



REGIONAL REPORT ON NUTRITION SECURITY IN ASEAN

Volume 1





REGIONAL REPORT ON NUTRITION SECURITY IN ASEAN

Volume 1

This work is a product of ASEAN and UNICEF with support from EU/UNICEF Maternal and Young Child Nutrition Security Initiative in Asia (MYCNSIA)

ASEAN Socio-Cultural Community Department

UNICEF EAPRO (East Asia and the Pacific Regional Office)

The Association of Southeast Asian Nations (ASEAN) was established on 8 August 1967. The Member States of the Association are Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam. The ASEAN Secretariat is based in Jakarta, Indonesia.

For inquiries, contact:

The ASEAN Secretariat
Public Outreach and Civil Society Division
70A Jalan Sisingamangaraja
Jakarta 12110
Indonesia
Phone : (62 21) 724-3372, 726-2991
Fax : (62 21) 739-8234, 724-3504
E-mail : public@asean.org

Catalogue-in-Publication Data

Regional Report on Nutrition Security in ASEAN – Volume 1

Jakarta: ASEAN Secretariat, March 2016

The text of this publication may be freely quoted or reprinted, provided proper acknowledgement is given and a copy containing the reprinted material is sent to the Public Outreach and Civil Society Division of the ASEAN Secretariat, Jakarta.

General information on ASEAN appears online at the ASEAN Website: www.asean.org

Copyright Association of Southeast Asian Nations (ASEAN) 2016
All rights reserved

This publication is supported by:



ASEAN or UNICEF does not guarantee the accuracy of the data included in this work.

The boundaries, colours, denominations, and other information shown on any map in this work do not imply any judgment on the part of ASEAN or UNICEF concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

United Nations Children's Fund

UNICEF East Asia and Regional Office (EAPRO)

19 Phra Atit Road
Bangkok 10200
Thailand
Website: www.unicef.org/eapro
E-mail: asiapacificinfo@unicef.org

Acknowledgement

This work is a product of ASEAN and UNICEF with support from the EU/UNICEF Maternal and Young Child Nutrition Security Initiative in Asia (MYCNSIA).

This report (Volume 1) was endorsed and launched at the 12th ASEAN Health Ministers Meeting in September 2014. Data contained herein may, in some cases, be updated in the companion Volume 2 (2016).

This work is a product of ASEAN and UNICEF with external contributions from the Food and Agriculture Organization of the United Nations (FAO), the World Food Programme (WFP), and the World Health Organization (WHO).

The e-version of this document was produced with financial assistance of the European Union and UNICEF. The views expressed herein can in no way be taken to reflect the official opinion of the European Union or UNICEF.

This printed version was produced with the support of funds from the ASEAN Secretariat and the European Union.

The material in this work is subject to copyright. Because ASEAN and UNICEF encourage dissemination of its knowledge, this work may be freely quoted or reprinted, in whole or in part, for non-commercial purposes as long as full attribution to this work is given. Any queries on rights and licenses, including subsidiary rights, should be addressed to ASEAN or UNICEF EAPRO.

Photo Credits, Cover (from top left, clockwise).

- © UNICEF Lao PDR/2007/Holmes
- © UNICEF EAPRO/2014/Foote
- © UNICEF Indonesia/2015/Sukotjo
- © Samantoniophotography | Dreamstime.com

Message from the Secretary-General of ASEAN

Since 2002, ASEAN has emphasized the promotion of healthy lifestyles in the region, of which nutrition is one of the critical factors. Regional strategies in Promoting Healthy ASEAN Lifestyles — including those relevant to nutrition — have been incorporated into the national plans and implemented by ASEAN Member States. These efforts were further strengthened by the adoption of the Bandar Seri Begawan Declaration on Noncommunicable Diseases in ASEAN in October 2013.

Aligned with the goals of the ASEAN Strategic Framework on Health Development for 2010 to 2015, ASEAN is committed to achieving a Healthy ASEAN Community by 2015. By promoting healthy lifestyles, addressing food and nutrition security among various strategies, ASEAN is integrating all these actions into a comprehensive action plan with the ultimate goal of improving health outcomes in the region.

As ASEAN seeks to further enhance its monitoring and evaluation capabilities, the publication of this evidence-based Joint Regional Report on Nutrition Security in ASEAN, Volume 1, will be a useful document for ASEAN officials and policy-makers to track the progress of food and nutrition security at regional and national levels.

By achieving food and nutrition security necessary for healthy lifestyles, ASEAN is ensuring the wellbeing of our peoples and the continued prosperity of the ASEAN Community.



Le Luong Minh
Secretary-General of ASEAN

Message from the Regional Director, UNICEF EAPRO

The Asia and Pacific region has made considerable economic gains over the past several decades, but not all people have benefited from this growth. Although the region has also seen notable improvements in food security and in nutrition, that progress has not been equitable for all countries and also not been uniformly distributed through the different groups within the countries.

Problems of undernutrition, vitamin and mineral deficiencies, obesity and diet-related chronic diseases increasingly exist side by side across many countries. Those who do not get enough energy or key nutrients cannot sustain healthy, active lives. The result is poor physical and mental development, devastating illness and death, as well as incalculable loss of human potential and social and economic development. At the same time, hundreds of millions of people suffer from diseases caused by excessive or unbalanced diets and many developing nations are now dealing with severe health issues at both ends of the nutritional spectrum. Countries still struggling to feed their people face the costs of preventing obesity and treating diet-related non-communicable illness. This is the “double burden” of malnutrition.

A joint activity of the ASEAN Taskforce on Maternal and Child Health and the UNICEF East Asia and the Pacific Regional Office, in collaboration with FAO, WFP and WHO, has been developed to signal those inequities in food and security and nutrition. The production of a series of Food and Nutrition Security (FNS) country profiles for each of the countries in the ASEAN Community is aimed to generate awareness on sensitive issues related to the gaps in achieving the best results in food security and nutrition.



Daniel Toole
Regional Director
UNICEF East Asia and the Pacific Regional Office (EAPRO)

CONTENTS

| | |
|---|------|
| Acknowledgement..... | iii |
| Message from the Secretary General of ASEAN | iv |
| Message from the Regional Director | v |
| Acronyms and abbreviations | viii |
| Introduction | ix |
| Food and Nutrition Security Country Profiles | |
| 1. Brunei Darussalam | 1 |
| 2. Cambodia | 7 |
| 3. Indonesia | 13 |
| 4. Lao PDR | 19 |
| 5. Malaysia | 25 |
| 6. Myanmar | 31 |
| 7. Philippines | 37 |
| 8. Singapore | 43 |
| 9. Thailand | 49 |
| 10. Viet Nam | 55 |
| References | 61 |
| Definitions | 62 |

Acronyms and abbreviations

| | |
|--------|--|
| AHMM | ASEAN Health Ministers Meeting |
| ATFMCH | ASEAN Task Force on Maternal and Child Health |
| ASEAN | Association of Southeast Asian Nations |
| BMI | Body mass index |
| BMS | Breastmilk substitutes |
| CCT | Conditional cash transfers |
| CEDAW | Convention on the Elimination of All Forms of Discrimination against Women |
| CMAM | Community-based management of acute malnutrition |
| DES | Dietary energy supply |
| DHS | Demographic and Health Survey |
| EPI | Expanded programme on immunization |
| FAO | Food and Agriculture Organization |
| FNS | Food and nutrition security |
| GDP | Gross domestic product |
| ICP | International Comparison Programme |
| IDD | Iodine deficiency disorder |
| IFA | Iron and Folic acid |
| ILO | International Labour Organization |
| IMCI | Integrated management of childhood illness |
| IYCF | Infant and young child feeding |
| LBW | Low birth weight |
| M&E | Monitoring and Evaluation |
| MAM | Moderate acute malnutrition |
| MCH | Maternal and Child Health |
| MDER | Minimum dietary energy requirement |
| MDGs | Millennium Development Goals |
| MNP | Micronutrient powders |
| MNs | Micronutrients |
| MoH | Ministry of Health |
| NCD | Non-communicable disease |
| PM | Prime Minister |
| PPP | Purchasing power parity |
| SAM | Severe acute malnutrition |
| SOWC | State of the World's Children |
| SUN | Scaling Up Nutrition |
| TWG | Technical working group |
| UIC | Urinary iodine concentration |
| UNICEF | United Nations Children's Fund |
| USI | Universal salt iodization |
| VAD | Vitamin A Deficiency |
| WASH | Water, Sanitation and Hygiene |
| WDI | World Development Indicators |
| WFP | World Food Programme |
| WHA | World Health Assembly |
| WHO | World Health Organization |

Introduction

The Association of Southeast Asian Nations, or ASEAN, aims to accelerate economic growth and social progress by promoting active collaboration and mutual assistance on matters of common interest. Food and nutrition security is of particular concern to ASEAN countries, as it brings a wide range of benefits for the region's children and families, communities and economies.

Food and nutrition security exists when all people at all times have physical, social and economic access to food, which is consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and optimal feeding and care practices, allowing for a healthy and active life.

Immediate causes of undernutrition are an inadequate dietary intake and frequent disease exposure. This can be brought about by underlying factors, such as household food insecurity (lack of availability of, access to, and/or utilization of a diverse diet), inadequate care and feeding practices for children, unhealthy household and surrounding environments, and a lack of access to adequate health care. Social, economic, and political factors can also have a long-term influence on maternal and childhood undernutrition. Structures and processes which undermine human rights and perpetuate poverty may result in poor nutrition by limiting or denying vulnerable populations access to essential resources. Moreover, chronic undernutrition can lead to poverty, creating a vicious cycle.

In ASEAN countries, the latest available data indicate that an average of 31.5% of children under 5 years of age are affected by stunting. This amounts to a staggering 17.7 million children. These children are more susceptible to illness, facing greater threats to their survival in their early years when they are most vulnerable. Stunting and other forms of undernutrition are associated with sub-optimal brain development, which can have long-term consequences for cognitive ability, school performance and future earnings. At the same time, a stunted child enters adulthood with a greater propensity for developing obesity and chronic diseases.

Also of concern in the region is the 5.4 million children who are wasted. These children face a nine times greater risk of dying. A child can be affected by *both* stunting and wasting and recent analysis has shown that wasting, especially repeated episodes, negatively affects linear growth. Similarly, maternal under and over nutrition poses serious health and economic challenges for the region, with an estimated 36% of pregnant women affected by anaemia. In ASEAN countries, 38% of children under five (21.4 million) suffer from anaemia, making it a serious public health issue in the region. Nevertheless, several countries are making positive progress in controlling anaemia through various strategies.

Evidence shows that children who experience faltered growth during the first 1,000 days of life tend to lay down fat in later childhood and adulthood due to their early life “programming.” This phenomenon is exacerbated by exposure to “obesity prone” environments characterized by consumption of energy-dense, processed foods in place of traditional cereals, animal foods, fruits and vegetables and an increasingly sedentary lifestyle. In ASEAN countries, an estimated 4.5 million children under five are currently overweight or obese.

The “double burden” of malnutrition poses a threat both to maternal and child health, and a burden to health care systems in the region. Overnutrition and undernutrition increasingly co-exist in the same communities, families, and even at an individual level (e.g. an overweight yet anaemic woman). The looming costs of non-communicable diseases (NCDs) can and must be curtailed through the prevention of under- *and* over-nutrition. This will require healthier diets and appropriate levels of physical activity, particularly for more sedentary sub-groups of the population.

International consensus supports multisectoral approaches which combine proven nutrition-specific and nutrition-sensitive interventions to effect a more holistic sustainable response to improve child and maternal nutrition, while also bringing dividends to each of these sectors. *Nutrition-specific* interventions, if scaled up and utilized, can significantly reduce stunting, micronutrient deficiencies and wasting as well as the risk of overweight and obesity. These interventions largely focus on women, in particular pregnant and lactating women, and children under 2 years of age, particularly in the most disadvantaged populations. They include support for exclusive breastfeeding up to 6 months of age and continued breastfeeding, together with appropriate and nutritious complementary food, up to 2 years of age; fortification of foods; micronutrient supplementation; treatment of acute undernutrition and energy and protein supplementation. *Nutrition-sensitive* approaches address the underlying determinants of undernutrition and future overweight and obesity, and warrant scale-up in their own right. These include health services strengthening, agricultural diversification, social transfers, early childhood development, education and provision/promotion of clean water, sanitation and hygiene (WASH).

The ASEAN Task Force on Maternal and Child Health (ATFMCH) with UNICEF have developed a Joint Regional Report on Nutrition Security as an advocacy tool on nutrition, with an emphasis on child nutrition. The activity stems from the ATFMCH Workplan 2011-2015, activity 2.1.2 on the “Development of evidence-based advocacy tools for selected issues, including maternal, infant and young child nutrition”. The Joint Regional Report on Nutrition Security is a two volume publication.

Volume 1 presents the compilation of the Food and Nutrition Security (FNS) Profiles for the 10 ASEAN nations. The FNS Profiles were produced and finalized in consultation with the Ministries of Health and Ministries of Agriculture of the respective countries.

The preparation of each of the Food and Nutrition Security Country Profiles has followed a thorough process of development and validation. First, a database on food security and nutrition indicators was compiled using the latest available information from national level publications and/or qualified global databases (FAO, UNICEF, WHO, World Bank, and others). Second, the profiles were generated in a 6-page (per country) format, including graphs and figures of the selected indicators, narratives for the figures which were prepared by the UN technical staff and professionally edited, and a list of relevant laws, policies, strategies, and action plans which create the enabling environment for nutrition security at country level. Third, the Profiles were circulated to health and agriculture authorities and UN partners at country level for validation and input. Suggested amendments during the validation phase were incorporated with the same criteria of qualified, published sources. The information included is backed by recognized, validated and properly published information available until June 2014. The Profiles appear in alphabetical order in Volume 1.

Volume 2 of the report will be a more in-depth synthesis of the nutrition situation in the ASEAN region and the determinants of malnutrition, based on the data in the Profiles. This will include an overview of the post-2015 sustainable development goals and the World Health Assembly nutrition targets in the context of ASEAN, the socio-economic costs and implications of the current burden of malnutrition and the economic rationale for investing in nutrition, case studies and evidence on effective interventions and approaches in multiple sectors to improve nutrition, policy and financing mechanisms, and identified challenges.

The Regional Report on Nutrition Security in ASEAN (Volumes 1 and 2) therefore aims to strengthen and facilitate evidence-based planning and decision making to achieve optimal results in nutrition security through multi-sectoral strategies. The target audience of the publication is principally policy makers. While this effort serves as an advocacy tool, it also serves to facilitate comprehensive understanding of food and nutrition security issues at national level by policy makers and other key stakeholders. As such, the Report provides an excellent opportunity to exchange views on the progress made by member countries on food and nutrition security as well as addressing the remaining challenges.

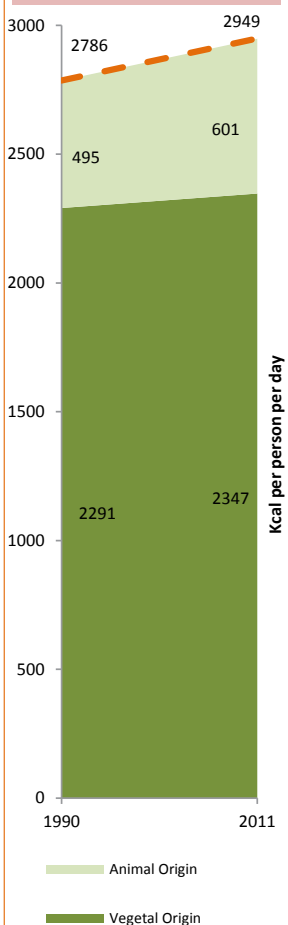


Key Indicators

- Brunei Darussalam has one of the highest rates of GDP per capita and of Dietary Energy Supply (DES) per person in the region. For decades, food availability has been stable and undernourishment has remained low.
- In spite of the country's progress in certain areas, the proportion of infants with Low Birth Weight is high and anaemia persists among women and young children.
- More information is needed to understand why Low Birth Weight and anemia persist in spite of high household income (high GDP per capita).

Figure 1.1 Food Availability
From 1990 to 2011:

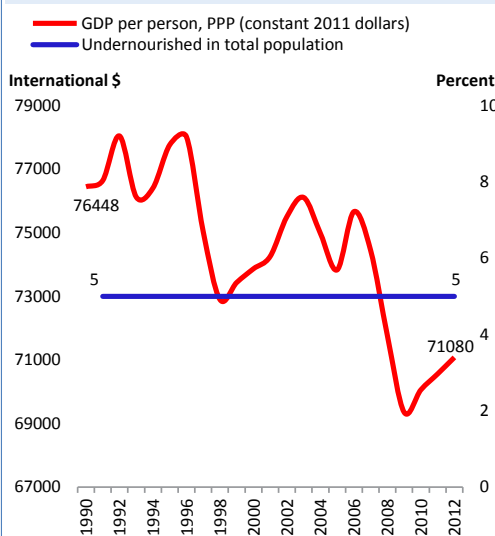
- DES increased 6%
- Animal-origin supply increased 21%
- Vegetal-origin products increased 2% and remained the major DES source



Source: FAOSTAT FBS: 2014 update

Figure 1.2 Undernourishment and Economic Growth
From 1990 to 2012:

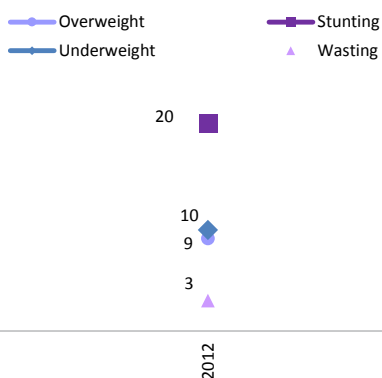
- GDP per capita decreased 7%
- Undernourishment remained low and unchanged



Source: GDP: WDI 2014 / Undernourished: FAO FSI_2013

Figure 1.3 Child Malnutrition In 2012

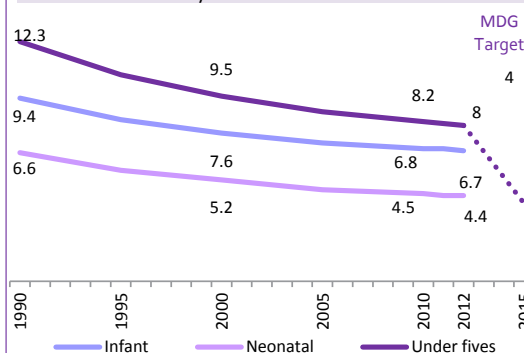
- Stunting rates were at 20%
- Underweight stood at 10%
- Wasting affected 3% of young children
- Overweight was 9%
- Low Birth Weight stood at 11%



Source: 2012 2nd National Health and Nutritional Survey NHANSS

Figure 1.4 Child Mortality From 1990 to 2012:

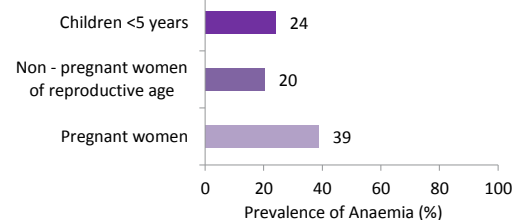
- Under-5 mortality reduced 35%, but will not reach the Millennium Development Goal (MDG) target
- Infant mortality reduced 29%
- Neonatal mortality reduced 33%



Source: Inter-agency Group for CME (2013)

Figure 1.5 Anaemia

Anaemia is a notable public health issue. It is high among pregnant women (39%) however, more recent data from Ministry of Health indicates that anaemia in pregnancy has significantly declined to less than 20% (unpublished, 2013). Moderate amongst non-pregnant women (20%) and under-5 children (24%).



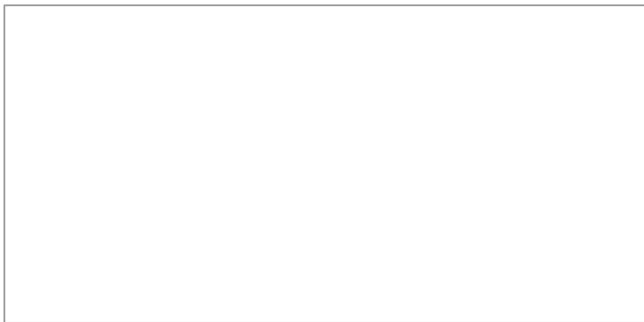
Source: WHO Worldwide prevalence of Anaemia (1993-2005)

Anthropometry (Table 1.1)

| | | |
|---|-------|------|
| Underweight women (BMI < 18.5 kg/m ²) | - | - |
| Overweight adults (BMI >= 25 kg/m ²) | - | - |
| Proportion of infants with low birth weight | 10.8% | 2010 |

Source: Brunei Darussalam Vital Statistics 2010, Department of Statistic, JPKE, Prime Minister's Office

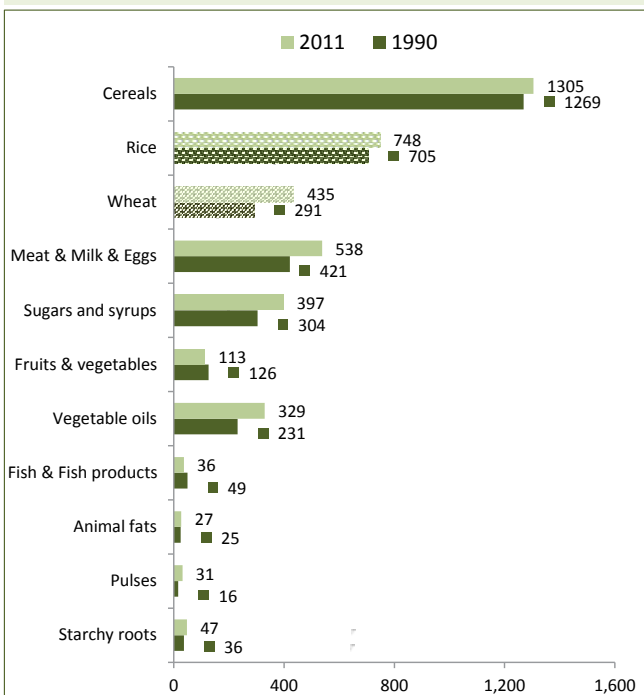
Food Availability / Food Access



Food Availability

Figure 2.1 Food supply by food group From 1990 to 2011:

(kcal/person/year) Total dietary energy supply= 2,949(2011)



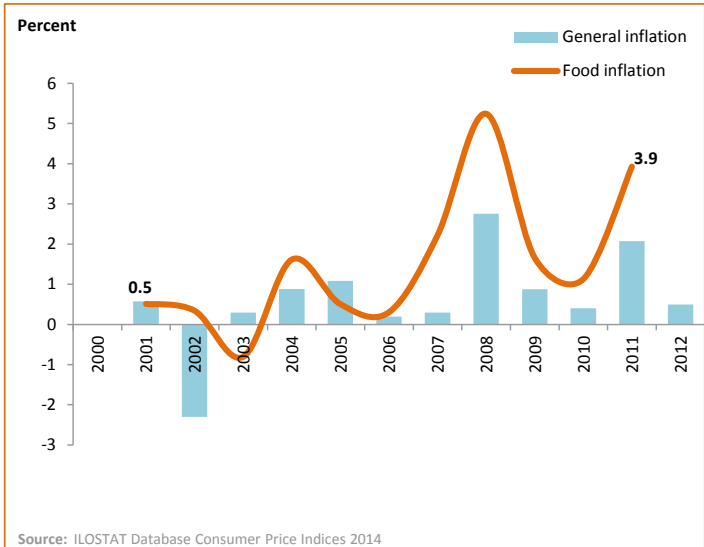
Source: UN_FAO Food Balance Sheets_2014 Update

- Food availability increased 6% (DES = 2,949 Kcal in 2011)
- Main food commodities contribute to more than 80% of DES
- Cereals remain the most important source of food energy, at 44%
- Sugars and syrups contribute 13% to DES, whereas fruits and vegetables contribute only 4%
- Vegetable oils have increased their contribution to DES from 8% in 1990 to 11% in 2011

Access to food

Figure 2.2 Economic access to food

General and food inflation

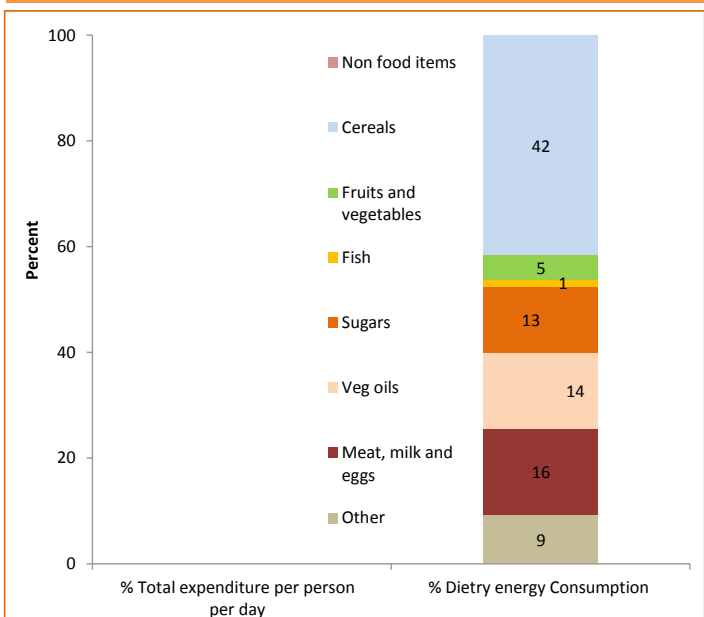


Source: ILOSTAT Database Consumer Price Indices 2014

From 2000 to 2012:

- Food inflation and general inflation are correlated overall
- In 2009, 42% of Dietary Energy Consumption was from cereal

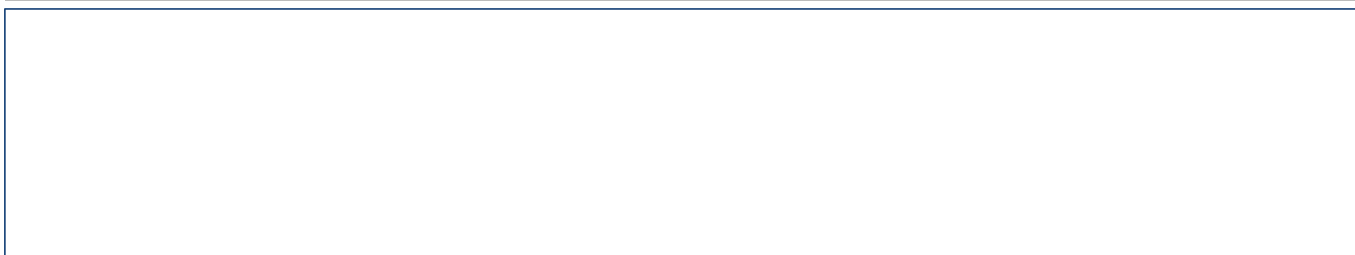
Figure 2.3 Share of food expenditure



Source: UN_FAO RAP based on national HIES, ECS, SES, HLSS_2013 Update, NSO, Brunei



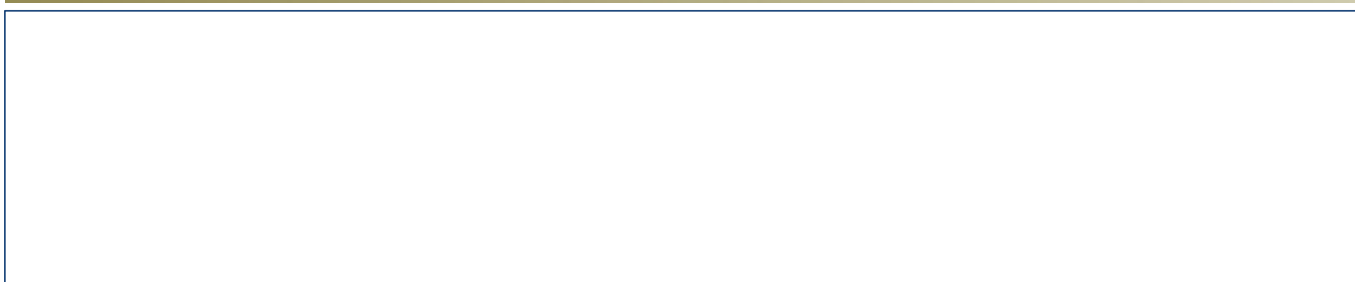
Food Utilization



Water and Sanitation

| | | |
|---|---|--|
| <p>Figure 3.1 Access to Improved Sanitation</p> <p>No Data</p> | <p>Figure 3.2 Open Defecation</p> <p>No Data</p> | <p>Figure 3.3 Access to Improved Water Sources</p> <p>No Data</p> |
|---|---|--|

Food Safety



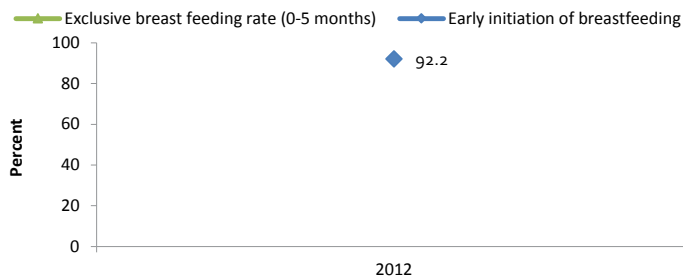
| | | | | | | | | | | | |
|---|--|-------------|--|---|---|----------------------------------|--|---|--|----------------|--|
| <p>Figure 3.4 Diarrhoea</p> <p>No Data</p> | <p>Management of Diarrhoea (Table 3.1)</p> <table border="1"> <tr> <td colspan="2">Zinc</td> </tr> <tr> <td>Share of children under age 5 with diarrhoea receiving zinc treatment</td> <td>-</td> </tr> <tr> <td colspan="2">Existing policy framework</td> </tr> <tr> <td colspan="2">Zinc Supplementation and Reformulated Oral Rehydration Salt in the Management of Diarrhea</td> </tr> <tr> <td colspan="2">Source:</td> </tr> </table> | Zinc | | Share of children under age 5 with diarrhoea receiving zinc treatment | - | Existing policy framework | | Zinc Supplementation and Reformulated Oral Rehydration Salt in the Management of Diarrhea | | Source: | |
| Zinc | | | | | | | | | | | |
| Share of children under age 5 with diarrhoea receiving zinc treatment | - | | | | | | | | | | |
| Existing policy framework | | | | | | | | | | | |
| Zinc Supplementation and Reformulated Oral Rehydration Salt in the Management of Diarrhea | | | | | | | | | | | |
| Source: | | | | | | | | | | | |

Food Utilization

Nutrition and Health

Figure 3.5 Exclusive Breastfeeding in 2012:

• Early initiation of breastfeeding (92.2%) is correlated with lower infant mortality and relatively prolonged breastfeeding.



Source: 2nd National Health and Nutritional Status Survey (NHANSS) Phase 1: 0-5 Years Old

Figure 3.6 Complementary Feeding

No Data

Figure 3.7 Duration of Breastfeeding

No Data

Figure 3.8 Child Malnutrition and Poverty

No Data

Micronutrient Status

Figure 3.9 Vitamin A

No Data

Iodine (Table 3.2)

| | |
|---|---|
| Households consuming adequately iodized salt | - |
| Iodine deficiency (Urinary Iodine Concentration <100µg/L) among school-age children | - |

*Optimal UIC 100 - 199µg/L

Source:

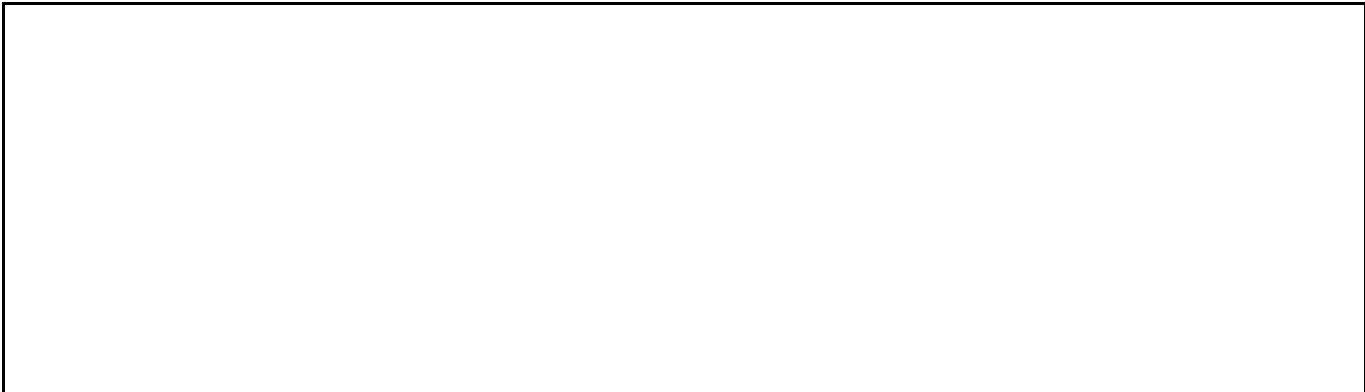


Policy Table - 1

| Enabling environment for Nutrition and Food security - Policy documents addressing nutrition issues | | | |
|---|--|---------|---|
| 1. Ministry of Health Vision 2035 Promotes 5 key pillars; On of the key pillars includes 'A Nation That Embraces and Practices Healthy Lifestyle" (MoH Brunei 2009). | | | |
| 2. National Health Promotion Blueprint 2011-2015 (MoH, 2011) | | | |
| 3. Maternity Leave Regulations 2011 (Prime Ministers Office) | | | |
| 4. Brunei Darussalam National Multisectoral Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2018 | | | |
| 5. Multisectoral Action Plan for the Prevention & Control of Non-Communicable Diseases 2013-2018 | | | |
| Officially released on 21/09/2013 | | | |
| 6. National Breastfeeding Policy of MOH(officiated in 2001) | | | |
| 7. National Health Care Plan (2000-2010)- A Strategic Framework for Action, Ministry of Health June 2000 | | | |
| Nutrition related issues covered in these policies | | Covered | Comments |
| Maternal and Child Undernutrition | Child undernutrition | Yes | |
| | Low Birth Weight | Yes | |
| | Maternal undernutrition | Yes | |
| Obesity and diet related NCDs | Child obesity | Yes | |
| | Adult obesity | Yes | |
| | Diet related NCDs | Yes | |
| Infant and Young Child Nutrition | Breastfeeding | Yes | Community Nutrition Division was established in 1992. |
| | Complementary feeding | Yes | |
| | Int'l Code of Marketing of BMS | | |
| Vitamins and Minerals | Supplementation: Vitamin A children/women | Yes | universal coverage under MCH Programme only if necessary, universal coverage |
| | Iron Folate children/women | Yes | |
| | Zinc children | Yes | |
| | Other vitamins & min child/women | Yes | |
| | Food fortification | No | |
| Underlying and contextual factors | Food Safety | Yes | In terms of Breastfeeding as Food Security. |
| | Food security | Yes | |
| | Food Aid | No | |
| | Nutrition and Infection | No | |
| | Gender | No | |
| | Maternal leave | Yes | 15 weeks for all Government servants, but only for citizens and permanent residents in the private sector |
| Social Protection policies or legislation including food or nutrition component | | | |
| 1. Public Health (Food) Act (since 2000) | | | |
| 2. Infectious Diseases Act | | | |



Policy Table - 2



| Demographic Indicators (Table - 5.1) | | Year | Economic Indicators (Table - 5.3) | | Year | |
|---|--------|-----------|--|--|-------|------|
| Population size (thousands) /a | 412 | 2012 | GDP annual growth rate /c | 2.15 % | 2012 | |
| Average annual population growth /a | 1.39 % | 2012 | GDP per capita (PPP) (constant 2011 international dollars) /c | 71,080 | 2012 | |
| Proportion of population urbanised/c | 76.3 % | 2012 | | | | |
| Number of children <5 years (thousand) | 34 | 2012 | Gini index /c (100= complete inequality; 0= complete equality) | - | - | |
| Education level of mothers of under-fives: None (%) | - | - | | - | - | |
| Life expectancy at birth (Years) /c | Male | 77 | 2012 | Unemployment rate /c | 3.8 % | 2012 |
| | Female | 80.3 | 2012 | Population below US \$ 1.25 (PPP) per day /c (%) | - | - |
| Agriculture population density(people/ ha of arable land /b) | 0.2 | 2006-2008 | Poverty gap ratio /e | | - | - |
| Employment in agriculture sector (% of total employment) /c | 1.4 % | 2001 | Income share held by households /c | Poorest 20% | - | - |
| Women employed in agriculture sector (% of total female employment) /c | 0.3 % | 2001 | | Richest 20% | - | - |
| Adolescents (Table - 5.2) | | Year | Sources: a/ World Bank Health Nutrition and Population Statistics 2013, b/ FAOSTAT 2014 Update; c/ World Bank, World Development Indicators Database, 2014 Update; d/ UNICEF, State of the World Children 2014 (data refer to the most recent year available during the period specified) e/ UN Statistics Division, MDG database 2013 Update. | | | |
| Adolescent birth rate (number of births per 1,000 adolescent girls aged 15-19) /a | 23 | 2012 | | | | |
| Adolescent girls aged 15-19 currently married or in union /d | - | - | | | | |
| Women aged 20-24 who gave birth before age 18 /d (%) | - | - | | | | |

The information included in this Food Security and Nutrition Security Profile, is backed by recognized, validated and properly published information available until June 2014. Although updated information might be available at national level from different sources, until requirements of quality, validity and proper publication are met, it has not been included in this profile.

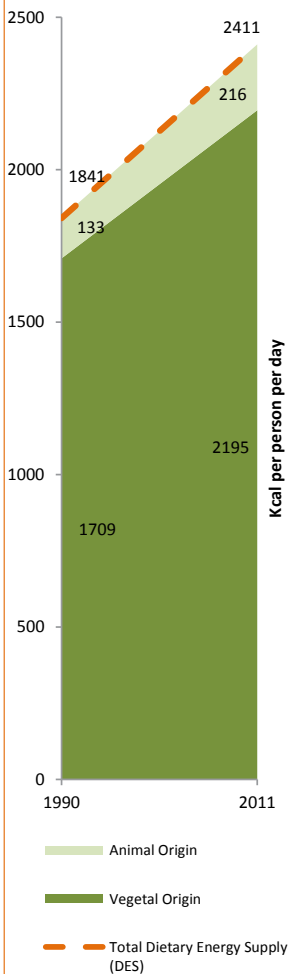


Key Indicators

- Although Cambodia has an integrated framework for food and nutrition security, it has not yet achieved the desired nutritional outcomes. Cambodia has experienced rapid growth in per-capita GDP and Dietary Energy Supply (DES). Nevertheless, dietary quality remains poor.
- This poor quality of diet is the main factor responsible for persistently high levels of stunting and underweight, high levels of anaemia, and Vitamin A deficiencies.
- Another factor associated with poor nutritional outcomes arises from insufficient access to improved sanitation and water sources. Although the country has recently made progress in this area, improved water and sanitation continues to be far below internationally acceptable levels.

Figure 1.1 Food Availability
From 1990 to 2011:

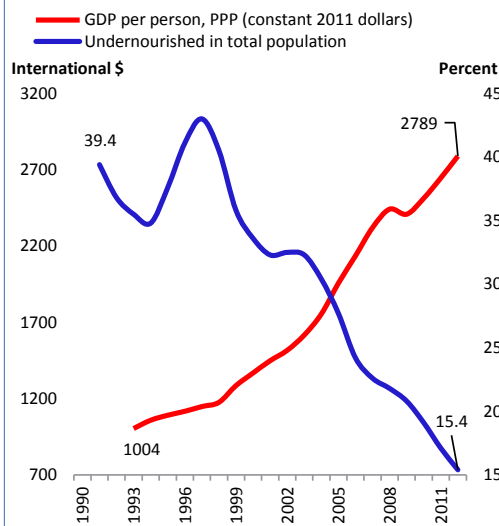
- DES has increased 31%
- Animal-origin supply increased 62%
- Vegetal-origin products increased 28% and remained the major DES source



Source : FAOSTAT FBS: 2014 update

Figure 1.2 Undernourishment and Economic Growth :

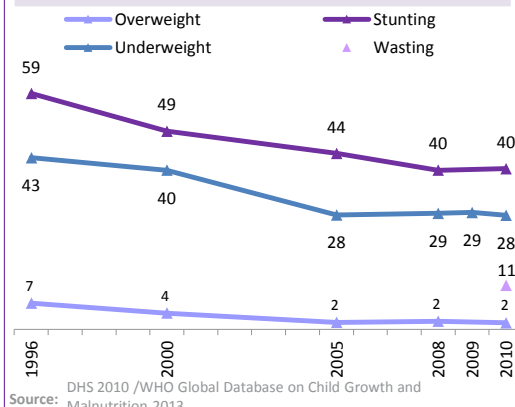
- From 1993 to 2012 GDP per capita increased 178%
- From 1990 to 2012 Undernourishment declined 61%, but remains significant at 15.4%



Source: GDP: WDI 2014/ Undernourished: FAO/FSI_2013

Figure 1.3 Child Malnutrition From 1996 to 2010:

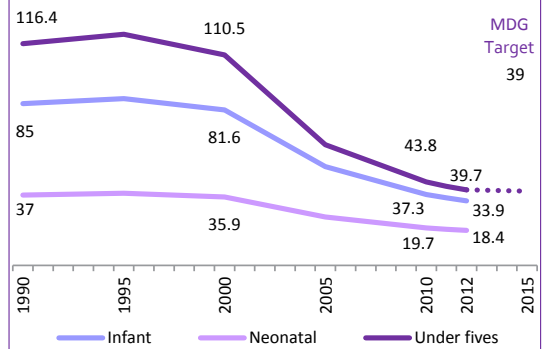
- Stunting declined 30%, but persists as very high, at 40%
- Underweight declined 32%, but also remains high at 28%
- Overweight reduced from 7% to 2%
- Wasting, at 11%, was found to be a serious situation



Source: DHS 2010 /WHO Global Database on Child Growth and Malnutrition 2013

Figure 1.4 Child Mortality From 1990 to 2012:

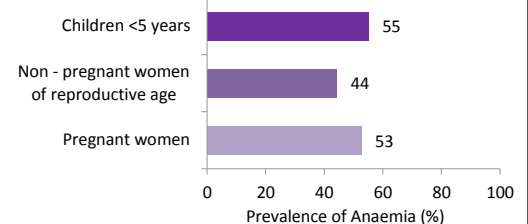
- Under-5 mortality reduced 66% and is set to achieve the Millennium Development Goal (MDG) target
- Infant mortality reduced 60%
- Neonatal mortality reduced 50%



Source: Inter-agency Group for CME (2013)

Figure 1.5 Anaemia

- Anaemia represents a severe public health issue; it is high among pregnant women (53%), non-pregnant women (44%) and under-5 children alike (55%)
- Deworming and iron supplementation can be effective for reducing anaemia in pregnant women as well as children



Source: KHM_Cambodia Demographic and Health Survey 2010_2011

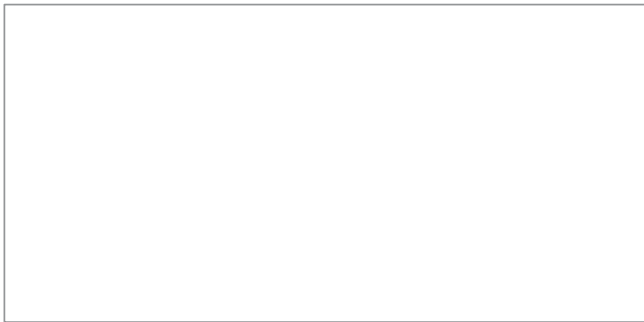
Anthropometry (Table 1.1)

| | | |
|--|-------|------|
| Underweight women (BMI < 18.5 kg/m ²) | 19 % | 2010 |
| Overweight adults (BMI >= 25 kg/m ²) | 11 % | 2010 |
| * BMI values calculated using adult cut off points, population < 20 should be analyzed using WHO growth reference for school aged children and adolescents | | |
| Proportion of infants with low birth weight | 8.2 % | 2010 |

Source: DHS 2010



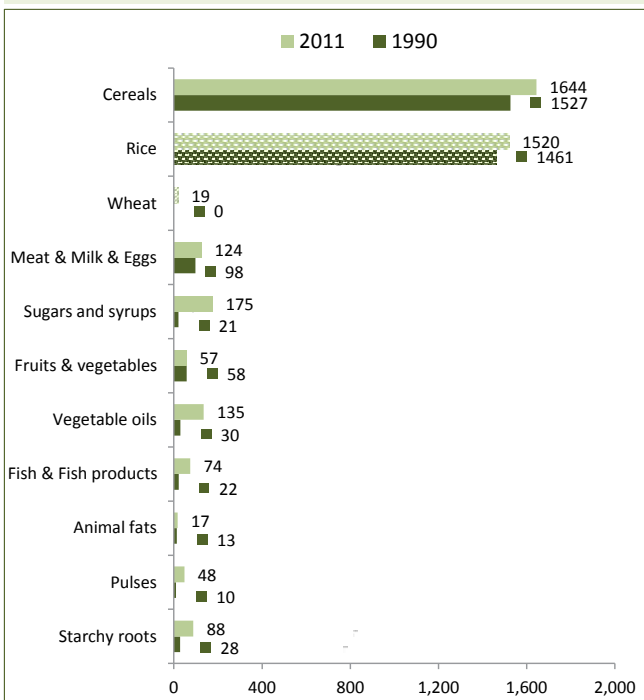
Food Availability / Food Access



Food Availability

Figure 2.1 Food supply by food group From 1990 to 2011:

(kcal/person/year) Total dietary energy supply= 2,411 (2011)

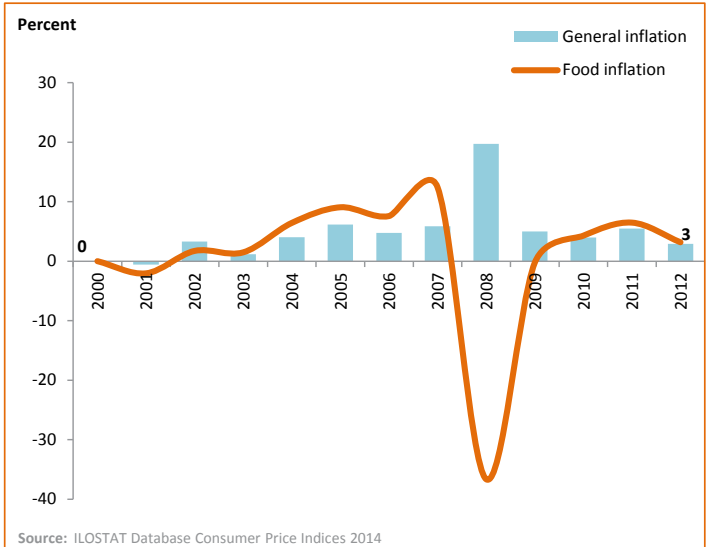


Source: UN_FAO Food Balance Sheets_2014 Update

- The main food commodities contributed to more than 80% of DES
- DES = 2,411 Kcal in 2011
- Cereals remained the most important source of food energy (68%), with rice comprising 63%
- Sugars and syrups expanded 733%, vegetable oils increased 350%, pulses increased 380%, and starchy roots rose 214% ; dietary diversity remains a challenge
- A lack of fat in the diet contributes to poor absorption of Vitamin A and other fat-soluble micronutrients

Access to food

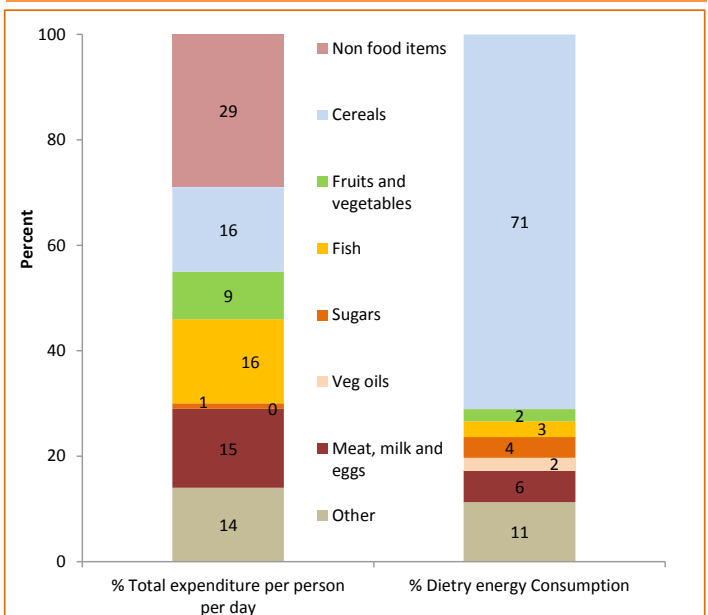
Figure 2.2 Economic access to food
General and food inflation



Source: ILOSTAT Database Consumer Price Indices 2014

- Although inflation was significant in 2008, food prices dropped that year. However, by 2009 food prices had returned to the usual trend, which follows the general rate of inflation.
- Families spend more than 70% of their income on food. While cereals contribute 63% of daily food intake; they only comprise 16% of food expenditures at household level

Figure 2.3 Share of food expenditure (2009)



Sources: UN_FAO RAP based on national HIES, ECS, SES, HLSS_2013 Update, Cambodia



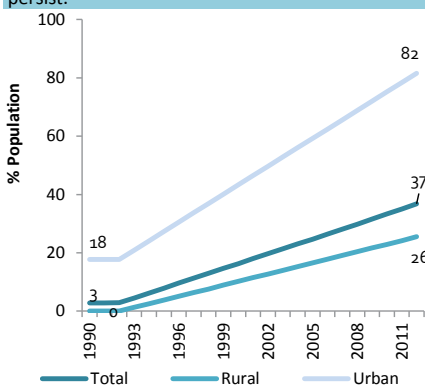
Food Utilization

Food utilization refers both to household food preparation practices, which influence the nutrient content of consumed foods, and to the absorption of nutrients by the human body after consumption. Nutrient absorption in the gut is strongly influenced by health status, particularly the presence of diarrhoea. Hygienic environmental conditions with regard to water and sanitation are important determinants of health and infection incidence and prevalence. In Cambodia, water and sanitation conditions (and nutrition indicators) have been improving for the past 20 years. Even so, the situation remains serious, with only 33% of people having access to improved sanitation and 69% of the rural population still practicing open defecation. Coverage of improved management of diarrhoea with zinc supplementation remains too low to have an impact.

Water and Sanitation

Figure 3.1 Access to Improved Sanitation
From 1990 to 2012:

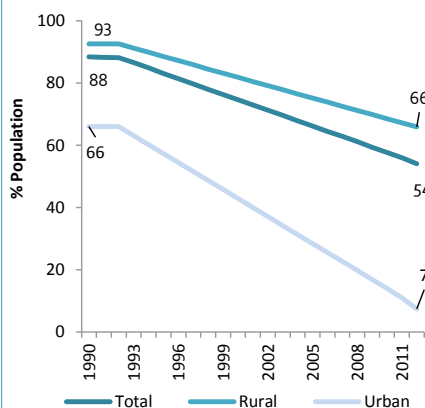
- Improved sanitation increased significantly in 22 years, but still covers just 37% of the population
- 74% of the population in rural areas does not have access to improved sanitation
- The disparity between urban and rural areas persist.



Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.2 Open Defecation
From 1990 to 2012:

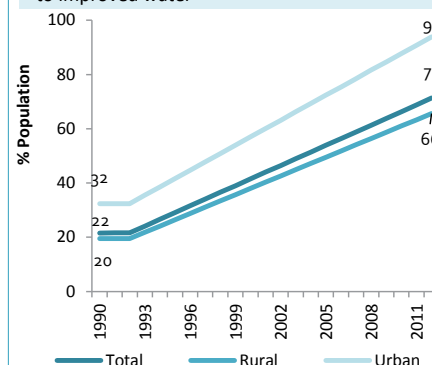
- Open defecation decreased 39% in 22 years
- In rural areas, this unhygienic practice is more than five times more common than in urban areas



Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.3 Access to Improved Water Sources
From 1990 to 2012:

- Access to improved water sources increased 232% during 22 years
- Disparities in access to improved water sources between urban and rural areas remain constant
- 71% of the population has sustainable access to improved water



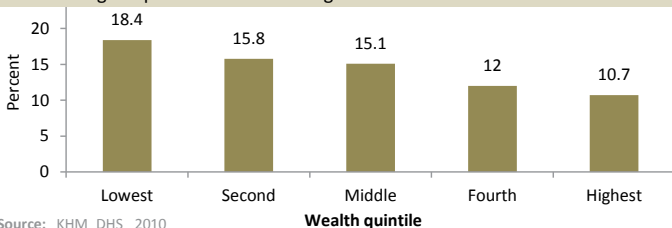
Source: WHO-UNICEF Joint Monitoring Programme, 2014

Food Safety

Quality and food safety efforts address all elements of the complex chain of agricultural production, processing, transport, food production and consumption. On the consumption side, the prevalence of diarrhoea among under-5 children is relatively high for all wealth quintiles (Fig 3.4).

Figure 3.4 Diarrhoea

- Diarrhoea among under-5 is most common among the poorest wealth quintile (42% higher than the wealthiest), reflecting disparities in sanitation as well as in general hygiene and food safety
- Diarrhoea is a public health concern in all economic quintiles, ranging from 18% among the poorest to 11% among the wealthiest.



Source: KHM_DHS_2010

Management of Diarrhoea (Table 3.1)

Zinc

| | |
|---|-------|
| Share of children under age 5 with diarrhoea receiving zinc treatment | 2.4 % |
|---|-------|

Existing policy framework

Zinc Supplementation and Reformulated Oral Rehydration Salt in the Management of Diarrhea

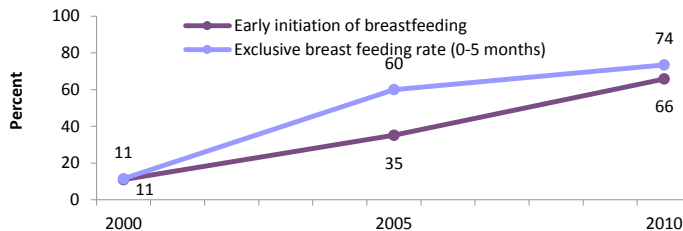
Source: KHM_DHS_2010

Food Utilization

Nutrition and Health

Figure 3.5 Exclusive Breastfeeding From 2000 to 2010.

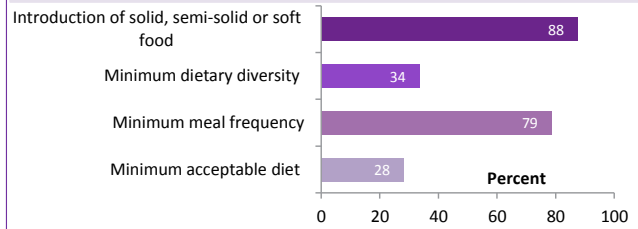
- Exclusive breastfeeding has increased sharply during the last decade, from 11% to 74%. Even so, about one-quarter of infants under 6 months old are not exclusively breastfed
- Early initiation of breastfeeding also has increased significantly (11% to 66%)



Source: KHM_Cambodia Demographic and Health Survey 2010

Figure 3.6 Complementary Feeding

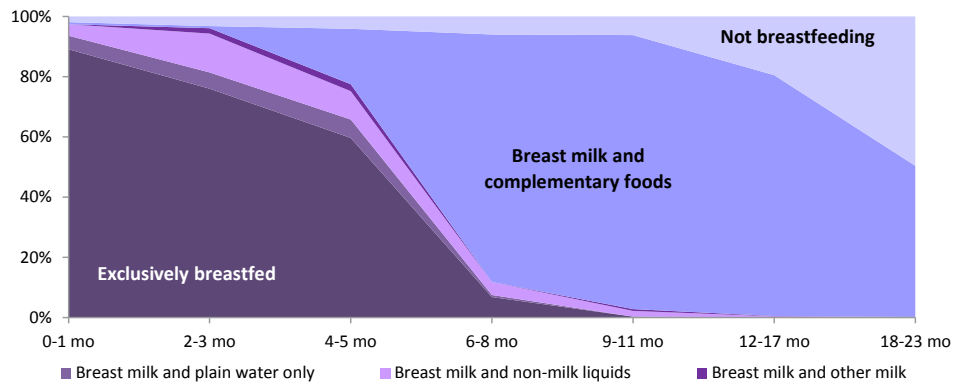
- Introduction of complementary feeding is timely
- 79% of children 6-23 mo. attain the minimum meal frequency
- Meeting the recommended quality of diet remains a challenge
- Most Cambodian children are fed the recommended number of meals per day, but only one-third get the diversity of food needed.



Source: KHM_Cambodia Demographic and Health Survey 2010

Figure 3.7 Duration of Breastfeeding

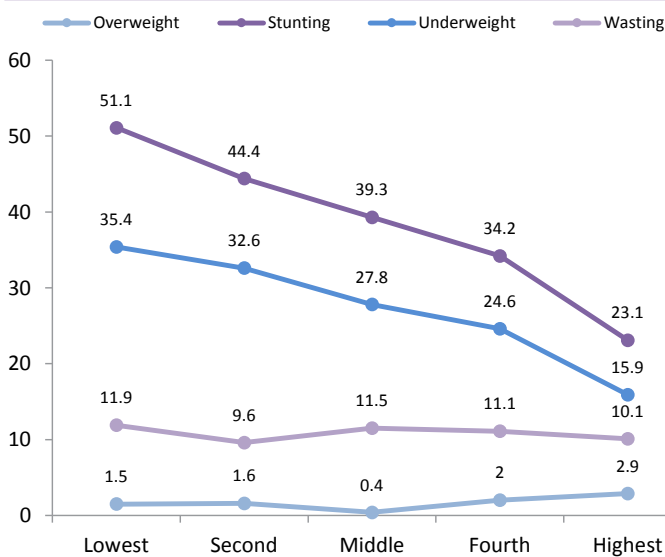
- Duration and frequency of breastfeeding affect the health and nutritional status of both mother and child
- Exclusive breastfeeding is recommended up to age 6 months, and continued breastfeeding with complementary feeding is recommended from 6 months until age 2 years and beyond



Source: KHM_DHS_2010

Figure 3.8 Child Malnutrition and Poverty

- Children in the wealthiest quintile have 55% less stunting and weight deficits than children in the lower income quintiles
- Serious levels of wasting are reported for children in all income quintiles
- Overweight is not a public health issue

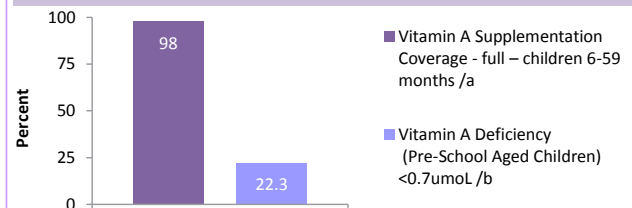


Source: KHM_Cambodia Demographic and Health Survey 2010

Micronutrient Status

Figure 3.9 Vitamin A

- Successful Vitamin A supplementation – a child survival intervention – is a likely contributor to observed reductions in child mortality
- However, persistent Vitamin A deficiencies, found among 22.3% of pre-schoolers, indicate that Vitamin A is still lacking in the daily diet, and that food-based interventions, including food fortification, and deserve ongoing attention



* VAD is a severe public health problem if >20% of preschool children (6-71 months) have low serum retinol (<0.7µmol/L)

Source: a/ UNICEF, State of the World's Children 2014,

b/ WHO Global prevalence of vitamin A deficiency in population at risk 1995-2005 report.

Iodine (Table 3.2)

| | |
|---|--------|
| Households consuming adequately iodized salt (2010)/a | 82.7 % |
| Iodine deficiency (Urinary Iodine Concentration <100µg/L) among school-age children | - |
| *Optimal UIC 100 - 199µg/L | |

Source: a/KHM_Cambodia Demographic Health Survey 2010



Policy Table - 1

| Enabling environment for Nutrition and Food security - Policy documents addressing nutrition issues | | | |
|--|--|----------|--|
| 1. Prime Minister Circular on Food Security and Nutrition (1999, 2003) | | | |
| 2. Cambodia Nutrition Investment Plan 2005 | | | |
| 3. Strategic Framework for Food Security and Nutrition in Cambodia 2008-2012, Council for Agricultural and Rural Development (CARD) of Council of Ministers 2008 <i>CARD given the mandate to develop implementable strategy by Prime Minister at 2012 National Seminar on Nutrition.</i> http://www.foodsecurity.gov.kh/otherdocs/SFrameworkFSN-Eng.pdf | | | |
| 4. National Policy on Infant and Young Child Feeding, Ministry of Health 2008 (National Nutrition Programme) | | | |
| 5. National Nutrition Strategy 2009-2015, Ministry of Health 2009 <i>Overall goal of reducing maternal and child morbidity and mortality by improving nutritional status of women and children; one of the key results is increased allocation of resources in the area of food security and nutrition</i> | | | |
| 6. Health Strategic Plan II 2008-2015, Ministry of Health 2008 | | | |
| 7. Cambodia Child Survival Strategy 2006-2015, Ministry of Health 2006 <i>M&E by Ministry of Health</i> | | | |
| 8. National Policy and Guidelines for Micronutrient Supplementation to Prevent and Control Deficiencies, Ministry of Health 2011 <i>Updates and replaces previous policies and guidelines on Vitamin A and anaemia</i> | | | |
| 9. Sub-Decree on the Management of Iodized Salt Exploitation 2003; Prakas Iodized Salt 2004; Joint Prakas on Iodized Salt 2004 <i>M&E by National Subcommittee on Food Fortification</i> | | | |
| 10. National Vitamin A Policy Guidelines, Ministry of Health 2007 <i>M&E by National Nutrition Programme, Ministry of Health</i> | | | |
| 11. Joint Prakas on Implementation of Sub-Decree on Marketing of Products for Infant and Young Child Feeding -, Ministry of Health 2007; Sub-Decree on Marketing of Products for Infant and Young Child Feeding, Ministry of Health 2005; MoH Circular on Infant and Young Child Feeding 2007 <i>Adopted by Ministry of Health, Ministry of Commerce, Ministry of Information and Ministry of Industry, Mines and Energy, 2007. M&E by The four line ministries</i> | | | |
| 12. IYCF Communication Strategy 2005, Vitamin A Communication Strategy 2008, Complementary Feeding Communication Strategy 2011, IFA Communication Strategy 2010, Salt Iodization Advocacy Plan 2008 | | | |
| 13. National Interim Guidelines for the Management of Acute Malnutrition 2011 | | | |
| 14. Baby Friendly Community Initiative Implementation Guidelines 2009 | | | |
| 15. National Policy on the Control of Acute Respiratory Infection and Diarrheal Disease, 2012 | | | |
| Nutrition related issues covered in these policies | | Covered | Comments |
| Maternal and Child Undernutrition | Child undernutrition | yes | Covers stunting, wasting and underweight. |
| | Low Birth Weight | yes | |
| | Maternal undernutrition | yes | |
| Obesity and diet related NCDs | Child obesity | both | |
| | Adult obesity | | |
| | Diet related NCDs | yes | |
| Infant and Young Child Nutrition | Breastfeeding | yes | Infant and Young Child Feeding (IYCF) policy 2008 includes IYCF in emergencies Adoption of many provisions of Int'l Code on BMS; cover ban on marketing for children up to 24 months old Campaign to promote Complementary Feeding in Cambodia 2011-13 |
| | Complementary feeding | yes | |
| | Int'l Code of Marketing of BMS | yes | |
| Vitamins and Minerals | Supplementation: Vitamin A children/women | yes | Vitamin A Supplementation guidelines for children 6-59 mo. and postpartum women updated in 2007; nationwide Vitamin A campaigns Deworming for children 12-59 mo. twice a year; nationwide Gov. services delivery at community level – outpatient. Deworming for pregnant and lactating women under iron folic acid (IFA) guidelines Adoption of policy to use zinc with Oral Rehydration Salts in management of diarrhoea (2011) MN supplementation guidelines for children and women part of the national policy and guidelines (2011) IFA supplementation policy 2007 – health-facility based: 90 IFA tablets (pregnancy) and 42 tablets (postpartum) Recommendation for weekly IF A to women of reproductive age |
| | Iron Folate children/women | yes | |
| | Zinc children | yes | |
| | Other vitamins & min child/women | yes | |
| | Food fortification | yes | |
| Underlying and contextual factors | Food Safety | yes | Policies promote a multisectoral approach to nutrition Agriculture, food aid, and public works are how food security is primarily addressed Updated Integrated Management of Childhood Illness (IMCI) guidelines integrating malnutrition up to standard Policy exists for universal access to safe drinking water and strategy for improved sanitation Maternity leave paid by employer at 50% of wages Provisions for nursing breaks after return to work are paid, but rarely occur in practice |
| | Food security | yes | |
| | Food Aid | yes | |
| | Nutrition and Infection | yes | |
| | Gender | yes | |
| | Maternal leave | 12 weeks | |



| |
|---|
| Social Protection policies or legislation including food or nutrition component |
| 1. National Social Protection Strategy for the Poor and Vulnerable (2011-2015) <i>Poor and vulnerable children and mothers benefit from social safety nets to reduce poverty and food insecurity and enhance the development of human capital by improving nutrition... Technical consultations - Note on cash transfers with a focus on addressing nutrition http://www.socialprotection.gov.kh/publication</i> |
| 2. Health Equity Fund Guidelines and Standard Benefits Package, revised 2012 <i>Standard Benefits Package revised in 2012 to support management of acute malnutrition</i> |
| 3. Sub decree on the Establishment of Cambodia Food Reserved System 2012 <i>Includes role of FSN Data Analysis Team and Quarterly FSN Bulletins</i> |
| 4. Conditional Cash Transfer (CCT) pilot programme under Council for Agricultural and Rural Development (CARD) <i>Pilot for around 10,000 households, focused on poor rural pregnant and lactating women plus children under 5. http://www.socialprotection.gov.kh/</i> |
| Food safety policies or legislation |
| 1. Law on The Quality & Safety of Products, Goods & Services 21/06/2000 http://www.asianfoodreg.com/regulations_detail.php?id=140&cid=5&induid=11&catid=6 |
| Agricultural policies addressing food security |
| 1. Strategy for Agriculture and Water 2006-2010, adopted by Ministry of Agriculture, Forestry and Fisheries and Ministry of water Resources and Meteorology (2007) <i>M&E by Ministry of Agriculture & Agro-based Industry</i> |
| 2. National Programme for Household Food Security and Poverty Reduction 2007-2011, Adopted by Ministry of Agriculture, Forestry and Fisheries (2006) |

| Demographic Indicators (Table - 5.1) | | Year | Economic Indicators (Table - 5.3) | | Year | |
|--|--------|-------------|--|---|---------|------|
| Population size (thousands) /a | 14,865 | 2012 | GDP annual growth rate /c | 7.26 % | 2012 | |
| Average annual population growth /a | 1.76 % | 2012 | GDP per capita (PPP) (constant 2011 international dollars) /c | 2,789 | 2012 | |
| Proportion of population urbanised /c | 20.2 % | 2012 | | | | |
| Number of children <5 years (thousand)/a | 1,670 | 2012 | Gini index /c (100= complete inequality; 0= complete equality) | 36.03 | 2009 | |
| Education level of mothers of under-fives: None (%) /f | 16 | 2010 | | 37.85 | 2008 | |
| Life expectancy at birth (Years) /c | Male | 69 | 2012 | Unemployment rate /c | 1.5 % | 2012 |
| | Female | 74.2 | 2012 | Population below US \$ 1.25 (PPP) per day /c (%) | 18.6 | 2009 |
| Agriculture population density(people/ ha of arable land /b) | 2.4 | 2006-2008 | | | | |
| Employment in agriculture sector (% of total employment) /c | 51 % | 2012 | Poverty gap ratio /e | 6.1 | 2007 | |
| Women employed in agriculture sector (% of total female employment) /c) | 52.8 % | 2012 | Income share held by households /c | Poorest 20% | 7.93 % | 2009 |
| | | | | Richest 20% | 44.45 % | 2009 |
| Adolescents (Table - 5.2) | | Year | Sources: a/ World Bank, Health Nutrition and Population Statistics, 2013 update. b/ FAOSTAT 2014 Update; c/ World Bank, World Development Indicators Database, 2014 Update; d/ UNICEF, State of the World Children 2014 data refer to the most recent year available during the period specified) e/ UN Statistics Division, MDG database 2013 Update. f/ Cambodia Demographic and Health Survey 2010 | | | |
| Adolescent birth rate (number of births per 1,000 adolescent girls aged 15-19) /a | 44 | 2012 | | | | |
| Adolescent girls aged 15-19 currently married or in union /d | 10 % | 2005-2012 | | | | |
| Women aged 20-24 who gave birth before age 18 /d (%) | 7 | 2008-2012 | | | | |

The information included in this Food Security and Nutrition Security Profile is backed by recognized, validated and properly published information available until June 2014. Although updated information might be available at national level from different sources, until requirements of quality, validity and proper publication are met, it has not been included in this profile.

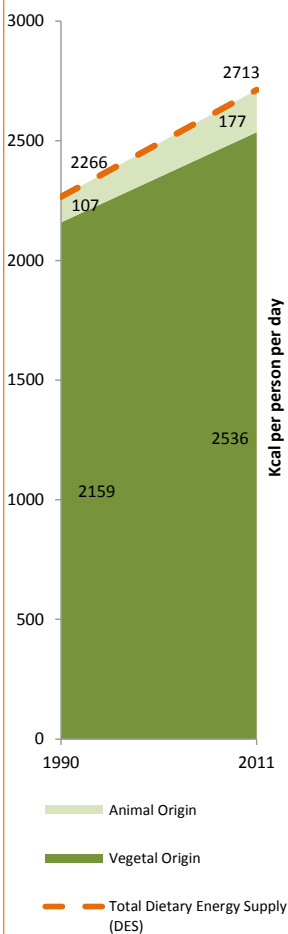


Key Indicators

- The levels of underweight and stunting remain high in Indonesia, despite a considerable increase in GDP per capita. Notable disparities exist between geographic areas and wealth quintiles.
- Poor dietary diversity – low on protein and vitamins but high in carbohydrates – may be a determinant of underweight and stunting. About one third of children aged 6-23 months do not meet the minimum meal frequency; one quarter do not achieve the minimum dietary diversity; and nearly half do not meet the recommended quality of diet. Because the typical diet is largely rice-based, efforts to promote the availability of adequate complementary foods, along with education on appropriate complementary feeding practices, should be considered.
- Indonesia has joined the global Scaling Up Nutrition (SUN) movement and has developed its own framework to scale up nutrition through a multisectoral approach.

Figure 1.1 Food Availability
From 1990 to 2011:

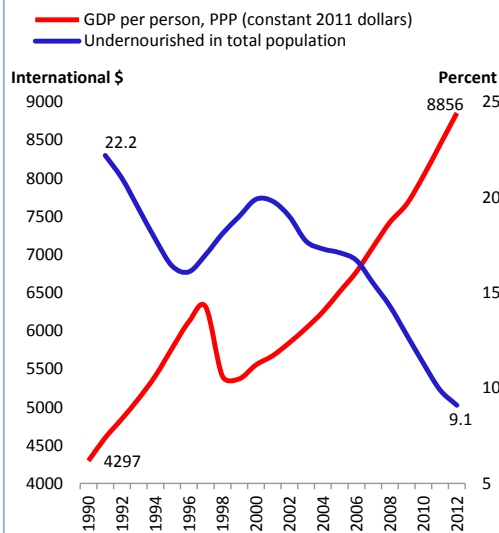
- Dietary Energy Supply (DES) increased 20%
- Animal-origin supply increased 65%
- Vegetal-origin products (mainly cereals) increased 17% and remained the major DES source



Source : FAOSTAT FBS: 2014 update

Figure 1.2 Undernourishment and Economic Growth
From 1990 to 2012:

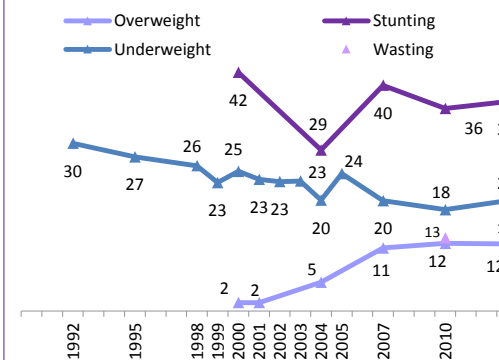
- GDP per capita increased 106%
- Undernourishment declined 59%



Source: GDP: WDI 2014 / Undernourished: FAO FSI_2013

Figure 1.3 Child Malnutrition

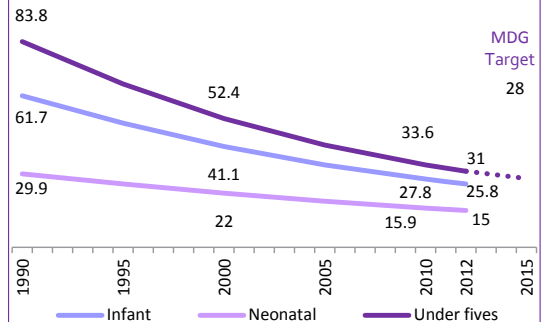
- Stunting declined 12% from 2000 to 2013, but prevalence remains high at 37%
- Underweight declined 48% from 1992, but still stood at 20% in 2013
- Wasting and overweight levels are a serious concern, both at 12% in 2013
- Low Birth Weight was 9% in 2007



Source: IDN_Basic Health Research_2010 and 2013/ WHO Global Database on Child Growth and Malnutrition 2013

Figure 1.4 Child Mortality From 1990 to 2012:

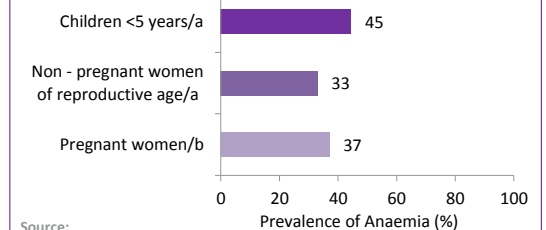
- Under-5 mortality reduced 63%, however progress has stagnated in recent years and the achievement of the MDG target may be at risk
- Infant mortality reduced 58%
- Neonatal mortality reduced 50%



Source: Inter-agency Group for CME (2013)

Figure 1.5 Anaemia

- Anaemia is a severe public health issue, high among pregnant women (37%), non-pregnant women (33%) and under-5 children (45%)
- Deworming and iron supplementation can be effective for reducing anaemia



Source: a/WHO Worldwide prevalence of Anaemia (1993-2005) b/Basic Health Research 2013

Anthropometry (Table 1.1)

| | | |
|--|--------|------|
| Underweight women (BMI < 18.5 kg/m ²) | - | - |
| Overweight adults (BMI ≥ 25 kg/m ²) | 13.4 % | 2001 |
| * BMI values calculated using adult cut off points, population < 20 should be analyzed using WHO growth reference for school aged children and adolescents | | |
| Proportion of infants with low birth weight | 9 % | 2007 |

Source: WHO BMI Database/ LBW DHS 2007 re-analyzed by UNICEF 2009



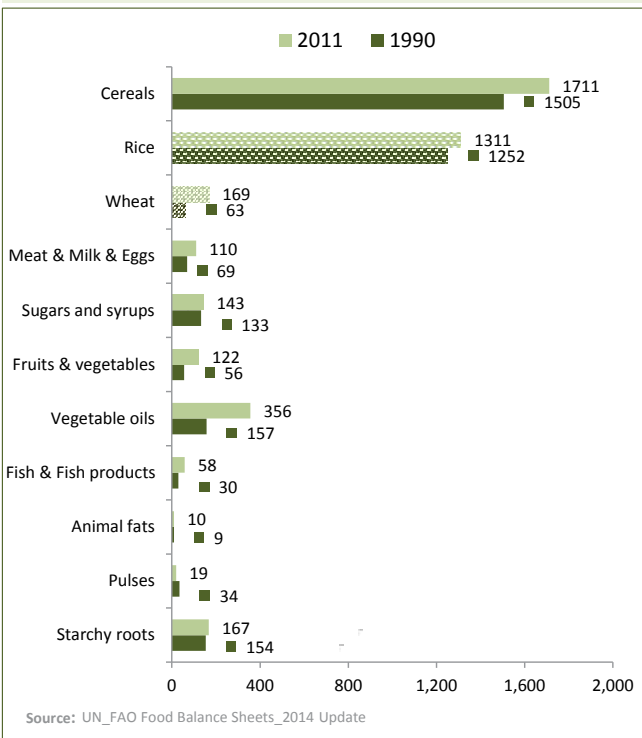
Food Availability / Food Access



Food Availability

Figure 2.1 Food supply by food group

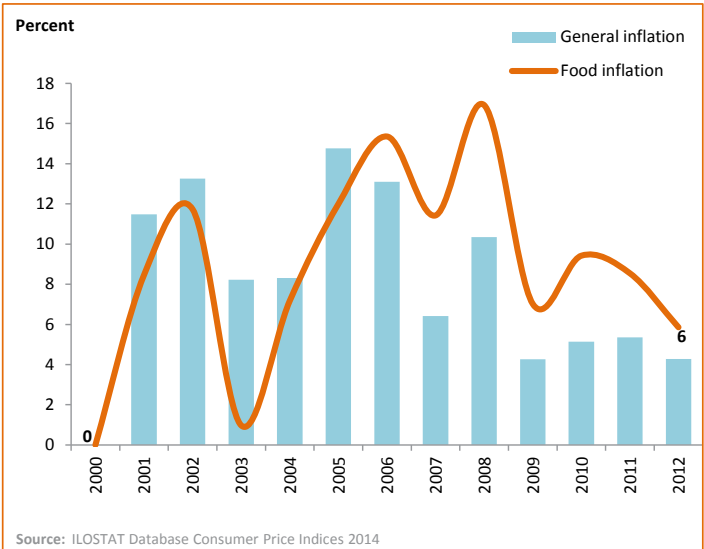
(kcal/person/year) Total dietary energy supply= 2,713 (2011)



- Cereals remain the most important source of food energy (63%); animal fats are largely non-existent, but Vegetable oils have increased 127% and fruits and vegetables have increased 118%
- Fish has increased 93% and meat 59%. Nonetheless, they still comprise only 2% and 4% of DES respectively
- Rice contributes 48% of food energy

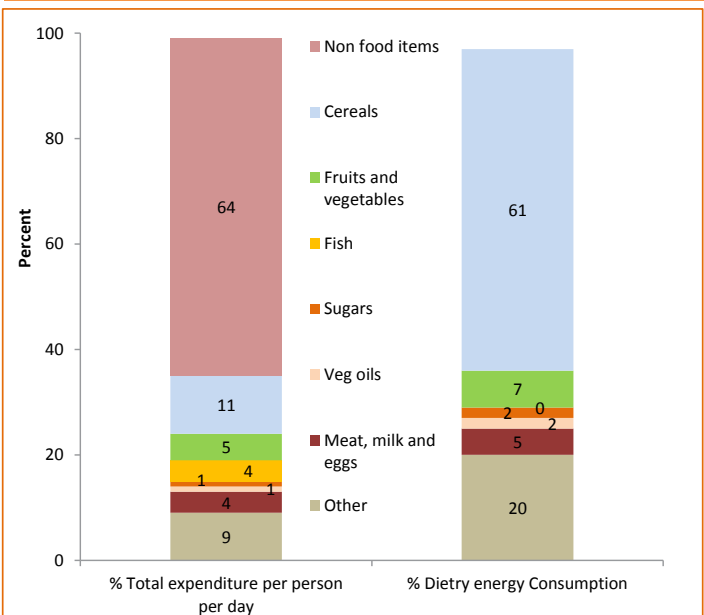
Access to food

Figure 2.2 Economic access to food
General and food inflation



- Food inflation and general inflation are correlated in general in Indonesia
- Families generally spend more than 36% of their income on food. While cereals contribute more than half (61%) of food intake, they affect only 11% of food expenditures at household level

Figure 2.3 Share of food expenditure





Food Utilization

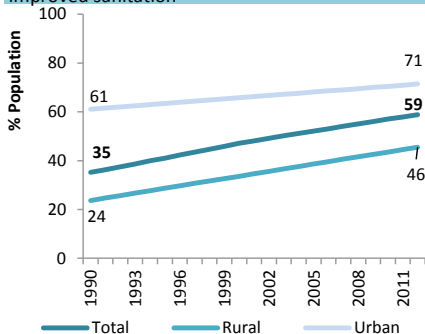
Food utilization refers both to household preparation practices of foods, which influence nutrient content of consumed foods, and to the absorption of nutrients by the human body after consumption. Nutrient absorption in the gut is strongly influenced by health status, particularly the presence of diarrhoea. Hygienic environmental conditions related to improved water and sanitation are important determinants of health and infection incidence and prevalence. In Indonesia, water and sanitation conditions have improved during the past 20 years, resulting in a decrease in diarrhoea prevalence. These improvements may have contributed to the reduction in malnutrition among under-5 children, as shown in Fig 1.3.

Water and Sanitation

Figure 3.1 Access to Improved Sanitation

From 1990 to 2012:

- Access to improved sanitation increased 67% in 22 years
- Disparities between rural and urban areas have continued. Only 46% of the rural population has access to improved sanitation, whereas 71% of urban dwellers have such access.
- 41% of people overall do not have access to improved sanitation

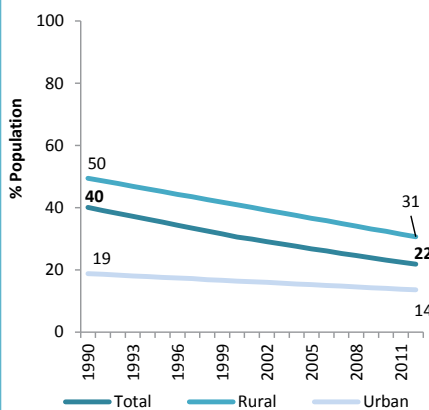


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.2 Open Defecation

From 1990 to 2012:

- Open defecation decreased 43% in 22 years
- In rural areas, this unhygienic practice remains at rates more than double those in urban areas

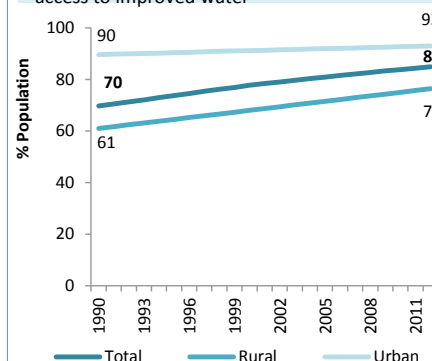


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.3 Access to Improved Water Sources

From 1990 to 2012:

- Disparities in access to improved water sources between urban and rural areas have decreased, but remain an issue
- Almost no progress has been made on urban coverage of improved water sources, which remained at 93%
- At least 85% of people have sustainable access to improved water

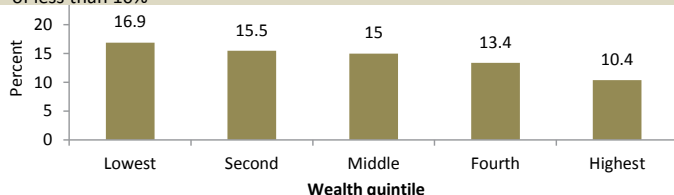


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Food Safety

Figure 3.4 Diarrhoea

- Diarrhoea among young children is most common among the poorest wealth quintiles, reflecting disparities in improved sanitation as well as in general hygiene and food safety
- None of the quintiles has a prevalence of diarrhoea among under-5 children of less than 10%



Source: IDN_Indonesia Demographic and Health Survey 2012

Management of Diarrhoea (Table 3.1)

- No data are available on whether children receive zinc supplementation following an episode of diarrhoea

Zinc

Share of children under age 5 with diarrhoea receiving zinc treatment: 1.1%

Existing policy framework

Zinc Supplementation and Reformulated Oral Rehydration Salt in the Management of Diarrhoea

Source: IDN_Indonesia Demographic and Health Survey 2012

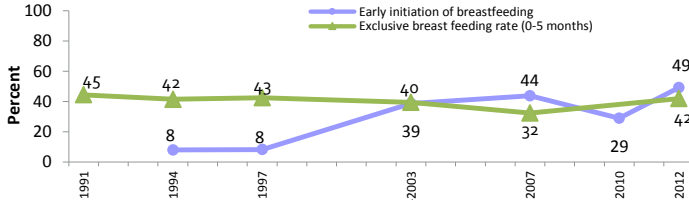


Food Utilization

Nutrition and Health

Figure 3.5 Exclusive Breastfeeding

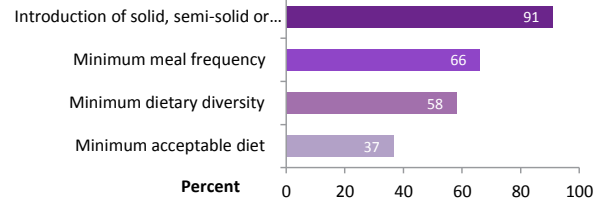
- Exclusive breastfeeding has decreased (6%) from 1991 to 2012. Only about four out of ten infants younger than age 6 months are exclusively breastfed.
- Paradoxically, from 1994 to 2012 early initiation of breastfeeding increased by more than 5 times, Nevertheless less than one half of children received such early initiation



Source: IDN_Indonesia Demographic and Health Survey 2012/Riskesdas re-analyzed by UNICEF 2010

Figure 3.6 Complementary Feeding

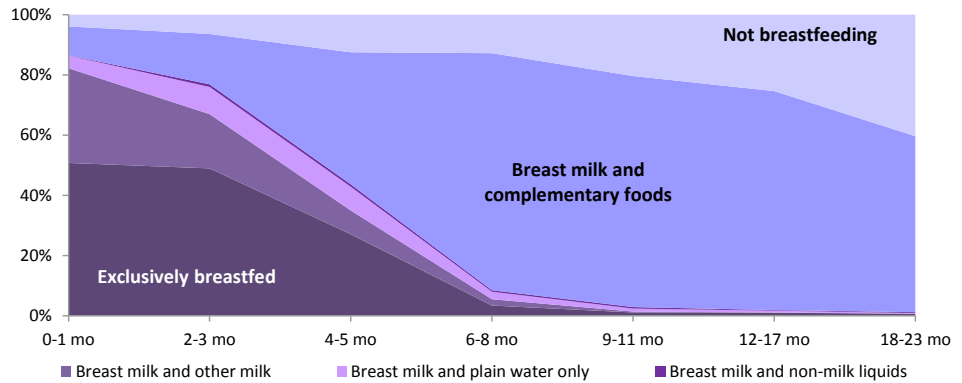
- Introduction of complementary feeding is timely for 91% of young children
- 66% of children aged 6-23 months meet the minimum meal frequency
- Meeting the recommended dietary diversity of diet remains a challenge for more than 4 out of 10 children
- The Minimum acceptable diet is reached only by a third of infants



Source: IDN_Indonesia Demographic and Health Survey 2012

Figure 3.7 Duration of Breastfeeding

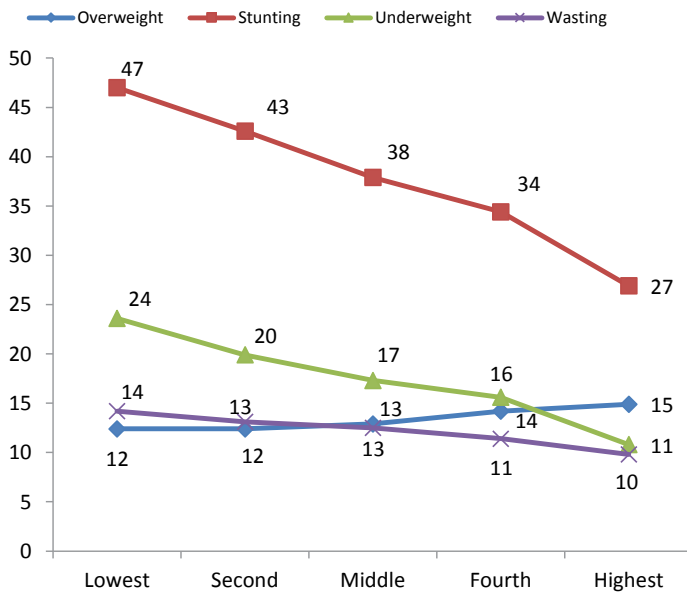
- Duration and frequency of breastfeeding affect the health and nutritional status of both mother and child
- Exclusive breastfeeding is recommended up to age 6 months, and continued breastfeeding with complementary feeding, is recommended from 6 months until age 2 years and beyond



Source: IDN_Indonesia Demographic and Health Survey 2012

Figure 3.8 Child Malnutrition and Poverty

- Children in the wealthiest quintile have 57% less stunting deficits than children in the lower income quintiles

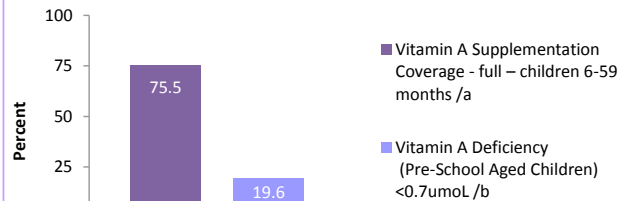


Source: IDN Basic Health Research 2013

Micronutrient Status

Figure 3.9 Vitamin A

- Successful Vitamin A supplementation (76%) is a likely contributor to the observed reductions in child mortality.
- Vitamin A deficiencies (20% of pre-schoolers) remain a moderate public health concern, bordering on severe, and indicate that Vitamin A is still lacking in the daily diet.



* VAD is a severe public health problem if >20% of preschool children (6-71 months) have low serum retinol (<0.7µmol/L)

Source: a/ IDN Basic Health Research 2013

b/ WHO Global prevalence of vitamin A deficiency in population at risk 1995-2005 report.

Iodine (Table 3.2)

| | |
|--|--------|
| Households consuming adequately iodized salt (2013) | 77.1 % |
| Iodine deficiency (Urinary Iodine Concentration <100µg/L) among school-age children (2013) | 14.9 % |
| *Optimal UIC 100 - 199µg/L | |

Source: IDN Basic Health Research 2013



| Enabling environment for Nutrition and Food security - Policy documents addressing nutrition issues | | | |
|--|---|----------|--|
| 1. National Medium-Term Development 2010-2014 (RPJMN) | | | |
| This document covers the entire spectrum of development actions and includes a specific target to reduce stunting from 37 to 32% | | | |
| 2. Food and Nutrition Plan of Action (RAN-PG) (2011-2015) | | | |
| Putting in place first multisectoral approach to nutrition. Objective to reduce stunting from 37 to 32% taken from the 2010-2014 RPJMN | | | |
| 3. Scaling Up Nutrition (SUN) Movement formalized through a Presidential Decree | | | |
| SUN Movement in Indonesia has been formalized through a Presidential decree (Number 42/2013) in May 2013. SUN Policy Framework (2012) developed that reinforces the need for multi-sector actions and multi-stakeholder involvement | | | |
| 4. Presidential Decree No 741 | | | |
| Provides guidance on the minimum health standards (SPM), lists micronutrient supplements, growth monitoring, supplementary feeding and treatment of severely malnourished children as basis for nutrition | | | |
| 5. President Regulation No. 22 / 2009 | | | |
| Policy on Scale Up of Food Diversification Consumption of Local Food-based. | | | |
| 6. Ministry of Agriculture / Chairman of National Food Security Board Regulation No. 43/Permentan/OT.140/7/2010 | | | |
| Guidelines on Food and Nutrition Surveillance System | | | |
| 7. Government Regulation No. 68 / 2002 on Food Security | | | |
| Nutrition related issues covered in these policies | | Covered | Comments |
| Maternal and Child Undernutrition | Child undernutrition | yes | Community-Based Management of Acute Malnutrition (CMAM) programme implemented |
| | Low Birth Weight | yes | |
| | Maternal undernutrition | yes | |
| Obesity and diet related NCDs | Child obesity | both | |
| | Adult obesity | | |
| | Diet related NCDs | yes | |
| Infant and Young Child Nutrition | Breastfeeding | yes | Laws and decrees address part of the provisions of the Int'l Code on BMS. Ban on marketing for children up to 12 mo. Old |
| | Complementary feeding | yes | |
| | Int'l Code of Marketing of BMS | yes | |
| Vitamins and Minerals | Supplementation: Vitamin A children/women | yes | Vitamin A Supplementation guidelines for children 6-59 mo. and postpartum women Deworming guidelines for children 12-59 mo. (updated in 2012 to include children from 1 yr. old). Policy allows for treatment of pregnant women on diagnosis of a worm infection (no mass deworming) Policy to use zinc with Oral Rehydration Salts in management of diarrhoea adopted. MNP for children under two |
| | Iron Folate children/women | yes | |
| | Zinc children | no | |
| | Other vitamins & min child/women | children | |
| | Food fortification | yes | Mandatory: Salt, Wheat Flour close to 100% flour fortified; Voluntary: vegetable oil |
| Underlying and contextual factors | Food Safety | yes | Maternity leave paid by employer at 100% of wage; Provisions for Nursing breaks after return to work . |
| | Food security | yes | |
| | Food Aid | yes | |
| | Nutrition and Infection | yes | |
| | Gender | no | |
| Maternal leave | 13 weeks | | |
| Social Protection policies or legislation including food or nutrition component | | | |
| 1. Program Nasional Pemberdayaan Masyarakat Generasi (PNPM Generasi) | | | |
| Community empowerment programme that provides villages with block grants to improve health and nutrition outcomes | | | |
| 2. Programme Keluarga Harapan (Family Hope Programme) | | | |
| 3-year pilot to enhance the impact of the ongoing CCT on childhood stunting, with a focus on improving the supply of health and nutrition services and strengthening the relationship between supply and demand initiatives to increase service uptake | | | |



| Food safety policies or legislation |
|---|
| <p>1. Food Act (1996)</p> <p>The Act comprehensively covers legislative regulations related to food, reviewing those already in existence as well as creating new ones. Many of Indonesia's regulations related to marketing of food are unclear and therefore either not enforced or only enforced inconsistently. (http://www.asianfoodreg.com/regulations_standard.php?id=9&induid=11)</p> <p>2. Government Regulation No. 69 / 1999 on Food Labelling and Advertisement</p> <p>3. Joint Regulation Ministry of Internal Affairs and Chairman of National Food and Drug Control Agency, No. 43 / 2013 and No. 2 / 2013</p> <p>Inspection of Hazardous-Substances in Food</p> <p>4. Ministry of Health Regulation No. 30 / 2013</p> <p>Inclusion of Information on Sugar, Salt and Fat Contents also Health Message on Processed Food and Fast Food.</p> |

Agricultural policies addressing food security

1. National Decentralized Support Programme for Food Security

| Demographic Indicators (Table - 5.1) | | | Year | Economic Indicators (Table - 5.3) | | | Year |
|---|---------|-----------|------|---|-------------|---------|------|
| Population size (thousands) /a | 246,864 | 2012 | | GDP annual growth rate /c | 6.2 % | | 2012 |
| Average annual population growth /a | 1.25 % | 2012 | | GDP per capita (PPP) (constant 2011 international dollars) /c | 8,856 | | 2012 |
| Proportion of population urbanised /c | 51.4 % | 2012 | | | | | |
| Number of children <5 years (thousand) /a | 24,466 | 2012 | | Gini index /c (100= complete inequality; 0= complete equality) | 38.1 | | 2011 |
| Education level of mothers of under-fives: None (%) /f | 3 | 2012 | | | 34 | | 2005 |
| Life expectancy at birth (Years) /c | Male | 69 | 2012 | Unemployment rate /c | 6.6 % | | 2012 |
| | Female | 72.7 | 2012 | Population below US \$ 1.25 (PPP) per day /c (%) | 16.2 | | 2011 |
| Agriculture population density(people/ ha of arable land /b) | 2.2 | 2006-2008 | | | | | |
| Employment in agriculture sector (% of total employment) /c | 35.1 % | 2012 | | Poverty gap ratio /e | 3.6 | | 2009 |
| Women employed in agriculture sector (% of total female employment) /c | 34.5 % | 2012 | | Income share held by households /c | Poorest 20% | 7.27 % | 2011 |
| | | | | | Richest 20% | 45.98 % | 2011 |
| Adolescents (Table - 5.2) | | | Year | | | | |
| Adolescent birth rate (number of births per 1,000 adolescent girls aged 15-19) /a | 48 | 2012 | | <p>Sources:</p> <p>a/ UN_United Nations Department of Economic and Social Affairs, MDG Database_2013 Update</p> <p>b/ FAOSTAT 2013 Update;</p> <p>c/ UN_World Bank - World Development Indicators Database_Dec 2014 Update</p> <p>d/ UNICEF, State of the World Children 2014 (data refer to the most recent year available during the period specified) ;</p> <p>e/ UN Statistics Division, MDG database 2013 Update.</p> <p>f/ IDN_Indonesia Demographic and Health Survey 2012</p> | | | |
| Adolescent girls aged 15-19 currently married or in union /f | 12.8 % | 2012 | | | | | |
| Women aged 20-24 who gave birth before age 18 /d (%) | 7 | 2008-2012 | | | | | |

Sources:

a/ UN_United Nations Department of Economic and Social Affairs, MDG Database_2013 Update

b/ FAOSTAT 2013 Update;

c/ UN_World Bank - World Development Indicators Database_Dec 2014 Update

d/ UNICEF, State of the World Children 2014 (data refer to the most recent year available during the period specified) ;

e/ UN Statistics Division, MDG database 2013 Update.

f/ IDN_Indonesia Demographic and Health Survey 2012

The information included in this Food Security and Nutrition Security Profile is backed by recognized, validated and properly published information available until June 2014. Although updated information might be available at national level from different sources, until requirements of quality, validity and proper publication are met, it has not been included in this profile.

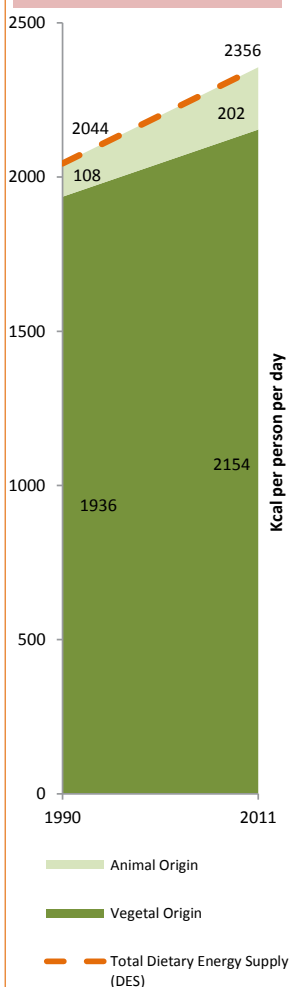


Key Indicators

- In Lao PDR, GDP per capita has increased consistently during recent years, as has Dietary Energy Supply (DES) per person. Nevertheless, undernutrition indicators have not been ameliorated. Lao PDR thus still faces high levels of stunting, underweight, Vitamin A deficiency and anaemia.
- Although the country has experienced significant improvements in access to improved water sources and improved sanitation, these continue to be key development challenges. Large disparities exist between urban and rural settings.
- Lao PDR joined the global Scaling Up Nutrition (SUN) movement in 2011 and has adopted also a series of national food and nutrition security policies to address food and nutrition security.

Figure 1.1 Food Availability From 1990 to 2011:

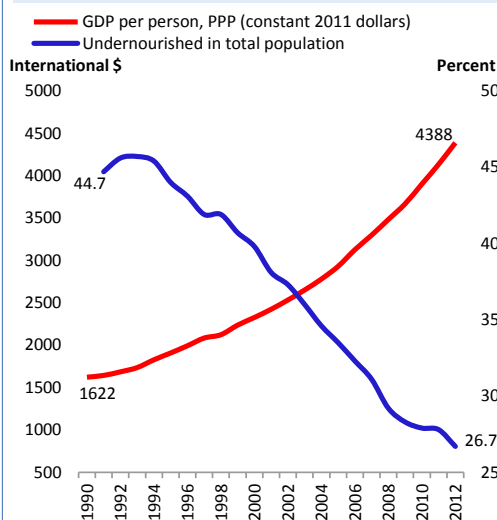
- DES increased 15%
- Animal-origin supply increased 87%
- Vegetal-origin products increased 11% and remain the major DES source



Source : FAOSTAT FBS: 2014 update

Figure 1.2 Undernourishment and Economic Growth From 1990 to 2012:

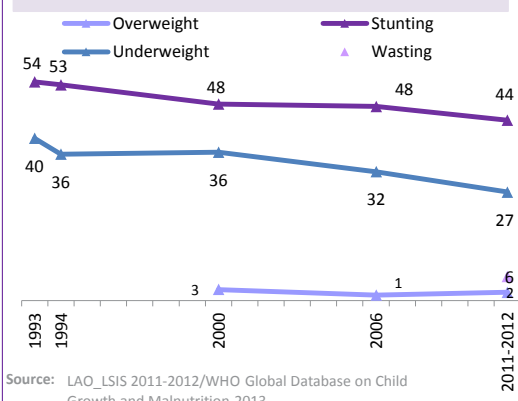
- GDP per capita increased 170%
- Undernourishment declined 40%, but remains at 27% overall



Source: GDP: WDI 2014 / Undernourished: FAO FSI_2013

Figure 1.3 Child Malnutrition From 1993 to 2011:

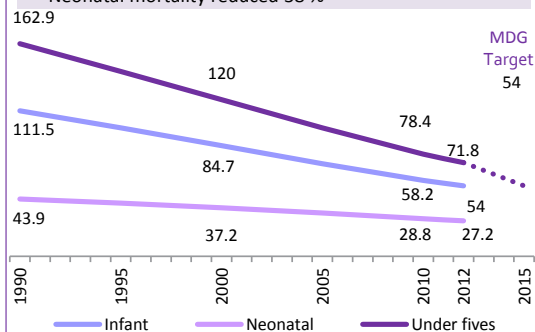
- Stunting declined 18%, but is still very high at 44%
- Underweight declined 33%, but is still high at 27%
- Wasting was 6% in 2011.
- Overweight stood at 2%
- Low Birth Weight is 15%, a public health concern



Source: LAO_LSIS 2011-2012/WHO Global Database on Child Growth and Malnutrition 2013

Figure 1.4 Child Mortality From 1990 to 2012:

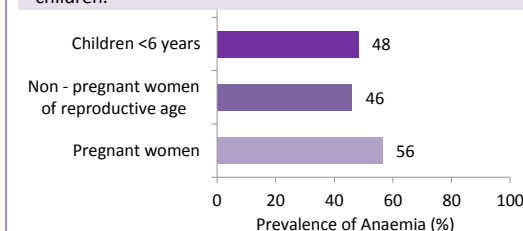
- Under-5 mortality reduced 56%, but is unlikely to meet the Millennium Development Goal (MDG) target without further acceleration of progress
- Infant mortality reduced 52%
- Neonatal mortality reduced 38%



Source: Inter-agency Group for CME (2013)

Figure 1.5 Anaemia

- Anaemia is a severe public health issue, high among pregnant women (56%), non-pregnant women (46%) and under-6 children alike (48%)
- Deworming and iron supplementation can be effective for reducing anaemia in pregnant women as well as children.



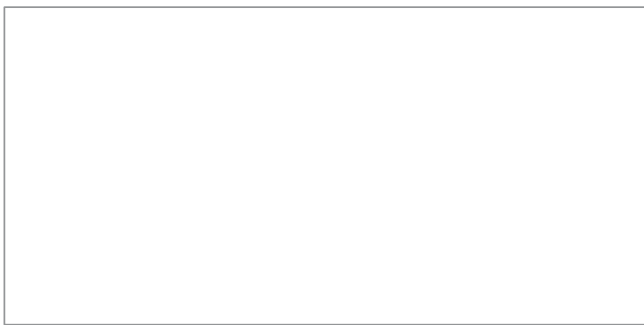
Source: WHO Worldwide prevalence of Anaemia (1993-2005)

Anthropometry (Table 1.1)

| | | |
|--|--------|------|
| Underweight women (BMI < 18.5 kg/m ²) | 14.5 % | 2006 |
| Overweight adults (BMI ≥ 25 kg/m ²) | 8.5 % | 2000 |
| * BMI values calculated using adult cut off points, population < 20 should be analyzed using WHO growth reference for school aged children and adolescents | | |
| Proportion of infants with low birth weight | 15 % | 2011 |

Source: Lao LSIS 2011-2012 /National Nutrition Survey, 2006

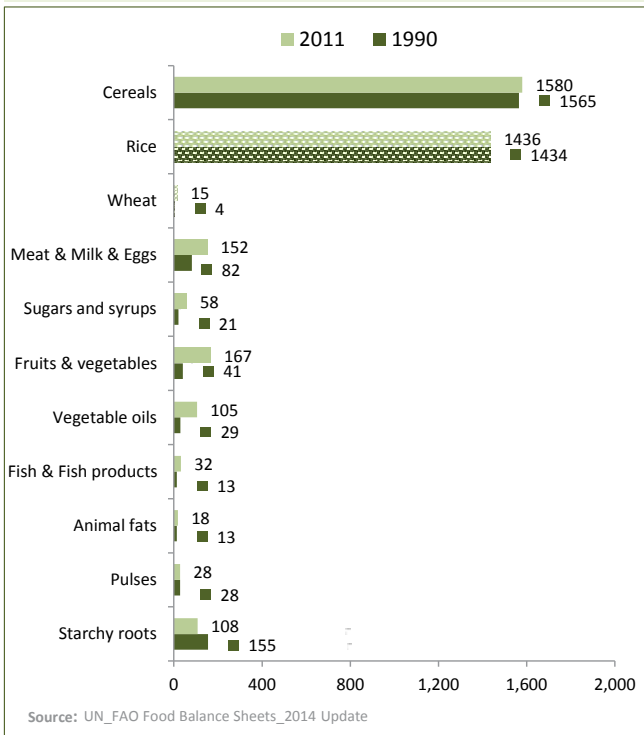
Food Availability / Food Access



Food Availability

Figure 2.1 Food supply by food group

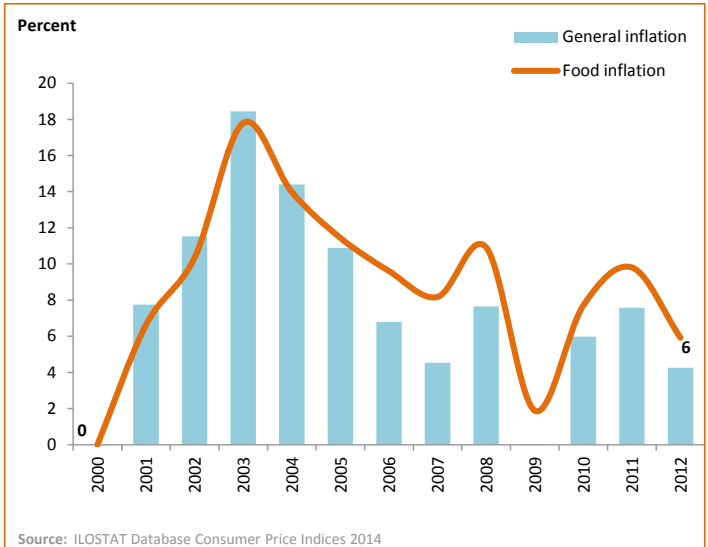
(kcal/person/year) Total dietary energy supply= 2,356 (2011)



- Cereals remain as the most important source of food energy (67%), with rice comprising more than 90% of that
- Fruits and vegetables (75%), fish and fish products (59%), sugars and syrups (64%), and meat, milk and eggs (46%) all have increased significantly, though overall contributions are still minimal

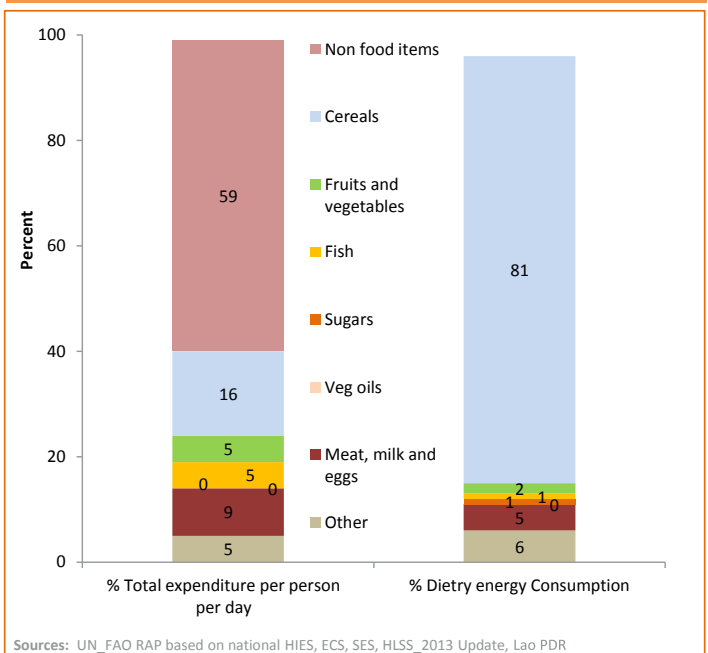
Access to food

Figure 2.2 Economic access to food
General and food inflation



- General inflation is correlated with food inflation (Fig. 2.2)
- Families spent 41% of their income on food. While cereals contributed with 81% of daily energy consumption; they only affected 16% of food expenditures at household level. In contrast, 5% of income was spent on fish, which represents 1% of food intake.

Figure 2.3 Share of food expenditure (2008)





Food Utilization

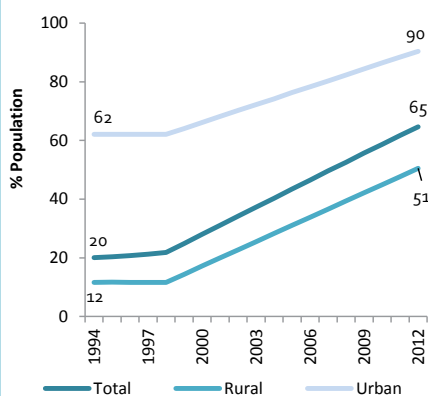
Food utilization refers both to household preparation practices of foods, which influence nutrient content of consumed foods, and to the absorption of nutrients by the human body after consumption. Nutrient absorption in the gut is strongly influenced by health status, particularly the presence of diarrhoea. Hygienic environmental conditions related to improved water and sanitation are important determinants of health and infection incidence and prevalence.

Water and Sanitation

Figure 3.1 Access to Improved Sanitation

From 1994 to 2012:

- Access to improved sanitation increased 221% in 18 years, but 35% of people still do not have such access
- Disparities between rural and urban areas persist, although both areas have increased their access to improved sanitation

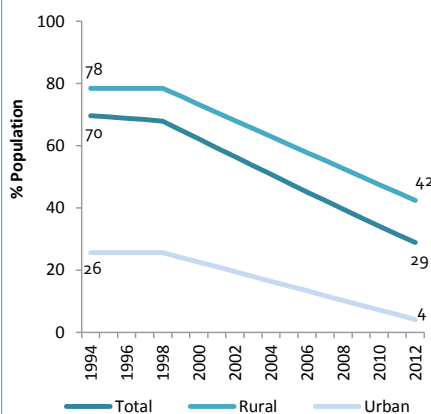


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.2 Open Defecation

From 1994 to 2012:

- In 2011 29% of households continued this unhygienic practice, mostly in rural areas (42%)

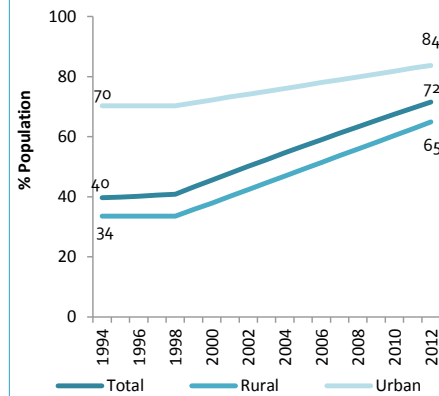


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.3 Access to Improved Water Sources

From 1994 to 2012:

- Access to improved water sources increased 80% during 18 years
- Disparities in access between urban and rural reduced considerably, mostly by improving the situation in rural areas, where access increased 88%

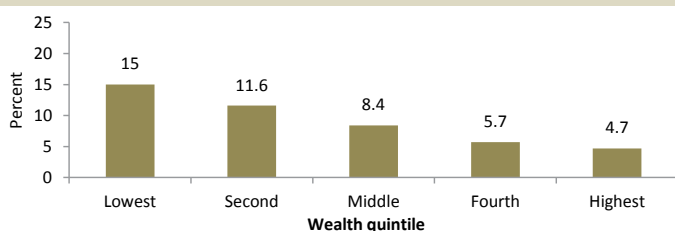


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Food Safety

Figure 3.4 Diarrhoea

- Diarrhoea is three times more frequent among the poorest wealth quintiles as among the wealthiest, reflecting disparities in improved sanitation as well as in general hygiene and food safety



Source: LAO_Lao Social Indicator Survey 2011-2012

Management of Diarrhoea (Table 3.1)

Zinc

| | |
|---|----|
| Share of children under age 5 with diarrhoea receiving zinc treatment | 1% |
|---|----|

Existing policy framework

Zinc Supplementation and Reformulated Oral Rehydration Salt in the Management of Diarrhoea

Source: LAO_Lao Social Indicator Survey 2011-2012

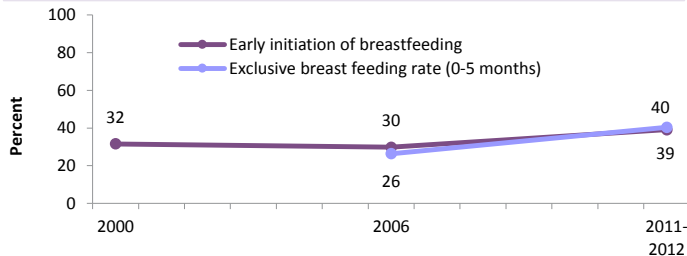


Food Utilization

Nutrition and Health

Figure 3.5 Exclusive Breastfeeding

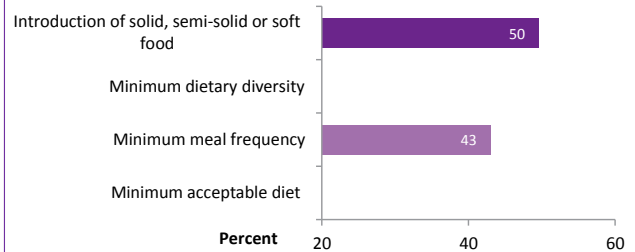
- Early initiation of breastfeeding increased from (32% to 39%) from 2000 to 2011
- Exclusive breastfeeding have increased significantly, but still more than half of children don't exclusively breast fed from 0-5 months.



Source: LAO_Lao Social Indicator Survey 2011-2012

Figure 3.6 Complementary Feeding

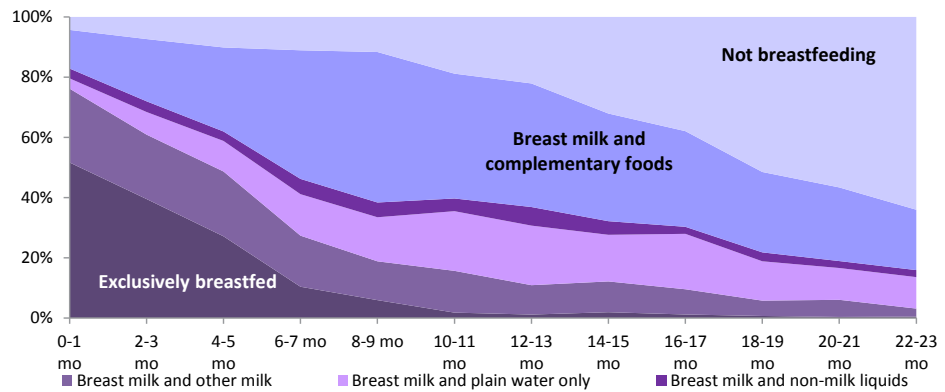
- Introduction of complementary feeding is timely for 50% of children
- Only 43% of children aged 6-23 months meet the minimum meal frequency



Source: LAO_Lao Social Indicator Survey 2011-2012

Figure 3.7 Duration of Breastfeeding

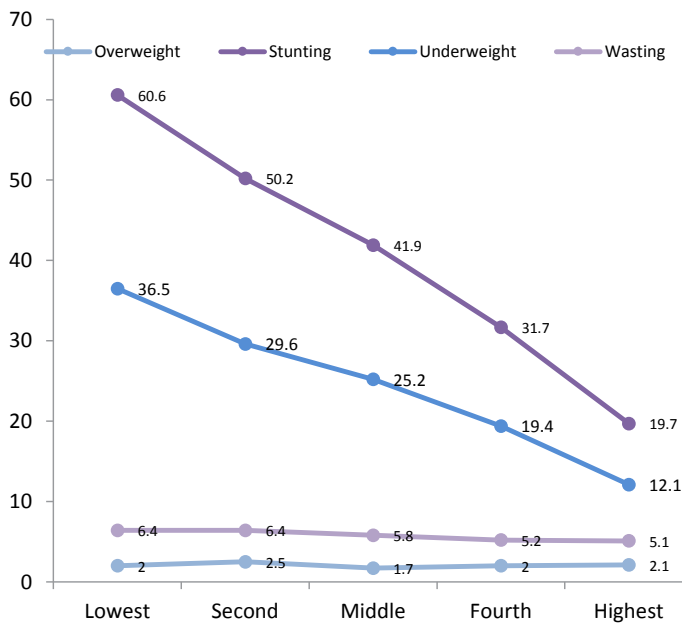
- More than 50% of children continued to breastfed after age 2 years
- Complementary feeding begins prior to age 6 months for a significant proportion of breastfed children



Source: LAO_Lao Social Indicator Survey 2011-2012

Figure 3.8 Child Malnutrition and Poverty

- Children in the poorest quintile have 3 times higher stunting and weight deficits than children in the waelthier quintile
- Overweight is not a public health issue

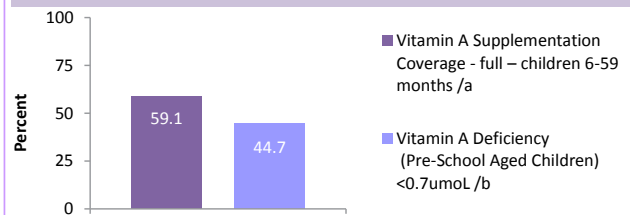


Source: LAO_Lao Social Indicator Survey 2011-2012

Micronutrient Status

Figure 3.9 Vitamin A

- Vitamin A supplementation of 59% is not satisfactory and may be related to high vitamin A deficiency levels.
- Vitamin A deficiencies still represent a severe public health concern at 45%, indicating that Vitamin A remains lacking in the daily diet, and that food-based interventions, including food fortification, deserve ongoing attention.



* VAD is a severe public health problem if >20% of preschool children (6-71 months) have low serum retinol (<0.7µmol/L)

Source: a/ LAO_Lao Social Indicator Survey 2011-2012 b/ WHO Global prevalence of vitamin A deficiency in population at risk 1995-2005 report.

Iodine (Table 3.2)

| | |
|---|--------|
| Households consuming adequately iodized salt /a | 79.5 % |
| Iodine deficiency (Urinary Iodine Concentration <100µg/L) among school-age children (2003) /b | 26.9 % |

*Optimal UIC 100 - 199µg/L

Source: a/ LAO_Lao Social Indicator Survey 2011-2012 b/WHO Global database on iodine deficiency

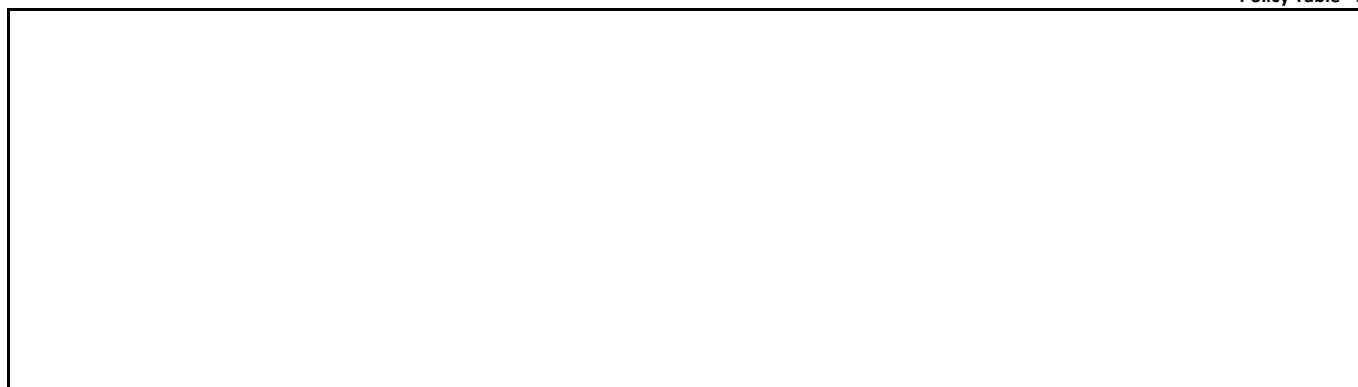


Policy Table - 1

| Enabling environment for Nutrition and Food security - Policy documents addressing nutrition issues | | | |
|---|--|----------|--|
| 1. National Food Security Strategy 2000-2010 | | | |
| 2. National Nutrition Policy 2008 | | | |
| 3. National Nutrition Strategy and Plan of Action 2010-2015 | | | |
| 4. Decree on (mandatory) Universal Salt Iodization | | | |
| Nutrition related issues covered in these policies | Covered | Comments | |
| Maternal and Child Undernutrition | Child undernutrition | yes | Policy covers stunting, wasting and underweight Community-Based Management of Acute Malnutrition (CMAM) piloted in vulnerable areas; requires capacity strengthening |
| | Low Birth Weight | yes | |
| | Maternal undernutrition | yes | |
| Obesity and diet related NCDs | Child obesity | both | |
| | Adult obesity | | |
| | Diet related NCDs | yes | |
| Infant and Young Child Nutrition | Breastfeeding | yes | National Guidelines on Infant and Young Child Feeding 2013 Provisions of the Int'l Code on BMS partially adopted (1995); revised in 2007 and undergoing another revision to be strengthened further; monitoring and enforcement weak. |
| | Complementary feeding | yes | |
| | Int'l Code of Marketing of BMS | yes | |
| Vitamins and Minerals | Supplementation: Vitamin A children/women | both | Vitamin A Supplementation guidelines for children 6-59 mo. Deworming guidelines for children 12-59 mo. Policy to use zinc with Oral Rehydration Salts in management of diarrhoea adopted but not implemented Ministry of Health is developing delivery modalities for home fortification with multiple micronutrient powder for young children through public and private sectors |
| | Iron Folate children/women | both | |
| | Zinc children | yes | |
| | Other vitamins & min child/women | both | |
| | Food fortification | yes | Mandatory: Salt |
| Underlying and contextual factors | Food Safety | yes | The National Nutrition Policy promotes a multisectoral approach, although multi sectorial coordination mechanisms need further strengthening. Maternity leave for 105 days at full pay; provisions for nursing breaks after return to work |
| | Food security | yes | |
| | Food Aid | yes | |
| | Nutrition and Infection | yes | |
| | Gender | yes | |
| | Maternal leave | 13 weeks | |
| Social Protection policies or legislation including food or nutrition component | | | |
| No institutionalized cash transfer schemes in Lao PDR, although a few donor-supported pilots are currently in operation | | | |
| The World Food Programme (WFP) provides unconditional food transfers, in the form of either on-site feeding or take-home rations, and under the WFP school feeding programme | | | |
| Food safety policies or legislation | | | |
| 1. Food law (2013) | | | |
| This Law defines principles, regulations and measures on the management, monitoring and inspection of food and food business to ensure quality, effectiveness, and safety aiming at protection consumers' health. | | | |
| 2. Law on Hygiene, Disease Prevention and Health Promotion (2012) | | | |
| This Law defines principles, regulations and measures on the management, monitoring and inspection of food and food business to ensure quality, effectiveness, and safety aiming at protection consumers' health. | | | |
| 3. National Food Safety Policy, Ministry Health No 020/MoH, adopted by PM decree No: 028/PM 03/02/2009 | | | |
| http://www.foodsecuritylink.net/laopdr/index.php?option=com_remository&Itemid=13&func=fileinfo&id=44 | | | |
| Other policies addressing food security | | | |
| | | | |



Policy Table - 2



| Demographic Indicators (Table - 5.1) | | Year | Economic Indicators (Table - 5.3) | | Year | |
|--|--------|-----------|---|--|---------|-----------|
| Population size (thousands) /a | 6,646 | 2012 | GDP annual growth rate /c | 8.2 % | 2012 | |
| Average annual population growth /a | 1.89 % | 2012 | GDP per capita (PPP) (constant 2011 international dollars) /c | 4,388 | 2012 | |
| Proportion of population urbanised /c | 34.3 % | 2011 | | | | |
| Number of children <5 years (thousand) /a | 860 | 2012 | Gini index /c (100= complete inequality; 0= complete equality) | 36.74 | 2008 | |
| Education level of mothers of under-fives: None (%) /f | 32 | 2011 | | 32.63 | 2002 | |
| Life expectancy at birth (Years) /c | Male | 66 | 2012 | Unemployment rate /c | 1.3 % | 2012 |
| | Female | 69.2 | 2012 | Population below US \$ 1.25 (PPP) per day /c (%) | 33.88 | 2008 |
| Agriculture population density(people/ ha of arable land /b) | 3.7 | 2006-2008 | | | | |
| Employment in agriculture sector (% of total employment) /c | 85.4 % | 1995 | Poverty gap ratio /e | 9 | 2008 | |
| Women employed in agriculture sector (% of total female employment) /c | 89.3 % | 1995 | Income share held by households /c | Poorest 20% | 7.64 % | 2008 |
| Adolescents (Table - 5.2) | | | | Year | | |
| Adolescent birth rate (number of births per 1,000 adolescent girls aged 15-19) /a | 65 | 2012 | Sources: a/ World Bank Health Nutrition and Population Statistics 2013 b/ FAOSTAT 2013 Update; c/ World Bank, World Development Indicators Database, 2014 Update; d/ UNICEF, State of the World Children 2014 (data refer to the most recent year available during the period specified) e/ UN Statistics Division, MDG database 2013 Update. f/ LAO_Lao Social Indicator Survey 2011-2012 | Richest 20% | 44.84 % | 2008 |
| | | | | Adolescent girls aged 15-19 currently married or in union /d | 25 % | 2005-2012 |
| Women aged 20-24 who gave birth before age 18 /d (%) | 18 | 2008-2012 | | | | |

The information included in this Food Security and Nutrition Security Profile is backed by recognized, validated and properly published information available until June 2014. Although updated information might be available at national level from different sources, until requirements of quality, validity and proper publication are met, it has not been included in this profile.



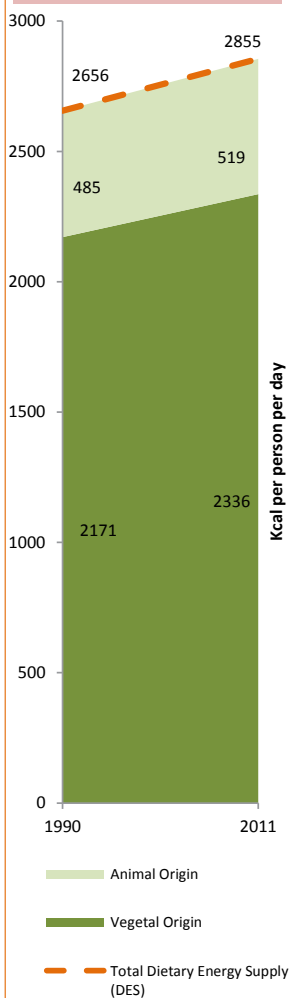
Key Indicators

- Malaysia has doubled its per-capita GDP in real terms and kept undernourishment stable and at very low levels. Unhealthy dietary practices and lack of physical activity could be the contributing factors for overweight and obesity in the country, which affects nearly half of the adult population. The prevalence of obesity in Malaysia has increased from 4.4% in 1996 to 14% in 2006, and then increased gradually to 15.1% in 2011. However, it is encouraging to note that Malaysia has managed to reduce the rate of increase of obesity prevalence in 2011 to 15.1%.
- In Malaysia, adherence to the International Code of Marketing of Breastmilk Substitutes is voluntary and only about one in every seven infants is exclusively breastfed until 6 months of age.
- Access to improved water and sanitation is nearly universal in rural and urban Malaysia.
- Although anemia amongst women and children has been a moderate public health issue, routine data indicate a very successful decline in anaemia amongst pregnant women in recent years.

Figure 1.1 Food Availability

From 1990 to 2011:

- DES increased 7%
- Animal-origin supply increased 7%
- Vegetal-origin products increased 8% and remain the major DES source

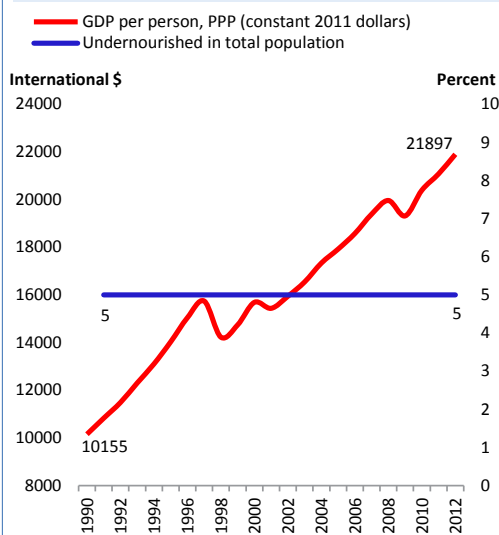


Source : FAOSTAT FBS: 2014 update

Figure 1.2 Undernourishment and Economic Growth

From 1990 to 2012:

- GDP per capita increased 115%
- Undernourishment remained below 5%

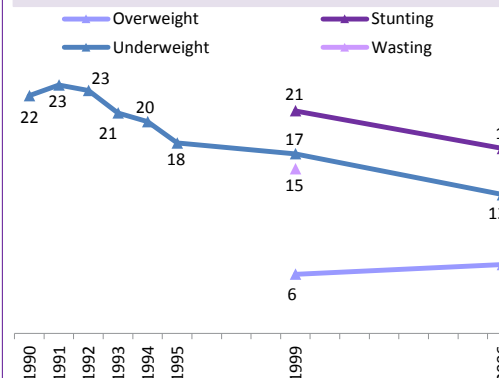


Source: GDP: WDI 2014 / Undernourished: FAO FSI_2013

Figure 1.3 Child Malnutrition

From 1990 to 2006:

- Stunting declined 17%, with 17% overall stunted, considered a low level
- Underweight declined 42%, with 13% overall underweight, a medium level
- Low Birth Weight was 11% in 2007, a public health concern

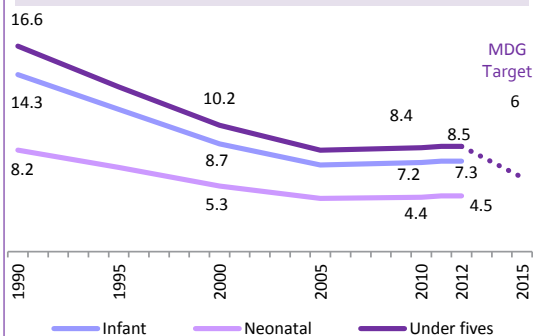


Source: WHO Global Database on Child Growth and Malnutrition 2013

Figure 1.4 Child Mortality

From 1990 to 2012:

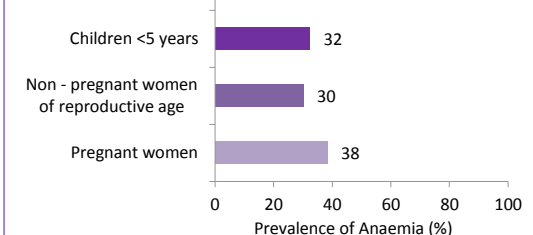
- Under-5 mortality reduced 49%
- Infant mortality reduced 49%
- Neonatal mortality reduced 45%



Source: Inter-agency Group for CME (2013)

Figure 1.5 Anaemia

- Anemia is still a moderate public health issue in Malaysia for women and young children, although unpublished data from the Health Informatics Centre indicate success in reducing anemia among pregnant women from 38% in 2004 to 12% in 2013.



Source: WHO Worldwide prevalence of Anaemia (1993-2005)

Anthropometry (Table 1.1)

| | | |
|--|--------|------|
| Underweight women (BMI < 18.5 kg/m ²) | 8.2 % | 2011 |
| Overweight adults (BMI ≥ 25 kg/m ²) | 44.5 % | 2011 |
| * BMI values calculated using adult cut off points, population < 20 should be analyzed using WHO growth reference for school aged children and adolescents | | |
| Proportion of infants with low birth weight | 11 % | 2007 |

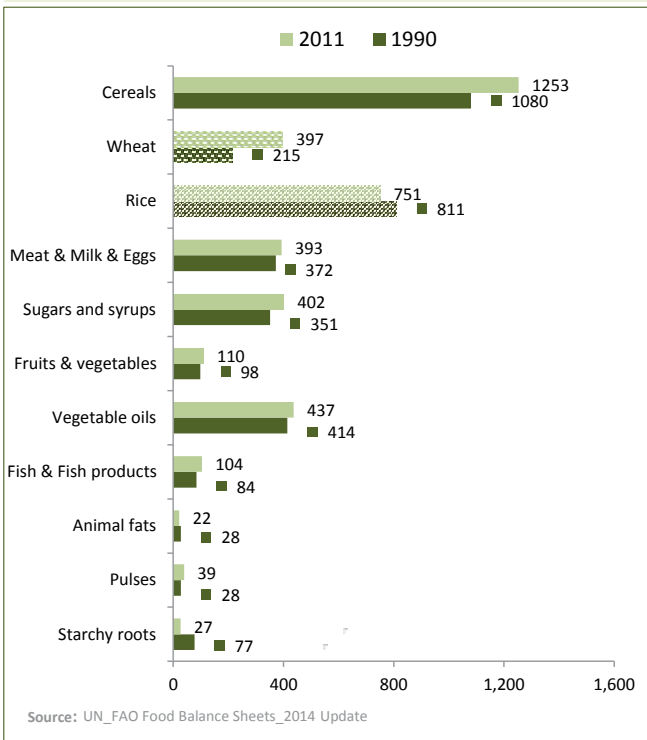
Source: National Health and Morbidity Survey 2011/LBW SOWC 2014

Food Availability / Food Access

Food Availability

Figure 2.1 Food supply by food

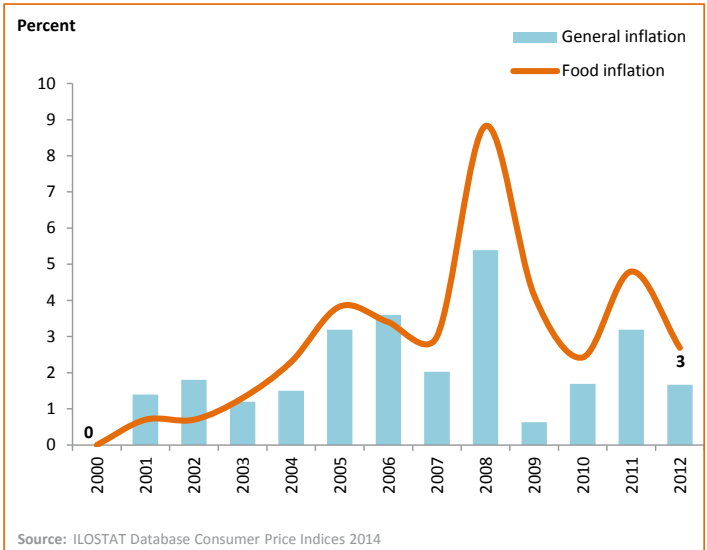
(kcal/person/year) Total dietary energy supply= 2,855 (2011)



- Cereals remained the most important source of food energy (44%). Rice continues to be the major contributor among cereals; however, wheat has increased its contribution by 85%
- Vegetable oils have slightly increased (6%), and they still contribute significantly to overall DES
- Fruits and vegetables contribute only 4% of DES, whereas sugars and syrups contribute 14%, (almost 4 times as much)

Access to food

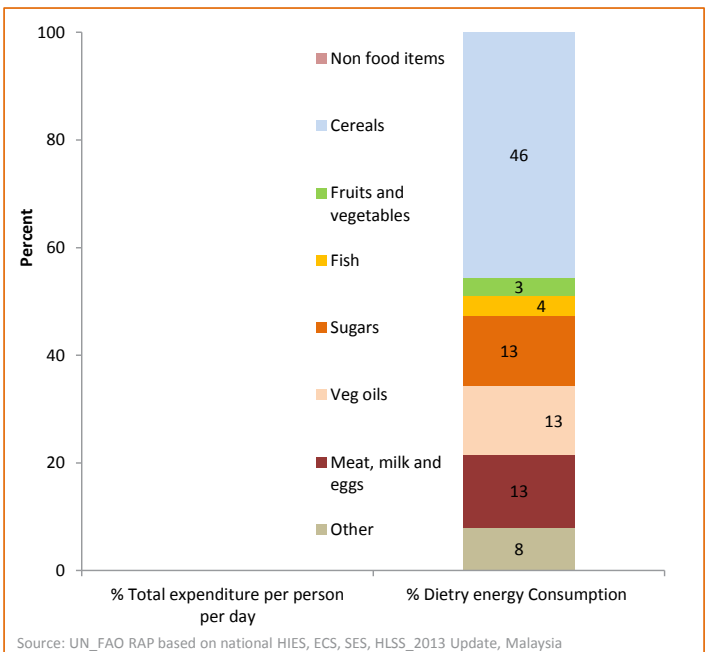
Figure 2.2 Economic access to food
General and food inflation



- Food prices are correlated to general inflation.

Figure 2.3 Share of food expenditure

(2009)



Food Utilization

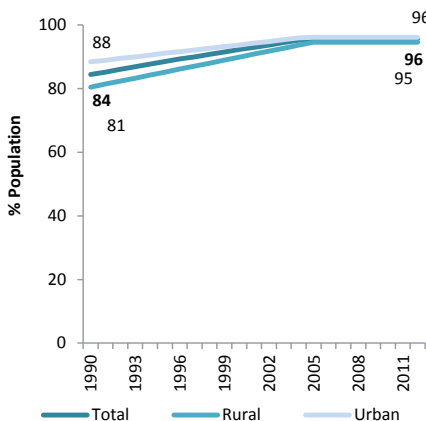
Food utilization refers both to household preparation practices of foods, which influence nutrient content of consumed foods, and to the absorption of nutrients by the human body after consumption. Nutrient absorption in the gut is strongly influenced by health status, particularly the presence of diarrhoea. Hygienic environmental conditions related to improved water and sanitation are important determinants of health and infection incidence and prevalence. In Malaysia, water and sanitation conditions have improved during the past 20 years, to the extent that they no longer represent a key development issue.

Water and Sanitation

Figure 3.1 Access to Improved Sanitation

From 1990 to 2012:

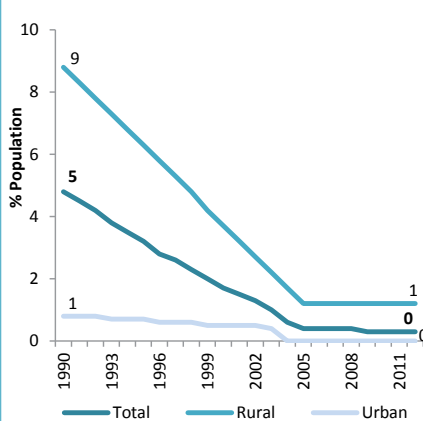
- Access to improved sanitation increased 13% in 22 years and covers 96% of the population
- Disparities between rural and urban areas are non-existent



Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.2 Open Defecation

- Open defecation has almost completely been solved; just 1.2% of the population in rural areas continues this practice

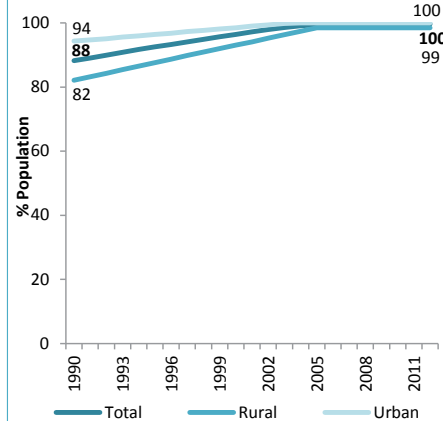


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.3 Access to Improved Water Sources

From 1990 to 2012:

- Almost 100% of homes have improved water source access



Source: WHO-UNICEF Joint Monitoring Programme, 2014

Food Safety

The mandate for Ministry of Health Malaysia to ensure food safety and protect consumers against fraud in the preparation, sale and use of food is provided through the Food Act 1983 and its regulations. Based on this mandate, strategies and activities are formulated to ensure that an effective food control system is in place to ensure that unsafe food is not placed on the market (including for export) and that systems exist to identify and respond to food safety problems in order to protect consumers' health.

Figure 3.4 Diarrhoea

No Data

Management of Diarrhoea (Table 3.1)

Zinc

Share of children under age 5 with diarrhoea receiving zinc treatment

Existing policy framework

Zinc Supplementation and Reformulated Oral Rehydration Salt in the Management of Diarrhea

Source:

Food Utilization

Nutrition and Health

Figure 3.5 Exclusive Breastfeeding

- Exclusive breastfeeding rate (<6 months) = 14.5%

Source: Infant Feeding. Third National Health and Morbidity Survey (NHMS) III, 2006. Ministry of Health Malaysia.

Figure 3.6 Complementary Feeding

- Timely complementary feeding rate (6-9 months) = 41.5%

Source: Infant Feeding. Third National Health and Morbidity Survey (NHMS) III, 2006. Ministry of Health Malaysia.

Figure 3.7 Duration of Breastfeeding

- Continued breastfeeding rate (20-23 months) = 37.4%

Source: Infant Feeding. Third National Health and Morbidity Survey (NHMS) III, 2006. Ministry of Health Malaysia.

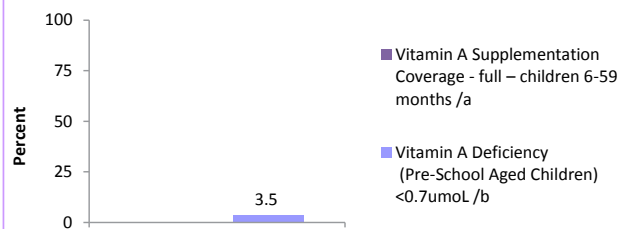
Figure 3.8 Child Malnutrition and Poverty

No Data

Micronutrient Status

Figure 3.9 Vitamin A

- Vitamin A deficiencies (only 3.5% of pre-schoolers) indicate that Vitamin A is adequate in the daily diet



* VAD is a severe public health problem if >20% of preschool children (6-71 months) have low serum retinol (<0.7µmol/L)

Source: a/ UNICEF, State of the World's Children 2014,

b/ WHO Global prevalence of vitamin A deficiency in population at risk 1995-2005 report (2009).

Iodine (Table 3.2)

| | |
|---|--------|
| Households consuming adequately iodized salt 2008 | 17.6 % |
| Iodine deficiency (Urinary Iodine Concentration <100µg/L) among school-age children | 48.2 % |
| *Optimal UIC 100 - 199µg/L | |

Source: National IDD Survey Malaysia, 2008

Policy Table - 1

| Enabling environment for Nutrition and Food security - Policy documents addressing nutrition issues | | | |
|---|----------------------------------|-----------|--|
| 1. National Nutrition Policy of Malaysia (Ministry of Health, 2005) 2. National Plan of Action for Nutrition Malaysia (2006-2015) Provides the multisectoral framework for the country's nutrition interventions. The National Coordinating Committee on Food and Nutrition operates through the establishment of five technical working groups (TWGs): Policy, Dietary Guidelines, Promotion, Training and Research in collaboration with other government and non-government agencies. | | | |
| 3. National Dietary Guidelines for Malaysians and Recommended Nutrient Intakes for Malaysia, 2005 4. National Breastfeeding Policy – (1993) Government has directed the public sector to set up crèches to facilitate breast-feeding at the workplace | | | |
| 5. Guidelines for the Feeding of Infants and Young Children 6. Malaysian Dietary Guidelines for Children and Adolescents. | | | |
| Nutrition related issues covered in these policies | | Covered | Comments |
| Maternal and Child Undernutrition | Child undernutrition | yes | |
| | Low Birth Weight | yes | |
| | Maternal undernutrition | yes | |
| Obesity and diet related NCDs | Child obesity | both | |
| | Adult obesity | | |
| | Diet related NCDs | yes | |
| Infant and Young Child Nutrition | Breastfeeding | yes | |
| | Complementary feeding | yes | Code of Ethics for the Marketing of Infant Foods and Related Products; Adherence to provisions in the international code of BMS is voluntary |
| | Int'l Code of Marketing of BMS | Voluntary | |
| Vitamins and Minerals | Supplementation: | | |
| | Vitamin A children/women | no | |
| | Iron Folate children/women | yes | Iron Folate and other vitamins available for pregnant women |
| | Zinc children | no | |
| | Other vitamins & min child/women | yes | |
| | Food fortification | yes | Voluntary for various types of food such as flour, milk, bread, cereal-based foods, spreads and biscuits. |
| Underlying and contextual factors | Food Safety | yes | The Ministry of Health ensures food safety and protects consumers against fraud in the preparation, sale and use of food through the Food Act 1983 and related regulation. The subsidiary legislation under the Food Act 1983 includes the Food Regulations 1985, Food Hygiene Regulations 2009 and Food Irradiation Regulations 2011. |
| | Food security | yes | |
| | Food Aid | yes | Maternity leave allowance for non-wage labourers not less than RM6 per day |
| | Nutrition and Infection | yes | Tax exemptions for employers that set-up crèches to facilitate paid nursing breaks after return to work. Paternity leave of 7 days for government employees. |
| | Gender | yes | |
| | Maternal leave | 12 weeks | |
| Social Protection policies or legislation including food or nutrition component | | | |
| 1. National Policy and Plan of Action for Children 2007, Ministry of Women, Family and Community Development Malaysia 2. National Policy and Plan of Action for Child Protection 2007 Ministry of Women, Family and Community Development Malaysia | | | |
| Food safety policies or legislation | | | |
| 1. National Food Safety Policy and Its Plan of Action Food safety activities in Malaysia are guided by the National Food Safety Policy developed in 2002. The policy provides direction to all stakeholders in establishing and implementing food safety measures, through collaborative efforts to safeguard human health. The Food Safety and Nutrition Council, chaired by the Honourable Minister of Health Malaysia, will ensure that the food safety policies are well managed and implemented. | | | |
| 2. Legislation Food Safety and consumer protection against fraud in the preparation, sale and use of food is governed through the Food Act 1983 and related regulation. The subsidiary legislation under the Food Act 1983 includes the Food Regulations 1985, Food Hygiene Regulations 2009 and Food Irradiation Regulations 2011. | | | |

i. Malaysian Food Regulations 1985

The Food Regulations 1985 prescribe standards for food including standards of identity for foods, additives, pesticide residue, drug residues, microbiological contaminants and labelling of foods. The Food Regulations 1985 is updated on a regular basis to be in line with Codex and current needs.

ii. Food Hygiene Regulations 2009

The Food Hygiene Regulations 2009 regulates food premises and activities in relation to these premises. This includes the requirements such as: the conduct and maintenance of food premises including implementation of food safety assurance programme and food traceability system; food handlers training, health condition and personal hygiene; and special requirements in handling, preparing, packing, serving, storing and selling specific food.

iii. Food Irradiation Regulations 2011

Food Irradiation Regulations 2011 regulates irradiated food and its premises.

Other policies addressing food security

1. Food Security Policy 2008 - 2010, Ministry of Agriculture & Agro-based Industry
2. National Agrofood Policy 2011-2020, Ministry of Agriculture and Agro-based Industry

| Demographic Indicators (Table - 5.1) | | Year | Economic Indicators (Table - 5.3) | | Year | |
|---|--------|-------------|--|----------------------|---------|------|
| Population size (thousands) /a | 29,240 | 2012 | GDP annual growth rate /c | 5.64 % | 2012 | |
| Average annual population growth | 1.66 % | 2012 | GDP per capita (PPP) (constant 2011 international dollars) /c | 21,897 | 2012 | |
| Proportion of population urbanised | 73.4 % | 2012 | | | | |
| Number of children <5 years (thousand) | 2,483 | 2012 | Gini index /c (100= complete inequality; 0= complete equality) | 46.21 | 2009 | |
| Education level of mothers of under-fives: None (%) | - | - | | 46 | 2007 | |
| Life expectancy at birth (Years) /a | Male | 73 | 2012 | Unemployment rate /c | 3.1 % | 2012 |
| | Female | 77.2 | 2012 | | | |
| Agriculture population density(people/ ha of arable land /b) | 0.5 | 2006-2008 | Population below US \$ 1.25 (PPP) per day /c (%) | 0 | 2009 | |
| Employment in agriculture sector (% of total employment) /c | 12.6 % | 2012 | Poverty gap ratio /e | 0 | 2009 | |
| Women employed in agriculture sector (% of total female employment) /c | 8.2 % | 2012 | Income share held by households /c | Poorest 20% | 4.54 % | 2009 |
| | | | | Richest 20% | 51.45 % | 2009 |
| Adolescents (Table - 5.2) | | Year | Sources: a/ World Bank, Health Nutrition and Population Statistics, 2013 update. b/ FAOSTAT 2013 Update; c/ World Bank, World Development Indicators Database, 2014 Update; d/ UNICEF, State of the World Children 2014 (data refer to the most recent year available during the period specified) ; e/ UN Statistics Division, MDG database 2013 Update. | | | |
| Adolescent birth rate (number of births per 1,000 adolescent girls aged 15-19) /a | 14 | 2008 | | | | |
| Adolescent girls aged 15-19 currently married or in union /d | 5 % | 2005-2012 | | | | |
| Women aged 20-24 who gave birth before age 18 /d (%) | - | - | | | | |

Sources:
a/ World Bank, Health Nutrition and Population Statistics, 2013 update.
b/ FAOSTAT 2013 Update;
c/ World Bank, World Development Indicators Database, 2014 Update;
d/ UNICEF, State of the World Children 2014 (data refer to the most recent year available during the period specified) ;
e/ UN Statistics Division, MDG database 2013 Update.

The information included in this Food Security and Nutrition Security Profile is backed by recognized, validated and properly published information available until June 2014. Although updated information might be available at national level from different sources, until requirements of quality, validity and proper publication are met, it has not been included in this profile.

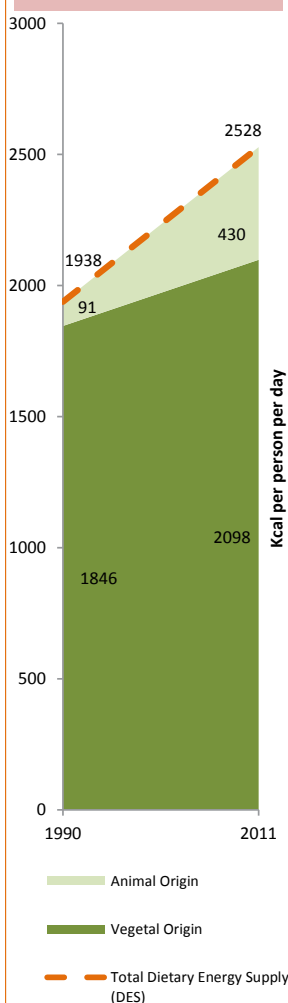


Key Indicators

- Myanmar has experienced growth in Dietary Energy Supply (DES). Dietary quality remains poor, low on protein and vitamins and with high carbohydrates. Most household expenditures are related to food.
- While there have been improvements in child nutrition, poor diet quality has contributed to high levels of stunting and underweight, along with high levels of anaemia, iodine and Vitamin A deficiencies. In addition, low levels of exclusive breastfeeding, a lack of diversity in the food supply, and inadequate access to improved sanitation have also played a role in child malnutrition.
- Myanmar is making significant efforts to address the nutrition situation. The country launched its entry into the global Scaling Up Nutrition (SUN) movement in May 2013.

Figure 1.1 Food Availability
From 1990 to 2011:

- DES increased 30%
- Animal-origin supply increased 373%
- Vegetal-origin products increased 14% and remain the major DES source



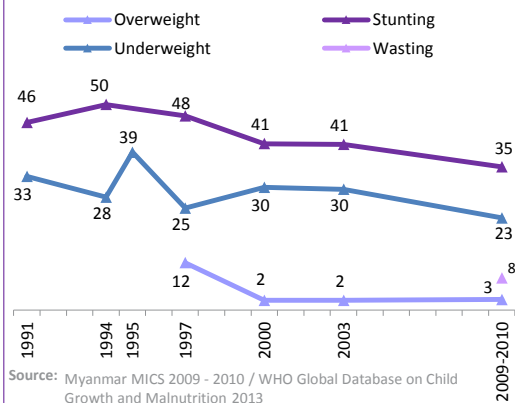
Source: FAOSTAT FBS: 2014 update

Figure 1.2 Undernourishment and Economic Growth

No Data

Figure 1.3 Child Malnutrition From 1991 to 2009:

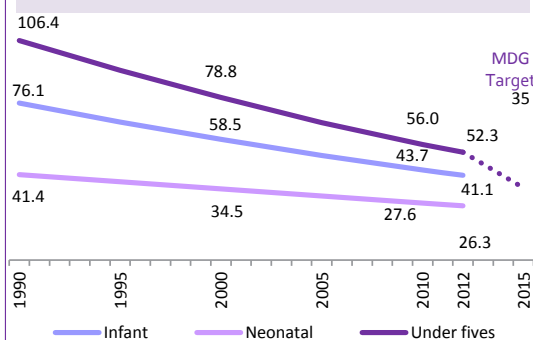
- Stunting declined 24%, but remains very high, at 35% of young children
- Underweight declined 31%, but also remains very high, at 23%
- Wasting in 2009 was 8%, a poor outcome
- Overweight reduced from 12% to 3%



Source: Myanmar MICS 2009 - 2010 / WHO Global Database on Child Growth and Malnutrition 2013

Figure 1.4 Child Mortality From 1990 to 2012:

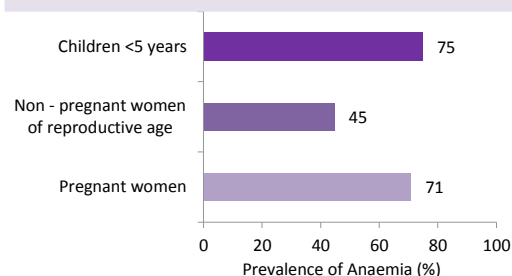
- Under-5 mortality reduced 51%, insufficient progress to achieve the Millennium Development Goal (MDG) target
- Infant mortality reduced 46%
- Neonatal mortality reduced 36%



Source: Inter-agency Group for CME (2013)

Figure 1.5 Anaemia

- Anaemia is a severe public health issue, extremely high among pregnant women (71%), and children under 5 (75%) and also high in non-pregnant women (45%)



Source: Myanmar National Nutrition Center Surveys 2001, 2003, 2005

Anthropometry (Table 1.1)

| | | |
|--|--------|-----------|
| Underweight women (BMI < 18.5 kg/m ²) | 16.5 % | 2009 |
| Overweight adults (BMI ≥ 25 kg/m ²) | 25.4 % | 2009 |
| * BMI values calculated using adult cut off points, population < 20 should be analyzed using WHO growth reference for school aged children and adolescents | | |
| Proportion of infants with low birth weight | 9 % | 2009-2010 |

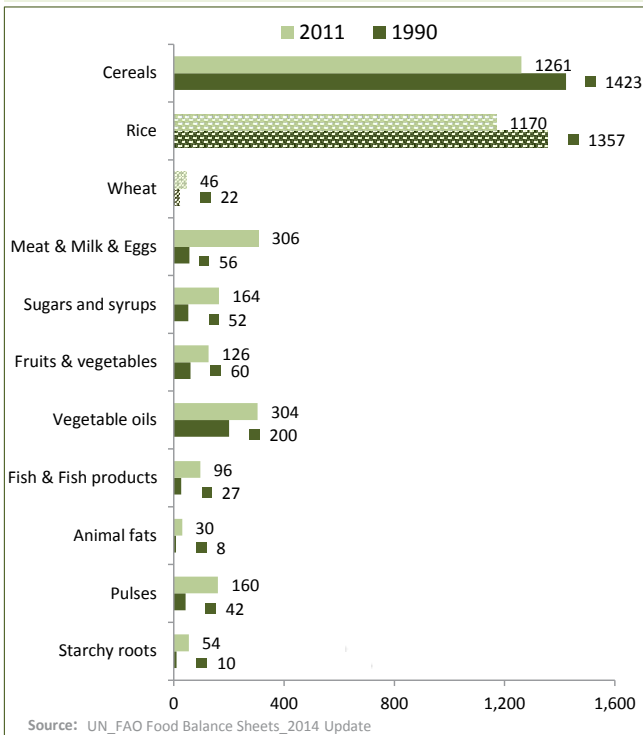
Source: Noncommunicable Disease Risk Factor Survey 2009 / MICS 2009-10

Food Availability / Food Access

Food Availability

Figure 2.1 Food supply by food group

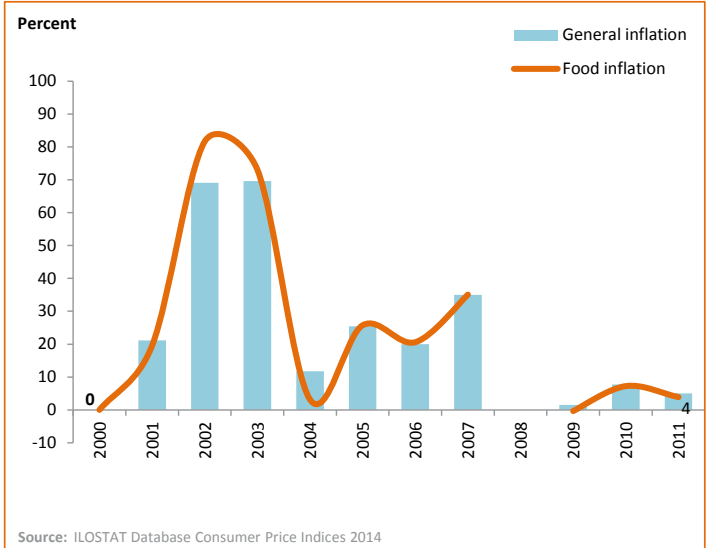
(kcal/person/year) Total dietary energy supply= 2,528 (2011)



- Cereals remain the most important source of food energy (50%), but their contribution to overall DES has decreased
- Products from animal origin increased notably; for example, meat, milk and eggs have increased 446%. Vegetable oils have also increased 52% and are also significant contributors to DES
- The diet is evidently rice-based, with rice contributing to 92% of cereals

Access to food

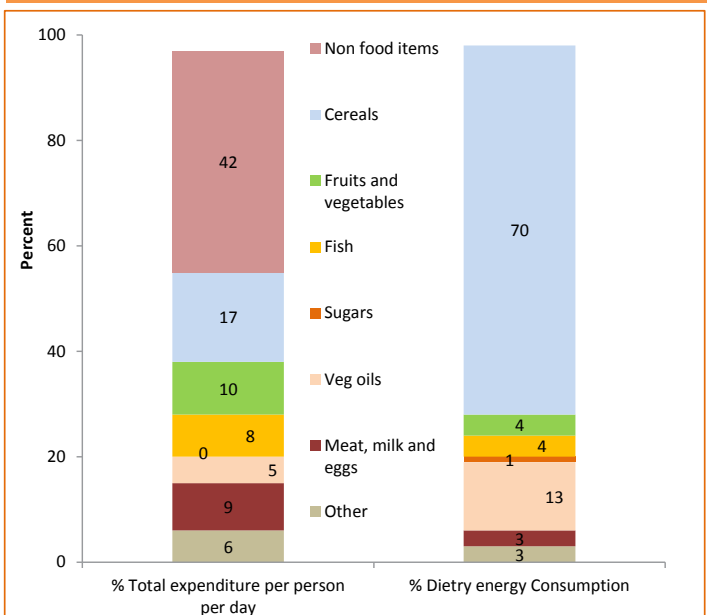
Figure 2.2 Economic access to food
General and food inflation



- General inflation was correlated with food inflation
- Families spent more than 70% of their income on food. While cereals contributed 52 % to food intake; they only affected 17% of food expenditure at household level

Figure 2.3 Share of food expenditure

(2006)





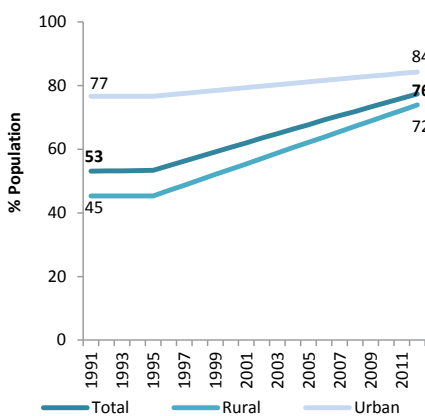
Food Utilization

Food utilization refers both to household preparation practices of foods, which influence nutrient content of consumed foods, and to the absorption of nutrients by the human body after consumption. Nutrient absorption in the gut is strongly influenced by health status, particularly the presence of diarrhoea. Hygienic environmental conditions related to improved water and sanitation are important determinants of health and infection incidence and prevalence. In Myanmar, water and sanitation conditions have been improving during the past 20 years, especially in rural areas. These improvements have contributed to the reduction in malnutrition among under-5 children shown in Fig. 1.3.

Water and Sanitation

Figure 3.1 Access to Improved Sanitation
From 1991 to 2012:

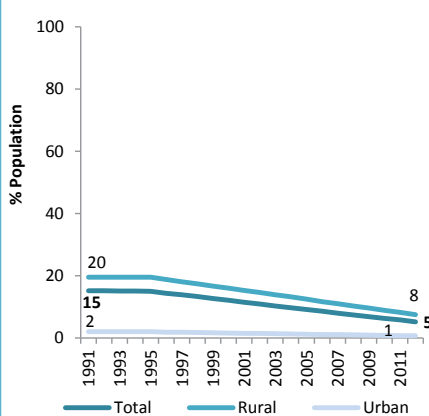
- Access to improved sanitation increased 46% in 21 years, but 24% of the population still does not have such access
- Disparities between rural and urban areas have decreased significantly



Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.2 Open Defecation
In 2012:

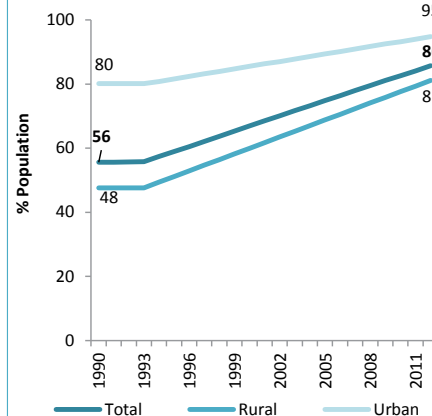
- 5% of the population practiced open defecation



Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.3 Access to Improved Water Sources
From 1990 to 2012:

- Access to improved water sources increased 54% during 22 years
- Disparities in access between urban and rural areas remain, although they have been reduced to a 14% difference

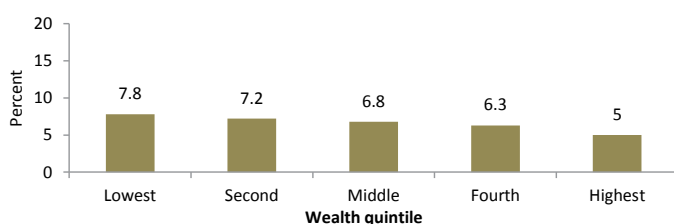


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Food Safety

Figure 3.4 Diarrhoea

- Diarrhoea among young children ranges from 5% to 8%, and is slightly more common among the poorest wealth quintiles



Source: MMR_MICS 2009-2010

Management of Diarrhoea (Table 3.1)

Zinc

Share of children under age 5 with diarrhoea receiving zinc treatment

Existing policy framework

Zinc Supplementation and Reformulated Oral Rehydration Salt in the Management of Diarrhea

Source:

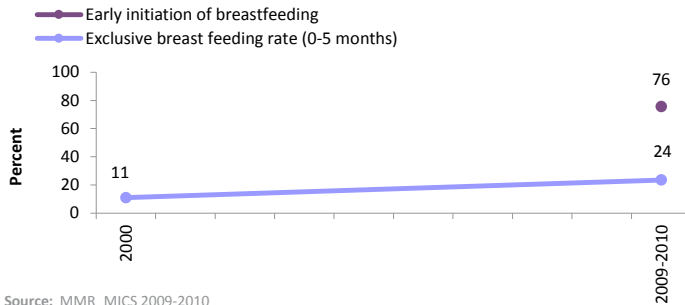


Food Utilization

Nutrition and Health

Figure 3.5 Exclusive Breastfeeding

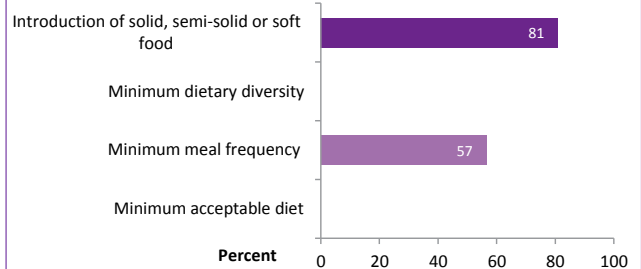
- Early initiation of breastfeeding stands at 76%
- Exclusive breastfeeding rate for children aged 0-5 months is 24%



Source: MMR_MICS 2009-2010

Figure 3.6 Complementary Feeding

Introduction of complementary feeding is timely for 81% of children



Source: MMR_MICS 2009-2010

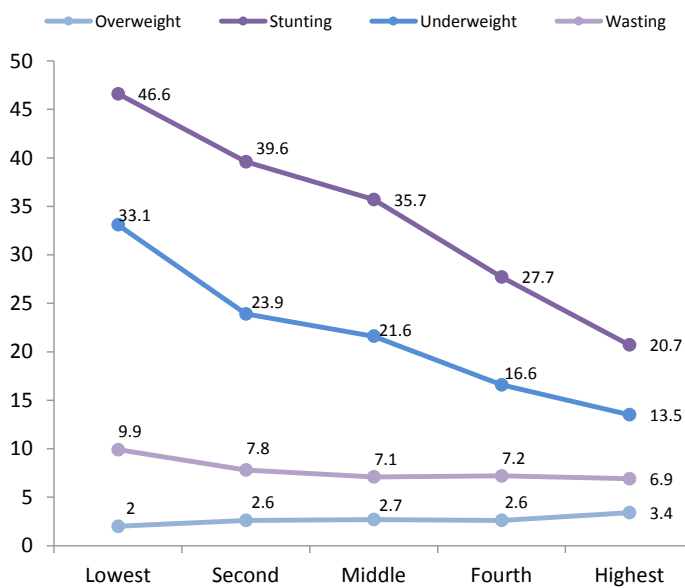
Figure 3.7 Duration of Breastfeeding

- Continued breastfeeding at one year of age (12-15 months) is 91%.
- Continued breastfeeding at two years of age (20-23 months) is 65%.

Source: MMR_MICS 2009-2010

Figure 3.8 Child Malnutrition and Poverty

Stunting and underweight are more than twice as common in the poorest quintile as in the wealthiest
Wasting exhibits a poor outcome in all quintiles
• Overweight is not a public health issue overall, but is more prevalent in wealthier quintiles

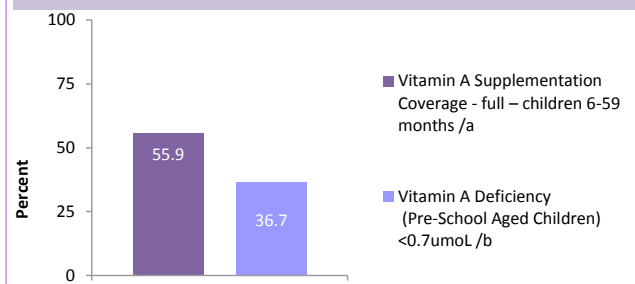


Source: Multiple Indicator Cluster Survey 2009-2010

Micronutrient Status

Figure 3.9 Vitamin A

- Vitamin A supplementation (60%), not a satisfactory coverage rate.
- Severely high rates of Vitamin A deficiencies (37% of pre-schoolers) indicate that Vitamin A is lacking in the daily diet



* VAD is a severe public health problem if >20% of preschool children (6-71 months) have low serum retinol (<0.7µmol/L)

Source: a/ MICS 2009-2010 b/ WHO Global prevalence of vitamin A deficiency in population at risk 1995-2005 report.

Iodine (Table 3.2)

| | |
|---|--------|
| Households consuming adequately iodized salt (2008-2012)/a | 93 % |
| Iodine deficiency (Urinary Iodine Concentration <100µg/L) among school-age children (2006) /b | 22.3 % |

*Optimal UIC 100 - 199µg/L

Source: a/ UNICEF State of the World's Children 2014 b/USI Monitoring System, Iodated Salt Consumption Surveys

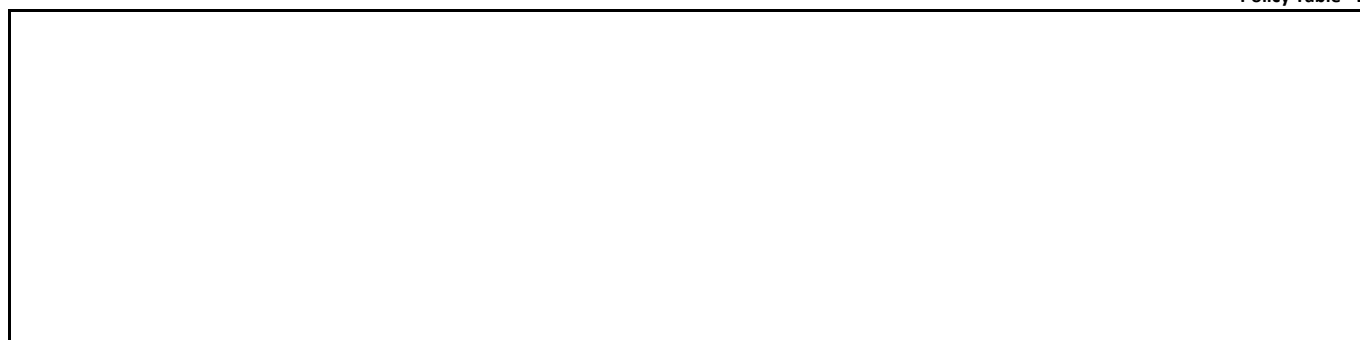


Policy Table - 1

| Enabling environment for Nutrition and Food security - Policy documents addressing nutrition issues | | | |
|--|---|------------------------|--|
| 1. National Food and Nutrition Policy | | | |
| In 2002 an inter-sectorial Technical Working Group with participants from 19 departments was designated by the Central Board for F&N to take a multi-sectorial approach to nutrition forward and decided to develop a Food and Nutrition Policy, and produce departmental profiles with nutrition related activities | | | |
| 2. National Plan of Action for Food and Nutrition (NPAFN) (2005-2010) | | | |
| Monitoring by Central Board for Food and Nutrition under the National Health Committee NPAFN updating process initiated in 2011, has not been finalized and approved; the plan is multi-sectorial in its approach | | | |
| 3.. Public Health Law (1993) | | | |
| Nutrition related issues covered in these policies | Covered | Comments | |
| Maternal and Child Undernutrition | Child undernutrition | yes | |
| | Low Birth Weight | yes | |
| | Maternal undernutrition | yes | |
| Obesity and diet related NCDs | Child obesity | both | |
| | Adult obesity | | |
| | Diet related NCDs | yes | Although obesity and related NCDs feature as emerging issues in the NPAFN, child obesity is not addressed specifically |
| Infant and Young Child Nutrition | Breastfeeding | yes | |
| | Complementary feeding | yes | |
| | Int'l Code of Marketing of BMS | yes | |
| Vitamins and Minerals | Supplementation: Vitamin A children/women Iron Folate children/women Zinc children Other vitamins & min child/women | both both ? ? | Iron Folic Acid supplementation guidelines for children 6-36mo, adolescent girls and pregnant women |
| | Food fortification | yes | Mandatory: Salt (new law just submitted to Parliament) |
| Underlying and contextual factors | Food Safety | yes | |
| | Food security | ? | |
| | Food Aid | yes | |
| | Nutrition and Infection | ? | |
| | Gender | ? | |
| | Maternal leave | 12 weeks | Policies take a multisectoral approach to nutrition |
| Social Protection policies or legislation including food or nutrition component | | | |
| Social protection programmes are offered by sector Ministries. They include cash transfers to families with three or more children, subsidies for medical care for pregnant women, assistance to rural families, and school feeding programmes for Early Childhood Development. A total of 99 per cent of the population has no access to predictable social protection. Discussion on social transfers for poverty alleviation have been initiated (UNICEF-ODI document 2011) | | | |
| Food safety policies or legislation | | | |
| 1. National Food Law (1997) | | | |
| Monitoring by Food and Drug Board of Authority. Department of Developmental Affairs (DDA) is responsible for food hygiene and food safety of food manufactures and food stalls; street food quality is handled by City Development Committee. Food safety activities are coordinated by Food and Drug Board of Authority | | | |
| Other policies addressing food security | | | |



Policy Table - 2



| Demographic Indicators (Table - 5.1) | | Year | Economic Indicators (Table - 5.3) | | Year | |
|--|--------|-------------|---|---|----------------|------|
| Population size (thousands) /a | 52,797 | 2012 | GDP annual growth rate /c | 2.8 % | 1990 | |
| Average annual population growth | 0.85 % | 2012 | GDP per capita (PPP) (constant 2011 international dollars) /c | - | - | |
| Proportion of population urbanised | 33.2 % | 2012 | | - | - | |
| Number of children <5 years (thousand) | 4,393 | 2012 | Gini index /c (100= complete inequality; 0= complete equality) | - | - | |
| Education level of mothers of under-fives: None (%) | 10 | 2009-2010 | | - | - | |
| Life expectancy at birth (Years) /a | Male | 63 | 2012 | Unemployment rate /c | 6 % | 1990 |
| | Female | 67.1 | 2012 | Population below US \$ 1.25 (PPP) per day /c (%) | - | - |
| Agriculture population density(people/ ha of arable land /b) | 2.9 | 2006-2008 | Poverty gap ratio /e | | - | - |
| Employment in agriculture sector (% of total employment) /c | 62.7 % | 1998 | | Income share held by households /c | Poorest 20% | - |
| Women employed in agriculture sector (% of total female employment) /c | - | - | Richest 20% | | - | - |
| Adolescents (Table - 5.2) | | Year | Sources: a/ World Bank Health Nutrition and Population Statistics 2013 b/ FAOSTAT 2013 Update; c/ World Bank, World Development Indicators Database, 2014 Update; d/ UNICEF, State of the World Children 2014 (data refer to the most recent year available during the period specified) e/ UN Statistics Division, MDG database 2013 Update. f/ Myanmar Multiple Indicator Cluster Survey 2009 - 2010 | | | |
| Adolescent birth rate (number of births per 1,000 adolescent girls aged 15-19) /a | 12 | 2012 | | | | |
| Adolescent girls aged 15-19 currently married or in union /d | 7.4 % | 2009-2010 | | | | |
| Women aged 20-24 who gave birth before age 18 /d (%) | 13 | 2000-2007 | | | | |

The information included in this Food Security and Nutrition Security Profile is backed by recognized, validated and properly published information available until June 2014. Although updated information might be available at national level from different sources, until requirements of quality, validity and proper publication are met, it has not been included in this profile.

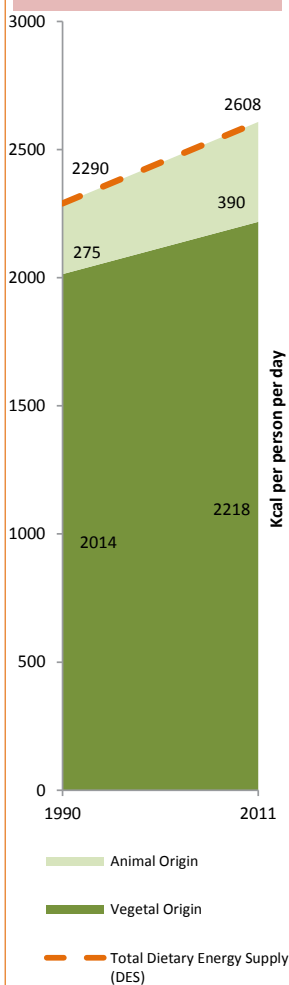


Key Indicators

- Although the Philippines has experienced growth in per-capita GDP and Dietary Energy Supply (DES), the dietary quality has remained poor and based on cereals.
- The poor quality of diet has contributed to high levels of stunting and underweight among young children. In addition, socioeconomic inequalities have been highly associated with malnutrition, and inadequate access to improved sanitation and high levels of food inflation have also contributed to malnutrition.
- In addition, one-third of adults are overweight, and obesity represents an emerging issue because of unbalanced and calorie-dense diets as well as reduced levels of physical activity.

Figure 1.1 Food Availability

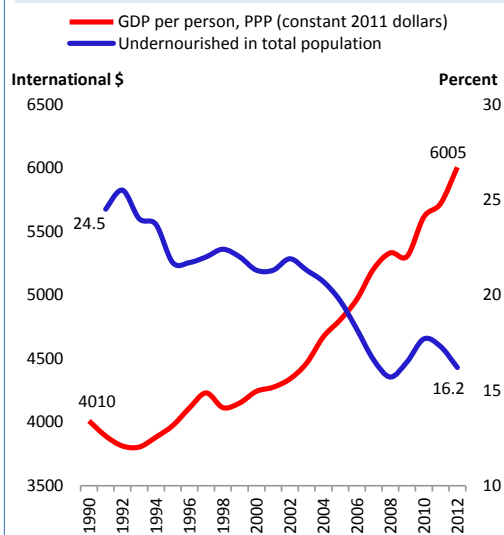
From 1990 to 2011:
 • DES increased 14%
 • Animal-origin supply (including livestock and fish) increased 42%
 • Vegetal-origin products (mainly cereals) increased 10% and remained the major DES source



Source: FAOSTAT FBS: 2014 update

Figure 1.2 Undernourishment and Economic Growth
From 1990 to 2012:

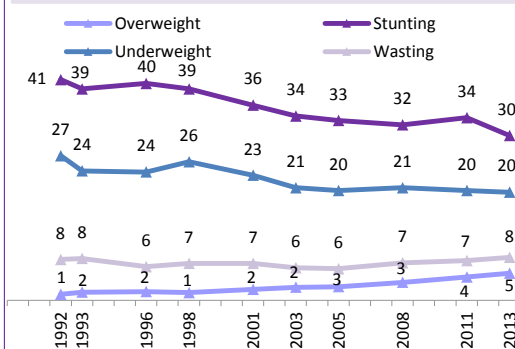
- GDP per capita increased 50%
- Undernourishment declined 34%



Source: GDP: WDI 2014 / Undernourished: FAO FSI_2013

Figure 1.3 Child Malnutrition From 1992 to 2013:

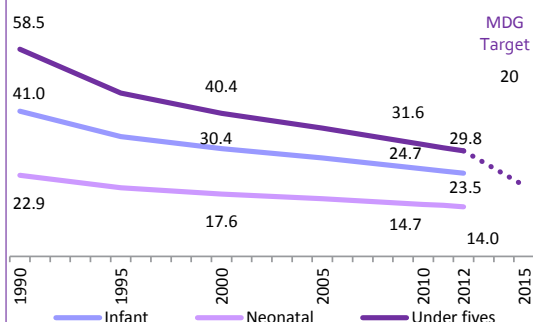
- Stunting declined 27%, but remained high at 30%
- Underweight declined 26%, but remained high at 20%
- Wasting, at 8%, comprised a "poor" situation
- Overweight increased 400%, and stood at 5%
- Low Birth Weight (21%) represents a serious public health concern



Source: 8th National Nutrition Survey 2013, FNRI

Figure 1.4 Child Mortality From 1990 to 2012:

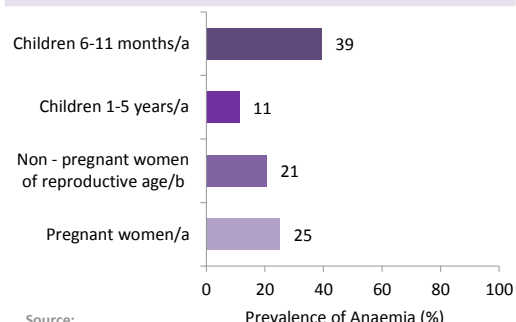
- Under-5 mortality reduced 49%, will not achieve the Millennium Development Goal (MDG) target
- Infant mortality reduced 43%
- Neonatal mortality reduced 39%



Source: Inter-agency Group for CME (2013)

Figure 1.5 Anaemia

- Anaemia levels have declined in recent years; it is still most prevalent in the youngest children (39%).
- There is still a need to further decrease anaemia.



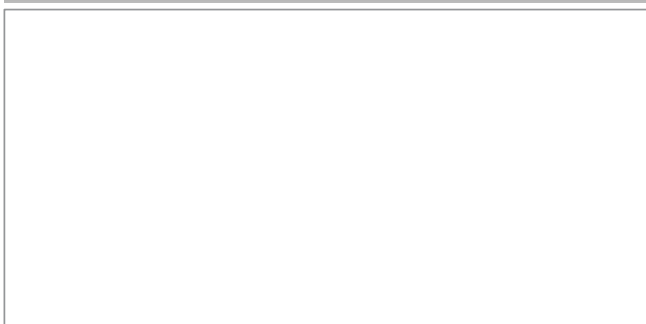
Source: a/8th National Nutrition Survey 2013, FNRI b/2008 NNS, FNRI-DOST

Anthropometry (Table 1.1)

| | | |
|--|--------|-----------|
| Underweight women (BMI* < 18.5 kg/m ²)/a | 10.7 % | 2011 |
| Underweight adolescent girls aged 10-19 (BMI -2SD)/a | 10.3 % | 2011 |
| Overweight adults (BMI* >= 25 kg/m ²)/b | 31.1 % | 2013 |
| Proportion of infants with low birth weight/a | 21 % | 2008-2012 |

Source: a/SOWC 2014/Nutrition Facts and Figures 2011 FNRI-DOST b/8th National Nutrition Survey, FNRI

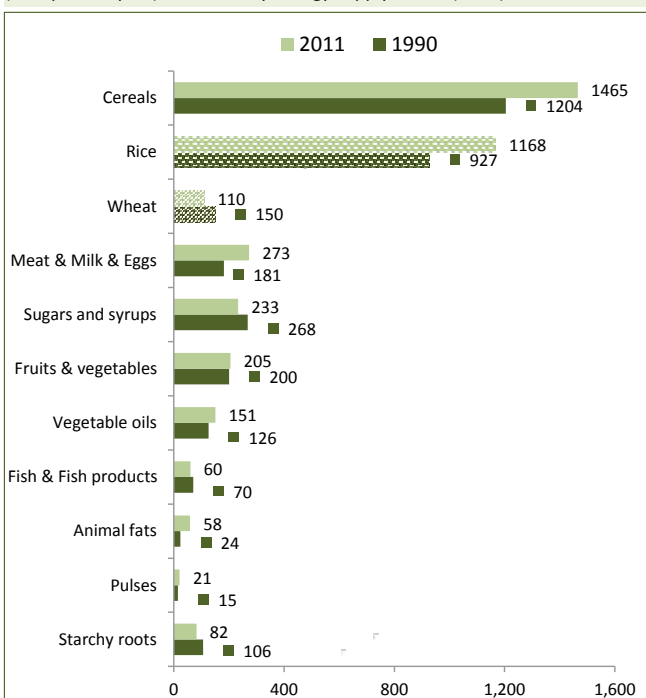
Food Availability / Food Access



Food Availability

Figure 2.1 Food supply by food group - main food commodities contributing in aggregate to more than 80 percent of the dietary energy

(kcal/person/year) Total dietary energy supply= 2608 (2011)



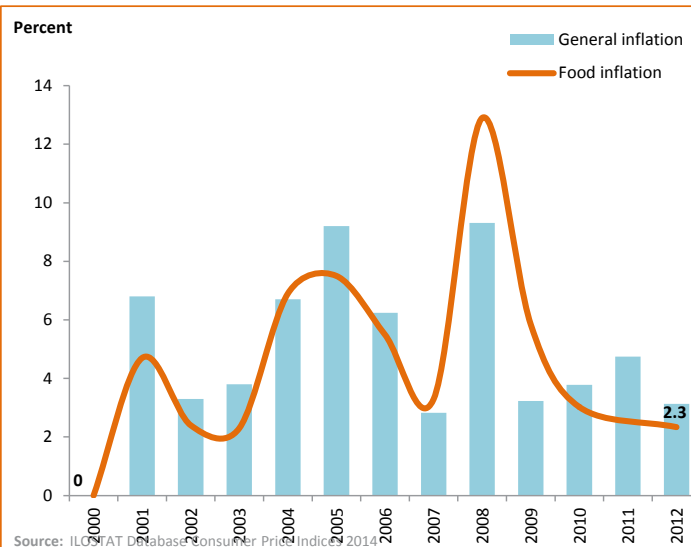
Source: UN_FAO Food Balance Sheets_2014 Update

- Although cereals remain the most important source of food energy, animal fats have more than doubled their availability, by 142%, and meat increased 51%
- Rice contributes to 56% of the food intake; more than 75% of rice consumed in Philippines is locally produced. Nevertheless, imports and stock management still play an important role in rice availability.

Access to food

Figure 2.2 Economic access to food

General and food inflation

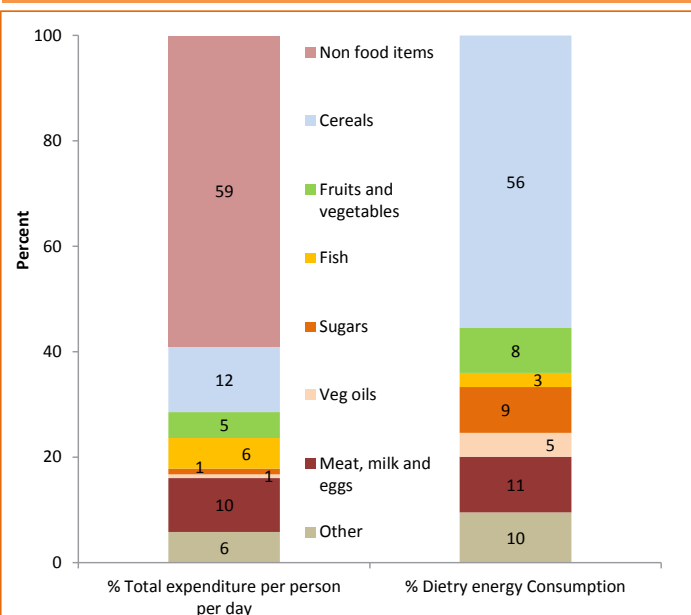


Source: ILOSTAT Database, Consumer Price Indices 2014

- Food prices are in general correlated to the general price index.
- Families generally spent one-third of their income on food. While cereals contributed more than half (56%) of food intake, they only affected 10% of food expenditure at household level.

Figure 2.3 Share of food expenditure

(2009)



Sources: UN_FAO RAP based on national HIES, ECS, SES, HLSS_2013 Update, Philippines



Food Utilization

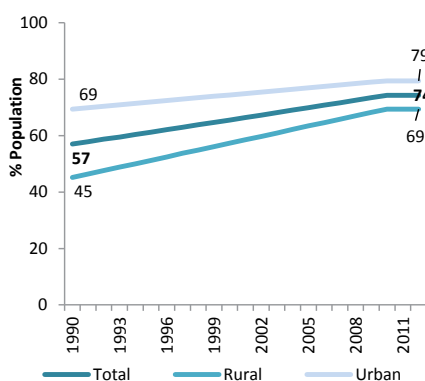
Food utilization refers both to household preparation practices of foods, which influence nutrient content of consumed foods, and to the absorption of nutrients by the human body after consumption. Nutrient absorption in the gut is strongly influenced by health status, particularly the presence of diarrhoea. Hygienic environmental conditions related to improved water and sanitation are important determinants of health and infection incidence and prevalence. In Philippines, water and sanitation conditions have improved during the past 20 years, resulting in a decrease in diarrhoea prevalence. These improvements have contributed to the reduction in malnutrition among under-5 children shown in Fig 1.3. At the same time, coverage of improved management of diarrhoea with zinc supplementation is still too low to have a notable impact.

Water and Sanitation

Figure 3.1 Access to Improved Sanitation

From 1990 to 2012:

- Access to improved sanitation increased 30% in 22 years
- Disparities in access between rural and urban areas have decreased (from 24% to 10%)
- 26% of people do not have access to improved sanitation

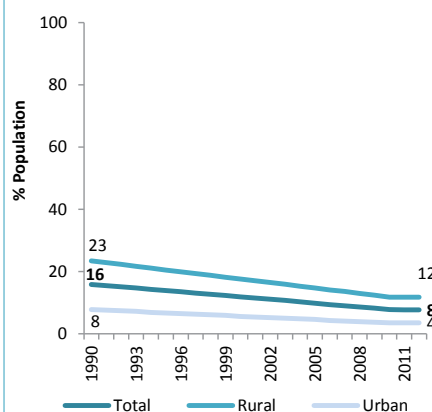


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.2 Open Defecation

From 1990 to 2012:

- Open defecation decreased 51% in 22 years
- In rural areas (12%) this unhygienic practice is three times more common than in urban areas (4%).

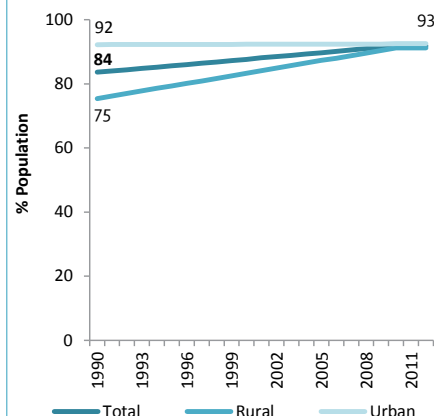


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.3 Access to Improved Water Sources

From 1990 to 2012:

- Disparities in access to improved water sources between urban and rural areas have been essentially overcome
- At least 92% of people have sustainable access to improved water



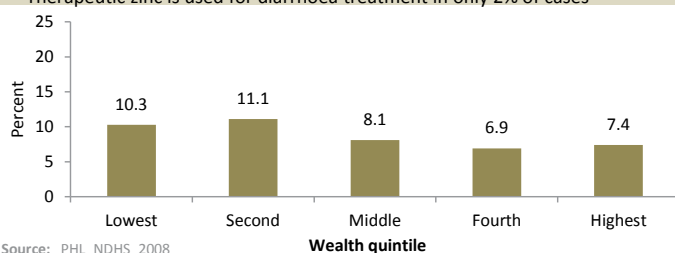
Source: WHO-UNICEF Joint Monitoring Programme, 2014

Food Safety

Quality and food safety efforts cover the entire complex chain of agriculture production, processing, transport, and food production and consumption. On the production side, food safety challenges exist at farm level and in the processing stage. On the consumption side, the prevalence of diarrhoea among under-5 children is relatively low for all wealth quintiles (Fig 3.4), even as food contaminants remain a challenge.

Figure 3.4 Diarrhoea

- Diarrhoea among young children is most common in the poorest wealth quintiles, reflecting disparities in sanitation as well as in general hygiene and food safety
- Therapeutic zinc is used for diarrhoea treatment in only 2% of cases



Source: PHL_NDHS_2008

Management of Diarrhoea (Table 3.1)

Therapeutic zinc supplementation for diarrhoea treatment was only recently introduced, and coverage was still low during the latest national survey (2008).

Zinc

| | |
|---|------|
| Share of children under age 5 with diarrhoea receiving zinc treatment | 1.5% |
|---|------|

Existing policy framework

Zinc Supplementation and Reformulated Oral Rehydration Salt in the Management of Diarrhea

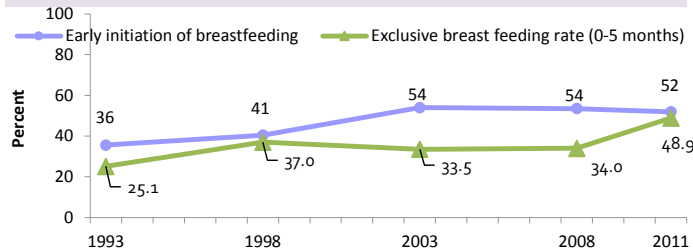
Source: PHL_NDHS_2008

Food Utilization

Nutrition and Health

Figure 3.5 Exclusive Breastfeeding From 1993 to 2008:

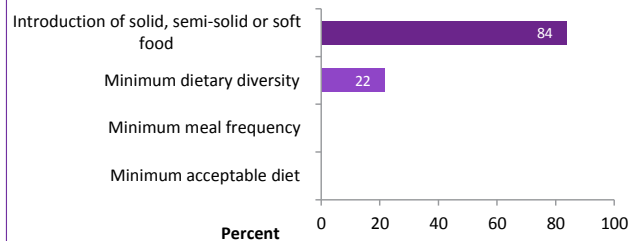
- Exclusive breastfeeding increased from 25% to 34%. Nevertheless, about two-thirds of infants younger than 6 months old were not exclusively breastfed.
- Early initiation of breastfeeding (54%) is correlated with lower infant mortality and relatively prolonged breastfeeding.



Source: PHL_NDHS_2008, Nutritional Survey 2011

Figure 3.6 Complementary Feeding

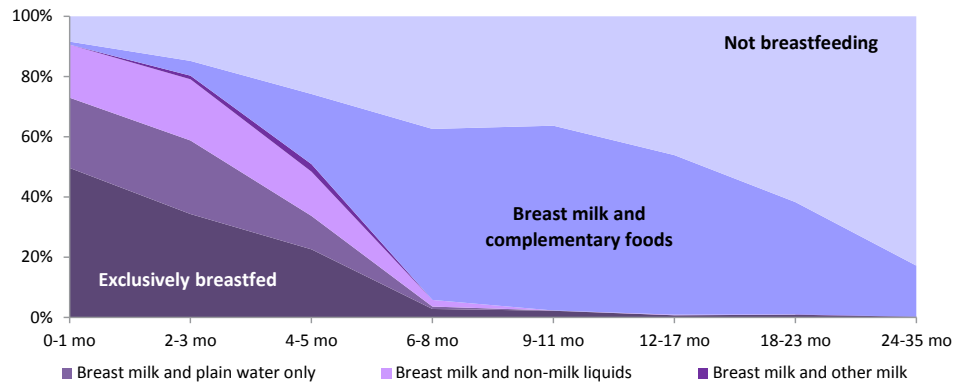
- Introduction of complementary feeding is timely for 84% of children
- 22% of children aged 6-23 months meet the minimum dietary diversity



Source: FNRI_DOST Updating survey 2011

Figure 3.7 Duration of Breastfeeding

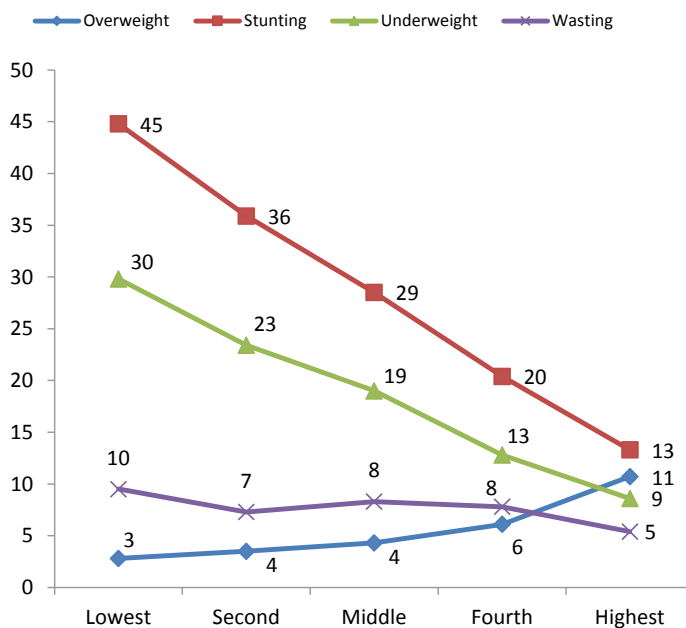
- Duration and frequency of breastfeeding affect the health and nutritional status of both mother and child.
- Exclusive breastfeeding is recommended up to age 6 months, and continued breastfeeding with complementary feeding is recommended from age 6 months to 2 years and beyond
- The proportion of children receiving any breastmilk declines from 63% at age 6-8 months to 38% at age 1.5-2 years



Source: PHL_NDHS_2008

Figure 3.8 Child Malnutrition and Poverty

- Children in the lowest wealth quintile are 3.5 times more likely to be stunted than children in the highest quintile, while the wealthiest children are 3.6 times more likely to be overweight than the poorest.

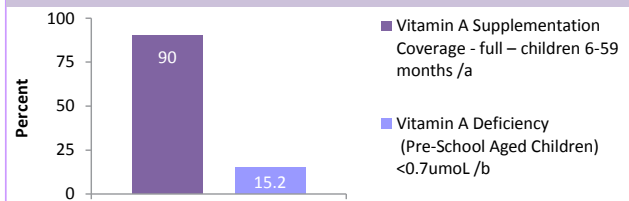


Source: 8th National Nutrition Survey, FNRI 2013

Micronutrient Status

Figure 3.9 Vitamin A

- Successful Vitamin A supplementation (90%) is a likely contributor to the observed reductions in child mortality
- Vitamin A deficiency in preschool children recently declined (from 40% in 2003 to 15% in 2008). Continued supplementation and food-based interventions, including food fortification, deserve ongoing attention. Vitamin A deficiency is the leading preventable cause of paediatric blindness and increases the mortality risk of episodes of



* VAD is a severe public health problem if >20% of preschool children (6-71 months) have low serum retinol (<0.7µmol/L)

Source: a/ UNICEF, State of the World's Children 2014, b/ 7th National Nutrition Survey 2008, FNRI

Iodine (Table 3.2)

| | |
|---|--------|
| Households consuming adequately iodized salt /a | 44.5 % |
| Iodine deficiency (Urinary Iodine Concentration <100µg/L) among school-age children (2003) /b | 23.8 % |

*Optimal UIC 100 - 199µg/L

Source: a/ UNICEF State of the World's Children 2014 b/WHO Global database on iodine deficiency



Policy Table - 1

| Enabling environment for Nutrition and Food security - Policy documents | | | |
|---|---|------------------------------|---|
| <p>1. AO No. 2008-00201 Strategy for maternal and new-born child health and nutrition (MNCHN) 2008-2014, Department of Health 2008 M&E by Department of Health; Existing legislation monitored and enforced – Monitors Guide to the Milk Code Department Circular 2009-0228</p> | | | |
| <p>2. AO No. 2005-0014: National Policies on Infant and Young Child Feeding Nationwide implementation involving government and other partners agencies</p> | | | |
| <p>3. AO No. 2010-0010: Revised Policy on Micronutrient Supplementation Nationwide implementation. Policy includes general guidelines specifying the roles and responsibilities of different concerned agencies. Department of Health is tasked for the overall execution of the policy.</p> | | | |
| <p>4. AO No. 2007-0045 Zinc Supplementation and Reformulated Oral Rehydration Salts in the Management of Diarrhoea, Department of Health 2007 M&E by Department of Health; nationwide implementation ongoing. Policy includes scope and coverage by all Government health agencies as well as private and other health facilities.</p> | | | |
| <p>5. Philippine Code of Marketing of Breastmilk Substitutes (E.O. 51), Administrative Order 2006-0012 (Revised Implementing Rules and Regulations of Executive Order No. 51m (The "Milk Code", Relevant International Agreements, Penalizing, 15-05-06), and Expanded Breastfeeding Promotion Act of 2009 (RA 10028). A bill was filed in 2012 before the House of Representatives seeking to amend the Milk Code (known as Executive Order 51) and the Expanded Breastfeeding Promotion Act of 2009, also known as Republic Act 10028. The bill seeks to limit application of the law to infants aged 0 to 6 months instead of 0-36 months.</p> | | | |
| <p>6. NNC Governing Board Resolution No. 1 Series of 2009, National Policy on Nutrition Management in Emergencies and Disasters Covers interventions during emergencies, i.e. infant and young child feeding, vitamin A supplementation and management of acute malnutrition.</p> | | | |
| Nutrition related issues covered in these policies | Covered | Comments | |
| Maternal and Child Undernutrition | Child undernutrition | Yes | Covering stunting, wasting and underweight Universal health care, conditional cash transfers, growth monitoring and promotion, acute malnutrition management and Infant and Young Child Feeding are strategies to manage and prevent undernutrition. Moderate acute malnutrition/severe acute malnutrition (MAM/SAM) management guidelines (draft 2011; still to be formalized), localized community-based management Interim guidelines for integrated management of acute malnutrition for piloting |
| | Low Birth Weight | Yes | |
| | Maternal undernutrition | Yes | |
| Obesity and diet related NCDs | Child obesity | Yes | National Guidelines published by FNRI including overweight and obesity in its contents |
| | Adult obesity | Yes | |
| | Diet related NCDs | Yes | |
| Infant and Young Child Nutrition | Breastfeeding | Yes | Infant and Young Child Feeding (IYCF) policy and guidelines approved 2005; guidelines for emergency IYCF 2010 Promotion of breastfeeding Implemented at national scale Behaviour change communication and/or counselling for improved complementary feeding implemented at national scale |
| | Complementary feeding | Yes | |
| | Int'l Code of Marketing of BMS | Yes | |
| Vitamins and Minerals | Supplementation: Vitamin A children/women Iron Folate children/women Zinc children Other vitamins & min child/women | Both Both Yes Child | Deworming of children 6-59 mo. is implemented nationwide as part of child health weeks Vitamin and mineral supplementation is implemented nationwide based on 2005 guidelines, Diarrhoea management guidelines, including zinc, approved 2007 |
| | Food fortification | Yes | |
| Underlying and contextual factors | Food Safety | Yes | Mandatory (nationwide): Salt, Flour, Rice, Oil, Sugar. Review of RA 8172 Promoting Salt Iodization Nationwide and for related Purposes is complete, resulting in a draft amended RA 8172. Review of RA 8976 Food Fortification Law reviewing mandatory food fortification in complete, but limiting coverage of mandatory food fortification requires enactment of the law. Food Safety Act of 2013 (RA 10611) was approved in Senate in July 2012. Emergency rice supplies and mechanisms in place to ensure availability and price stability during disasters and calamities. Primary health care programmes such as EPI, WASH, Accelerated Hunger Mitigation programmes, mixed small scale food crop, gender mainstreaming address underlying factors of malnutrition Nursing breaks after return to work for at least 40 minutes per day. |
| | Food security | Yes | |
| | Food Aid | Yes | |
| | Nutrition and Infection | Yes | |
| | Gender | No | |
| Maternal leave | 8 weeks | | |
| Social Protection policies or legislation including food or nutrition component | | | |
| <p>1. Pantawid Pamilya (Poverty Reduction Strategy – Conditional Cash Transfers) - 2010 Conditional cash transfer reaching 3 million out of 5 million of the registered poor, conditionality's comprising primary health care for pregnant women and children; key household members have to attend Family Development Sessions regularly, including nutrition information and Infant and Young Child Feeding community counselling, as part of the materials on nutrition education.</p> | | | |
| <p>2. Magna Carta Of Women IRR Republic Act 9710, 2009 Legal instrument that protect the rights of women in line with UN CEDAW, ensuring that women especially in marginalized sectors have food security and access to production resources, etc. Implementation is mandate of all state agencies, offices, and institutions at all levels.</p> | | | |



Policy Table - 2

| Food safety policies or legislation |
|--|
| <p>1. Food Safety Act of 2013.</p> <p>Act to strengthen the food safety regulatory system in the country to protect consumer health and facilitate market access of local foods and food products, and for other purposes.</p> |
| Other policies addressing food security |
| <p>1. National Food Authority: Emergency Rice Reserves for Disaster and Crisis Preparedness Program – Presidential Decree Circular No. 4</p> <p>Provides 13% market-share of rice at subsidised price; aims to ensure rice availability during disasters. Discoloration due to iron fortification reduces demand; largest consumer sector is institutional sector rather than poor households where anaemia prevalence is high.</p> |

| Demographic Indicators (Table - 5.1) | | Year | | Economic Indicators (Table - 5.3) | | Year | |
|--|--------|-----------|-------------|--|----------------|---------|------|
| Population size (thousands) /a | 96,707 | 2012 | | GDP annual growth rate /c | 6.8 % | 2012 | |
| Average annual population growth /a | 1.72 % | 2012 | | GDP per capita (PPP) (constant 2011 international dollars) /c | 6,005 | 2012 | |
| Proportion of population urbanised /c | 49.1 % | 2012 | | | | | |
| Number of children <5 years (thousand) /a | 11,307 | 2012 | | Gini index /c (100= complete inequality; 0= complete equality) | 42.98 | 2009 | |
| Education level of mothers of under-fives: None (%) | 2 | 2011 | | | 44.04 | 2006 | |
| Life expectancy at birth (Years) /c | Male | 65 | 2012 | Unemployment rate /c | 7 % | 2012 | |
| | Female | 72.1 | 2012 | | | | |
| Agriculture population density(people/ ha of arable land /b) | 3.1 | 2006-2008 | | Population below US \$ 1.25 (PPP) per day /c (%) | 18.42 | 2009 | |
| Employment in agriculture sector (% of total employment) /c | 32.2 % | 2012 | | | | | |
| Women employed in agriculture sector (% of total female employment) /c | 21 % | 2012 | | Poverty gap ratio /e | 5.5 | 2006 | |
| Adolescents (Table - 5.2) | | | Year | | | | |
| Adolescent birth rate (number of births per 1,000 adolescent girls aged 15-19) /a | 47 | 2012 | | Income share held by households /c | Poorest 20% | 5.98 % | 2009 |
| Adolescent girls aged 15-19 currently married or in union /d | 10.3 % | 2008 | | | Richest 20% | 49.69 % | 2009 |
| Women aged 20-24 who gave birth before age 18 /d (%) | 7 | 2008-2012 | | <p>Sources:</p> <p>a/ World Bank Health Nutrition and Population Statistics 2013</p> <p>b/ FAOSTAT 2013 Update;</p> <p>c/ World Bank, World Development Indicators Database, 2014 Update;</p> <p>d/ UNICEF, State of the World Children 2014 (data refer to the most recent year available during the period specified) ;</p> <p>e/ UN Statistics Division, MDG database 2013 Update.</p> <p>f/ FNRI-DOTS Philippines Nutrition Facts and Figures 2011</p> | | | |

The information included in this Food Security and Nutrition Security Profile is backed by recognized, validated and properly published information available until June 2014. Although updated information might be available at national level from different sources, until requirements of quality, validity and proper publication are met, it has not been included in this profile.

Key Indicators

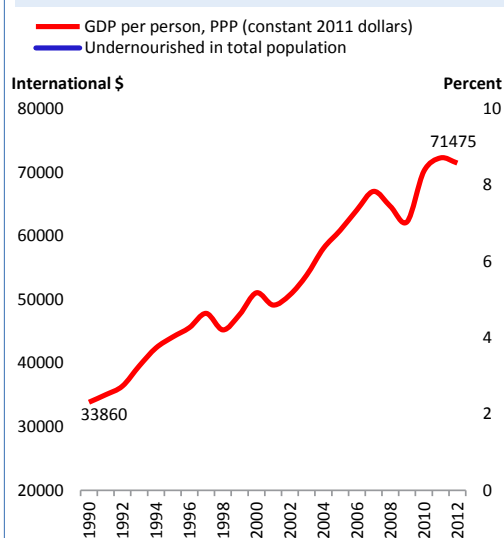
- Per capita GDP has continued on an upwards trend and is the highest in the region. Nutritional outcomes are satisfactory with low levels of stunting and underweight. Singapore has already attained the child mortality Millennium Development Goal (MDG).
- Nevertheless, overweight and obesity are public health issues that need to be addressed, given that four out of ten adults in Singapore are overweight. Public policies need to be reinforced to promote physical activity and prevent overweight and obesity.

Figure 1.1 Food Availability

No Data

Figure 1.2 Undernourishment and Economic Growth From 1990-2012:

- GDP per capita increased 111%



Source: GDP: WDI 2014/ Undernourished: FAO FSI, 2013

Figure 1.3 Child Malnutrition

- Stunting 4%, underweight 3% and wasting 4%, all considered low by World Health Organization (WHO) standards

- Overweight 3%
- Low Birth Weight 8% in 2000



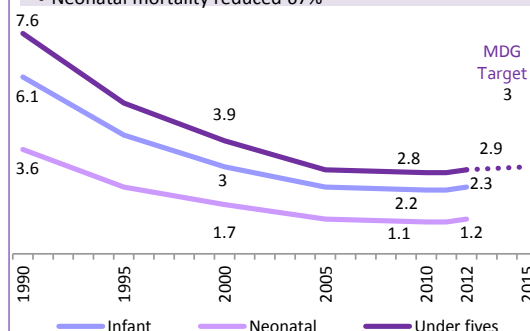
2000

Source: WHO Global Database on Child Growth and Malnutrition 2013

Figure 1.4 Child Mortality

From 1990 to 2010:

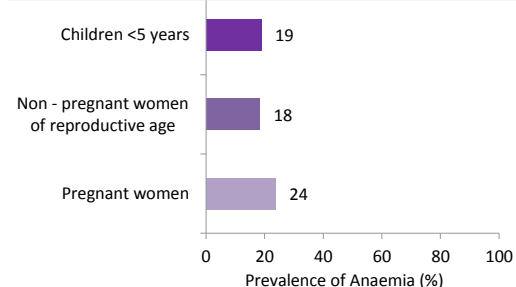
- Under-5 mortality reduced 62%, aligned to the MDG target
- Infant mortality reduced 62%
- Neonatal mortality reduced 67%



Source: Inter-agency Group for CME (2013)

Figure 1.5 Anaemia

- Anaemia is a public health issue among pregnant women (24%), non-pregnant women (18%) and under-5 children alike (19%)



Source: WHO Worldwide prevalence of Anaemia (1993-2005)

Anthropometry (Table 1.1)

| | | |
|--|--------|------|
| Underweight women (BMI < 18.5 kg/m ²) | 8.2 % | 2010 |
| Overweight adults (BMI >= 25 kg/m ²) | 40.1 % | 2010 |
| * BMI values calculated using adult cut off points, population < 20 should be analyzed using WHO growth reference for school aged children and adolescents | | |
| Proportion of infants with low birth weight | 8 % | 2000 |

Source: National Health Survey 2010/ SOWC 2014 (LBW)

Food Availability / Food Access

Singapore has developed a multi-pronged approach to its own food security. Its core strategies for food security focus on diversification of its food sources, stockpiling, as well as local production to provide a buffer in times of sudden import disruptions. Imports of rice are managed through a strategic reserve under which licensed importers are required to stockpile rice equivalent to twice their monthly import quantity. Due to land constraints in Singapore, agricultural innovation is promoted to enhance farming technology and increase productivity. Public-private partnerships are also forged to support these strategies.

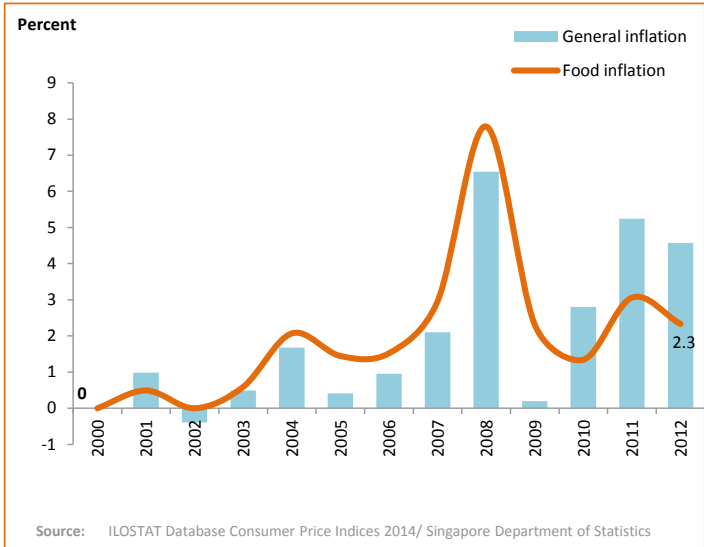
Food Availability

Figure 2.1 Food supply by food group

No Data

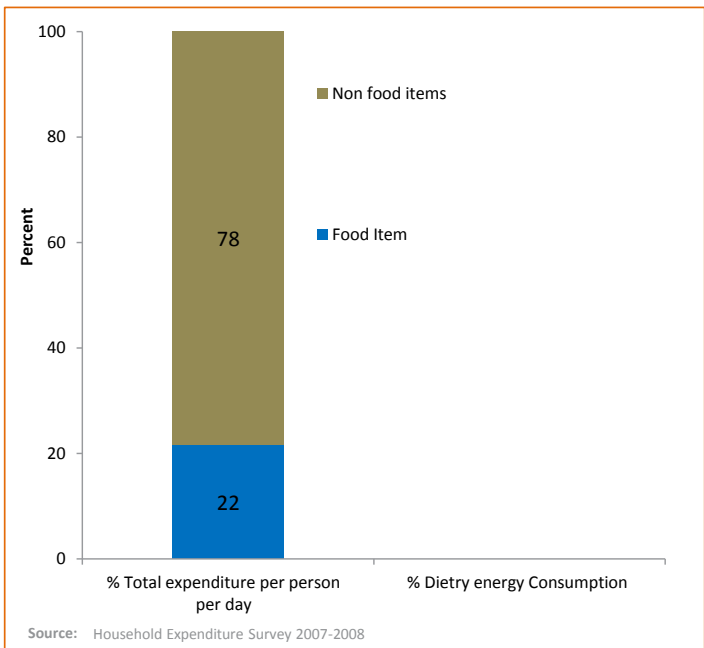
Access to food

Figure 2.2 Economic access to food
General and food inflation



Food inflation and general inflation are correlated

Figure 2.3 Share of food expenditure



Food Utilization

Singapore has sustained access to improved sanitation and water sources for all the population.

Water and Sanitation

Figure 3.1 Access to Improved Sanitation

- According to Singapore Ministry of the Environment and Water Resources, Key Environmental Statistics 2013, 100% of households have sustained access to improved sanitation in 2012.

Figure 3.2 Open Defecation

Figure 3.3 Access to Improved Water Sources

- According to Singapore Ministry of the Environment and Water Resources, Key Environmental Statistics 2013, 100% of households have sustained access to improved water sources in 2012.

Food Safety

Singapore has in place an integrated food safety system and adopts a science-based risk analysis approach that is based on international standards to ensure all locally produced and imported food products are safe for consumption. This system involves accreditation at source, certification, inspection and testing, and a reliable traceability system. Robust monitoring and inspection programmes are also put in place to ensure that international standards are maintained.

At the retail level, any food for sale to the public must be prepared at a licensed food premises. These licensed premises are routinely inspected to ensure that food is prepared hygienically.

Figure 3.4 Diarrhoea

No Data

Management of Diarrhoea (Table 3.1)

Zinc

| | |
|---|---|
| Share of children under age 5 with diarrhoea receiving zinc treatment | - |
|---|---|

Existing policy framework

Zinc Supplementation and Reformulated Oral Rehydration Salt in the Management of Diarrhea

Source:

Food Utilization

Nutrition and Health

Figure 3.5 Exclusive Breastfeeding

No Data

Figure 3.6 Complementary Feeding

No Data

Figure 3.7 Duration of Breastfeeding

Health Promotion Board (HPB) in Singapore recommends that infants should be exclusively breastfed (i.e. the infant is given only breast milk with no other food or fluids, even water) during the first six months of life. Solid food can be introduced at seven months of age, and breastfeeding should continue till the child is 12 months old and thereafter as long as mutually desired.

No Data

Figure 3.8 Child Malnutrition and Poverty

No Data

Micronutrient Status

Figure 3.9 Vitamin A

No Data

Iodine (Table 3.2)

| | |
|---|---|
| Households consuming adequately iodized salt | - |
| Iodine deficiency (Urinary Iodine Concentration <100µg/L) among school-age children | - |

*Optimal UIC 100 - 199µg/L

Source:

| Enabling environment for Nutrition and Food security - Policy documents | | | |
|---|----------------------------------|-----------|---|
| 1. Holistic Health Framework | | | |
| Ministry of Education: http://www.moe.gov.sg/education/programmes/holistic-health-framework/ | | | |
| 2. Healthier Choice Symbol Programme | | | |
| Health Promotion Board: National food-based dietary guidelines for adults were first developed in 1988 and were reviewed in 1993 and 2002. The food-based dietary guidelines for children and adolescents aged 0-18 years were developed and released in 2007... http://www.hpb.gov.sg/foodforhealth/article.aspx?id=2780&specialgroup=Food+%26+Beverage+Industry | | | |
| 3. Medisave for Chronic Disease Management Programme | | | |
| Ministry of Health http://www.hpb.gov.sg/chronicdisease/ | | | |
| 4. Code of Ethics for the Sale of Infant Foods in Singapore | | | |
| M&E by Sale of Infant Foods Ethics Committee Singapore (SIFECs) | | | |
| 5. Healthier Hawker Food Programme | | | |
| Health Promotion Board Document web-link: http://www.hpb.gov.sg/foodforhealth/article.aspx?id=2784&specialgroup=Food+%26+Beverage+Industry | | | |
| Nutrition related issues covered in these policies | | Covered | Comments |
| Maternal and Child Undernutrition | Child undernutrition | no | Information is routinely collected on birth weight, child growth, and anaemia in pregnant women, mainly through medical/health records. School-going children (7-18 years old) are routinely screened to assess their growth and development. |
| | Low Birth Weight | | |
| | Maternal undernutrition | | |
| Obesity and diet related NCDs | Child obesity | both | |
| | Adult obesity | yes | |
| | Diet related NCDs | | |
| Infant and Young Child Nutrition | Breastfeeding | no | Infant and Young Child Feeding guidelines updated in 2012; draft awaiting final approval at time of research |
| | Complementary feeding | no | |
| | Int'l Code of Marketing of BMS | Voluntary | |
| Vitamins and Minerals | Supplementation: | | Voluntary : Salt |
| | Vitamin A children/women | no | |
| | Iron Folate children/women | no | |
| | Zinc children | no | |
| | Other vitamins & min child/women | no | |
| | Food fortification | yes | |
| Underlying and contextual factors | Food Safety | yes | Maternity leave is paid at 66% of wages; |
| | Food security | yes | |
| | Food Aid | yes | |
| | Nutrition and Infection | yes | |
| | Gender | no | |
| | Maternal leave | 16 weeks | |
| Social Protection policies or legislation including food or nutrition component | | | |
| Food safety policies or legislation | | | |
| 1. Environmental Public Health Act (chapter 95) 1987 (revised edition 2002) and the Environmental Public Health (Food Hygiene) Regulations (revised edition 2000) | | | |
| 2. Sale of Food Act (Chapter 283) and related subsidiary legislation (e.g. Food Regulations (Revised Edition 2005)) http://www.ava.gov.sg/NR/rdonlyres/0CA18578-7610-4917-BB67-C7DF4B96504B/17820/51web_SaleofFoodAct1.pdf | | | |
| 3. Wholesome Meat & Fish Act (Chapter 349A) and related subsidiary legislation (e.g. Wholesome Meat and Fish (Import, Export and Transhipment) Rules (Revised Edition 2001)) http://www.ava.gov.sg/NR/rdonlyres/0CA18578-7610-4917-BB67-C7DF4B96504B/17826/57web_WholesomeMeatandFishAct.pdf | | | |
| 4. Control of Plants Act (Chapter 57A) and related subsidiary legislation (e.g. Control of Plants (Import and Transhipment of Fresh Fruits and Vegetables) Rules (Revised Edition 2006)) http://www.ava.gov.sg/NR/rdonlyres/0CA18578-7610-4917-BB67-C7DF4B96504B/17790/23web_COPAct.pdf | | | |
| 5. Animal & Birds Act (Chapter 7) and related subsidiary legislation e.g. Animals and birds (Licensing of Farms) Rules (Revised Edition 2004)). http://www.ava.gov.sg/NR/rdonlyres/0CA18578-7610-4917-BB67-C7DF4B96504B/17773/7web_ABAct.pdf | | | |

| Other policies addressing food security | |
|---|--|
| 1. Singapore's Food Security Roadmap | |
| 2. Fisheries Act (Chapter 111) http://www.ava.gov.sg/NR/rdonlyres/OCA18578-7610-4917-BB67-C7DF4B96504B/17810/43web_FisheriesAct.pdf | |

| Demographic Indicators (Table - 5.1) | | Year | Economic Indicators (Table - 5.3) | | Year | |
|--|--------|-------------|--|---|----------------|-------|
| Population size (thousands) /a | 5,312 | 2012 | GDP annual growth rate /c | 1.32 % | 2012 | |
| Average annual population growth | 2.45 % | 2012 | GDP per capita (PPP) (constant 2011 international dollars) /c | 71,475 | 2012 | |
| Proportion of population urbanised | 100 % | 2012 | | | | |
| Number of children <5 years (thousand) | 272 | 2012 | Gini index /c (100= complete inequality; 0= complete equality) | 43 | 1998 | |
| Education level of mothers of under-fives: None (%) | - | - | | - | - | |
| Life expectancy at birth (Years) /a | Male | 80 | 2012 | Unemployment rate /c | 2.8 % | 2012 |
| | Female | 84.5 | 2012 | Population below US \$ 1.25 (PPP) per day /c (%) | - | - |
| Agriculture population density(people/ ha of arable land /b) | 5.0 | 2006-2008 | Poverty gap ratio /e | | - | - |
| Employment in agriculture sector (% of total employment) /c | 1.1 % | 2009 | | Income share held by households /f | Poorest 20% | 4.9 % |
| Women employed in agriculture sector (% of total female employment) /c | 0.6 % | 2009 | Richest 20% | | 43.6 % | 2013 |
| Adolescents (Table - 5.2) | | Year | Sources: a/ World Bank, Health Nutrition and Population Statistics, 2013 update. b/ FAOSTAT 2013 Update; c/ World Bank, World Development Indicators Database, 2014 Update; d/ UNICEF, State of the World Children 2014 (data refer to the most recent year available during the period specified) ; e/ UN Statistics Division, MDG database 2013 Update. f/ Singapore, Ministry of Manpower, Department of Statistics 2013 | | | |
| Adolescent birth rate (number of births per 1,000 adolescent girls aged 15-19) /a | 6 | 2012 | | | | |
| Adolescent girls aged 15-19 currently married or in union /d | - | - | | | | |
| Women aged 20-24 who gave birth before age 18 /d (%) | - | - | | | | |

The information included in this Food Security and Nutrition Security Profile is backed by recognized, validated and properly published information available until June 2014. Although updated information might be available at national level from different sources, until requirements of quality, validity and proper publication are met, it has not been included in this profile.



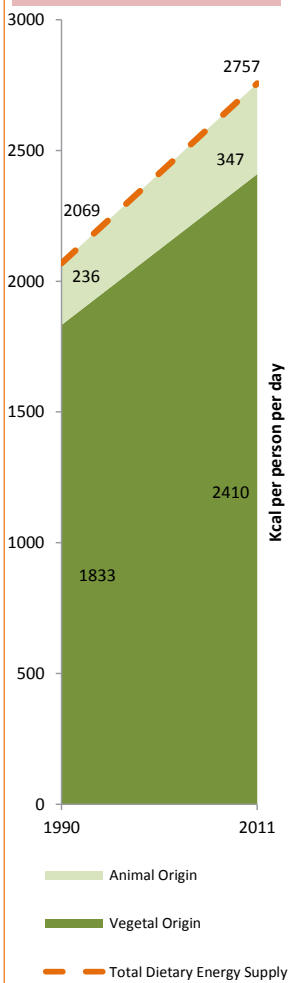
Key Indicators

- Thailand has an integrated framework for food and nutrition security, with a National Food Safety and Nutrition plan. The country has experienced rapid growth in per-capita GDP and Dietary Energy Supply (DES), as well as a sustained decline in undernourishment rates.
- Thailand displays a declining trend in underweight and stunting. Nevertheless, an emerging issue is that of overweight, both for children and one third of the adult population. Anaemia and Vitamin A deficiencies continue to be matters of public health concern.
- The International Code of Marketing of Breastmilk Substitutes is being implemented on a voluntary basis, with a current review to strengthen legislation.

Figure 1.1 Food Availability

From 1990 to 2011:

- DES increased 33%
- Animal-origin supply increased 47%
- Vegetal-origin products increased 31% and remained the major DES source

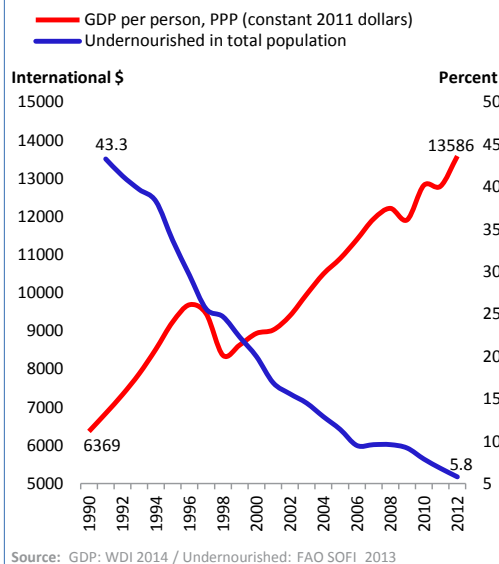


Source : FAOSTAT FBS: 2014 update

Figure 1.2 Undernourishment and Economic Growth

From 1990 to 2012:

- GDP per capita increased 113%
- Undernourishment declined by 87%

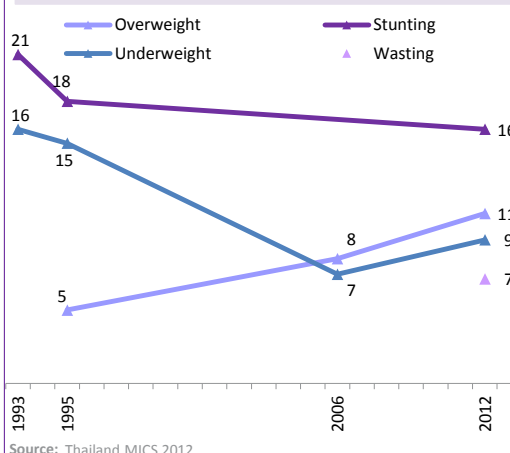


Source: GDP: WDI 2014 / Undernourished: FAO SOFI 2013

Figure 1.3 Child Malnutrition

From 1993 to 2012:

- Stunting declined 23%
- Underweight declined 44%
- Wasting stood at 7% in 2012
- Overweight increased 132% in 18 years

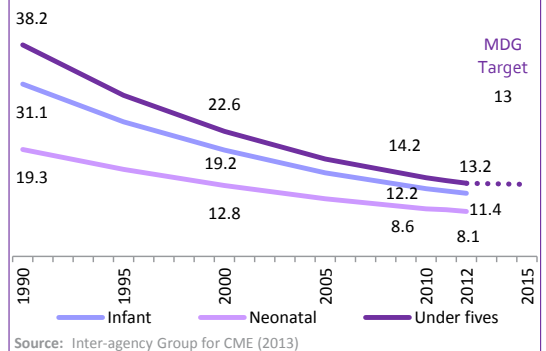


Source: Thailand MICS 2012

Figure 1.4 Child Mortality

From 1990 to 2010:

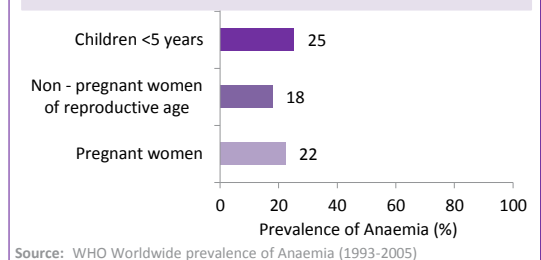
- Under-5 mortality reduced 65% and is set to achieve the Millennium Development Goal (MDG) target
- Infant mortality reduced 63%
- Neonatal mortality reduced 58%



Source: Inter-agency Group for CME (2013)

Figure 1.5 Anaemia

- Anaemia is a public health issue for pregnant women (22%), non-pregnant women (18%) and under-5 children alike (25%)



Source: WHO Worldwide prevalence of Anaemia (1993-2005)

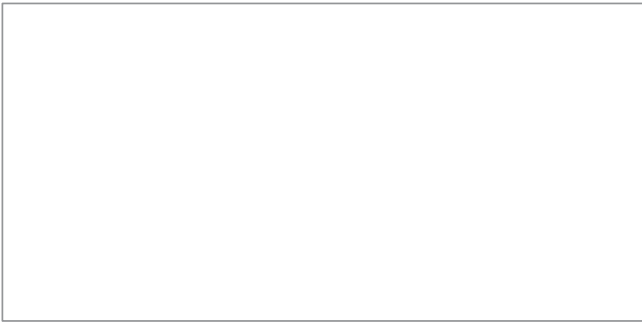
Anthropometry (Table 1.1)

| | | |
|--|--------|------|
| Underweight women (BMI < 18.5 kg/m ²) | 9.6 % | 2004 |
| Overweight adults (BMI >= 25 kg/m ²) | 31.5 % | 2003 |
| * BMI values calculated using adult cut off points, population < 20 should be analyzed using WHO growth reference for school aged children and adolescents | | |
| Proportion of infants with low birth weight | 7.6 % | 2012 |

Source: MICS 2012 / UN_WHO Global Database on BMI_2013



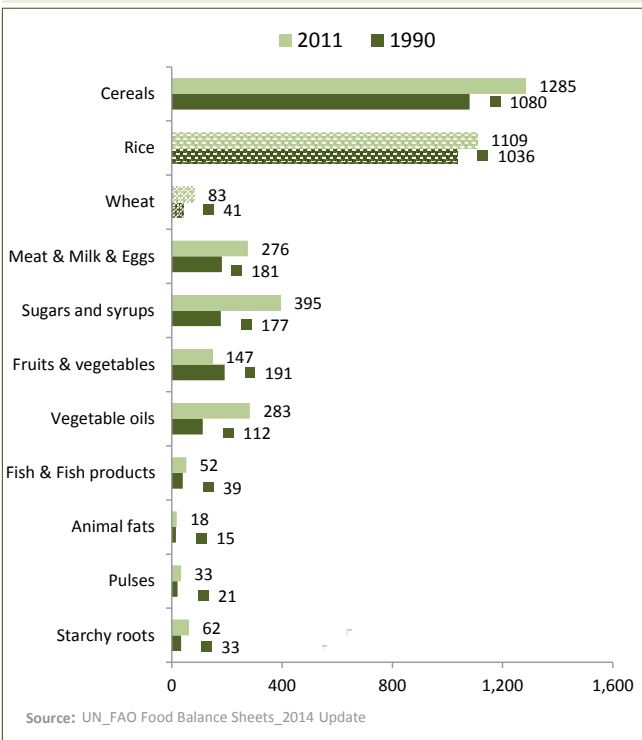
Food Availability / Food Access



Food Availability

Figure 2.1 Food supply by food group -

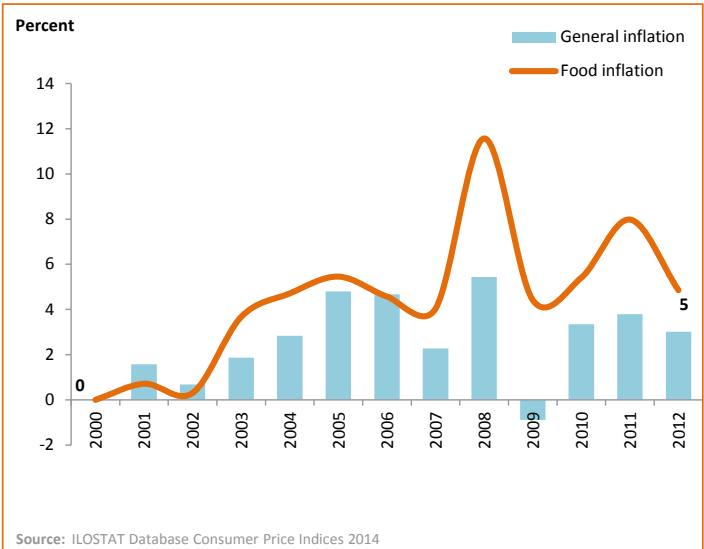
(kcal/person/year) Total dietary energy supply= 2,757 (2011)



- Cereals remain the most important source of food energy, and contribute to 52% of food intake, with rice representing 90% of these cereals
- Sugars and Syrups (123%) and vegetable Oils (153%) have increased considerably and are significant contributors to DES

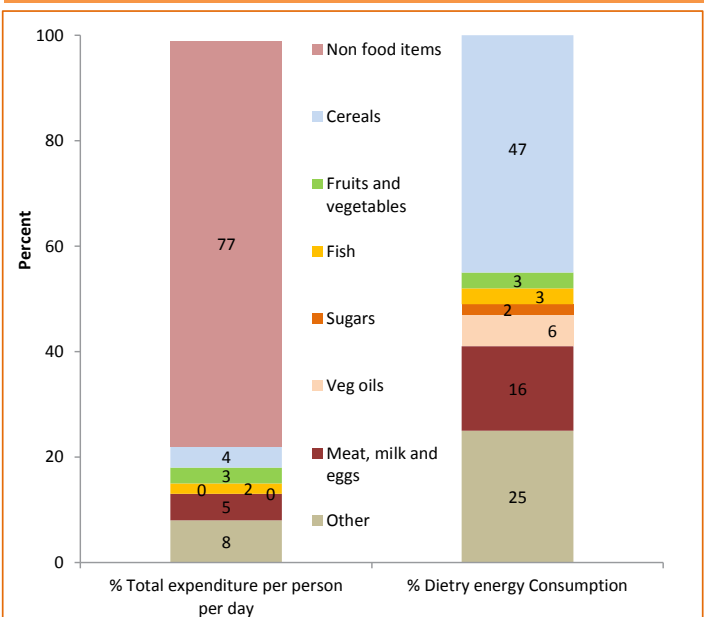
Access to food

Figure 2.2 Economic access to food
General and food inflation



- In 2008, during the global food crisis, food prices increased significantly more than general prices and continued that trend through 2012
- In 2011:
- Families generally spent more than 23% of their income on food
- While cereals contributed 47% of food intake, they only affected 4% of food expenditure at household level

Figure 2.3 Share of food expenditure (2011)





Food Utilization

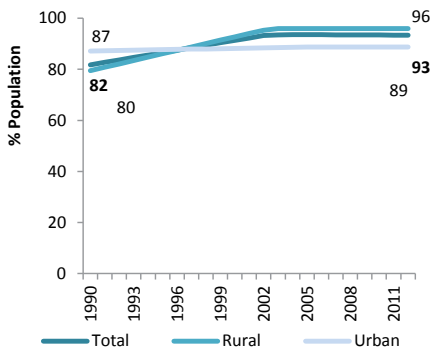
Food utilization refers both to household preparation practices of foods, which influence nutrient content of consumed foods, and to the absorption of nutrients by the human body after consumption. Nutrient absorption in the gut is strongly influenced by health status, particularly the presence of diarrhoea. Hygienic environmental conditions related to improved water and sanitation are important determinants of health and infection incidence and prevalence. In Thailand, improved water and sanitation conditions have been achieved during the past 20 years.

Water and Sanitation

Figure 3.1 Access to Improved Sanitation

From 1990 to 2012:

- Access to improved sanitation increased 14% in 22 years
- Disparities between rural and urban areas have been reversed; access is more frequent in rural than in urban areas
- 11% of houses in urban areas do not have proper sanitation

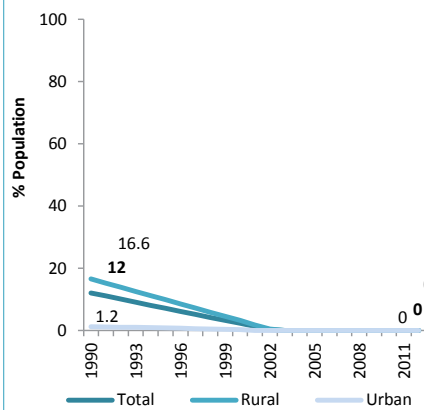


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.2 Open Defecation

From 1990 to 2012:

- No longer a development issue

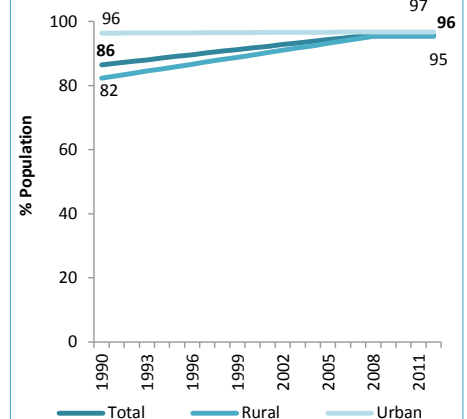


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.3 Access to Improved Water Sources

From 1990 to 2012:

- Disparities between urban and rural areas in access to improved water sources have essentially been solved
- At least 96% of people have sustainable access to improved water



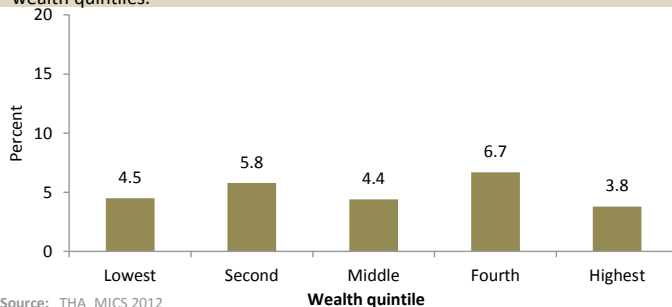
Source: WHO-UNICEF Joint Monitoring Programme, 2014

Food Safety

Quality and food safety efforts cover the entire complex chain of agriculture production, processing, transport, food production and consumption.

Figure 3.4 Diarrhoea

- Diarrhoea in young children is not a public health concern in any of the wealth quintiles.



Source: THA_MICS 2012

Management of Diarrhoea (Table 3.1)

Zinc

Share of children under age 5 with diarrhoea receiving zinc treatment

Existing policy framework

Zinc Supplementation and Reformulated Oral Rehydration Salt in the Management of Diarrhoea

Source:

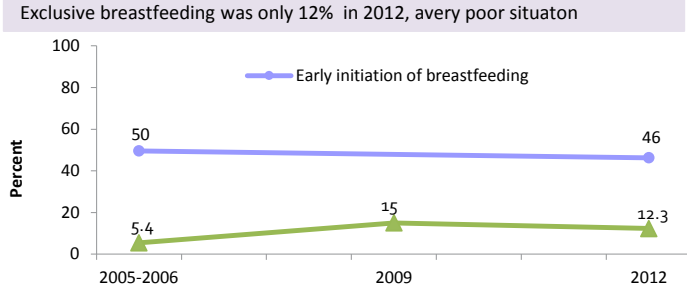


Food Utilization

Nutrition and Health

Figure 3.5 Exclusive Breastfeeding

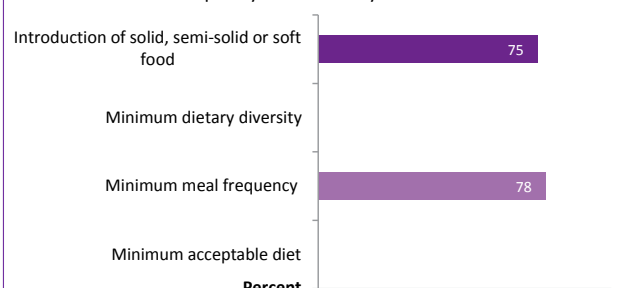
• Early initiation of breastfeeding is correlated with lower infant mortality and relatively prolonged breastfeeding. It has decreased to 46% in 2012 from 50% in 2005. (Remained far from optimal)
 Exclusive breastfeeding was only 12% in 2012, a very poor situation



Source: Thailand MICS 2012

Figure 3.6 Complementary Feeding

• Introduction of complementary feeding is timely for 3 out of 4 children
 • Minimum meal frequency is also met by 78% of children



Source: THA_MICS 2012

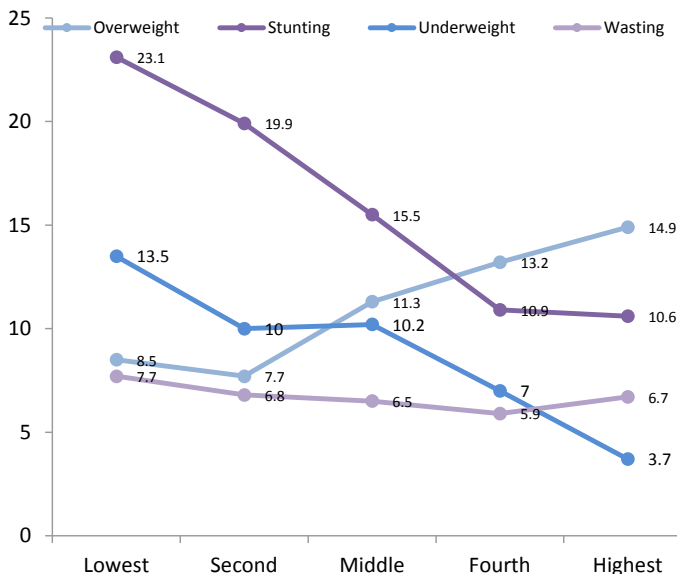
Figure 3.7 Duration of Breastfeeding

No Data

Figure 3.8 Child Malnutrition and Poverty

Underweight is 4 times more frequent in the lower wealth quintile than in the higher, and stunting is more than double in the poorer quintile than in the richest ones.

Overweight is nearly double in the richest quintile compared to the poorest ones.

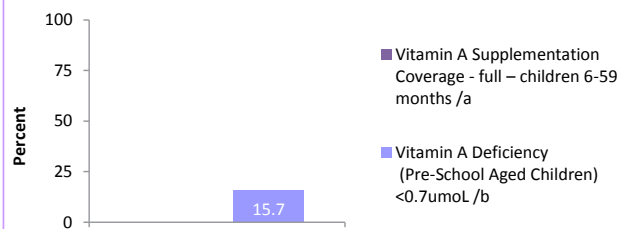


Source: Thailand MICS 2012

Micronutrient Status

Figure 3.9 Vitamin A

• Vitamin A deficiencies (16% of pre-schoolers) indicate that Vitamin A is still lacking in the daily diet, and that food-based interventions, including food fortification, deserve ongoing attention.



* VAD is a severe public health problem if >20% of preschool children (6-71 months) have low serum retinol (<0.7µmol/L)

Source: a/ UNICEF, State of the World's Children 2014,

b/ WHO Global prevalence of vitamin A deficiency in population at risk 1995-2005 report.

Iodine (Table 3.2)

| | |
|--|--------|
| Households consuming adequately iodized salt (2012)/a | 70.9 % |
| Iodine deficiency (Urinary Iodine Concentration <100µg/L) among school-age children (6-14 years old)/b | 24.3 % |

*Optimal UIC 100 - 199µg/L

Source: a/ Thailand MICS 2012 b/ Fourth National Health Examination Survey, 2008-09



Policy Table - 1

| Enabling environment for Nutrition and Food security - Policy documents addressing nutrition issues | | | |
|--|----------------------------------|----------|--|
| 1. Thailand Food Strategy 2010 | | | |
| Using a food-chain approach, the strategy addresses the continuum from agriculture to health | | | |
| 2. Thailand National Food Committee Act of 2008 | | | |
| Act covers food security, food safety, food quality and food education: committee chaired by prime minister and meeting at least twice a year: 11 related ministries, 30 national agencies, 30 relevant Acts; developed and approved the Food Strategy | | | |
| 3. National Food and Nutrition Plan | | | |
| Formulated to guarantee security and safety of food and nutrition through the establishment of the national food safety system. Policies focusing on the management of food system and food safety supervised by the newly established National Food Committee | | | |
| 4. Improving Nutritional Care: A Joint Action Plan from the Department of Health and Nutrition Summit stakeholders | | | |
| Monitoring by Nutrition Action Delivery Board http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_079931 | | | |
| Nutrition related issues covered in these policies | | Covered | Comments |
| Maternal and Child Undernutrition | Child undernutrition | yes | Only inpatient treatment of SAM |
| | Low Birth Weight | yes | |
| | Maternal undernutrition | yes | |
| Obesity and diet related NCDs | Child obesity | both | |
| | Adult obesity | | |
| | Diet related NCDs | yes | |
| Infant and Young Child Nutrition | Breastfeeding | yes | Voluntary agreement between government and business companies on adherence to Int'l Code on BMS; currently extensive review on BMS Code legislation to strengthen the Code |
| | Complementary feeding | ? | |
| | Int'l Code of Marketing of BMS | yes | |
| Vitamins and Minerals | Supplementation: | | Iron (and/or folate) supplementation in pregnant and lactating women; weekly dose of iron supplementation in children aged 6 months- 5 years old, and in school aged children 6-14 years old. Iodine supplementation in pregnant and lactating women (for 6 months after delivery). |
| | Vitamin A children/women | ? | |
| | Iron Folate children/women | yes | |
| | Zinc children | ? | |
| | Other vitamins & min child/women | yes | |
| | Food fortification | yes | Iodization of salt, fish sauce, soya sauce and salt brine made mandatory in 2011 |
| Underlying and contextual factors | Food Safety | yes | Policies promote a multi-sectorial approach to nutrition |
| | Food security | yes | |
| | Food Aid | ? | |
| | Nutrition and Infection | ? | |
| | Gender | ? | Payment after first 45 days is 50%; National Health Assembly approved maternity leave period to be doubled to 6 months, but legislation is pending. |
| | Maternal leave | 12 weeks | No provisions for nursing breaks or childcare after return to work. |
| Social Protection policies or legislation including food or nutrition component | | | |
| 1. Five-Year Social Welfare Strategies (2007-2011) | | | |
| The ultimate goal is to lead the country to balanced and sustainable development. The Second Strategic Plan (2012-2016) remains to be approved at the time of research; it seeks to empower society and expand the country's social security system to cover all groups of Thai people, especially those in the non-formal sector groups of Thai people, especially those in the non-formal sector | | | |
| 2. Social Welfare Promotion Act 2003 (revised 2007) | | | |
| Food safety policies or legislation | | | |
| 1. Food Act (B.E. 2522) 1979 | | | |
| Minister of Public Health is designated by law to be in charge of the execution, specifically the Food and Drug Administration and the Provincial Offices of Public Health are responsible for legal food control operations; Act covers matters relative to food safety and hygiene, food production, trade in food, and there administration | | | |
| Other policies addressing food security | | | |
| 1. Thailand Food Strategy 2010 | | | |
| Using a food chain approach the strategy address the continuum from agriculture to health... | | | |
| 2. Thailand National Food Committee Act of 2008 | | | |
| Act covers food security, food safety, food quality and food education: committee chaired by prime minister and meeting at least twice a year: 11 related ministries, 30 national agencies, 30 relevant Acts; developed and approved the Food Strategy | | | |



Policy Table - 2



| Demographic Indicators (Table - 5.1) | | Year | Economic Indicators (Table - 5.3) | | Year | |
|--|--------|-------------|---|---|---------|------|
| Population size (thousands) /a | 66,785 | 2012 | GDP annual growth rate /c | 6.49 % | 2012 | |
| Average annual population growth/a | 0.31 % | 2012 | GDP per capita (PPP) (constant 2011 international dollars) /c | 13,586 | 2012 | |
| Proportion of population urbanised/c | 34.5 % | 2012 | | | | |
| Number of children <5 years (thousand) | 3,730 | 2012 | Gini index /c (100= complete inequality; 0= complete equality) | 39.37 | 2010 | |
| Education level of mothers of under-fives: None (%) /f | 4 | 2012 | | 40.02 | 2009 | |
| Life expectancy at birth (Years) /c | Male | 71 | 2012 | Unemployment rate /c | 0.69 % | 2012 |
| | Female | 77.6 | 2012 | Population below US \$ 1.25 (PPP) per day /c (%) | 0.38 | 2010 |
| Agriculture population density(people/ ha of arable land /b) | 1.5 | 2006-2008 | | | | |
| Employment in agriculture sector (% of total employment) /c | 39.6 % | 2012 | Poverty gap ratio /e | 2 | 2009 | |
| Women employed in agriculture sector (% of total female employment) /c | 37.8 % | 2012 | Income share held by households /c | Poorest 20% | 6.76 % | 2010 |
| Adolescents (Table - 5.2) | | Year | | Richest 20% | 46.67 % | 2010 |
| Adolescent birth rate (number of births per 1,000 adolescent girls aged 15-19) /a | 41 | 2012 | Sources: a/ World Bank Health Nutrition and Population Statistics 2013 b/ FAOSTAT 2013 Update; c/ World Bank, World Development Indicators Database, 2014 Update; d/ UNICEF, State of the World Children 2014 (data refer to the most recent year available during the period specified) ; e/ UN Statistics Division, MDG database 2013 Update. f/ Thailand Multiple Indicator Cluster Survey 2012 | | | |
| Adolescent girls aged 15-19 currently married or in union /d | 14.6 % | 2008-2012 | | | | |
| Women aged 20-24 who gave birth before age 18 /d (%) | 47 | 2008-2011 | | | | |

The information included in this Food Security and Nutrition Security Profile is backed by recognized, validated and properly published information available until June 2014. Although updated information might be available at national level from different sources, until requirements of quality, validity and proper publication are met, it has not been included in this profile.

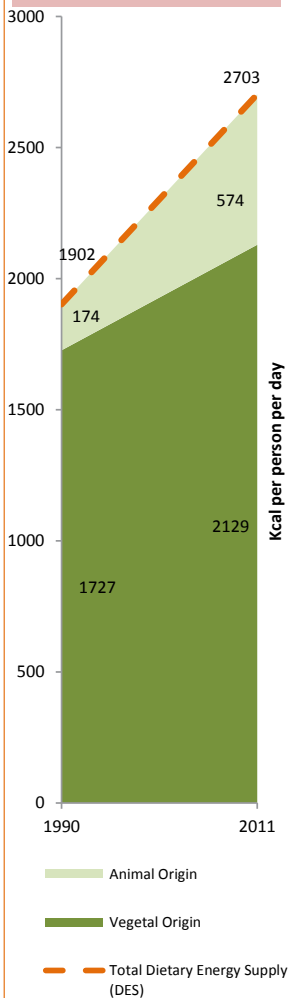


Key Indicators

- Viet Nam has experienced sustained growth in per-capita GDP and Dietary Energy Supply (DES) in recent years, as well as a sustained decline in undernourishment rates.
- Viet Nam has seen sharp declines in underweight and stunting. However, anemia represents a persistent issue, particularly among pregnant women and children under 5 years of age.
- Exclusive breastfeeding prevalence is low; however, a recent extension of maternity leave and ban on advertising of breastmilk substitutes have the potential to help to increase exclusive breastfeeding.

Figure 1.1 Food Availability

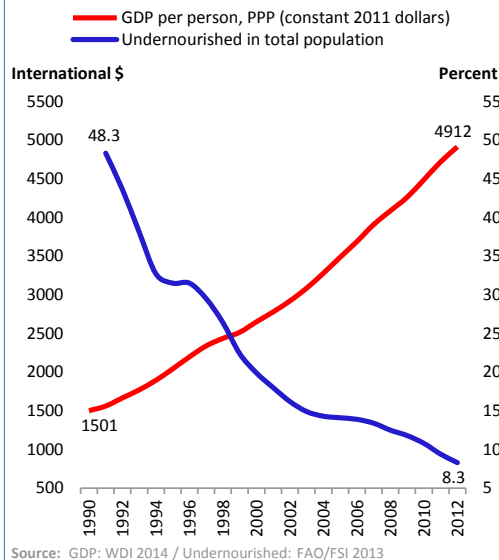
- From 1990 to 2011:*
- DES increased 42%
 - Animal-origin supply increased 230%
 - Vegetal-origin products increased 23% and remain the major DES source



Source: FAOSTAT FBS: 2014 update

Figure 1.2 Undernourishment and Economic Growth

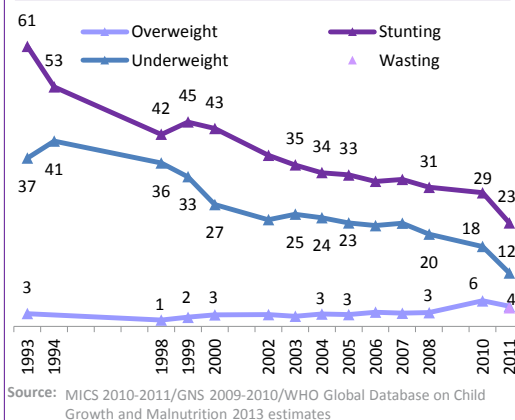
- From 1990 to 2012:*
- GDP per capita increased 227%
 - Undernourishment declined 83%



Source: GDP: WDI 2014 / Undernourished: FAO/FSI 2013

Figure 1.3 Child Malnutrition

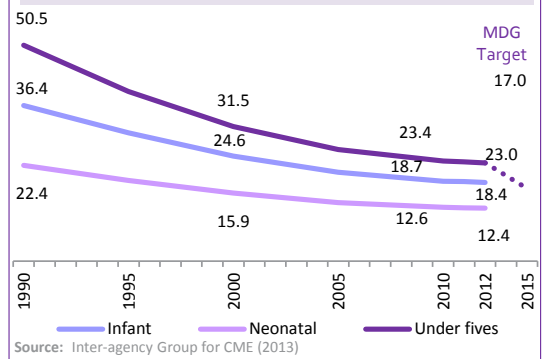
- From 1993 to 2011:*
- Stunting declined 62%
 - Underweight declined 67%
 - in 2011, Wasting stood at 4%
 - Overweight increased to 4%



Source: MICS 2010-2011/GNS 2009-2010/WHO Global Database on Child Growth and Malnutrition 2013 estimates

Figure 1.4 Child Mortality From 1990 to 2012:

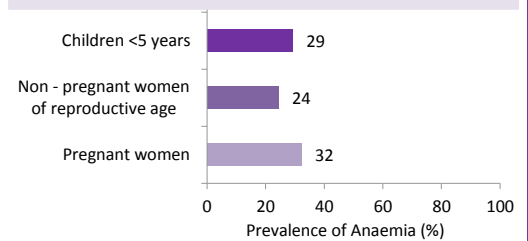
- Under-5 mortality reduced 54% and will not achieve the Millennium Development Goal (MDG) target
- Infant mortality reduced 49%
- Neonatal mortality reduced 45%



Source: Inter-agency Group for CME (2013)

Figure 1.5 Anaemia

- Anaemia is a public health issue for pregnant women (32%), non-pregnant women (24%) and under-5 children alike (29%); it is a severe issue among under-2 children (52%)



Source: GNS2009-2010/WHO World Anaemia prevalence(1993-2005)

Anthropometry (Table 1.1)

| | | |
|--|--------|-----------|
| Underweight women (BMI < 18.5 kg/m ²) | 18.5 % | 2010 |
| Overweight adults (BMI >= 25 kg/m ²) | 5.6 % | 2010 |
| * BMI values calculated using adult cut off points, population < 20 should be analyzed using WHO growth reference for school aged children and adolescents | | |
| Proportion of infants with low birth weight | 5 % | 2010-2011 |

Source: General Nutrition Survey 2009-2010/MICS 2010-2011

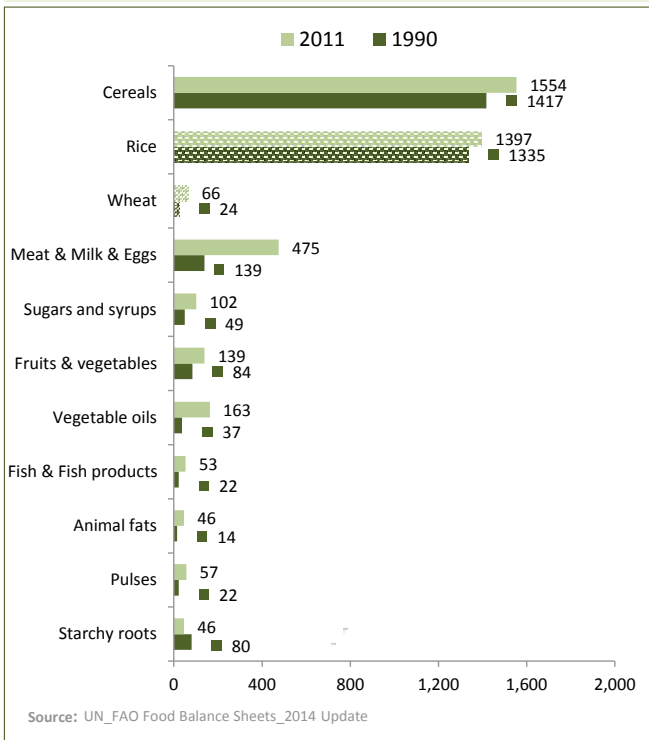


Food Availability / Food Access

Food Availability

Figure 2.1 Food supply by food group -

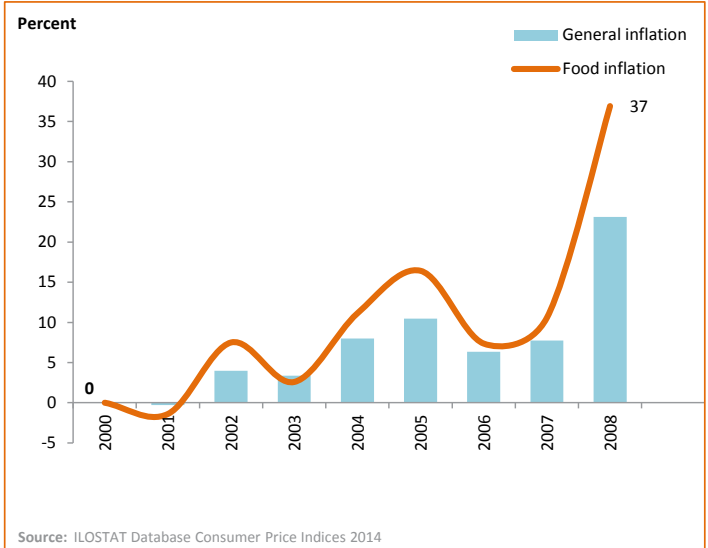
(kcal/person/year) Total dietary energy supply= 2,703 (2011)



- Although cereals remain the most important source of food energy, their contribution declined from 70% in 1990 to 57% in 2011.
- While animal fats doubled their availability (229%) and meat and milk increased by 242%.

Access to food

Figure 2.2 Economic access to food
General and food inflation

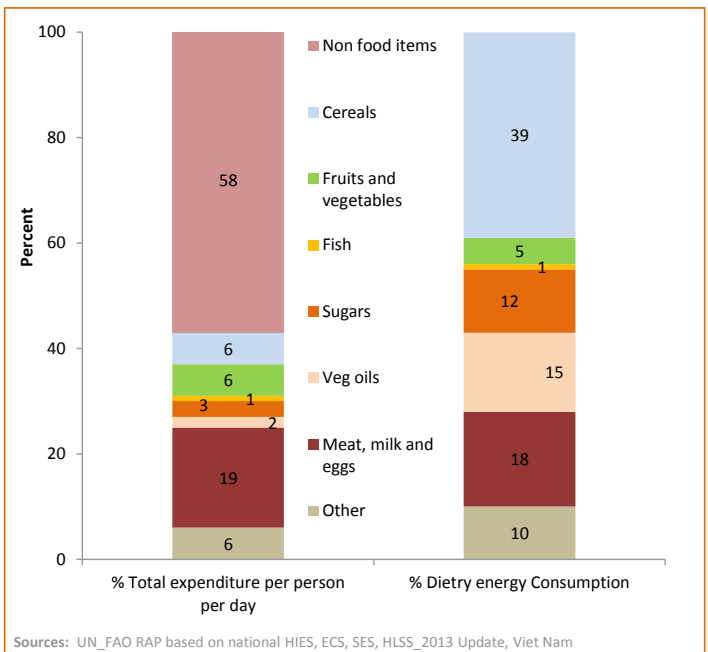


- During the global food crisis in 2008, food prices increased 37% while general prices increased 23%

In 2011:

- Families generally spent more than 42 % of their income on food. While cereals contributed a significant share (39%) of food intake, they only affected 6% of food expenditure at household level
- Meat, milk, and eggs contribute 18% of food intake

Figure 2.3 Share of food expenditure (2011)





Food Utilization

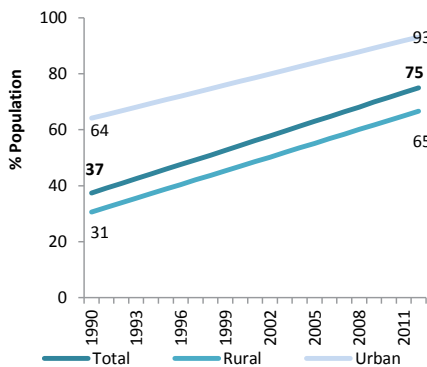
Food utilization refers both to household preparation practices of foods, which influence nutrient content of consumed foods, and to the absorption of nutrients by the human body after consumption. Nutrient absorption in the gut is strongly influenced by health status, particularly the presence of diarrhoea. Hygienic environmental conditions related to improved water and sanitation are important determinants of health and infection incidence and prevalence. In Viet Nam, water and sanitation conditions have improved during the past 20 years; these improvements have contributed to the reduction in malnutrition among under-5 children shown in Fig 1.3.

Water and Sanitation

Figure 3.1 Access to Improved Sanitation

From 1990 to 2012:

- Access to improved sanitation increased 101% in 22 years
- Disparities between rural and urban areas continue, although they have decreased to 22%
- 25% of the population does not have access to improved sanitation

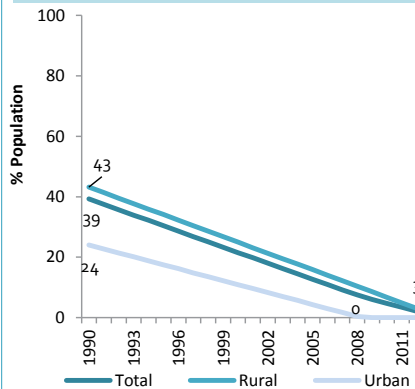


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.2 Open Defecation

From 1990 to 2012:

- Open defecation decreased 95% in 22 years
- The practice still occurs in 3% of rural households.

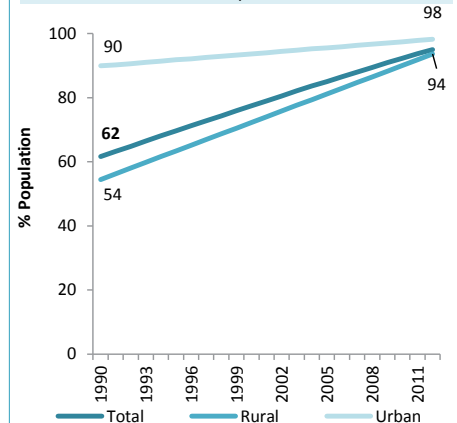


Source: WHO-UNICEF Joint Monitoring Programme, 2014

Figure 3.3 Access to Improved Water Sources

From 1990 to 2012:

- Disparities between urban and rural areas in access to improved water sources have been significantly reduced
- At least 95% of the population has sustainable access to improved water



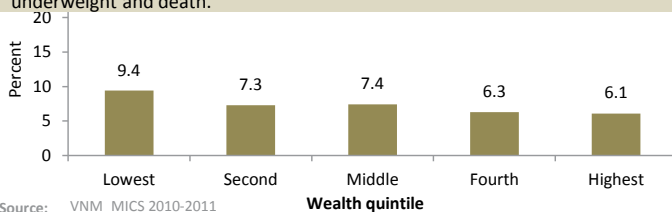
Source: WHO-UNICEF Joint Monitoring Programme, 2014

Food Safety

Quality and food safety efforts cover the entire complex chain of agriculture production, processing, transport, food production and consumption. On the production side, food safety challenges exist at farm level and in the processing stage. On the consumption side, the prevalence of diarrhoea among under-5 children is relatively low for all wealth quintiles (Fig 3.4).

Figure 3.4 Diarrhoea

- Diarrhoea in young children is most common among the poorest wealth quintiles, reflecting disparities in sanitation as well as in general hygiene and food safety.
- Only 1% of children younger than age 5 receive zinc treatment during episodes of diarrhoea. Chronic diarrhoea in children can lead to stunting, underweight and death.



Source: VNM_MICS 2010-2011

Management of Diarrhoea (Table 3.1)

Zinc

| | |
|---|----|
| Share of children under age 5 with diarrhoea receiving zinc treatment | 1% |
|---|----|

Existing policy framework

Zinc Supplementation and Reformulated Oral Rehydration Salt in the Management of Diarrhoea

Source: VNM_MICS 2010-2011

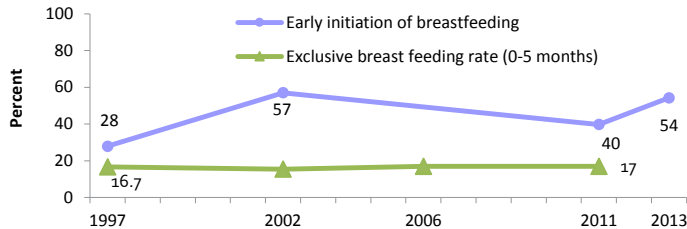


Food Utilization

Nutrition and Health

Figure 3.5 Exclusive Breastfeeding :

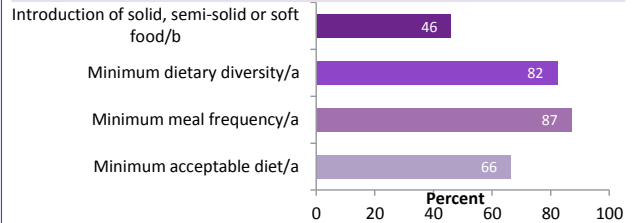
- From 1997 to 2011, Exclusive breastfeeding for first six months of age has not changed and about 4 out of 5 of infants are not exclusively breastfed
- More than half of the new borns are breast fed within the first hour of life



Source: Nutrition Surveillance Profiles 2013/ VNM_MICS 2010-2011

Figure 3.6 Complementary Feeding

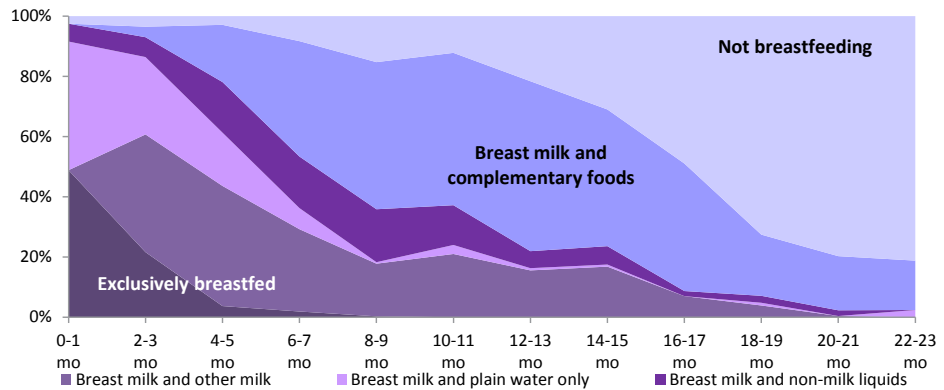
- Introduction of complementary feeding (46%) is not timely for most children.
- 87 % of children aged 6-23 months meet the minimum meal frequency and 82% meet adequate diversity
- Two thirds of children (66%) got the minimum acceptable diet.



Source: a.Nutrition Surveillance Profiles 2013/ b.MICS 2010-2011

Figure 3.7 Duration of Breastfeeding

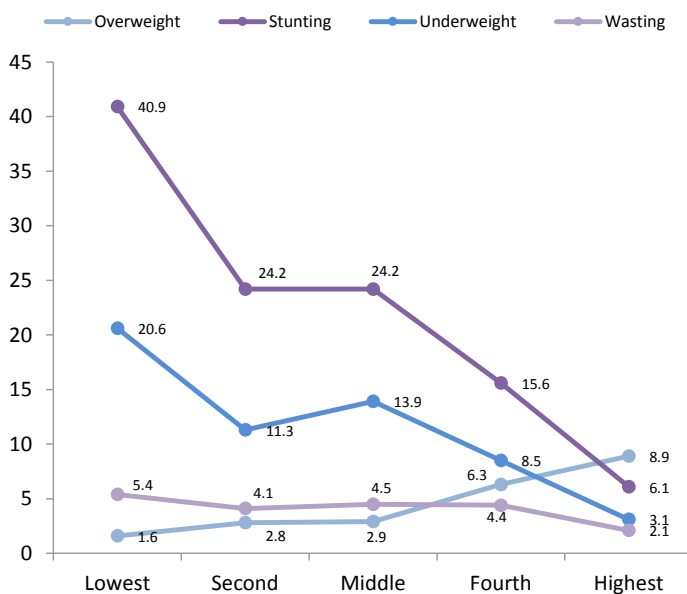
- Duration and frequency of breastfeeding affect the health and nutritional status of both mother and child
- Exclusive breastfeeding is recommended up to age 6 months, and continued breastfeeding with complementary feeding is recommended from age 6 months until 2 years and beyond



Source: VNM_MICS 2010-2011

Figure 3.8 Child Malnutrition and Poverty

Stunting, underweight and wasting are more common in the lower wealth quintiles
Overweight is more than 4 times more prevalent in the wealthiest quintile than in the poorest

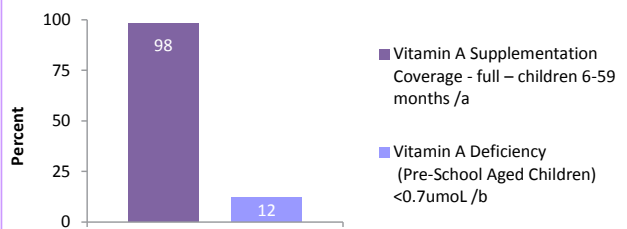


Source: VIET NAM MICS 2011

Micronutrient Status

Figure 3.9 Vitamin A

- Successful Vitamin A supplementation (98%) is a likely contributor to the observed reductions in child mortality
- Vitamin A deficiencies (12% of pre-schoolers) indicate that Vitamin A has significantly improved in the daily diet.



* VAD is a severe public health problem if >20% of preschool children (6-71 months) have low serum retinol (<0.7µmol/L)

Source: a/ UNICEF, State of the World's Children 2014, b/ WHO Global prevalence of vitamin A deficiency in population at risk 1995-2005 report.

Iodine (Table 3.2)

| | |
|---|-----|
| Households consuming adequately iodized salt (2011)a | 45% |
| Iodine deficiency (Urinary Iodine Concentration <100µg/L) among school-age children | - |
| *Optimal UIC 100 - 199µg/L | |

Source: a/Viet Nam MICS 2011



Policy Table - 1

| Enabling environment for Nutrition and Food security - Policy documents | | | |
|---|---|----------|---|
| <p>1. National Child Survival Action Plan 2010-2015, MOH 2009 - M&E by Mother and Child Health Department, Ministry of Health Plan aims to address health care disparities and increasing coverage; multi sectorial collaboration and coordination mechanisms need strengthening; progress monitoring not yet integrated in MoH routine monitoring and reporting system.</p> | | | |
| <p>2. 226 /QĐ-TTg - National Nutrition Strategy 2011-2020, With a Vision Toward 2030 (ratified Feb 2012) Strategy focused on stunting reduction and emerging issues; highlights importance of equity approach and public-private partnerships to address malnutrition; related plan of action with detailed approach for first 1,000 days is under development.</p> | | | |
| <p>3. Government Decree No: 21/2006/ND-CP on Trading In and Use of Nutritious Products for Infants Decree will be updated to reflect stricter rules banning BMS advertisement for children up to 24 months in the new law on advertisement approved in June 2012 and with effect from January 2013</p> | | | |
| <p>4. Socio-economic plan, Ministry of Planning and Investment 2011-15 Plan has a sub-component on improving the quality and healthcare and people's wellbeing which addresses nutrition (Strengthen physical growth and reduce malnutrition and ensure food safety). Includes a nutrition indicator (% of underweight children) in its M&E framework</p> | | | |
| <p>5. IYCF National Plan of Action 2012-2015 Developed and approved by MOH in 2013 provided guidances for IYCF implementation.</p> | | | |
| Nutrition related issues covered in these policies | | Covered | Comments |
| Maternal and Child Undernutrition | Child undernutrition | yes | Covers stunting, wasting and underweight MAM/SAM management guidelines (2010) Interim guidelines for integrated management of acute malnutrition for piloting |
| | Low Birth Weight | yes | |
| | Maternal undernutrition | yes | |
| Obesity and diet related NCDs | Child obesity | yes | No specific guidelines |
| | Adult obesity | yes | |
| | Diet related NCDs | yes | |
| Infant and Young Child Nutrition | Breastfeeding | yes | IYCF guidelines (2013) guidances for IYCF implementation. Decree 21 being revised to be in line with law on advertisement and Intl Code |
| | Complementary feeding | yes | |
| | Int'l Code of Marketing of BMS | yes | |
| Vitamins and Minerals | Supplementation: Vitamin A children/women | both | Vitamin A Supplementation guidelines for children 6-59 mo. and postpartum women Deworming guidelines (2007) target children aged 24-59 months in 18 disadvantaged provinces Diarrhoea management guidelines include zinc (2009) A new national guidelines for micro-nutrient deficiencies prevention and control are being developed and will be approved by the MOH. |
| | Iron Folate children/women | both | |
| | Zinc children | yes | |
| | Other vitamins & min child/women | child | |
| | Food fortification | yes | Voluntary: Salt, Flour; Policy under revision for mandatory |
| Underlying and contextual factors | Food Safety | yes | Food safety law last updated in 2010; Food safety agency coordination mechanism in place Emergency nutrition mainstreamed in Disaster Risk Management programmes; local Ready-to-Use-Supplementary-Foods under development. There is a sector policy on elimination of open defecation, as well as policy for universal access to safe drinking water |
| | Food security | yes | |
| | Food Aid | yes | |
| | Nutrition and Infection | yes | |
| | Gender | no | |
| | Maternal leave | 6 months | |
| Social Protection policies or legislation including food or nutrition component | | | |
| <p>1. Party Resolution 15-NQ/T.U' on key social policy issues, 2012-2020 Range of policies aiming at providing basic social security for all, prioritizing disadvantaged, poor and ethnic minorities, ensuring minimum levels in income and basic needs including reduction of malnutrition of U5 children to lower than 10% by 2020</p> | | | |
| <p>2. Resolution 80/NQ-CP on sustainable poverty reduction during 2011-2020 Range of policies focusing on increased income per capita of poor households, including food subsidies (15 kg rice pp/mo), targeting elderly, disabled, women and children in poor districts and remote areas .</p> | | | |
| <p>3. Support food subsidies for children under 5 in pre-schools (29/2011/TTLT-BGDĐT-BTC) Aims at reaching universal preschool participation of children under 5, particularly disadvantaged, poor and ethnic minority areas.</p> | | | |



| |
|---|
| 4. Health Insurance Law – 2008 |
| Includes children under six and near-poor people into a compulsory scheme to increase coverage of universal health insurance. Under revision to include nutrition services and therapeutic food for children with severe acute malnutrition, which will facilitate integrated management of acute malnutrition. |
| Food safety policies or legislation |
| 1. Viet Nam National Food Safety Law - 2010 |
| The law specifies tasks along the food chain and management responsibility and coordination mechanisms of related government agencies and sanctioning of violations. Under this law, MoH developed technical standards for food additives, and micronutrient fortification |
| 2. Viet Nam Food Safety and Agricultural Health Action Plan - 2011 |
| Plan under the National Strategy on Food Hygiene and safety 2011-2020 and the vision to 2030 |
| Other policies addressing food security |
| 1. Resolution No 63/ NQ-CP on National Food Security - National strategy of food security to 2020 and vision 2030. |
| Aims to protect rice land and further step up intensive rice farming and productivity, especially in Mekong and Red river deltas |
| 2. Resolution No.24/2008/NQ-CP On the issuance of Action Plan |
| Resolution on Agriculture and Rural development for the uplifting targets development and modernization of agriculture to ensure food security; considering aspects of human resources, socio-economic infrastructure, environment and culture and disaster risk reduction. |

| Demographic Indicators (Table - 5.1) | | Year | Economic Indicators (Table - 5.3) | | Year | |
|--|--------|-------------|---|---|---------|------|
| Population size (thousands) /a | 88,773 | 2012 | GDP annual growth rate /c | 5.24 % | 2012 | |
| Average annual population growth/a | 1.1 % | 2012 | GDP per capita (PPP) (constant 2011 international dollars) /c | 4,912 | 2012 | |
| Proportion of population urbanised/c | 31.7 % | 2012 | | | | |
| Number of children <5 years (thousand)/a | 7,046 | 2012 | Gini index /c (100= complete inequality; 0= complete equality) | 35.57 | 2008 | |
| Education level of mothers of under-fives: None (%) /f | 6 | 2011 | | 35.75 | 2006 | |
| Life expectancy at birth (Years) /c | Male | 71 | 2012 | Unemployment rate /c | 2 % | 2012 |
| | Female | 80.0 | 2012 | Population below US \$ 1.25 (PPP) per day /c (%) | 16.85 | 2008 |
| Agriculture population density(people/ ha of arable land /b) | 5.8 | 2006-2008 | | | | |
| Employment in agriculture sector (% of total employment) /c | 47.4 % | 2012 | Poverty gap ratio /e | 2.3 | 2008 | |
| Women employed in agriculture sector (% of total female employment) /c | 49.5 % | 2012 | Income share held by households /c | Poorest 20% | 7.42 % | 2008 |
| | | | | Richest 20% | 43.41 % | 2008 |
| Adolescents (Table - 5.2) | | Year | Sources: a/ World Bank, Health Nutrition and Population Statistics Database 2014 Update b/ FAOSTAT 2013 Update; c/ World Bank, World Development Indicators Database, 2014 Update; d/ UNICEF, State of the World Children 2014 (data refer to the most recent year available during the period specified) e/ UN Statistics Division, MDG database 2013 Update. f/ Viet Nam MICS 2011 | | | |
| Adolescent birth rate (number of births per 1,000 adolescent girls aged 15-19) /e | 35 | 2011 | | | | |
| Adolescent girls aged 15-19 currently married or in union /f | 8.4 % | 2011 | | | | |
| Women aged 20-24 who gave birth before age 18 /f (%) | 3 | 2011 | | | | |

The information included in this Food Security and Nutrition Security Profile is backed by recognized, validated and properly published information available until June 2014. Although updated information might be available at national level from different sources, until requirements of quality, validity and proper publication are met, it has not been included in this profile.

References

1. Cambodia Demographic and Health Survey 2010
2. Cambodia Demographic and Health Survey 2005_2006
3. IDN_Basic Health Research_2010
4. IDN_Indonesia Demographic and Health Survey 2007_2008
5. Lao Social Indicator Survey 2011-2012
6. LAO_Multiple Indicator Cluster Survey 2006
7. Myanmar Multiple Indicator Cluster Survey 2009-2010
8. Myanmar Preliminary report of country-wide school-based survey on availability of iodized salt at household level
9. Philippines National Demographic and Health Survey 2008
10. Philippines National Demographic and Health Survey 2013 Preliminary report
11. Thailand Multiple Indicator Cluster Survey 2005-2006
12. Thailand Multiple Indicator Cluster Survey 2012
13. UN FAO - FOOD SECURITY INDICATORS 2014
14. UN_FAO RAP based on national HIES, ECS, SES, HLSS_2014 Update
15. UN_FAO STAT_2014 Update
16. UN_ILO LABORSTA Labour Statistics Database_2013 Update
17. UN_Inter-agency Group for Child Mortality Estimation (UNICEF, WHO, United Nations Population Division, The World Bank)_2014
18. UN_UNICEF Tracking progress on child and maternal nutrition_2013
19. UN_United Nations Department of Economic and Social Affairs, MDG Database_2013 Update
20. UN_United Nations Department of Economic and Social Affairs, World Population Prospects_The 2012 Revision
21. UN_United Nations Department of Economic and Social Affairs, World Urbanization Prospects The 2011 Revision
22. UN_WHO Global Data Bank on Infant and Young Child Feeding May 2012
23. UN_WHO Global Database on Child Growth and Malnutrition
24. UN_WHO Global Database on Body Mass Index_2013
25. UN_WHO Global Database on Iodine Deficiency 2013
26. UN_WHO Global prevalence of vitamin A deficiency in populations at risk 1995-2005
27. UN_WHO Worldwide prevalence of anaemia 1993-2005 report based on WHO's Global Database on Anaemia_2008
28. UN_WHO-UNICEF Joint Monitoring Programme for Water Supply and Sanitation_2014
29. WHO/WPRO Health Information Profiles 2002 (MOH)
30. World Bank Health Nutrition and Population Statistics 2013,
31. World Bank - World Development Indicators Database_2014 Update
32. UNICEF, State of the World Children 2014
33. UNICEF : IMPROVING CHILD NUTRITION, The achievable imperative for global progress 2013
34. UNICEF-WB-WHO Joint Global Nutrition Dataset_2013
35. UNSD_MDG_2013 Global Monitoring Data
36. Viet Nam General Nutrition Survey 2009-2010
37. Viet Nam Multiple Indicator Cluster Survey 2006_2007
38. Viet Nam Multiple Indicator Cluster Survey 2010-2011
39. Viet Nam Nutrition Surveillance Profiles 2013

Definitions

| Term | Definition |
|--------------------------------------|--|
| Anemia prevalence | <p><i>Anaemia among non-pregnant women:</i> Percentage of non-pregnant women 15–49 years old with haemoglobin concentration <120 g/L.</p> <p><i>Anaemia among pregnant women:</i> Percentage of pregnant women with haemoglobin concentration <110 g/L.</p> |
| Body Mass Index (BMI) | Body Mass Index (BMI) is an index of weight-for-height that is commonly used to classify underweight, overweight and obesity in adults. It is defined as the weight in kilograms divided by the square of the height in meters (kg/m ²). |
| Child Mortality – Infant Mortality | Probability of dying between birth and exactly one year of age, expressed per 1,000 live births (deaths per 1,000 live births). |
| Child Mortality – Neonatal Mortality | Probability of dying in the first month of life, expressed per 1,000 live births (deaths per 1,000 live births). |
| Child Mortality – Under 5 Mortality | Probability of dying between birth and exactly five years of age, expressed per 1,000 live births (deaths per 1,000 live births). |
| Complementary feeding | The process starting when breastmilk alone or infant formula alone is no longer sufficient to meet the nutritional requirements of an infant, and therefore other foods and liquids are needed along with breastmilk or a breastmilk substitute. The target range for complementary feeding is generally considered to be 6–23 months. |
| Dietary energy consumption | Based on national-level data on food availability and requirements, the average consumption in dietary energy expressed in Kcal/person/day. |
| Exclusive breastfeeding | Infant receives only breastmilk (including breastmilk that has been expressed or from a wet nurse) and nothing else, even water or tea. Medicines, oral rehydration solution, vitamins and minerals, as recommended by health providers, are allowed during exclusive breastfeeding. |
| Food access | The ability of individual households to acquire food, either by producing it themselves, hunting, fishing or gathering from wild sources, through purchase, exchanges or as gifts. Purchasing power is a key determinant of access in most settings. Food access depends on household purchasing power, which varies in relation to market integration, market access, price policies, and local economies (in terms of employment and livelihoods). |
| Food availability | The total quantity of food that is physically present in the area of concern, through domestic production commercial imports and food aid. This may be aggregated at the regional, national, district or community level. Food availability alone is not enough to ensure food security. |
| Food expenditure share | The proportion of a household’s total expenditure which is spent on food. Also known as the Engel Ratio. |

| Term | Definition |
|--|--|
| Food insecurity | Food insecurity exists when people are at risk of, or actually are consuming food of inadequate quality, quantity (or both) to meet their nutritional requirements. This may be a result of the physical unavailability of food, a lack of social or economic access to adequate food, inadequate food utilization or a combination thereof. Food insecurity may be chronic, or acute, transitory, or cyclical. It may characterise individuals, households, groups, areas or an entire country. |
| Food security | A situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (SOFI, 2001). However, direct measurement of food security is complex and problematic. Food security is most frequently based upon the absence of food insecurity. |
| Food utilization | 1. A household’s use of the food to which they have access. Includes all food handling, preparation and consumption methods, hygiene and sanitation, and waste disposal. It includes how food is distributed within a household. 2. Individuals’ ability to absorb and metabolize the nutrients – the conversion efficiency of food by the body. This often depends on the health of the individual. |
| Gross domestic product (GDP) per capita, PPP | GDP per capita based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GDP as the U.S. dollar has in the United States. GDP at purchaser’s prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current international dollars based on the 2011 ICP round. |
| Improved sanitation facilities | Number of household members using improved sanitation facilities (facilities that ensure hygienic separation of human excreta from human contact), including flush or pour flush toilet/latrine to piped sewer system, septic tank or pit latrine; ventilated improved pit latrine; pit latrine with slab; and composting toilet. |
| Improved water sources | <i>Piped into dwelling, plot or yard</i> – Number of household members living in households using piped drinking water connection located inside the user’s dwelling, plot or yard <i>Other improved</i> – Number of household members living in households using public taps or standpipes, tube wells or boreholes, protected dug wells, protected springs or rainwater collection. |
| Iodine deficiency | Urinary iodine concentration < 100 µg/L). The optimal urinary iodine concentration is between 100-199 µg/L. |
| Low birth weight | Low birth weight is defined as weight of less than 2,500 grams at birth. |

| Term | Definition |
|--------------------------------------|--|
| Nutrition security | Nutrition security exists when all people at all times consume food of sufficient quantity and quality in terms of variety, diversity, nutrient content and safety to meet their dietary needs and food preferences for an active and healthy life, coupled with a sanitary environment, adequate health, education and care. |
| Obesity in adults | For adults, obesity refers to populations with a Body Mass Index (BMI) score of 30 and above, compared to a normal range of 18.5 to 25. |
| Obesity in children (birth to age 5) | Body mass index (BMI) > 3 standard deviations above the WHO growth standard median. |
| Open defecation | Number of household members defecating in fields, forests, bushes, bodies of water or other open spaces. |
| Overweight | Overweight is defined as the percentage of children aged 0 to 59 months whose weight for height is above two standard deviations (overweight and obese) or above three standard deviations (obese) from the median of the WHO Child Growth Standards. |
| Overweight Adults | BMI \geq 25 kg/m ² |
| Overweight adults | BMI \geq 25 kg/m ² |
| Stunting | Stunting reflects chronic undernutrition during the most critical periods of growth and development in early life. It is defined as the percentage of children aged 0 to 59 months whose height for age is below minus two standard deviations (moderate and severe stunting) and minus three standard deviations (severe stunting) from the median of the WHO Child Growth Standards. |
| Undernourishment | Calculated on a per capita basis at the national level, undernourishment refers to the condition of people whose dietary energy consumption is continuously below a minimum dietary energy requirement (MDER) for maintaining a healthy life and carrying out light physical activity. Undernourishment is a key indicator for Millennium Development Goal 1.1. |
| Underweight | Underweight is a composite form of undernutrition that includes elements of stunting and wasting. It is defined as the percentage of children aged 0 to 59 months whose weight for age is below minus two standard deviations (moderate and severe underweight) and minus three standard deviations (severe underweight) from the median of the WHO Child Growth Standards. |
| Underweight women | BMI < 18.5 kg/m ² where BMI values calculated using adult cut off points, population < 20 should be analyzed using WHO growth reference for school aged children and adolescents. |
| Vitamin A deficiency | Vitamin A deficiency is a severe public health problem is > 20% of preschool children (6-71 months) have low serum retinol (< 0.7 μ mol/L). |
| Wasting | Wasting reflects acute undernutrition. It is defined as the percentage of children aged 0 to 59 months whose weight for height is below minus two standard deviations (moderate and severe wasting) and minus three standard deviations (severe wasting) from the median of the WHO Child Growth Standards. |



one vision
one identity
one community



United Nations Children's Fund
UNICEF East Asia and Regional Office (EAPRO)
19 Phra Atit Road
Bangkok 10200
Thailand
Website: www.unicef.org/eapro
E-mail: asiapacificinfo@unicef.org