines is already importing rice.⁶

Food consumption

The typical Filipino diet consists of rice, fish or meat, some vegetables, and occasionally fruit. The series of national nutrition surveys conducted by the Food and Nutrition Research Institute, Department of Science and Technology (FNRI-DOST) over a period of 15 years (1978, 1982, 1987, 1993) showed a generally declining trend in mean per capita total food consumption (Fig. 4) as well as in the consumption of major food groups, particularly cereals and cereal products (from 367 g in 1978 to 340 g in 1993); vegetables (from 95 g to 106 g), and fruits (from 104 g to 77 g). Only the consumption of fish, meat, and poultry remained higher than the 1978 level, although there was a significant decrease between 1987 and 1993 (from 157 g to 147 g).⁷

Nutrition insecurity in the Philippines

Nutrition insecurity in this presentation is defined as the state in which an individual or family is unable to meet the nutritional requirements for the normal functioning of body

systems due to inavailability, inaccessibility, unacceptability, and poor absorption and utilization of foods.

Nutrient intake

The trend in nutrient intake generally followed the trends in food consumption. Mean per capita intakes, expressed as percentage of RDA for energy and all nutrients, except protein, were low in 1987, but were lower in 1993. Particularly significant were the decreases in mean per capita intakes of energy, iron, calcium, and ascorbic acid. Although the differences in thiamin and riboflavin intakes in 1987 and 1993 were not significant, the intake of these B vitamins, together with those of iron and calcium were below 70% of the RDA. When there is energy inadequacy, proteins are utilized by the body as energy sources, hence, protein-energy malnutrition (PEM) continues to be a problem (Fig. 5).⁷

Nutrition status

Table 1 shows that the prevalence of underweight for the groups of children 0–5 years and 6–10 years increased within the 2-year period 1996–1998. The proportion of underweight children 6–10 years old is higher by 1.9% in 1998 than that of 1996, while the increase of that in the 0–5-year-olds is 1.2%. The stunting prevalence in the 0–5-year-old children did not significantly change but stunting at 6–10 years old is higher by 1.7% in 1998 than that in 1996.⁸

Table 2 shows the overall prevalence of micronutrient deficiencies. Iron deficiency anaemia (IDA) was very high among children aged 6–11 months (56.6%). Vitamin A deficiency (VAD) among children 6 months–5 years was 8.2%. Among pregnant women the prevalence rate was 7.1% while it was 3.9% among lactating women. The prevalence of iodine deficiency disorders (IDD) among 6–12-year-old children was 35.8%. The national median for urinary iodine excretion is 71.0 µg/L, indicating mild IDD.⁹

Government efforts on poverty alleviation, food and nutrition security

Poverty alleviation

As part of the struggle to lift the Philippines from poverty, the National Anti-Poverty Commission (NAPC) as mandated by Republic Act 8425, otherwise known as the Social

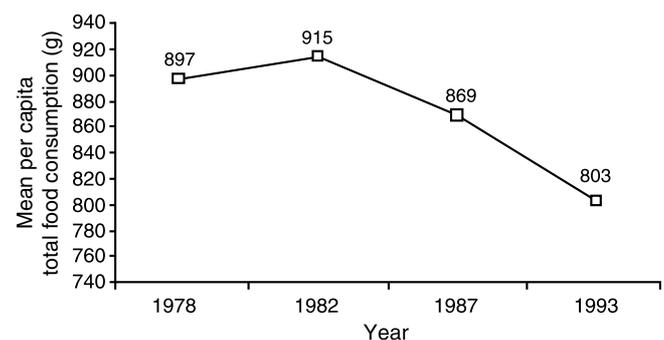


Figure 4. Food consumption pattern: Philippines. Source: Villavieja et al.⁷

Reform and Poverty Alleviation Act, was created. The NAPC is the coordinating and advisory body that shall exercise overseeing functions for the implementation of the poverty eradication programme.¹⁰

Social Reform Agenda or RA8425

This is the package of government interventions aimed at integrating society's disadvantaged groups into our political and economic mainstream. A key objective was the pursuit of total human development through the minimum basic needs (MBN) approach. The major policies and strategies under the SRA focusing on the alleviation of poverty included promotion of sustained growth in income and employment; provision of safety nets for displacements arising from structural reforms; effective response to disasters; and priority efforts and resource allocation to the social services. It aims for the future institutionalization of the Social Reform Agenda, with the following antipoverty efforts/initiatives.

Comprehensive and Integrated Delivery of Social Services. This is a grassroots level development strategy in reducing the unmet minimum basic needs of disadvantaged families and communities. Through its four-pronged approach of community organization, total family approach, convergence and focused targeting, it has managed to empower targeted families and communities to enable them to meet their MBN. Under this programme, families and communities are enabled to identify their minimum basic needs, order these needs or set them according to their priorities, develop the confidence and will to work at these needs, and take action in respect to them. The main features are:¹¹ (i) a participative survey of MBN; (ii) a community process for prioritizing identified MBN for decision making; (iii) joint accountability in the provision of input among communities, local government units (LGU) and national agencies; (iv) project management by the community; (v) assistance by the national agencies; and (vi) ongoing monitoring by communities, LGU and national agencies.

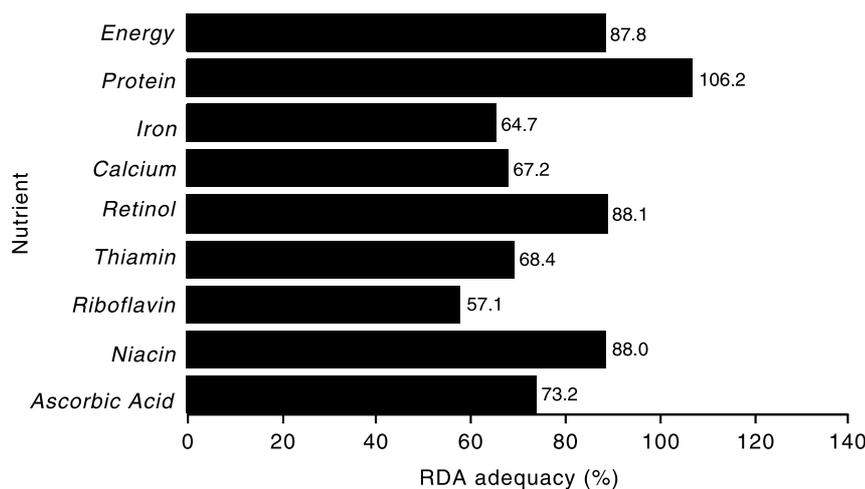


Figure 5. Mean 1-day per capita energy and nutrient intake and per cent adequacy. Source: *Philippine Nutrition Facts and Figures*. Food and Nutrition Research Institute, Department of Science and Technology, Bicutan, Taguig, Metro Manila, Philippines, 2001.

Table 1. Prevalence of undernutrition among children, 1996 versus 1998

Age groups	Prevalence	
	1996	1998
0–5 years old		
Underweight	30.8	32.0
Stunted	34.5	34.0
Wasted	5.2	6.0
6–10 years old		
Underweight	28.3	30.2
Stunted	39.1	40.8

Source: *Philippine Nutrition Facts and Figures*. Food and Nutrition Research Institute, Department of Science and Technology, Bicutan, Taguig, Metro Manila, Philippines, 2001.

Table 2. Prevalence of micronutrient deficiencies by physiological status

Micronutrient deficiency	Physiological status	Prevalence
VAD	6 months–5 years	8.2
	Pregnant women	7.1
	Lactating women	3.9
IDA	6 months to < 1 year	56.6
	1–5 years	29.6
	6 months–5 years	31.8
IDD	Pregnant women	50.7
	Lactating women	45.7
	6–12 years	35.8

VAD, vitamin A deficiency (<10µg/dL); IDA, iron deficiency anaemia; IDD, iodine deficiency disorder.

Source: Reference 9.

The Low Income Municipalities Programme. This prioritizes assistance to mostly 5th and 6th class municipalities by providing a host of pro-poor social development services.

Lingap Para Sa Mahirap. This is a six-pronged approach to address the MBN of poor communities: food, nutrition, and medical assistance, livelihood development, socialized housing, rural waterworks system, protective services for children and youth, and price support for rice and corn.¹²

Science and Technology Intervention for the Poor and Disabled. The programme aims to provide science and technology interventions to meet the MBN of the marginalized and disadvantaged sectors of the society and to facilitate the transfer of technology-based livelihood to them through the efficient and effective delivery of science and technology services.¹³

Food security

Ra 8435

The Agriculture and Fisheries Modernization Act (AFMA) transforms the agriculture and fisheries sector into one that is dynamic, technologically advanced and competitive, yet centred on human development; guided by the sound practices of sustainability and principles of social justice. It was made operative through the Medium-Term Agriculture Development Plan, otherwise known as the Agrikulturang MakaMASA. Agrikulturang MakaMASA has eight programmes covering the spectrum of the agriculture and fisheries sectors which include: rice, corn, high-value commercial crops, livestock, sugar, coconut, and special programmes for marginal uplands and poverty-stricken areas.⁵

Cheap rice

This is one of the most important contributions the International Rice Research Institute (IRRI) has made. It has helped to reduce poverty by enabling the rural landless and the urban working class to buy more food with the same income. Rice is the main staple in the Philippines and in other Asian countries. Urban workers and the rural landless who spend 50–70% of their total income on rice cannot tolerate drastic price increases. Poor rice farmers also have limited ability to tolerate sudden, sharp price declines. The IRRI and its partners have developed high-iron and -zinc rice varieties that can combat malnutrition. Stimulated by the Philippine government's effort to combat iron malnutrition by artificially fortifying milled rice, IRRI plant breeders started studying the rice plant's reaction to high iron content in the soil.⁶

Hybrid rice

Hybrid rice is spreading across Asia. Farmers in the Philippines planted more than 500 ha. Hybrids take advantage of heterosis, which enables the offspring of two genetically diverse plants to produce more grain than either parent. The Philippines has released two hybrids and has started an extensive education campaign that involves field demonstrations, flyers, and billboards. Two private companies are producing hybrid rice seed in addition to government seed farms.⁶

Nutrition security

The Medium-Term Philippine Plan of Action for Nutrition 1999–2004

The National Nutrition Council Medium-Term Plan of Action for Nutrition (MTPPAN) is aimed at reducing the prevalence of PEM among children, chronic energy deficiency (CED) among adults and micronutrient deficiencies particularly vitamin A, iron, and iodine deficiencies. Its strategy is to strengthen the nutrition-in-development (NID) approach. This combines long-term developmental measures addressing the root causes of malnutrition with direct nutrition interventions or impact programmes, and its enabling mechanisms necessary to effect improvements in nutritional levels through promotive, preventive, protective, curative and rehabilitative strategies assuming that the necessary technical, administrative and financial resources are made available.⁷

The five impact programmes of the Medium-Term Plan of Action for Nutrition 1999–2004

Home, School and Community Food Production. This is the PAPAN's long-term and sustaining measure to improve calorie and micronutrient deficiencies. It involves the establishment of kitchen gardens in homes, schools and communities using bio-intensive and other regenerative agricultural technologies; provision of initial seed (supply) and gardening implements; dispersal of small-size animals including promotion of poultry raising; aquaculture; and provision of water supply system.

Nutrition education. Nutrition education is the promotive strategy of the PAPAN and remains as an integral component of the other PAPAN impact programmes to ensure effective implementation. The promotion of nutritional guidelines for Filipinos includes: (i) integration of nutrition concepts in the elementary and secondary curricula; (ii) provision of quality individual and group counselling; and (iii) multimedia and community-based information campaigns.

Micronutrient supplementation. This is the distribution of iron, iodine and vitamin A to infants, young children, pregnant and lactating women, adolescents, and older persons in preventive and curative dosage.

Food fortification. The Sangkap Pinoy Seal Programme of the Department of Health (DOH) will continue to encourage manufacturers to fortify their products. The Food Fortification bill will be aggressively pursued. The implementation of the salt iodization law will be enhanced through intensified advocacy campaigns. In line with this, the lot quality assurance sampling (LQAS) technique shall be established in all provinces.

Food assistance. Centre-based regular supplementary feeding for preschoolers and emergency feeding during calamities and civil disturbances will provide a social safety net for nutritionally vulnerable groups and at-risk households during periods of physical and economic displacement. It also includes school feeding programmes including a breakfast and milk-feeding programme, and food price discounting.

In order to support the implementation of the PPAN programmes, the various enabling mechanisms shall be put in place: human resource development; strong advocacy; resource generation; research; and overall planning, management, coordination and surveillance.

The government's efforts and initiatives should be carried out in proper perspective for the country to cope with the increasing battle against economic crisis.

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