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RESEARCH

School Feeding in APEC Economies

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1. INTRODUCTION

1.1. Subject History

The preparation of the APEC economies school feeding system research conducted on the basis of certain open sources materials is aimed at initiating a dialogue related to such important issues as human development, poverty and inequality combating, national and collective food security. This paper authors were subject to certain restrictions while acquiring necessary unified information in the sphere of school feeding in all the APEC economies. They hope to partly bridge this gap during the seminar as well as to receive some additional data from its participants soon after the exchange of ideas is performed and the seminar finished.

The model for this material preparation was taken from the research conducted by the Global Child Nutrition Foundation in 2009¹. This research points out the fact that the global food, fuel and financial crises have given new prominence to school feeding as a safety net and social support program.

School feeding programs (SFP) continue their long established roles of increasing school attendance, reducing drop out rates and helping children learn while improving child nutrition. The data available today suggests that all countries, as perhaps never before in history, provide food in some way and at some scale to school children

School feeding is most likely to be an effective and sustainable intervention when it becomes a national program that is mainstreamed in the country's policies and plans. Several countries have made the transition to nationally-owned and operated programs; others are now starting the process. Past experience shows that policy development, with supportive funding, is a long, multi-year process.

One of the global challenges is to provide information and guidance that will help expedite the transition process. Although each economy needs vary widely, there is consistent information available from countries operating national programs that could help guide other countries in the beginning phases of this transition process.

This review is the first attempt to collect and interpret relevant data on school feeding in APEC region with an aim to establish a mechanism leading to a more reliable information support of mutual actions in school and social feeding.

1.2. Research and Methodology

With an overall objective of collecting and reporting accurate information on the school feeding systems in APEC economies and funding from each of the countries, the following steps guided the information gathering and processing process:

1. Update existing data bases created at the Social and Industrial Food Service Institute.
2. Undertake the search for relevant data through Internet.
3. Compile all information into a draft report.
4. Develop a questionnaire² and a letter with a request for information (national reports on school feeding) to be sent to persons in charge in school feeding in selected APEC economies.
5. Organize the Seminar with economies presentations
6. Summarize the results, interpret, and report findings a final review.

¹ Country Policy and Funding Mechanism Study. November 2009. Prepared by the Global Child Nutrition Foundation. www.gcnf.org

² "SABER- School Feeding Data Collection For School Feeding". The World Bank. Human Development Network. July 2011.

The following subject areas were selected:

1. School feeding program background.
2. Transition to national program.
3. Institutional framework.
4. Policy framework.
5. Program design.
6. Food procurement.
7. Community participation and ownership.
8. Program funding.

Within each thematic subsection, detailed questions were then included. By doing so, it was hoped that a more in-depth, three-dimensional understanding would be gained.

The review consists of three main parts.

The first part deals with general issues of economics, poverty, food security and school feeding in the APEC region.

The second one devotes to descriptions of school feeding systems in the APEC economies. To the extent possible, these descriptions were structured to reflect the above mentioned subject areas. The goal was to present all APEC economies. In case when no available information on APEC economy was found, the APEC economy description was marked as N.A. In some cases the APEC economy descriptions in this draft review represent the texts taken from previously published reports, studies, manuals, etc. meaning that they will be replaced at a later stage.

The third part represents the main findings and recommendations for following joint actions.

APEC economy references are collected in Section 5.

In Annex (Section 6) an example of the questionnaire for APEC economy interviews is given.

2. GENERAL ISSUES RELATED TO APEC ECONOMIES DEVELOPMENT

The “Asian-Pacific Economic Cooperation” (APEC) forum established in 1989 includes 21 members jointly representing 54.9% of the global GDP, 47.1% of the international trade in goods and services, 44.5% of the total world accumulated direct foreign investments and 39.9% of the global population³. The main macroeconomic indicators of the APEC economies are given in Table 1.

As all other economies, the APEC economies suffered a considerable damage as a result of the world economic, financial and food crisis.

The food security issue still remains burning and topical, especially after this indicator drastic decrease in 2006-2008. The food price growth that mainly affected the most vulnerable social groups, the essentially increased amount of undernourished people imperiled the implementation of the UN Millennium Declaration objective, i.e. to bring down the share of undernourished people in two by 2015. At the moment a quarter of these people live in the APEC region.

According to experts, the main trends of the global food sphere include the following⁴:

- a high level and volatility of food products prices, as a result of which two billions of the poorest world population have to spend 50-70% of its income on food;

³ APEC: reference information. Russian APEC Study Centre. http://www.apec-center.ru/contribs/filemanager/connectors/html/filemanager.html?virt_name=/APEC_broshura.pdf

⁴ Round table “Food Security in the APEC Region – Potential Initiatives of Russia in 2012”. <http://www.apec-center.ru/trends/36/114/show/>

- acceleration of the food products demand growth in such economies as China, Thailand, Malaysia, where economic achievements and growth of the population amount and income establish new food needs;

- expansion of areas meant for planting those crops used for biological fuel production, which resulted into the oil price affecting the bread price, i.e. the more expensive oil is, the more profitable it is to produce biological fuel instead of food products;

- a continuous growth of famine in the world and the increase of undernourished people, i.e. for the last 5 years their amount stepped up by almost 70 million people.

Table 1

APEC Economies development

| Member Economy and Year Joined | Population (thousands) | GDP (US\$ mln) | GDP per capita (US\$) | Imports of Merchandise Goods and Commercial Services (US\$m) | Exports of Merchandise Goods and Commercial Services (US\$m) |
|---------------------------------------|-------------------------------|-----------------------|------------------------------|---|---|
| Australia (1989) | 22,328.8 | * 1,238 | * 55,150 | 251,857.8 | 259,786.6 |
| Brunei Darussalam (1989) | 398.9 | * 12.4 | * 29,675 | 2,950.0 | 9,200.0 |
| Canada (1989) | 34,108.7 | 1,574,052.2 | 46,148.0 | 492,242.6 | 455,450.1 |
| Chile (1994) | 17,113.6 | 203,442.6 | 11,887.7 | 70,524.0 | 81,713.7 |
| China (1991) | 1,338,299.5 | 5,878,629.2 | 4,392.6 | 1,587,272.6 | 1,748,072.3 |
| Hong Kong, China (1991) | 7,067.8 | 224,457.8 | 31,757.8 | 492,902.8 | 507,449.8 |
| Indonesia (1989) | 239,870.9 | 706,558.2 | 2,945.6 | 157,527.0 | 174,051.7 |
| Japan (1989) | 127,450.4 | 5,497,812.5 | 43,136.8 | 849,851.3 | 908,713.9 |
| Korea (1989) | 48,875.0 | 1,014,483.1 | 20,756.6 | 518,189.6 | 547,953.3 |
| Malaysia (1989) | 28,401.0 | 237,803.8 | 8,373.0 | 196,705.7 | 231,479.6 |
| Mexico (1993) | 113,423.0 | 1,039,661.5 | 9,166.2 | 332,893.1 | 313,738.9 |
| New Zealand (1989) | 4,367.8 | * 140.5 | * 32,163.0 | 39,637.6 | 39,990.7 |
| Papua New Guinea (1993) | 6,858.2 | 9,480.0 | 1,382.3 | 7,245.0 | 5,863.6 |
| Peru (1998) | 29,076.5 | 153,844.9 | 5,291.0 | 35,920.6 | 39,400.2 |
| Philippines (1989) | 93,260.8 | 199,589.4 | 2,140.1 | 69,294.6 | 64,739.0 |
| Russia (1998) | 141,750.0 | 1,479,819.3 | 10,439.6 | 318,960.8 | 444,093.4 |
| Singapore (1989) | 5,076.7 | 222,699.1 | 43,866.9 | 406,895.9 | 463,778.7 |
| Chinese Taipei (1991) | 23,140.9 | 430,096.0 | 18,588.0 | 288,333.4 | 314,782.6 |

| | | | | | |
|--------------------------------|-----------|--------------|----------|-------------|-------------|
| Thailand (1989) | 69,122.2 | 318,847.0 | 4,612.8 | 228,000.9 | 229,125.1 |
| United States (1989) | 309,050.8 | 14,582,400.0 | 47,184.4 | 2,327,257.5 | 1,796,597.9 |
| Viet Nam (1998) | 86,936.4 | 103,571.7 | 1,191.3 | 94,572.0 | 79,546.7 |

Source: StataAPEC <http://statistics.apec.org/>
2012

Extracted 3 Jan

* Data from Economic Fact Sheets – <http://dfat.gov.au/geo/fs>

* GDP (US\$bn) (current prices) and GDP per capita (US\$)

* GDP per capita (US\$)

Processes of ensuring global, regional and national food security are established under the influence of two most important directions of the economic policy.

On the one hand, it implies a necessity to liberalize economic relations, especially those in the commercial sphere, on the other hand, to implement a policy of supporting national product manufactures and people's buying capacity, especially that of low-income groups.

The differentiation of the governmental support levels is extremely high and reflects both objective differences of agricultural manufacturing and financial possibilities of each APEC economy. For example, the level of agricultural manufacturing governmental support in New Zealand is under 1% of the sold products cost, in Australia – 4%, in Russia – 11%, in Japan – 47%. In this case, an important function is performed by those terms and restrictions introduced within the WTO framework. The trend implies the fact that in most economies the emphasis is shifted from direct support of agricultural manufacturers to a high-level support of vulnerable social groups⁵.

Food product turnover management is regarded as one of the key issues for the APEC economies. The efficient system for such management implementation is created in Australia and New Zealand.

The basis for the APEC economies cooperation in respect of issues related to school systems functioning can be provided by the following priority activity directions:

- sustainable market architecture establishment;
- innovative development of agricultural manufacturing, including biological technologies and other innovative aspects, planning and risk assessment;
- improvement of food products quality and security by all aspects;
- food provision to vulnerable social groups.

According to experts, the new APEC food market environment calls for new rules development, including the international trade regulations and buffer reserves creation (regional, interregional and domestic ones). Currently the rice reserve fund is already established by Japan, Korea and China. The agreement was also concluded within the ASEAN framework implying a new reserve fund creation in the amount of 790 thousand tons of corn.

Food reserves creation affects food security as well as the price volatility level. The factors determining the world food prices growth⁶ include shortage of resources for food products manufacturing (building a supply) and demand increase. In this case, the volume of food products manufactures is decreasing, while the food demand is still growing. It is a new long-term trend of the world food market.

⁵ It is worth mentioning that for the period 1995-2005 from all “green box” funds provided by the USA to support its agriculture, the expenditures for direct food aid to poor population amounted in average to \$38.3 billion. The total of all other measures did not exceed \$17.2 billion per year. In the budget of the US Ministry of Agriculture for the period 2010-2012 these programs are funded by more than \$94, 1 billion, \$104.9 billion and \$111.9 billion respectively. From 1995 to 2001 the “green basket” expenditures increased by 56% in the EU, by 26% in the USA and by 53% in Australia.

⁶ <http://www.apec-center.ru/trends/36/389/show/>

The food crisis of 2007-2008 and financial and economic crisis of 2007-2009 affect the most vulnerable social groups. According to FAO, as a result in 2009 the amount of undernourished people stepped up by some 200 million people against the corresponding amount in 2000 and exceeded 1 billion people. In this case, the most part of undernourished people (642 million people) live in the Asian-Pacific region⁷.

The growth of food prices led to the efficiency growth of those investments poured into the agricultural sector. It accounts for the increase of agricultural projects financing both by private sector and international financial organizations.

Within the framework of food security enhancement issue discussion and its current APEC presidency, Russia plans to hold negotiations and work out proposals for the following main directions⁸:

- sustainable growth of agriculture, providing an emphasis upon the investments increase and expeditious introduction of innovations;

- further establishment and development of markets, including monitoring and data exchange in respect of production volumes, supply and demand; easing of food prices volatility; market infrastructure development; decrease of losses within the whole food chain, i.e. production, storage, transportation, processing and distribution;

- innovative agriculture development, in particular, by means of joint elaboration and introduction of new technologies and creation of the system for technologies and knowledge transfer;

- improvement of food products quality and security;

- food provision to vulnerable social groups;

- marine ecosystems maintenance as well as combating illegal fishing and world ocean biotrade.

As a large regional structure, APEC will continue to play an important role in improving regional and global food security by supporting sustainable development in the agricultural sector⁹.

School feeding is referred to specially considered issues. It implies problems of education, health, social security, poverty and inequality combating. School feeding is more frequently regarded as an economic development tool as it requires consideration of those capacities provided by interconnected branches of agriculture, food and processing industries, commodity distribution network and other infrastructural complexes.

The importance of school feeding development is understood both by developed and developing economies that still possess certain food security problems or have reached a high level of food provision. One can observe improvement of institutional environment and normative basis, enhancement of financial and organizational activity grounds of this specific economic sphere.

The level of school feeding systems development in the APEC region as of 2009 is provided in Table 2¹⁰.

⁷ http://www.fao.org/fileadmin/user_upload/newsroom/docs/russian_figs.pdf

⁸ <http://www.apec-center.ru/trends/36/481/show/>

⁹ APEC Outcomes&Outlook 2011-2012.

¹⁰ http://www.schoolsandhealth.org/general%20documents/country_level_school_feeding_programmes_sources.pdf

Table 2

The level of school feeding systems development in the APEC region

| APEC economy name | APEC economy code | Category | Source |
|---------------------------------|-------------------|----------|---|
| Australia | AUS | 1 | Australian Red Cross (2008). |
| Brunei Darussalam | BD | no data | |
| Canada | CDA | 1 | Canadian Association for School Health (2008). |
| Chile | CHL | 1 | WFP (2008). |
| People's Republic of China | PRC | 2 | Ji, C. (2006). The Progress of School Feeding Service in China. International School Feeding Meeting. http://www.mineducacion.gov.co/1621/articles-110895_archivo_pdf4.pdf |
| Hong Kong, China | HKC | no data | |
| Indonesia | INA | 3 | WFP (2007). Standard Project Report. |
| Japan | JPN | 1 | Telegraph (2005). http://www.telegraph.co.uk/education/main.jhtml;sessionid=FLOX00ACRHX1QFIQMFSM54AVCBQ0JVC?xml=/education/2005/03/11/tefoliver091.xml&sSheet=/education/2005/03/11/ixteleft.html |
| Republik of Korea | ROK | 1 | BBC News (2005). School dinners around the world. http://news.bbc.co.uk/1/hi/education/4298245.stm |
| Malaysia | MAS | 2 | Rotary Club of Gombak (2008). School Feeding Programme for Needy Children. http://rotarygombak.org/feeding-programme/ |
| Mexico | MEX | 1 | LA-RAE (2007).; WFP (2008). |
| New Zealand | NZ | 1 | BBC News (2005). School dinners around the world. http://news.bbc.co.uk/1/hi/education/4298245.stm |
| Papua New Guinea | PNG | | |
| Peru | PE | 2 | WFP (2007). Standard Project Report. |
| The Republic of the Philippines | RP | 3 | WFP (2007). Standard Project Report. |
| Russia | RUS | 1 | WFP (2007). Standard Project Report. |
| Singapore | SIN | 1 | http://www.moe.gov.sg/media/speeches/2001/sp09012001.htm |
| Thailand | THA | 2 | Jumpatong, D. (2006). School Lunch Program and Rice Consumption Behavior in Thailand. Ministry of Education. http://worldfood.apionet.or.jp/thai.pdf |
| United States | USA | 1 | United States Department of Agriculture Food and Nutrition Service (2008). School Meals. http://www.fns.usda.gov/cnd/ |
| Viet Nam | VN | 2 | Hall, A., T. T. M. Hanh, et al. (2007). "An evaluation of the impact of a school nutrition programme in Viet Nam." <i>Public Health Nutrition</i> 10: 819-826 |

Category 1: Countries where food is available in most schools, sometimes or always with subsidies for some or all children

Category 2: Countries where food is available in most schools some of the time

Category 3: Countries where school feeding is available primarily in the most food insecure regions

Below one can observe some preliminary materials characterizing school feeding development in certain APEC economies.

3. APEC ECONOMIS SCHOOL FEEDING REVIEWS

3.1. AUSTRALIA

3.1.1. School Feeding System Description

Australia consists of four states and two territories. The territories fall within the jurisdiction of the federal government while the states are free to make their own decisions in the internal policy sphere, including those issues related to development and implementation of school feeding programs (SFPs). For example, the SFP managed by the federal government through the Department of Education and Labour Relations cover all schoolchildren of the Northern territory providing food to 8,000 students of 71 schools. (50)¹¹ Under this program, students are provided with lunch while breakfast is often ensured by other organizations, for example, by the Australian Red Cross. In case a student is absent from classes, their parents or guardians can fetch this student's meal to their place. (47)

SFPs creation for supporting children from low-income regions still remains one of the main directions of charity organizations activity. It is noteworthy that the conducted programs are relevant for primary and high school students. (17, 19)

As a rule, SFPs in Australia imply only breakfast provision to students (excluding federal SFPs for the territories, due to which students receive their lunch meals). (38)

3.1.2. Program Development

SFPs are managed by states governments. The Department of Education and Labour Relations deals with implementation of federal SFPs for the territories. (47)

School breakfasts programs have been valid in Australia since the end of the 1970s. However, they are financed not by the federal government but by local and national non-governmental organizations. Besides, schools receive funds for SFPs implementation by means of subsidies provided by business structures and fundraising activities arranged within various events. As a rule, a school contacts a non-governmental organization and fills in a form for financial support acquisition. A non-governmental organization sponsors SFP offering recommendations related to the program development and implementation. It is assumed that in a while schools will be able to raise necessary funds to implement SFPs on an independent basis.

On the whole, SFPs creation and operation vary on a regional basis, which reflects specific needs of involved schools. (38)

The Australian Red Cross as well as "Foodbank WA" charity organization also take part in SFPs implementation. The Australian Red Cross SFP is regarded as nationwide program providing 800,000 breakfasts to 250 schools annually. (39) The "Foodbank WA" charity organization has been implementing its school breakfasts program since 2001. At the moment, the program involves over 360 schools. Due to this SFP, over 12,500 students are provided with food. (17)

3.1.3. Legislative Regulation

Currently, there are no unified national standards in the school feeding sphere in the country. There exist healthy nutrition recommendations for children and teenagers. In 1989, the Australian Nutrition Foundation issued recommendations for school canteens. These

¹¹ References are provided in the Appendix by countries.

recommendations were revised in 2000 for the purpose of determining what products would be available for children and teenagers.

Food products provided in school and preschool establishments should comply with the requirements of the Australian Guide to Healthy Eating. The Australian recommendations to healthy eating for children and teenagers serve as a framework for selecting healthy food products. The Australian Guide to Healthy Eating based on the Recommendations provisions offers certain specific advice related to the norm of healthy products consumption. (22)

The National Health and Medical Research Council by the Australian Healthcare Department revised the Australian recommendations to healthy eating. Instead of covering information related to necessary norms of nutrients consumption, a new edition emphasizes the fact how to select the right food products. (11)

The Australian recommendations to healthy eating for children and teenagers are regarded as the main document serving as a basis for the governments of the states and territories by SFPs management.

3.1.4. Food Supply Management

The decision related to managing a canteen or ordering meals from food suppliers is made by school councils.

The food supply chain can be illustrated by the “Metropolitan Canteens” example. This company operates in the sphere of public nutrition management administering school canteens of one hundred Australian schools. (31) One of the “Metropolitan Canteens” food suppliers (30) is represented by the “Lion Nathan National Foods” food company purchasing agricultural products from local farms and large cooperatives incorporating several farms. (28, 29) For example, the “Milkline” network includes dairy products suppliers (32) while the “Dairy Farmers Milk Cooperative” consists of separate farms and purchases dairy products in accordance with the delivery terms. (10)

“Foodbank” is a nonprofit charity organization dealing with distribution of agricultural products surplus for providing food support to those in need. There are the organization divisions in most Australian states, the most famous of which are represented by “Foodbank SA” (in South Australia) and “Foodbank WA” (in West Australia). The food suppliers include the “Coles” and “Woolworths” supermarket chains, the “Arnotts” company and other food companies. (16, 18) Under the school breakfasts program implemented by this charity organization, students are provided with nonperishable products, including canned fruit, biscuit, “Vegemite” paste, canned macaroni products, canned beans, UHT milk and oat flakes. If possible, fresh vegetables and fruit, milk, yogurts and bread are provided for breakfast. (17)

Schools can acquire fresh fruit and vegetables directly from local farms due to the “Food4Schools” initiative. The program is aimed at supporting agricultural manufacturers of South Australia. However, there are no legislative regulations adopted by the government in respect of purchasing food products from local producers. (15)

Rural school grounds creation is regarded as a possibility of acquiring fresh fruit and vegetable for the school breakfasts program. The “Kitchen Garden Program” implemented since 2001 is very wide-spread and operates at 259 primary schools of Australia. Students are provided with a unique possibility of first growing at the school ground and then preparing at the school kitchen delicious and healthy meals. (25, 26)

3.1.5. Local Engagement

School councils play an important role in SFPs implementation. It is the school councils that make a decision concerning canteens operation method in most schools.

There are several options of the canteen operation management:

1) payment for the manager's and personnel's work. The manager implements constant control over the canteen operation assigning various tasks to its personnel or volunteers;

2) partial payment of the manager's and volunteers' work. The manager visits the canteen in the morning in order to distribute volunteers' responsibilities and returns there in the afternoon in order to ensure the assigned work completion;

3) volunteers engagement. The canteen operates due to the voluntary manager and personnel involvement;

4) engagement of the company operating in the sphere of public feeding management. The canteen operation management is assigned to the company operating in the sphere of public feeding management that hires the canteen personnel by itself;

5) engagement of food suppliers. In the absence of their own canteen, schools can order food from independent suppliers.

By making a decision concerning canteens operation method, school councils should consider the required type of food provision. For example, primary schools can be restricted by volunteers' assistance and food suppliers engagement while secondary schools providing food to a considerable amount of students frequently need a separate manager for the canteen operation management. (9)

By SFPs implementation for the Northern territory students, a special emphasis should be put on local engagement. It is noteworthy that SFPs implementers should manage to engage parents and school personnel into the SFP implementation process sharing their knowledge and skills in the sphere of feeding and food preparation. On the whole, parents and school personnel voluntary engagement into the process of SFPs implementation is highly encouraged and appreciated. (46)

Students' parents do not take part in the process of SFPs planning and assessment. SFPs efficiency assessment is performed by specialized audit agencies. SFPs audit in the Northern territory is conducted by the Department of Finances and Deregulation. (36)

3.1.6. Financing

The Australian federal government allocates funds for providing technical assistance to local and regional authorities in the sphere of feeding improvement. In particular, \$12,800,000 was allocated in 2008-2012 for creating production and technical facilities at 190 Australian schools for the purpose of implementing the National Rural School Grounds Program. (27)

The Australian federal government provides financial support and tax benefits to low-income families assisting with payment for their children's education. (48). According to the federal government forecasts, this education tax benefit will help 700,000 Australian families to cover the cost of their children's education. (24)

According to the "Foodbank" organization data, the cost of daily breakfast provision to one schoolchild makes up 42 cents, while the annual breakfast provision to all students of a particular school - \$5,000. (23). The average school lunch (a sandwich and fruit) costs some \$3. (49)

The Australian government allocated \$6,397,000 to the Department of Education and Labour Relations for SFPs implementation in 2007-2008 and \$7,449,000 in 2008-2009. According to the program terms, parents should pay for the food provided to their children.

The food price can vary on a regional basis but the average cost of providing breakfast and lunch to a student within the whole academic week makes up \$35. In some regions, the paid amount is less due to the fact that schoolchildren are provided only with lunch.

According to the Report on Audit and Financial Control, the existing financing and control mechanisms used by the Department of Education and Labour Relations cannot ensure direct consistency between the amount of funds allocated by students' parents and those sums spent on schoolchildren's food by the federal SFP implementers. The research results testified to the difference of the requested amount. For example, the cost of weekly provision of breakfast

and lunch to one student varied from \$25 to \$35 at different schools. It is also pointed out that out of \$6,397,000 allocated for SFPs implementation in 2007-2008 only \$3,088,000 was spent. Therefore the underspent amount made up \$3,309,000 (51.7%).

SFPs audit in the Northern territory was conducted by the Department of Finances and Deregulation. (36)

The SFP cost is determined by the way of considering the SFP implementers' applications specifying the cost of the program performance and all possible expenses. In case the budget is underspent, implementers should contact a project manager of the Department of Education and Labour Relations so as the remaining funds should be spent on the program tasks fulfillment. (47)

3.2. BRUNEI DARUSSALAM

In Brunei the SFP development and implementation is carried out by the Ministry of Education. The first SFP was elaborated even in 1940. Within its framework, students of 11 schools were provided with food. The main program objective implied developing healthy eating habits among children.

Further, the government prepared various policies and acts. In 2000, recommendations in the sphere of people nutrition were elaborated.

The nutrition issues are determined as the main direction of the 1999 program implemented by the National Committee for Health Promotion. This program was recognized as the best one. Within the 1999 SFP, rice, vegetables, beans and pumpkin were provided.

The school menu in Brunei is made up with consideration of seasonal fluctuations and includes rice, fresh fish, fruit and vegetables.

Canned and frozen vegetables are imported from the USA, Europe and Australia, frozen meat and poultry – from Denmark, Australia, New Zealand and the USA. Fruit is regarded as a seasonal product. It is imported from Australia, New Zealand and the USA. Local fruits include bananas, papaya, pineapples and grapefruits. Implementation of national food security plans (covering education establishments) implies engagement of a number of establishments dealing with specific aspects of this problem (Table 3).

Table 3

Governmental establishments engaged in implementing the food security policy

| Sphere | Establishment | Role | Comment |
|------------------------|---|--|--|
| Legislative regulation | Healthcare department | Leading | 1998 Healthcare Act and 2000 Public Feeding Act, 2003 Infectious Diseases Regulation |
| | Fisheries department | Leading | Fisheries Act (including fish processing regulations) |
| | Agriculture department | Agro-industrial food products | Agricultural Food Products Act (final phase) |
| | Municipal councils and local representative offices | Licensing organizations, including those meant for food products manufacturing | Law on Licensing |
| Research | Healthcare department | Physical, chemical and microbiological research in the food products sphere | |
| | Agriculture department | | |
| | Fisheries department | | |

| | | | |
|---|--|--|----------------------|
| | | | |
| Monitoring | Healthcare department | Monitoring of imported products and internal production, legislative acts compliance control | |
| | Agriculture department | Audit of fish processing establishments, imported fish control (first of all, fresh fish), legislative acts compliance control | |
| | Fisheries department | Audit of domestic and imported food products, inspection | Import certification |
| Integral system establishment in the food security sphere | Healthcare department | Proper services, hygienic control | |
| | Agriculture department | Proper agricultural practice | |
| | Fisheries department | Food products quality control | |
| Inspection and certification | Healthcare department | Brunei Darussalam is undergoing food industry certification process. It is especially topical for those organizations that are potentially able to conduct operations abroad. The relevant policy is implemented by certain corresponding authorities. | |
| | Agriculture department | | |
| | Fisheries department | | |
| Educational activity | Healthcare department | In accordance with plans and programs | |
| Information and consulting activity | Agriculture department Fisheries department | | |

3.3. CANADA

3.3.1. School Feeding Programs

Canada lacks a single federal SFP, so provinces develop their own programs in this sphere while territories implement corresponding projects by the federal government support. In particular, in North West Territories SFPs are financed due to the “Brighter Futures” program implemented by the Ministry of Healthcare of Canada. (12)

From the social point of view, the Canadian SFPs are mainly aimed at combating marginalization. For this reason, SFPs do not emphasize low-income social groups support, i.e. all students are engaged into the program while their parents make a required monetary contribution depending on their financial possibilities. However, in case parents cannot pay for their children’s meals, the latter are still provided with food. (4) It is also noteworthy that the School Lunch Association has been assisting with food provision to schoolchildren since 1989 being the largest sponsor of school lunches programs in Atlantic Canada.

According to the data collected by the “Breakfast for Learning » nonprofit organization, a third part of all primary schoolchildren in Canada remain hungry during the whole school day.

(4) This fact testifies to SFPs insufficient development in the Canadian schools. Besides, it is noteworthy that most SFPs account for primary, not secondary schools.

The “Community LINK” program (Learning Includes Nutrition and Knowledge) was initiated by the Ministry of Education in British Columbia for the purpose of providing assistance in low-income regions. In particular, in 27 out of 109 Vancouver schools there is a SFP funded by the province government, providing the Ministry of Education determines what schools should receive subsidies on the basis of social security index. Financing under the “Community LINK” program helps schools to provide students with SFPs (breakfasts and lunches) and conduct morale building activities for children and youth at risk. So vulnerable groups of children are supported for the purpose of increasing their academic performance and abilities for social interaction. (3)

As a rule, students have only one meal every school day. However, the meal time can significantly vary. On the whole, the breakfast menu is more or less the same at all schools.

3.3.2. Regulating and Coordinating Functions of Governmental Institutions

The Ministry of Healthcare performs the following functions required within the process of school feeding management:

- develops draft laws, establishes standards and provides necessary recommendations and information in the sphere of food security and nutrition value.

- provides health and well-being maintenance of the Canadian citizens by means of complex determination, development and introduction of draft laws and standards in the nutrition sphere on the basis of the existing data.

- enforces the «*Food and Drugs Act*» implementation in the sphere of public healthcare, food security and nutrition. (17)

The Ministry of Healthcare of Canada establishes legislative standards in the sphere of security and quality of those food products sold in Canada. The Ministry of Healthcare requirements compliance is monitored by the Canadian Food Inspection Agency. CFIA deals with introduction of standards and legislative regulations set by the Ministry of Healthcare of Canada in respect of food security. (17)

The scientists of the Ministry of Healthcare of Canada assess a threat to human health posed by food chemical contaminators.

3.3.3. Statutory Regulation

At the national level, the “*Food and Drugs Act*” provisions are valid.

One of the most important national regulatory documents is Canada’s Food Guide. Canada’s Food Guide serves as the basis for creation their own recommendations and legislative regulations in the food sphere in the Canadian provinces. For example, it is Canada’s Food Guide that provides foundations for the Guidelines for Food and Beverage Sales in British Columbia schools, according to which all food products are divided into four categories: “Choose most”, “Choose sometimes”, “Choose least”, “Not recommended”. These guidelines are binding, i.e. all schools should avoid selling food and beverages included into such categories as “Choose least” and “Not recommended”. (16)

Packing materials safety is checked in accordance with Section 23 of Food and Drugs Act and Regulations. Under Paragraph B.23.001 thereof, it is prohibited to sell food products, whose package can contaminate a product contained inside it. According to this law, a person dealing with food products sale (a producer, distributor, etc.) is responsible for non-compliance with this provision. Food supplements regulation in Canada is governed by Food and Drugs Regulations. (19)

On the level of provinces and territories, the following regulatory acts are valid (Table 4).

Table 4

Consolidated legal framework of school feeding

| Jurisdiction (province/territory) | Norms for territories/provinces Responsible structure | Law/recommendations essence |
|-----------------------------------|--|---|
| Alberta (province) | Nutrition recommendations for children and youth / Ministry of Healthcare | Recommendations refer to all regional zones related to children's studying or playing activities <ul style="list-style-type: none"> • In accordance with the recommendations of Canada's Food Guide (2007), all food products are divided into three categories depending on their nutritional parameters: "Choose most", "Choose sometimes" and "Choose least" • Primary schools serve only food products belonging to Category "Choose most" • 60% of food products served at junior secondary schools are referred to Category "Choose most", while 40% - to Category "Choose sometimes" • 50% of food products served in secondary schools are included into Category "Choose most", and 50% - into Category "Choose sometimes" |
| British Columbia (province) | Guidelines for Food and Beverage Sales in British Columbia (2007) Ministry of Education and Ministry of Healthcare | Regional recommendations are referred to all food products and beverages sold to students <ul style="list-style-type: none"> • In accordance with the recommendations of Canada's Food Guide (2007), all food products and beverages are divided into four categories depending on their nutritional parameters: "Choose most", "Choose sometimes", "Choose least" and "Not recommended" • At least 50% of food products and beverages being sold should belong to Category "Choose most" and about 50% can be referred to Category "Choose sometimes" • Food products and beverages included into such categories as "Not recommended" and "Choose least" should not be sold at schools |
| Quebec (province) | Healthy lifestyle in schools: Framework Legislation on Healthy Eating and Active Lifestyle (2007) Ministry of Education, Culture and Sports | Framework legislation for local schools councils, state and private preschool establishments, primary and secondary schools <ul style="list-style-type: none"> • The framework legislation implies three main directions of activity related to healthy eating on the basis of Canada's Food Guide (2007) and recommendations of the Canadian Dietetic Association both in respect of school feeding and beverage and food sale through school vending machines: <ol style="list-style-type: none"> 1) Diversify the food ration giving priority to high nutritional food products 2) Prohibit sale of low nutritional food products at |

| | | |
|--------------------------------------|--|---|
| | | schools 3) Ensure appropriate premises and conditions for food consumption at schools |
| Manitoba (province) | Guidelines for Food Served at Schools in Manitoba province | Regional recommendations are referred to food products sold or served at schools <ul style="list-style-type: none"> • In accordance with the recommendations of Canada’s Food Guide (1992), all food products are divided into three categories depending on their nutritional parameters: “Choose most”, “Choose sometimes” (3-4 times per month) and “Choose least” (up to 1-2 times per month) • The Manitoba legislation requires that all schools should possess their own food strategies. Besides, school councils should check the fact that schools do not sell or serve food products containing transgenic fats |
| New Scotland (province) | Food Legal Framework for Public Schools in New Scotland (2006) Ministry of Education and Ministry of Healthcare | The province legislation is regarded as binding and establishes standards for food products and beverages served and sold at public schools. <ul style="list-style-type: none"> • In accordance with the recommendations of Canada’s Food Guide (1992), all food products and beverages are divided into three categories: “Choose most” (can be sold or served at schools on a daily basis), “Choose sometimes” (can be served or sold at schools periodically, i.e. twice per week) and “Choose least” (can be served or sold at schools up to 1-2 times per month) |
| New Brunswick (province) | Law 711 – Food Policy Improvement at Public Schools (2005) Ministry of Education | Regional recommendations are referred to food products sold or served at public schools. Local schools are obliged to develop their own strategies by complying with the regional legislation. <ul style="list-style-type: none"> • In accordance with the recommendations of Canada’s Food Guide (1992), all food products are divided into three categories depending on their nutritional parameters: “Choose most”, “Choose sometimes” and “Choose least”. Since September, 2007, products referred to Category “Choose least” cannot be sold or served at schools. |
| Newfoundland and Labrador (province) | School Eating Guidelines for Managers and Suppliers (2006) Ministry of Education Ministry of Healthcare and Public Utilities | Regional recommendations serve as the basis for developing strategies related to selling and serving food products and beverages to students at schools <ul style="list-style-type: none"> • In accordance with the recommendations of Canada’s Food Guide (1992), all food products and beverages are divided into two categories: “Choose most” and “Choose sometimes”. |
| Ontario (province) | Act 8 – Healthy Food for Healthy Schools | Act 8 amends Education Act for the purpose of: 1) granting necessary powers to the Ministry of |

| | | |
|------------------------------------|---|---|
| | (2008) Memorandum No 135: Healthy Food and Beverages in Vending Machines at Primary Schools (2004) Ministry of Education | Education for developing strategies, recommendations and regulatory measures in the sphere of food standards 2) making additional amendments aimed at managing transgenic fats content in food products and beverages sold in school canteens • Memorandum No 135 is an independent legislative initiative of the province defining recommended nutritional norms for food products and beverages sold through primary school vending machines |
| Prince Edward Island (province) | Draft law on School Healthy Eating (2003) | As a result of negotiations conducted by three regional school councils, healthy eating strategies were developed. Currently, these strategies are considered by all primary and interdistrict schools. The strategies comply with Canada's Food Guide (1992). |
| Saskatchewan (province) | Guidelines for School Feeding (2004) Working group of dieting experts in the sphere of public healthcare of Saskatchewan province | In fact, it is a basis for analyzing the existing school feeding systems and developing legislative measures • It serves as a reference guide for such food categories as "Choose most", "Choose sometimes" and "Choose least". |
| Nunavut (territory) | Laws are under development | The program basis specifies tasks enabling to achieve certain objectives in the sphere of food provision and public healthcare security by food safety maintenance. The objective directly related to SFP recommendations implies the following: "develop, introduce and monitor the consistent <i>strategy</i> implementation, compliance with standards and recommendations in the sphere of food products provided by the regional government under sponsored and licensed programs as well as <i>actions</i> performance aimed at supplying high nutritional food to program participants". |
| North West Territories (territory) | Regional laws are missing | In 2004, the Canadian Minister of Education met the heads of the academic councils for the purpose of assessing their progress in the sphere of legislative measures and recommendations development. As a result, the heads of the academic councils suggested the Ministry of Education should provide municipalities with information and all necessary tools for supporting the process of legislative norms creation. |
| Yukon (territory) | Laws are under development | The framework strategy draft is being developed, it should allow schools and school councils to elaborate their own programs. |

Schools implement certain norms prohibiting students to bring particular products (5) that may provoke allergic reactions by schoolchildren.

3.3.4. SFP Financing

The average annual cost of the school breakfasts program in Canada makes up some 5,000 – 8,000 dollars (for 25 people) or 45,000 – 52,000 dollars (for 225 people). Funds are raised by governments of provinces and territories, nonprofit organizations, municipalities, local schools as well as students’ parents.

Table 5 provides the SFP cost structure by the example of Toronto.

Table 5

SFP cost

| | Average cost of one meal | Amount of students | Total food cost (per year) | Cleaning expenses | Personnel maintenance expenses | Total program cost (per year) |
|-----------------------------|--------------------------|--------------------|----------------------------|-------------------|--------------------------------|-------------------------------|
| Breakfast (one class) | 1.02\$ | 25 | 4462.50\$ | 100.00\$ | 1500.00\$ | 6062.50\$ |
| Breakfast (several classes) | 1.02\$ | 225 | 40162.50\$ | 600.00\$ | 7250.00\$ | 48012.50\$ |

According to the established rules, 70% of the total program cost should account for food products purchase, while other expenses should not exceed 30%. (15, 29)

“The School Lunch Association” deals with fundraising for SFP financing on a local level. Parents and guardians provide the most extensive support for this SFP implementation covering 45% of its total cost. The remaining 43% can be obtained due to natural and legal persons’ activity as well as by means of fundraising.

The volume of SFP state (regional) budget support is given in Table 6.

Table 6

SFP financing

| Jurisdiction (province/territory) | Volumes of financial investments | Notes |
|-----------------------------------|--|--|
| Alberta (province) | --- | The long-term financial support program is missing. |
| British Columbia (province) | 14,000,000\$ | The Community LINK initiative sponsored by the Ministry of Children and Family Development enables to support municipal school programs in the total amount of 45.5 million \$, providing that 14 million \$ accounts for SFP. |
| Quebec (province) | 2,000,000\$ | Since 2005, the province government has been allocating 2 million \$ to the “Club des petits déjeuners du Québec” organization on an annual basis. |
| Manitoba (province) | 100,000\$ | The province government allocates 100,000\$ for SFPs support on an annual basis. |
| New Scotland (province) | The total amount makes up 1,000,000\$. 750,000\$ is allocated for the school breakfasts program support. | Financing is provided by the Ministry of Education and Ministry of Healthcare. |

| | | |
|--------------------------------------|--|--|
| | 250,000\$ is provided for introducing measures related to school feeding management in New Scotland schools. | |
| New Brunswick (province) | 1,250,000\$ | The “Healthy Minds” program implemented by the Ministry of Education supports SFPs at primary schools. The “Fruit and Vegetable Program” developed specially for primary schoolchildren is funded by the Ministry of Culture and Sports. |
| Newfoundland and Labrador (province) | 1,250,000\$ | The program of SFP governmental financing is managed by “Kids eat smart foundation”. |
| Ontario (province) | 17,000,000\$ | The Ministry of Children and Youth Services allocates 17 million \$ for regional SFP support on an annual basis. |
| Prince Edward Island (province) | 325,000\$ | The Ministry of Education allocates 25,000\$ for salaries to school breakfasts programs coordinators on an annual basis. The Ministry of Healthcare provided 200,000 dollars to “PEI Healthy Eating Alliance” within the period from 2009 to 2011 for the purpose of developing and introducing measures related to school feeding management and 100,000\$ for the purpose of developing and supporting school breakfasts programs. |
| Saskatchewan (province) | 2,000,000\$ | The Ministry of Education allocates 500,000\$ for SFPs. The total amount of governmental investments makes up 2 million \$. |
| Nunavut (territory) | 4,300,000\$ | The financing volumes were increased in Toronto in order to efficiently respond to the food price growth and assist SFPs with employment of those resources provided by the province government. Considering the current situation, the former investment volumes would have covered only 15% of all programs cost. |
| North West Territories (territory) | 0\$ | SFPs are funded due to the “Brighter Futures” program implemented by the Ministry of Healthcare of Canada. |
| Yukon (territory) | 0\$ | SFPs are funded due to the “Brighter Futures” program implemented by the Ministry of Healthcare of Canada. |
| | 42,000\$ | The Ministry of Healthcare and Social Development provides an annual grant to the “Yukon Food for Learning” organization for food deliveries. |
| | 39,000,000\$ According to the “Breakfast for learning” organization, only 7-10% of 5.2 million Canadian | The average indicator of governmental investments into students’ feeding makes up 0.04\$ per day. |

| | | |
|--|---|--|
| | students receive at least partially subsidized school food. | |
|--|---|--|

3.3.5. Engagement of Business Structures and Local Farms

In most cases, food products are delivered to schools from central plants. However, there exist other programs, including the “Farm to School” movement and “Lunch Lady » franchise.

The “Farm to School” movement is aimed at establishing a direct tie between local farms and schools. (13) “Lunch Lady” has been dealing with preparing and delivering hot meals to Canadian schools since 1995. The network of franchised plants allows satisfying consumers’ needs in a more extensive way. The organization is eager to diversify the provided menu, complies with all local norms and provides food security (in particular, it carefully monitors that all dishes served to students should be hypoallergenic). (22)

The Community-Supported Agriculture (CSA) programs have spread over Canada. They represent a mutual agreement between farms and a set of consumers. Therefore, a direct access of people to food sources is ensured, which provides them with the freshest products, and farmers – with a regular income source. (11) In particular, this program is implemented by the “Fresh Roots Urban Farm”, whose distinctive feature is represented by a set of partnership agreements concluded with local Vancouver schools for the purpose of school grounds establishment. (33)

3.3.6. Volunteers

Most SFPs in Canada are coordinated on a volunteer basis by school personnel, community members, students and their parents. Volunteers deal with the following tasks: SFP menu compilation, food purchase, food preparation and distribution, cleaning before and after a meal. Volunteers are supported by dieticians, who instruct them how to make up a menu, inform about food security requirements and measures for healthy eating habits maintenance. The “Breakfast for learning” organization as well as other sponsors provide all means for SFPs coordinators compensation. (21)

3.4. CHILI

The school feeding system in Chili is described on the basis of the review on the status and issues of SFPs in Chili¹². The material will be specified upon the Seminar results.

3.4.1. Introduction

Child nutrition programs in Chile, which are administered by the government and implemented by private contractors, are among the most renowned in the world.¹³ Serving over 2.2 million meals a day to 1.8 million school aged students in 9,800 schools across the country, Chile’s child nutrition programs have played a major role in improving the nutrition of the nation’s children and increasing Chile’s school participation rate to nearly 100 percent, while dramatically reducing incidences of malnutrition^{14, 15}

¹² Yoko Kanemasu. Thailand. A desk review of the school feeding programmes, July 2007. WFP. <http://documents.wfp.org/stellent/groups/public/documents/newsroom/wfp207425.pdf>

¹³ Among its honors, the school feeding program in Chile was recognized by the United Nations World Food Program as one of the top five in the world. Source: “JUNAEB Background.” Gobierno de Chile JUNAEB website. Accessed in Google translation at http://74.125.91.132/translate_c?hl=en&ie=UTF-8&sl=es&tl=en&u=http://www.junaeb.cl/mundo/resena_historica.htm&rurl=translate.google.com&usg=ALkJrhi1dF1X7FcLbMYz2IM1n0c_vVRgw on May 15, 2009.

¹⁴ Sources: “Balance Internal Management: Year 2007.” National Board of School Assistance and Scholarships. Santiago, Chile.

In addition to nutrition programs for school aged children, the government of Chile provides specially designed nutrition programs for infants and toddlers in the nation's 3,340 government run free child care centers.¹⁶ Strong and consistent government support as well as innovative public-private partnerships have been driving forces in the programs' success.

3.4.2. Operators' Mission

While both The National Board of School Assistance and Scholarships (La Junta Nacional de Auxilio Escolar y Becas), or JUNAEB and The National Board of Day Care and Kindergartens (La Junta Nacional de Jardines Infantiles), or JUNJI operate large-scale child nutrition programs, neither of their missions is focused on feeding children. Rather, their missions are focused on providing vulnerable children the tools they need to be successful in Chile's education system. JUNAEB's stated mission is "to facilitate the incorporation, retention, and success in the educational system of children and young people living in social, economic, or psychological disadvantage by delivering quality services that contribute to equality of opportunity in the educational process"¹⁷

To carry out its mission, JUNAEB maintains a three pronged approach to assisting target students that focuses on the following areas: school meals, health, and scholarships. JUNAEB runs a scholarship program at the primary and secondary levels to help meet needs associated with the cost of school. At the University level, JUNAEB provides eligible university students with food voucher scholarships (20 a month, \$2 per voucher) that may be redeemed for lunch at participating restaurants on school days. JUNAEB's annual operating budget for these programs is \$640 million USD, including scholarships and health programming; \$430 million USD of those funds are designated for school meals for primary and secondary school students.¹⁸

JUNJI's mission, which has a similar focus on equity, is "to provide early education to boys and girls under four years of age who live in a situation of vulnerability and guarantee them equal development opportunities through the creation, supervision, and certification of day care centers and preschools either directly or through third parties."¹⁹

JUNJI has expanded significantly since 2006 when President Michelle Bachelet took office and called for a rapid and wide-scale expansion of the programs to reach more families who may benefit from the services. In 2005 there were 708 JUNJI centers in the country. Between 2006 and 2007, Chile extended its day care coverage by 240%, building 1700 new child care centers in the country over the two years. By 2010, it is projected that 3,500 new public and free day care centers will have been built that will educate 70,000 vulnerable infants in the country's poorest 40% of families.²⁰ In addition to government run JUNJI centers, a private nonprofit offers the same service of free child care and school meals for infants and toddlers.

3.4.3. Targeting of students to participate in assistance programs

While the child nutrition programs of JUNAEB and JUNJI together reach over two million children a day, neither of the programs are universal, nor are they intended to be. Rather, food in the JUNAEB and JUNJI programs is considered "a benefit that allows vulnerable

¹⁵ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

¹⁶ Figure as of the end of 2008. "¿Qué Es La JUNJI?" JUNJI publication.

¹⁷ "Balance Internal Management: Year 2007." National Board of School Assistance and Scholarships. Santiago, Chile.

¹⁸ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

¹⁹ JUNJI History

²⁰ JUNJI History

children to have equal opportunities in the education system.”²¹ With a few exceptions, such as very rural schools where meals are provided for all students regardless of income, JUNAEB and JUNJI programs target vulnerable students to ensure they have equal opportunities. For JUNAEB, this targeting assessment determines participation in school meals, health, and scholarship programs; for JUNJI, the targeting assessment determines whether infants and toddlers are eligible to participate in the JUNJI centers at all.

Unlike the United States, where the burden for applying for government child nutrition programs falls on vulnerable families, Chile has developed a system to determine eligibility using data that the government already collects. This comprehensive analysis of the families’ situation takes into account not only yearly or monthly income, but also stability or seasonality of income and level of education of the parents. This data is analyzed according to the National System of Allocation to Equity (SINA) using data from the Ministry of Planning (MIDEPLAN).

3.4.4. Public-Private Partnerships

At its inception, the school feeding programs in Chile were operated entirely by government agencies—JUNAEB and JUNJI—from administration, to the hiring and training of cooks, to the serving of meals. As the programs and institutions grew, a decision was made to begin to contract with private companies to provide school food service, with JUNAEB as the administering agency. In 1976, JUNAEB began a pilot program outsourcing some of its schools to private contractors. JUNAEB determined that these pilots were successful, and by 1980 all of the schools food service had been turned over to private companies. Most of the JUNAEB food preparation staff were hired by the private companies as they took over a school’s food service. Both the private sector implementing companies and JUNAEB maintain that since that time the government of Chile has maintained good public-private partnerships.^{22, 23}

On the public side of the partnership, JUNAEB and JUNJI set and control nutrition standards for their programs, including number of calories per meal, quantity of protein, quantity of fruits and vegetables, and requirements for variety. Based on these sets of criteria, private contractors submit proposals to service the school food for one of approximately ninety “Territorial Areas” or TUs. Each year JUNAEB accepts proposals to provide meals for 1/3 of the contracts in the country, so contracts are renewed or reallocated on a three year cycle. While JUNAEB and JUNJI are separate agencies, JUNAEB evaluates the bids for contracts for JUNJI to streamline the system. For each cycle, JUNAEB receives over 100,000 proposals (a single company will often write multiple proposals to service different areas).²⁴

Proposals are assessed based on a variety of factors in two major categories—quality and price. In the quality category, firms declare how they will satisfy JUNAEB’s requirements, including:

- Nutritional requirements for the different meals;
- Food structure for the various meals (breakfast, lunch, tea, and supper) and the frequency (or minimum and maximum presence) of certain foods, and the minimum variety required in the meals provided;
- Minimum quality characteristics of the inputs;
- Operating conditions, such as hygienic standards, supplies, food-handling practices, and supervision; and,

²¹ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

²² Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

²³ Pablo Maturana. Co-owner of Santa Cecilia school food service company. Personal Interview. April 15, 2009.

²⁴ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

- Infrastructure, such as furniture, equipment, and cockery.²⁵

Each proposal includes a plan for quality assurance, including how they will control the everyday personnel and management quality. Firms that meet these quality criteria then enter the second round of assessment based on a series of prices vendors must supply for a variety of meals, such as 350 calorie breakfasts for primary school students and 1000 calorie lunches for secondary school students. Because JUNAEB manages the proposals for all three programs—JUNAEB, JUNJI, and INTEGRA—and because nutrition requirements of the children vary with age and special needs, vendors must submit bids for 30 meal types.

In addition to variety of meal types, vendors are asked to submit bids for varying numbers of meals (80-100% of estimated meals in bid, 60-80%, and less than 60%) since the number of students participating may change. If the number of meals is far under the estimated proposed, the price per meal may increase slightly. Conversely, if the number of meals is more than 100% of anticipated, a company may receive slightly less per meal. It is from these numbers that companies that meet all quality standards can be selected to win a bid. While JUNAEB seeks to provide the maximum number of high quality meals at the lowest cost, they set a minimum price per meal each year to eliminate unrealistically low bids that may have underestimated costs and could result in either poor quality food or the company going bankrupt.

Once winning companies have been selected and begin to serve meals, they receive an agreed upon price *per meal* served. The government does not set prices for how much companies pay for food, nor do they set the price companies are paid per meal. Thus, the amount companies are paid per meal may vary from company to company and bid to bid. At the time of this study, April 2009, JUNAEB paid approximately \$1.13 per student per day for breakfast and lunch, with some variation by region and method of preparation. Since they are paid *per meal* served to an eligible student, school food service providers are responsible for providing JUNAEB with documentation of the number of meals served. In each school both a staff member from the private contractor and a designated teacher from the school record daily meal participation and ensure that the correct students receive meals. At the end of each month, JUNAEB pays the private contractors for the number of meals served in the previous month.

3.4.5. Computerized System for Proposal Evaluation

To ensure that the bid selection process is fair and cost effective, in 1997, then head of JUNAEB Lysette Henriquez requested that researchers at the Industrial Engineering Department of the University of Chile develop a system to improve the auction process. This team of researchers developed a combinational auction computerized system to evaluate school feeding proposals, a system JUNAEB began using in 1999. Whereas in a non-combinational auction, bidders bid on one item or one group of items with a single value, in a combinatorial auction, bidders can place bids on combinations of possibilities. In the case of JUNAEB's combinational auction, bidders are first filtered through based on meeting minimal quality criteria, and then their bids are assessed using the combinational auction system, which evaluates the bids on various food packages and quantities of food packages.

The JUNAEB combinatorial auction system is internationally renowned and was the recipient of the 2002 International Federation of Operational Research Societies Prize for Operational Research in Development, awarded to the best application of Operational Research in a developing country.²⁶ The combinational auction process is cited as being more transparent and less subject to bidders "exert[ing] inappropriate pressures on the officials administering the

²⁵ Epstein, Rafael et al. "A Combinational Auction Improves School Meals in Chile." *Interfaces*. November 1, 2002.

²⁶ Catalán, Jaime et al. "No Such Thing As A Free Lunch? Think again. Combinatorial auctions help feed two million public school children from low-income families in Chile." *OR/MS Today*. The Institute for Operations Research and the Management Sciences. April 2009. 32-35.

process.”²⁷ In addition to being more transparent, the combinatorial auction system contributes to direct cost savings by more effectively analyzing costs of a complex set of bids. It is estimated that the computerized system of proposal assessment saves the government child nutrition programs in Chile US\$40 million yearly—equal to the cost of feeding 300,000 children for the year.²⁸

The call for bids is open to any company regardless of country of origin and all companies compete in the same way (there is no preference given to Chilean companies). JUNAEB currently works with 37 private contractors that provide school food. While most of these are Chilean owned, two are international—Sodexo and the Compass Group—and two others are under Brazilian ownership.²⁹ To ensure that prices remain competitive and stable in case one company is not able to meet its contracts, a single company cannot have contracts for more than 16% of JUNAEB’s total capacity.³⁰

3.4.6. Cook & Chill: Innovative Technology of Centralized Kitchens

In 2006, President Michelle Bachelet Jeria, asked that the number of school meals increase from 1.6 million meals served a day to 6.6 million and that more child care facilities be opened. In order to increase the number of meals served dramatically in a short period of time, JUNAEB researchers assessed multiple options. After researching potential alternatives, JUNAEB decided to prepare food in central “Cook & Chill” kitchen facilities and have it delivered to the schools. “Cook & Chill” is a specially designed process for large scale preparation of meals in a central kitchen. Using rapid cooling technology, meals are sealed in plastic bags and shipped cold to schools in ready to heat bags. On site, the meals are reheated (mostly through boiling the bags) and served. At the time of this study, 400,000 meals were being prepared daily by the Cook & Chill process (as compared to 2 million meals that were prepared onsite by conventional methods). Cook & Chill is used mostly in schools with a large number of students and in an area of high population density. Because the cost for the start up equipment for these plants was large, JUNAEB agreed to pay a slightly higher rate for Cook & Chill meals than for on-site preparation. JUNAEB estimates that in 5 years companies will have earned back the money from their initial investment.³¹

Addition information³²

National board for students aid and scholarships:

National board for students aid and scholarships is public corporation, national scope, 40 years old, created by law, technically related to Ministry of Education. It has 440 full time employees, publicly funded US\$ 180 million budget, 80% devoted to food program and the rest to health care and scholarships. All services are outsourced to private sector, profit or non profit.

School feeding program:

²⁷ Epstein, Rafael et al. “A Combinatorial Auction Improves School Meals in Chile.” *Interfaces*. November 1, 2002.

²⁸ Epstein, Rafael et al. “A Combinatorial Auction Improves School Meals in Chile.” *Interfaces*. November 1, 2002.

²⁹ For a list of JUNAEB school food service providers, please visit <http://www.junaeb.cl/home/certificados.htm#>.

³⁰ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

³¹ Ramón Solís Cácares, Chief of the School Feeding Department (Jefe Departamento Alimentación Escolar Dirección Nacional) of JUNAEB. Personal Interview. April 20, 2009.

³² <http://www.gcnf.org/library/country-reports/chile/2004-Chile-School-Feeding.pdf>

- Offered daily to 1.5 million students, 35% of all the enrollees, targeting the most disadvantaged.

- Resources are allocated according to social risk of the schools measured through a questionnaire applied yearly to first grade in elementary and secondary level. Students coverage at school vary according to risk among 100% and 20%.

- Breakfast plus lunch at US\$46 cents (700 calories). JUNAEB pays per served meal

- Food service is outsourced to 37 private companies through a national bidding process in order to optimize economies of scale.

- Contracts last 3 years and are earned through a bidding process in which each company offer services to one or more territorial units in which the country has been divided. Last bidding process received more than 43.000 offers.

- Best offer combination is searched through a mathematic combinatorial model that analyzes offers in a blind way (no catering firm identification, only a code).

Control system consists in 6 dimensions monitoring:

1. Quantity of services, registered by a specific teacher each day in each school dining room (9,000 schools). According to teacher information JUNAEB pay the monthly bill to the companies.

2. Visual quality of service, registered by the same teacher, one per school (9,000) and each day of classes. Teachers can fine the catering company.

3. Laboratory analysis of served meal, measuring biologic safety and nutritional quality according with required standards. Fines are applied when no compliance is detected.

4. Laboratory analysis of food ingredients at school or company storages. Fines are applied when no compliance with standards is detected.

5. Student satisfaction registered by JUNAEB inspectors.

6. Serving conditions evaluated by JUNAEB inspectors, fine is applied when there are no compliance with standards.

Problems and challenges:

Quality control

- High competition among catering companies press for lower prices and there is a risk that some firms cut costs by lowering quality. (Fines had doubled in the last 2 years)

- There is a growing expectation that JUNAEB should spend more resources

- in control systems, and this compete with pressures for higher coverage

Food supply accounts for 40% of daily needs of the students

- Some of them eat much more than they need at home, resulting in obesity despite the program is focused on poverty

- Some of them, the very poor, because they are in the school feeding program, do not receive nothing else at home, suffering of some kind of undernourishment

- So different schemes are needed, according to social risk

- Food needs remains during holidays for a small group of students.

Identification and proper delivery is very difficult

- No effective way has been identified to expand coverage for the less poor trough co-payment

- Healthy scheme of our program competes with what it is offered by school kiosks.

Strengths

- Outsourcing service to private sector, have allowed lower cost, stronger performance of the program, higher employment and higher coverage
- Small institution, easy to manage
- Public recognition of the program
- Institution defined by law, with year budget defined by law, submitted by government and approved by the congress.
- Very sophisticated bidding process that enhances competition, transparency and efficiency (internationally awarded by IFORS in 2002)
- The program impact in diminishing school dropout in 25% of the beneficiaries and the estimated cost benefit is 1.3

3.5. CHINA

The Chinese school feeding system is described on the basis of the report delivered at the US conference in 2006³³ as well as school feeding needs assessment³⁴. The material will be specified upon the Seminar results.

3.5.1. Public Education in China

China is the biggest developing country all over the world, which is politically divided into 31 provinces and with more than 1.3 billion peoples. In total, there are about 215 million students studying in 890 thousands of primary and secondary schools. More than 70% of the students are living in the countryside.

The structure of public education in China influences the scope of school feeding and the ways in which programs are designed and operated. China has a vast public education system with an enrollment that exceeds 200 million students, spanning from kindergarten to high school³⁵ (Table 7).

The 1986 Compulsory Education Law guarantees that school-aged children have the right to receive at least nine years of free education up to age 16 (five years of primary education, followed by four years of secondary education). The Ministry of Education reports a 99 percent attendance rate for primary school students and an 80 percent attendance rate for primary school students. Additionally, according to a 2000 census, 90.9 percent of China's total population is considered literate.³⁶

³³ Cheng-Ye Ji. The School Feeding Practice in China. Presented at the 8th Global Nutrition Forum and the School Nutrition Association (SNA) Annual National Conference Los Angeles, California USA July 13-20, 2006. <http://www.gcnf.org/library/country-reports/china/2006-China-School-Feeding.pdf>

³⁴ Needs Assessment for Developing Sustainable School Feeding in Sichuan Province, China, November 2009. <http://www.gcnf.org/library/Sichuan-Needs-Assessment.pdf>

³⁵ Ministry of Education of the People's Republic of China. (2002). Basic Education in China. Retrieved August 27, 2009, from http://www.moe.edu.cn/english/basic_b.htm.

³⁶ CIA – The World Factbook. China. <https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html>

Table 7

Schools and School Enrollment

| | China |
|---------------------------------|--------------------|
| Number of schools | 456,900 |
| Primary | |
| Intermediate | 65,000 |
| High School | 14, 907 |
| Total number of schools | 536,807 |
| Student enrollment | 121,600,000 |
| Primary | |
| Intermediate | 66,900,000 |
| High School | 14,000,000 |
| Total student enrollment | 202,500,000 |

3.5.2. School feeding in China

School feeding has a rather short history in China. Since the early of 1980s, “school lunch arrangement ” has been set up spontaneously in several coastal big cities. In 1988, the Chinese Students Nutrition Promoting Association, an independent organization, was established, with the goal of uniting all stakeholders (public and private) to extend to all children the school feeding program and to improve the quality of the services. The school feeding program was strongly supported by Chinese government authorities, especially the Ministry of Education and the Ministry of Health.

In early 2000, the China School Milk Programme (CSMP) was launched in four cities and reached an estimated two million school children each day.³⁷ Although the government does not subsidize CSMP, milk is sold to urban school children at a discounted price, typically 25-30 percent less than the market price, which is offset by negotiation. CSMP supplements student diets while supporting the emerging dairy industry and the economy of China as a whole. The CSMP created 223 new jobs for every 100,000 children during its initial pilot phase.³⁸ In 2007, a model school milk program was implemented by Tetra Pak, with projections to distribute 5.3 billion milk packages to children.

The majority of school meal programs are located in urban areas, which creates a country-wide imbalance in student access to school feeding. School visits in Beijing showed extensive and high-quality school feeding programs that are reportedly replicated in other urban areas throughout the country. In Beijing, excellent school facilities were observed where students were offered selective menus served in handsome dining rooms. However, more than 70 percent of China’s students live in rural areas where malnutrition is most prevalent and access to school feeding is limited.

³⁷ Lai, B. (2003). Tetra Pak. School Milk Programme – The Economic Dimension

³⁸ Bundy DAP, Burbano C., Grosh M., Gelli A., Jukes M., Drake L. (2009) “Rethinking School Feeding: Social Safety Nets, Child Development and the Education Sector.” Directions in Development, World Bank, Washington, DC

Most lunch providers still cater to the tastes of the students who would prefer less nutritious choices, though more and more awareness programs have been provided to let schools be more conscious about nutritious lunch boxes. Because of the above reasons, school lunch network only covered 30%-50% of schools in the big cities, and 18%-35% of schools in the middle and small cities, respectively, in 2005. For the schools in the rural areas, especially in the poverty western China, actually no school feeding system exist until now.

The Chinese government does not typically subsidize school feeding. However, according to recent reports, in rural areas the government has agreed to subsidize 500 RMB (US\$73) for each primary school student, and 750 RMB (US\$110) for every middle school student, to help improve student nutrition.³⁹

The WFP has been active in China since 1979 and estimates that over one million primary and middle school students in 20 provinces and cities in China currently receive some sort of school meal, provided either by private catering companies or the school canteens themselves.

3.5.3. Policy regulations

No current official policies on producing, supplementing, distributing and servicing of the school feeding system are available in China. The country has yet to establish supportive policy or funding for a national school feeding program. In the absence of such policy, school feeding is operated independently by provinces, municipalities, cities, and schools. As a result, programs vary in quality, cost, and student access. Parents either pay for school meals or contribute rice to help offset charges. There is no planned free meal assistance for the neediest children and many children therefore have no food at school or are able to buy less than a complete meal. Only in several big cities, families with financial difficulties may, with the help by the Social Welfare Department, approach the school grants obtained by those eligible to cover mean allowance. Most of the schools with school lunch system can not reach the standard of the yearly minimum services: 165 schooldays.

In 2001, the China National Research and Development Center emphasized the importance of a healthy and balanced student diet by including nutrition in the government's 10th Five-Year Plan. The current 11th Five-Year Plan was introduced in March 2006 and also promotes public nutrition improvement. The new 12th Five-Year Plan reportedly aims to improve public services for all citizens, including compulsory education and public health⁴⁰. Following this policy directive, the Ministry of Agriculture and the Ministry of Science and Technology have further considered nutrition as one of the basic principles of development for the food industry⁴¹. In 2001, the Public Nutrition and Development Center (PNDC) was established to improve the health of Chinese people⁴². This new emphasis on public nutrition is now regarded as a responsibility shared by the Chinese government and the nutrition industry and continues to move into a high-speed development period⁴³.

At the present time, China is publicly acknowledging the importance of nutrition for the country's social and economic development. Although this is an important step forward, government commitment through supportive policy and funding have yet to be provided.

³⁹ Wang, Y. WFP. September 8, 2009 email

⁴⁰ Chinese Government's Official Web Portal. (March 23, 2006). NDRC Minister on 11th Five-Year Plan: The 11th Five-Year Plan: Targets, Paths and Policy Orientation. http://www.gov.cn/english/2006-03/23/content_234832.htm

⁴¹ Chinese Government's Official Web Portal. (March 23, 2006). NDRC Minister on 11th Five-Year Plan: The 11th Five-Year Plan: Targets, Paths and Policy Orientation. http://www.gov.cn/english/2006-03/23/content_234832.htm

⁴² The Center for Public Nutrition and Development Center. (2009) The Fourth Food and Nutrition Industry Forum. [Brochure]

⁴³ The Center for Public Nutrition and Development Center. (2009) The Fourth Food and Nutrition Industry Forum. [Brochure]

There is no central source for program-related information such as food cost, local farm production, employee training and funding mechanisms.

3.5.4. Institutional Structures

In 1994, a complex school feeding network, formed by national, regional and public operators and also by NGOs, were set up in this country. In most of the provinces, there is a branch of this complex. The number of the students who participated in the school feeding system swiftly increased from 2.35 million to 8.45 million only in one year.

By 2005, the Chinese Students Nutrition and Promoting Association, in conjunction with the National Institute of Child and Adolescent Health, met to establish a National School Nutrition Outline with plans to nationally expand school feeding and nutrition education. Pilot programs were often short-lived, but they have provided experience and other resources that would later help with broader program expansion. Although children are the primary beneficiaries, the pilots demonstrated additional benefits for the country, such as providing employment through program expansion and an increase in public- private partnerships.

3.5.5. Food Procurement (Sichuan Case)

Local resources are available to support a nutrition-based school feeding model. They include strong school and community commitment, an adequate supply of locally grown nutritious foods, and access to transportation for food delivery. The ongoing but limited school feeding in the target schools provides the basis for phasing in the model program. The essential missing element is government commitment through policy and funding to support sustainable program development and expansion.

The Deyang schools (located in Sichuan Province) purchase fresh foods daily from the local wet markets, public markets that offer a wide selection of meats, fish, vegetables, and some fruits. The DEB mandates that staple items (i.e., rice, flour, cooking oil) be ordered from DEB-approved and qualified suppliers. All schools are asked to document the procurement process, especially tracking their procurement sources and suppliers. Additionally, schools are asked to keep samples of each meal for 24 to 48 hours. If any food-related issues should occur, these samples can be tested to diagnose the problem. The DEB also discourages schools from offering cold dishes since uncooked food can more easily transmit viruses.

Although schools use locally-produced foods, farmers are not organized into cooperatives or other marketing groups to facilitate farm to school procurement. Grains, meats and poultry are purchased through licensed vendors who must make bids for school feeding contracts, and are overseen by the local provincial health department. There are typically two to three bids which are usually about ten percent below the market price. Vegetables are often purchased at the wet markets while fruits are always purchased directly from local farmers.

3.5.6. Student Meal Prices

The six target school sites serve two to three menu items and soup a la carte for the main meal. Students purchase any or all of these foods depending on their ability to pay for these services. A combined meat-vegetable dish costs 3.5 RMB.⁴⁴ In addition to this basic meal option, an enhanced meal of two vegetable dishes and one meat dish is available to purchase at 6 RMB. Many students in the target schools cannot afford any of these items. Instead, some poor families send their children to school with rice, which is then cooked at the school for the student's meal.

⁴⁴ The renminbi, abbreviated as RMB, is the currency of the People's Republic of China. As of November 2009, 7 RMB = 1 USD.

Families with boarding school students who can afford to pay for school meals are charged 300 RMB per month, which includes three meals a day. Parents can pay an extra 75 RMB per month for their children to receive an additional two snacks a day. The DEB estimates it would cost 3.4 million RMB (US\$500,000) a year under a tiered subsidy system to provide one daily nutritious meal to children whose families can only pay a portion of the meal. The source of this subsidized funding remains unclear. A universal free lunch for all 7,000 students at the six target school sites would cost an estimated 7 million RMB (US\$1 million) per year.

In the autonomous region of Guang Xi, located in southern China along the Viet Nam border, the China Development Research Foundation operates a pilot school feeding program where lunches cost an average of 1,000 RMB per student per year. This equates to between 2.5-5 RMB per day. Although these meals meet calorie requirements, they are not nutritionally balanced.

3.6. HONG KONG, CHINA

The school feeding arrangement is undertaken by the Education Bureau of the Hong Kong Government⁴⁵. In Hong Kong, there is a developed and adopted system of normative documents regulating operation in the school feeding sphere. One of the most important documents is represented by the Guidelines on Meal Arrangements in School⁴⁶, whose text is provided below.

Guidelines on Meal Arrangements in School

A. Important Points

Schools should, in accordance with their own circumstances:

- (1) set up a co-ordination group to work out the healthy and environmentally friendly school policy and practices to supervise, co-ordinate and improve the meal arrangements for their students. The group should be chaired by a senior member of the teaching staff and should comprise other staff and parent representatives;
- (2) establish appropriate procedures to select the lunch and snacks supplier most capable of providing healthy, nutritious and environmentally friendly lunch and snacks for students; and refer to the Education Bureau Circular on conducting trading operations in schools in receipt of public funds currently in force to ensure the arrangement complied with the fundamental principles and guidelines.
- (3) Take out “Strongly Discouraged Food Items” from all menu choices and stop the supply of snacks under the “Snacks to Choose Less” category in order to help reduce intake of total fat, salt and sugar by students with a view to preventing them from having long-term health problems.
- (4) adopt central/on-site portioned lunch service and ensure that there are adequate space, equipment (such as food warming devices and dish washing equipment) and manpower to maintain cleanliness, to portion and distribute the lunch efficiently and do the cleaning up after lunch;
- (5) open parts of the premises (such as hall, classrooms and covered playground) to cater for students staying in for lunch, create a clean, pleasant and healthy eating environment and provide sufficient time for the students to have lunch;

⁴⁵ <http://www.edb.gov.hk/index.aspx?nodeID=2&langno=1>

⁴⁶ <http://www.edb.gov.hk/index.aspx?nodeID=2470&langno=1>

- (6) encourage and motivate parents to co-operate by providing healthy lunch boxes/snacks for their children and to cultivate in them healthy and environmentally friendly eating habits;
- (7) discourage students from patronizing illegal hawkers. Complaints should be lodged to the Enquiry Hotline of the Food and Environmental Hygiene Department (FEHD) at 2868 0000 or directed to the respective District Environmental Hygiene Offices if illegal food hawkers operate outside the school; and
- (8) encourage teachers and students to acquire more knowledge about food safety, nutrition, balanced diet, personal health and ways of reducing waste and minimizing wastage; and introduce to parents the healthy and environmental policy on meal arrangement adopted by the school.

B. Healthy Lunch

- (1) The quality of school lunch depends very much on the choice of ingredients and the cooking methods used. An ideal and healthy lunch should provide for one third of the daily nutritional needs of a school child. The following are principles of a healthy lunch:
 - (a) provide grains and cereals (such as rice/pasta), vegetables and meat or its alternatives in the ratio of 3:2:1 by volume;
 - (b) contain fresh vegetables and fruit;
 - (c) provide whole grains, fat reduced dairy products and other calcium-rich food items;
 - (d) use lean meat, fish or skinned poultry;
 - (e) use low fat cooking methods such as steaming, boiling, minimal oil stir-frying or baking;
 - (f) use only vegetable oils, such as corn oil, canola oil, olive oil and peanut oil, in limited amount for cooking; and
 - (g) limit the use of grains and cereals with added fat or oil, fatty cut of meat and poultry with skin, whole fat dairy products, preserved or processed food and gravy/sauce of high fat or salt content.

- (2) Schools should, on top priority, take out “Strongly Discouraged Food Items” as mentioned in the “Nutritional Guidelines on School Lunch for Primary School Students” from all menu choices in order to help reduce intake of total fat, salt and sugar by students with a view to preventing them from having long-term health problems. Strongly Discouraged Food Items include:
 - (a) deep-fried food items such as French fries, deep-fried chicken wing and deep-fried pork chop;
 - (b) food items with very high salt content including salted fish and salted egg; (c) food items with added animal fat, trans fat, plant sources of saturated fat and hydrogenated fat such as butter, lard, coconut cream, palm oil and margarine; and
 - (d) desserts with added sugar or beverages in "Snacks to Choose Less" category as mentioned in the “Nutritional Guidelines on Snacks for Primary School Students”, including ice cream, cookies, candies and soft

drinks.

- (3) Ingredients should be well-cooked and reheated, and raw food or items requiring considerable handling should be avoided.
- (4) Hot dishes should be kept at 60°C or above and cold dishes at 4°C or below.

C. Green Lunch

- (1) Schools should adopt a lunch service which is conducive to promoting environmental responsibility and goes with the principle of “Reducing Waste and Minimizing Wastage” promoted by the Environmental Protection Department (EPD). Schools should encourage parents to provide packed lunches in reusable containers for their children to eat at school. Reusable lunch containers are now readily available from most lunch suppliers and schools are requested to switch to the use of reusable containers instead of disposal ones. In particular, schools are encouraged to consider adopting central/on-site portioned meal service if possible. The service can help reducing food wastage and has the added benefit of providing rice and vegetables cooked on site which are more nutritious.
- (2) To facilitate the provision of central/on-site portioned meal service, schools may apply for Community Waste Recovery Projects (Green Lunch) under the Environment and Conservation Fund (ECF) for installing kitchen facilities (e.g. heaters, cookers, boilers, sink, grease traps), kitchen furniture, dish washing facilities, utensils, and electrical/water installation works. Please refer to ECF’s website at <http://www.ecf.gov.hk/en/application/index.html> for details.
- (3) For schools with space problem and operational difficulties in implementing central/on-site portioned meal service at school, they are requested to adopt reusable lunch containers in place of disposable lunch containers. Please refer to EPD’s “Guideline on How to Promote Green Lunch in Schools” at https://www.wastereduction.gov.hk/en/schools/green_lunch.htm to distinguish between the two types of containers.
- (4) Schools should use reusable cutlery with spare sets for students who have forgotten to bring their own set of cutlery.
- (5) In situations where disposable lunch containers such as those made of polypropylene have to be used as the last resort when the recommended green lunch practices as set out in (1) to (4) above are being arranged, schools should contrive an environmentally friendly way to recycle the containers. Schools should include a condition in the contract to require the lunch suppliers to recycle the disposable lunch containers as well as food residues and monitor if the lunch suppliers have indeed made specific arrangements to do so. Active lunch box recyclers in Hong Kong can be found in EPD’s “Guidelines on How to Promote Green Lunch in Schools”.
- (6) Please refer to EPD’s “Guideline on How to Promote Green Lunch in Schools” at https://www.wastereduction.gov.hk/en/schools/green_lunch.htm for further information and support.

D. Selection of Lunch Suppliers

- (1) Schools should comply with the provisions in EDB circulars on “Trading Operations in Schools” and “Tendering and Purchasing Procedures in Aided Schools” currently in force, and pay particular attention to the following:

- (a) Schools should conduct quotations/tenders in an open, fair and competitive manner when selecting suppliers/service providers. Schools should select the trading operators/suppliers through tender/quotation exercises at regular intervals, preferably not exceeding three years.
 - (b) PTAs or SSBs are required to observe the principles and arrangements as set out in the circular should they be delegated by the SMCs/IMCs to make arrangements for trading operations in the schools.
 - (c) If PTAs or SSBs wish to undertake trading operations in the schools, they should be treated as one of the bidders and subject to competitive bidding and the same selection procedures applicable to other bidders. Under such circumstances, the tendering procedures should be conducted by the school.
 - (d) It is an offence under Section 9 of the Prevention of Bribery Ordinance for school staff to accept advantages from suppliers in connection with the selection of lunch supplier without his/her school's permission. Schools should not permit their staff to receive advantages (including payment of commission) from lunch suppliers.
 - (e) SMC/IMC members, school staff and parents involved in the selection of lunch suppliers are required to report any conflict of interest situations, financial or otherwise. Schools should properly record any declarations or disclosures made and the subsequent actions taken to avoid any actual or perceived conflict.
- (2) Schools are advised to make use of the Protocol on Selection of School Lunch Suppliers and sample tender documents developed by the Department of Health (DH) in consultation with EPD, which are available at http://school.eatsmart.gov.hk/links/he0013_html_en.html, for selecting lunch suppliers most capable of providing healthy and delicious green lunch for students. DH has laid down comprehensive procedures for the selection of school lunch suppliers, including forming a committee for selecting lunch suppliers, setting out service requirements and assessment criteria, issuing an open invitation to tender and adopting a pre-determined two-envelope system whereby the price and quality are taken into account in tender assessment.
- (3) Schools should not allow the choice of lunch suppliers to be in any way influenced by a donation, nor any other form of advantages (such as cash rebates, gifts, favours or catering services for free or at reduced prices). Schools should be aware that acceptance of advantages from suppliers likely compromises the quality of food or the price of the lunch boxes and invites public criticism. Schools are reminded of the general principles on acceptance of advantages and donations set out in EDB Circulars on "Acceptance of Advantages and Donations by Schools and Their Staff" and "Trading Operations in Schools" currently in force.
- (4) Schools should make sure that lunch and cooked food should be ordered from food suppliers holding a food factory licence with endorsement for the manufacture/preparation of lunch boxes. Schools should request the licensees of these food factories to provide documents to prove that their premises are licensed for the specific purpose. It is also applicable to the circumstance that the licensed food factory engages a sub-contractor to provide lunch boxes or manufacture the food items concerned on behalf of the licensees.
- (5) When selecting suitable school lunch suppliers, attention should be paid to the nutritional value of the food, the method of packing and transportation used by the lunch suppliers as well as the handling of the food containers after meal. Schools should only consider lunch suppliers that take account of the school meal policy and practices on health and environmental protection.

- (6) Schools are strongly advised to define food requirements and ways of waste reduction as the core component in the contracts signed with lunch suppliers by making reference to the “Nutritional Guidelines on School Lunch for Primary School Students” issued by DH, the “Guideline on How to Promote Green Lunch in Schools” by EPD and the “Guidelines on How to Ensure School Lunches Ordered Are Safe” issued by FEHD.

E. Healthy and Green Snacks

- (1) Schools should be careful in the choice of food items available for sale at the tuckshops and vending machines. Schools should be mindful of the nutritional value of snack items to be sold and ensure they may contribute positively to growth and development of children.
- (2) Schools should advise staff and tuckshop operators to:
- (a) increase the supply of and promote healthy snacks. These include:
 - bread and cereals which are low in fat, sugar or salt content such as whole wheat bread, unsweetened breakfast cereals, high fibre or plain biscuits etc.;
 - fresh vegetables and fruit, and dried fruit without added-sugar such as dried apricots and raisins etc.;
 - unsalted nuts and beans such as almonds, cashew nuts and peas etc.;
 - low-fat dairy products such as low-fat milk, yoghurt and cheese etc.;
 - and
 - low added-sugar beverages such as mineral water, 100% natural fruit juice, unsweetened or low sugar soy milk/oat drinks etc..
 - (b) keep hot dishes above 60°C and cold dishes at 4°C or below; and
 - (c) keep the tuckshop in a clean and hygienic condition; and
 - (d) obtain relevant restricted food permits from FEHD to sell those food items in Schedule 2 of the Food Business Regulation (Cap. 132X), including milk, frozen confections, non-bottled drinks, prepackaged sushi and foods sold in coin-operated automatic vending machine, etc. For application for restricted food permit, please refer to FEHD’s website at <http://www.fehd.gov.hk/licensing/guide.html>.
- (3) Schools should, on top priority, consider stopping the supply of snacks under the “Snacks to Choose Less” category as mentioned in the “Nutritional Guidelines on Snacks for Primary School Students” so as to help reduce students’ intake of total fat, salt and sugar. These snacks include:
- (a) energy dense food such as cream-filled buns, pastry, cookies etc.; (b) food high in fat such as deep-fried food, crisp and chips etc.;
 - (c) food high in salt such as food with curry sauce or black pepper sauce etc.; and
 - (d) food and drinks high in sugar or with minimal nutritional value such as candies, chocolate, ice cream, soft drinks, cordials, coffee and tea.
- (4) Schools are advised not to sell:
- (a) items which involve too much preparation and washing up afterwards; (b) items which are unsuitable for children such as alcoholic drinks; and
 - (c) items of cooked food which may easily be contaminated such as food that requires considerable handling.
- (5) In choosing food items available for sale at tuckshops and vending machines, schools should also follow the principle of reducing waste and minimizing wastage. In this connection, schools should avoid the supply of food with over-

packaging and the use of disposable containers. Where use of disposable containers is unavoidable, containers made of degradable materials should be used.

F. Selection of Snacks Suppliers

- (1) Schools should ensure that they have put in place a fair, open and transparent system of tendering and procurement procedures. Schools should make reference to the prevailing EDB Circular on “Trading Operations in Schools” to ensure that the arrangements comply with the fundamental principles and guidelines.
- (2) Tuckshops and vending machines are not mandatory facilities in schools. Snacks consumed at schools including those sold at school tuckshops or by vending machines directly influence students’ eating habits and their health. Hence, schools should pay due regard to the nutritional value of items to be supplied in the tuckshop in addition to the amount of rental payable by the tuckshop operator. Schools should define the choice of food items available for sale in the tender specification as well as the contracts signed with tuckshop operators by making reference to the principles of choosing healthy snacks as issued by DH in the “Nutritional Guidelines on Snacks for Primary School Students”.

3.7. INDONESIA

The school feeding system in Indonesia is described on the basis of the report delivered at the US conference in 2005⁴⁷. The material will be updated upon the Seminar results.

School Feeding Program Experience

In 2001, the government of Indonesia launched the school feeding program for elementary school student, it’s called “Pemberian Makanan Tambahan pada Anak Sekolah” (PMT-AS). By that time the school feeding program focused on eastern Indonesia. Previously the budget comes from the National Budget, but at present, on Decentralization Era, the budget shares between Central Government and Local Government Unit (Province and District), and some district, collaborates with International Non Government Organization (NGO) such as World Food Program (WFP) and UNICEF.

With the support from World Food Program (WFP), Indonesia is implementing a school feeding program for the children through distribution of biscuits and dried noodles. Biscuits and dried noodles are fortified with 9 vitamins (vitamin A, B1, B2, B6, B12, D, E, niacin and folic acid) and 4 minerals (iron, zinc, iodine and calcium).

General objective of school feeding program:

Improvement of physical stability among the school children as part of health and nutrition improvement program, so it can increase the quality of study as well as nine years basic education program.

Specific objectives of school feeding program:

⁴⁷ School Feeding Program in Indonesia (School Feeding Program Experienced in East Java Province). Present in Global Child Nutrition. Los Angeles, California, USA, July 12 – 20, 2005/. <http://www.gcnf.org/library/country-reports/indonesia/2006-Indonesia-School-Feeding-Program.pdf>

1. Improvement of school attendance among the school children.
2. Improvement the physical stability among the school children.
3. Socialization of local food preferred as well as “I Love Indonesian Food“.
4. Improvement of healthy life and healthy eat.
5. Improvement of community participation to provide diversified food based on local food.
6. Improvement of community participation on health and nutrition education and also family welfare.

Basic principle of school feeding program:

1. Use local food produced by one of the family or food vendors.
2. Content of calorie 300 kcal and protein 5 gram or minimal 15 % from total calorie per day.
3. As a snack and not full meal, and given around 9 – 10 am, during break time.
4. School feeding program to be given combined with health and nutrition education in the same time and also de-worming tablet.
5. Assessment of nutritional status , before and after school feeding program is needed to know the impact of school feeding program and can do periodically (monthly based).

Lessons learned from school feeding program:

1. Since 2006, particularly in East Java Province, the government policy of school feeding program under responsible by district government, the Province Government only support the school feeding program, and its call “Milk Drinking Program” 3 times a week for elementary school.
2. Some of the beneficiaries like if the school feeding program as a breakfast, so they prefer full meal not as a snack, particularly in the rural area, which they never have a breakfast before go to school.
3. School feeding program can increase the school attendance among the children, particularly in the rural area.
4. During school feeding program, de-worming tablets should be given in the same time, as part of Health School Effort, how to reduce the worm infection among school children.
5. To achieve the program, the role of teacher is very important to give a health and nutrition education, so it is needed the training for the teacher about health and nutrition.
6. Nutritional status assessment among school children should be done before and after school feeding program, its important to know, how the school feeding program can increase the nutritional status among school children.
7. All expertise in school feeding program, comes from Local Government Official particularly from Health Office, Community, University, NGO, Community Empowerment Board of Local Government, Family Welfare Movement (PK) member, Health and Nutrition Worker, under supervise by Ministry of Health and Ministry of Internal Affairs of Indonesia.
8. Monitoring and evaluation of school feeding program must be done regularly, due to know the successful and threat of school feeding program.
9. In Decentralization Era, the sustainability of school feeding program requires strong political support at every level of administration, start from village up to the provincial level, so it is needed advocacy and socialization to the stakeholders – including the legislative bodies - about the importance of school feeding program related to prevent malnutrition among schoolchildren.

3.8. JAPAN

In Japan, 99% of primary schoolchildren and 82% of secondary schoolchildren are provided with lunches. Parents pay about 300 yens per month for ingredients while the state compensates the canteen personnel work.

The prerequisites for the systematized school feeding include the Second World War consequences. The initial curator was represented by the US government.

Feeding plans are identical at all Japanese schools and developed by state dietitians. The ration originally including bread and milk was later supplemented by a variety of rice dishes. At the end of the 70s, the process of feeding westernization started, which resulted into the fact that today the Japanese menus are regarded as the most diverse in the region and include traditional West European cuisines.

3.9. KOREA

The school feeding system in Korea is described on the basis of the review on the present status and issues of school feeding programs in Korea⁴⁸. The material will be specified upon the Seminar results.

3.9.1. Current status of school meal service

The last decade has been the most dramatic years in the history of school nutrition programs in Korea. The percentage of schools serving school lunches reached almost 100% in 2003. In 2006, *School Meals Act* was significantly revised after serial outbreaks of food-borne illness among students having eaten school lunches. The safety and nutritional quality of school meals had remained as the biggest issue until the middle of 2000s, and then eco-friendly and universal free school lunches have become the main issues related to school meal service and are still under debate.

The compulsory education in Korea is nine years including six years of elementary schools and three years of middle schools. In addition, over 99% of Korean children attend high schools although high school education is not compulsory. Children are encouraged to choose healthy foods and learn good dietary habits through school meals and nutrition education. The school nutrition programs in Korea, therefore, refer to school meal service and nutrition education practiced in elementary, middle, and high schools.

School lunch service was first introduced to Korea in 1953 right after the Korean War with the aid of United Nations Children's Fund (UNICEF). *School Meals Act* was enacted in 1981, and has been revised to meet the needs of the time and public expectation since then.

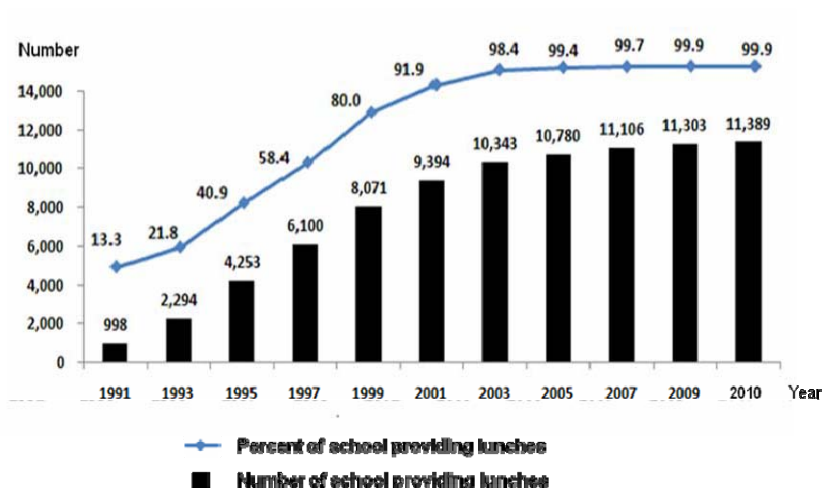
The percentage of elementary, middle, high, and special schools serving school lunches has reached almost 100% in 2003, from only 13.3% in 1991. As of 2010, 99.9% of 11,396 schools provided lunches for students (Figure 1). Among about 7,263,000 students nationwide, 98.8% students ate school lunches each school day.⁴⁹ Although school lunches are available in most of the schools, school breakfasts are served by only a few of boarding schools.

⁴⁸ Jihyun Yoon, Sooyoun Kwon, Jae Eun Shim. *Present status and issues of school feeding programs in Korea*. Dec. 2011. http://apjcn.nhri.org.tw/server/APJCN/Volume21/vol21.1/Finished/19_Korea_128_133.pdf

⁴⁹ The Ministry of Education, Science and Technology. *The 2010 Status of School Foodservice*. Seoul, 2011.

Figure 1

Expansion of school lunch service in Korea



Contract management companies were allowed to operate school lunch service as *School Meals Act* was amended in 1996. Participation of contract management companies in school lunch service made significant contribution to the rapid expansion of school lunch service despite insufficient government budget, especially in middle and high schools.

The number of schools contracting their lunch service with management companies has dramatically increased; in 2004, about 17% of schools contracted their lunch service with management companies.⁵⁰ But a large scale of food poisoning in contract-managed school lunch service in 2006 prompted *School Meals Act* to be renewed, thus many schools adopting contract-management switched their lunch service to self-operation based on the requirement of the law. In 2010, only about 5% of schools contracted their lunch service with management companies.²⁹

The average lunch price was 1,900 KRW (1.76 USD) for elementary school students, and 2,700 KRW (2.5 USD) for middle and high school students in 2010. According to the statistics in 2011, 79% of the schools served meals at cafeterias and 16% did so at classrooms; the rest 5% served meals at both the cafeterias and classrooms as the capacity of cafeterias was not enough to accommodate all the students.⁵¹

3.9.2. Menus and nutritional standard of school lunches

Generally, school lunches in Korea comprise of steamed rice, soup or stew, protein-rich side dish, extra side dish(es), Kimchi, and dessert. Whole milks are provided with school lunches or a few hours before school lunch service.

⁵⁰ The Ministry of Education and Human Resources Development. The 2004 Status of School Foodservice. Seoul, 2004.

⁵¹ The Ministry of Education, Science and Technology. How to Provide Safe and Quality Foods in Schools-The 2011 Training for School Foodservice. Seoul, 2011.

School lunches are served on trays made of stainless steel, which usually have five or six compartments. Staples and soup or stew are served in two big compartments of the lower part of a tray and side dishes and Kimchi are served in small compartments of the upper part of the tray.

Table 8 shows the nutritional standards of school lunches in Korea.⁵² This new nutritional standard, revised 10 years after the previous standard of 1997, was specified in the *Enforcement Rules of School Meals Act* renewed in January, 2007 following the comprehensive amendment of *School Meals Act* in 2006. The new standard included required amounts of energy and such nutrients as protein, vitamin A, B1, B2, C, calcium and iron per meal by age and gender groups.

The nutritional standard was established based on one- third of Dietary Reference Intakes for Koreans.⁵³ Actual energy provided by school lunches should be within $\pm 10\%$ of the nutritional standard. Energy from carbohydrate, protein, and fat should be 55~70%, 7~20%, and 15~30%, respectively. In addition to the quantitative nutritional standard, the following are stated to be considered in the process of menu planning of school meals; first, succession and development of traditional dietary culture should be considered. Second, various kinds of foods such as grains and starches, vegetables and fruits, fish, meat and beans, milk and dairy products should be used. Third, salt, oils and fats, simple sugar or food additives should not be overused. Fourth, natural and seasonal foods should be used as much as possible. Last, a variety of cooking methods should be utilized.³²

⁵² The National Assembly of the Republic of Korea. Enforcement Rule of the School Meals Act. 25/02/2009 [cited 04/06/2011]; Available from: <http://likms.Assembly.go.kr/law/jsp/main.jsp>

⁵³ The Korean Nutrition Society. Dietary Reference intakes for Koreans-First revision. Seoul: Hanareum Publishing Co, 2010.

Table 8

Nutritional standards of school lunches in Korea

| Gender | Grade | Energy (kcal) | Protein (g) | Vitamin A (RE ¹) | | Vitamin B ₁ | | Vitamin B ₂ | | Vitamin C | | Calcium (mg) | | Iron (mg) | |
|--------|-----------------------------|---------------|-------------|------------------------------|-----------------|------------------------|------|------------------------|------|-----------|------|--------------|-----|-----------|-----|
| | | | | EAR ² | RI ³ | EAR | RI | EAR | RI | EAR | RI | EAR | RI | EAR | RI |
| Male | Primary school 1-3 students | 534 | 8,4 | 97 | 134 | 0,20 | 0,24 | 0,24 | 0,30 | 13,4 | 20,0 | 184 | 234 | 2,4 | 3,0 |
| | Primary school 4-6 students | 634 | 11,7 | 127 | 184 | 0,27 | 0,30 | 0,30 | 0,37 | 18,4 | 23,4 | 184 | 267 | 3,0 | 4,0 |
| | Middle school students | 800 | 16,7 | 167 | 234 | 0,34 | 0,40 | 0,44 | 0,50 | 25,0 | 33,4 | 267 | 334 | 3,0 | 4,0 |
| | High school students | 900 | 20,0 | 200 | 284 | 0,37 | 0,47 | 0,50 | 0,60 | 28,4 | 36,7 | 267 | 334 | 4,0 | 5,4 |
| | Primary school 1-3 students | 500 | 8,4 | 90 | 134 | 0,17 | 0,20 | 0,20 | 0,24 | 13,4 | 20,0 | 184 | 234 | 2,4 | 3,0 |
| | Primary school 4-6 students | 567 | 11,7 | 117 | 167 | 0,24 | 0,27 | 0,27 | 0,30 | 18,4 | 23,4 | 184 | 267 | 3,0 | 4,0 |
| Female | Middle school students | 667 | 15,0 | 154 | 217 | 0,27 | 0,34 | 0,34 | 0,40 | 23,4 | 30,0 | 250 | 300 | 3,0 | 4,0 |
| | High school students | 667 | 15,0 | 167 | 234 | 0,27 | 0,34 | 0,34 | 0,40 | 25,0 | 33,4 | 250 | 300 | 4,0 | 5,4 |

¹ RE: Retinol Equivalent

² EAR: Estimated Average Requirement

³ RI: Recommended Intake

1. The nutritional standard of school lunches is presented for a meal; It may be flexibly applied according to the growth and health condition, level of physical activity, and region situation.

2. The average nutrition provision per student is to be evaluated for five consecutive days by season; following are the compliance ranges.

1) The energy should be =10% of nutritional standard for school lunch and the energy ratio of carbohydrates, protein, fat should be 55-70%, 7-20%, 15-30% respectively.

2) In case of protein more than required amount in the nutritional standard should be provided, but energy from protein should not exceed 20% of total energy.

3) In case of vitamin A, vitamin B₁, vitamin B₂, vitamin C, calcium, and iron, more than respective Recommended Intakes in principle and Estimated Average Requirements at least should be provided.

3.9.3. Issues regarding school lunch service

For the last decade, several issues related to school lunch service have been raised in Korea. These issues have been around quality aspects of school nutrition programs as quantitative expansion of school lunch service was completed by 2003. Among the issues, following are the most critical ones still under debate: safety of school lunches, universal free school lunch service and eco-friendly school lunch service. How to resolve these issues shall be the keys for the development of the school lunch service in Korea for the next decade.

In the early and middle of 2000s, safety issues have risen in school lunches as a series of outbreaks of food-borne illness in schools of which the foodservice was operated by management companies. Therefore, students' and their parents' trust on school lunches bottomed out and recovering trust on school lunches has been the biggest issue during the period.

Several local governments have enacted ordinances regarding use of eco-friendly food products in school lunches since 2003. Parents' needs for eco-friendly school lunches has become bigger as the incidence of atopic disease increased in school-aged children although the relationship between atopic disease and diet is not scientifically established. Nationwide interest in well-being and LOHAS also enlarged the demands for eco-friendly school meals. The percentage of the schools using eco-friendly foods in their lunch service is increasing but most of the schools partially utilize eco-friendly foods and still use ordinary foods as well mainly due to the relatively high price and limited supply of eco-friendly foods.

The School Meal Services Support Centers, with functions of central procurement and preprocess of food products for school lunches, started to be founded by local governments based on the amended *Schools Meals Act* of 2006. These centers are expected to contribute to providing schools with eco-friendly and high quality foods with lower prices. As of 2010, the School Meal Services Support Centers are being operated in 11 regions nationwide.⁵⁴ However, this movement of the respective local government needs to be examined for its efficiency from the perspective of the whole nation.

More recently, universal free school lunch service has become another big issue related to school lunch service. In the June 2nd local election in 2010, many politicians pledging to implement 'universal free school lunch' won. About 20% of the students eating school lunches had the benefit of free meal at that time; they were the children from low-income families or rural areas. If universal free school lunch service is implemented nationwide, the remaining 80% of students are also expected to benefit from free school lunches. This unprecedented policy in school lunch service is still under debate for its practicality and priority in budget allocation.

3.10. MALAYSIA

From the viewpoint of food security, Malaysia is classified by FAO as a country with 3% of its population suffering from malnutrition, which is regarded as insignificant. It is related to the complex and consistent socio-economic governmental policy of the government as well as various plans and programs implementation. As a result, in 2007 the nominal per capita income made up 6982.81 USD, the unemployment level – 3.5% while the consumer price index decreased by some 2.6%.

⁵⁴ Park YB. Study on Distribution Channels of Local Foods with High Quality in School Foodservice. The Ministry for Food, Agricultural, Forestry and Fisheries, 2010.

3.10.1. Legislative Regulation

The first developed policy in the agricultural sector can be referred to the first Malaysian agricultural plan and the first National Agricultural Plan. These documents were repeatedly extended for the purpose of achieving a required level of the national self-sufficiency by manufacturing agricultural products required for SFPs implementation. The 3rd National Agricultural Plan (1998-2000) was aimed at achieving 65% of the agricultural production level while by the end of the 9th mid-term Malaysian plan (2006-2010) there had been set an objective to reach the 85% level in order to reduce the trade balance deficit.

These plans imply the following tools:

- branch funding;
- management by objectives;
- establishment of the ensured minimal rice price;
- other incentives.

In spite of the program implementation, the rice production level in 2007 made up 72% of the required norm (against 74% in 1985). The growth of rice planting acreage and yield capacity was ensured (654,974 ha in 1985 against 676,111 ha in 2007). The yield capacity increased from 3.192 hwt / ha to 2.081 t / ha, from 1.335 t / ha to 3.887 t / ha, from 3.243 t / ha to 1.702 hwt / ha in the peninsular part of Malaysia, Sabah and Sarawak correspondingly. However, the highest agricultural productivity was neutralized by the birth wave. According to the statistics, the Malaysian population is characterized by a very rapid growth, i.e. from 15,680,000 people in 1985 to 27,170,000 people in 2007. As a result, per capita rice consumption reduced from 103 kg in 1985 to 81 kg in 2007.

3.10.2. School Feeding System Status

There are about 10,000 schools in Malaysia engaged in various SFPs. The country implements four types of programs:

- food supplementary program (771,000 participants);
- “hostel” (boarding school) program (371,342 participants);
- pre-school program (154,161 participants);
- “School Milk” program⁵⁵ (SMP) (621,000 participants).

The more detailed description of some of these programs is given in Table 9.

3.10.3. Engagement of Governmental Structures and Nonprofit Organizations

SFPs development and implementation is managed by the Ministry of Education of Malaysia with participation of the Ministry of Healthcare (menu compilation). Besides, the Ministry of Education cooperates with other ministries and agencies in cases of programs revision. The Department of Education Planning and Research managed by the Ministry of Education conducts regular program assessments engaging local universities for efficiency analysis performance in respect of these or those measures implemented within SFSs.

⁵⁵ In 2007, the “School Milk” program was temporarily suspended due to cases of food intoxication. Till 2007, such companies as Dutch Lady and Nestle sullied 45 ml of milk for breakfast. The milk cost depended on the trading process.

3.10.4. Programs Development

Malaysia started implementing SFSs in 1980, then they were funded by the federal budget without any external assistance of such organizations as WFP.

The Malaysian government encourages healthy eating among children, especially those living in rural areas where there is frequently not enough food even for breakfast. The program objective is to allow students to start a school day by breakfast but not on an empty stomach.

The selection of schools for the program participation depends on certain criteria forming a basis for this or that guide. For example, in case of students engaged in the food supplementary program the family income should be over 40,047 RM, i.e. exceed the national poverty level. This program implies breakfast provision and costs 1.80 RM per one child.

However, all preschoolers are entitled to the pre-school program participation, under which students are provided with breakfast of 1.50 RM per one child. The meal package for boarding school students including breakfast, lunch and dinner costs 12-14 RM depending on the current menu.

3.10.5. School Food Providers

The program food preparation is mainly performed by school food providers (84.5%) as it is shown in Table 10. In rural schools where the amount of students is low (up to 200 people) and there are no canteens, food preparation was assigned to local community members (14.7%). There is only one school registered in Malaysia (Kuala region) where children food was prepared by teachers on a voluntary basis.

Such a considerable engagement of school food providers is mainly determined by their accessibility in the country. In most cases, the school administration just controls the process of the program implementation, monitors the quality of raw materials used as well as sanitary conditions of food preparation. According to the research results, the agreement concluded with food providers can be extended in 1-2 years. It is noteworthy that 65% of school food providers were selected for the program participation on a competitive basis. As a rule, the quality of food prepared in school canteens or with engagement of volunteers (teachers) is better than that supplied by food providers.

3.10.6. Food Supply Management

There are no stable relations between local agriculture and SFPs in Malaysia. Although, as a rule, local farms are not located next to schools, there exist certain local producers supplying food products to schools within a particular region. It is usually easier to purchase food products from the highland part of the country characterized by moderate climate and developed agricultural manufacturing. Outdoor markets offer various food products purchased by schools on a daily basis. In their turn, distributors should stick to the program budget.

Over 90% of school food products are manufactured within the country. Products most commonly used in school canteens include fried rice, noodles, fruit, beverages (coffee and tea), meat, poultry, and fish. The Malaysian Council of Ministers has recently adopted a resolution on including local fish into the menu of boarding school students. However, it took effect only in 2011 when the Ministry of Education held a corresponding tender. This system was launched on an experimental basis at a number of schools.

3.10.7. Local Engagement

In spite of the fact no direct support is provided by local public organizations for SFPs implementation, there is Parent Teacher Associations (PTAs) dealing with various school feeding issues. In case schools are limited by their capacity, for example, as far as food preparation is concerned as it is sometimes the case in rural schools, this association contribution into SFPs implementation is quite sufficient.

Table 9

Description of school feeding program in Malaysia

| Name | Description | Responsibility | Strengths and weaknesses |
|------------------------------------|--|--|---|
| Food supplementary program | <p><u>Essence:</u> Meals are served during the break (10.30 a.m. and 3.30 p.m.) and provide for 1/4 - 1/3 of the daily demand. The school canteen can opt for five menus out of twenty standard ones for five school days. The ration is based on the most popular products and can be adjusted in accordance with the current situation and children's preferences.</p> <p><u>Target audience:</u> primary schoolchildren (6 - 12 years) from low-income families. It is not aimed at replacing home food but implemented for the purpose of supplementary food provision.</p> <p><u>Coverage:</u> in 2004, about 38% of primary schoolchildren were engaged into the program implementation.</p> <p><u>Budget:</u> in 2004, the government allocated 124 million RM.</p> | Ministry of Education of Malaysia | Poor children's feeding and health have improved. Reinforcement of immunity for infectious agents as well as academic performance improvement are recorded. On the other hand, the program shortcomings include the school decision-making process related to children engagement into the program. Besides, some schools cross off fruit and vegetables from the menu based on the fact that children do not consume them. |
| "School Milk" program (SMP). | <p><u>Target audience:</u> children from low-income families</p> <p><u>Essence:</u> there are two schemes of SMP implementation: the first one implies that milk is provided to children from poor families on a free basis while the second one requires a partial payment to be performed by parents, all other expenses are covered by the state.</p> <p><u>Objectives:</u> SMP is aimed at building a milk drinking habit among schoolchildren thus increasing calcium (as well as other healthy micro- and macroelements) consumption among children.</p> <p><u>Budget:</u> 16 million RM.</p> | The program is implemented with participation of Malaysian dairy plants and the Ministry of Education. | N/A |
| "Hostel" (boarding school) program | <p><u>Target audience:</u> schoolchildren over 12</p> <p><u>Essence:</u> school food providers should plan their menu one or two weeks in advance on the basis of the state developed list.</p> <p>Children are served with three main meals, including breakfast, lunch and dinner, plus three snacks in the morning, in the afternoon as well as at dinner.</p> | Ministry of Education of Malaysia. | The main problem is the limited ration. |

Table 10

Types of school food providers engaged into SFP

| Name | Amount | Percentage |
|----------------------------------|--------|------------|
| Contracted school food providers | 109 | 84.5% |
| Volunteers | 1 | 14.7% |
| Others | 19 | 0.8% |

3.10.8.Financing

SFPs are funded by the federal budget without any local bodies support. The Financial Department of the Ministry of Education is responsible for general financing of the Malaysian SFP. The federal government allocates funds to each of 16 Malaysian provinces, all of which take part in school feeding arrangement. Each province is responsible for reallocation of funds directly to schools.

Each school engaged into SFP possesses its own bank account. Students and their families never pay for schools meals while schools allocate funds to school food providers with federal means application.

The 2009 budget included:

- under the food supplementary program - 270.4 million RM (80,390,000 USD);
- under the preschool program - 53.1 million RM (15,780,000 USD);
- under the temporally suspended “School Milk” program - 27.4 million RM (8,140,000

USD).

In order to forecast the program expenses, schools gather statistics every October. Adjustments are made in April of the following year. There is a trend of SFP budgets extension, which is mainly related to the general increase of students amount.

3.11. MEXICO**Progresa Program**

Progresa⁵⁶ is the most recent food assistance program implemented by the Mexican Government. Initiated in 1997, it links food assistance to health and education programs. Currently benefiting over 400,000 urban and rural families in 12 States, the goal is for full coverage of the country within the next few years.

Progresa has three linked components:

3.11.1. Education

The Government provides scholarships and financial support for school supplies to encourage children to attend school.

In addition, the Government plans to increase the coverage and improve the quality of education by training teachers and improving school equipment.

⁵⁶ <http://www.ers.usda.gov/publications/FANRR6/fanrr6.pdf>

Scholarships are granted to each child in families covered by Progresa. The scholarships include school equipment or the financial support to obtain them and are given every 2 months throughout the school year. The higher the grade, the higher the amount distributed. Beginning in the first grade of secondary school, girls receive a higher allowance than boys. The scholarships are meant to ensure school attendance and to reduce the incentives to seek jobs at a young age or, in the case of girls, to do housework before completing their basic education.

3.11.2. Health

The coverage of health services is enhanced by equipping and training health-care providers. A basic free health services package is provided, and a nutritional supplement is given to all pregnant women and nursing mothers and to children less than 2 years old to decrease the number of undernourished children. Health self-care by the families is fostered through education and training in the areas of health, nutrition, and hygiene.

3.11.3. Nutrition

Financial support of 110 pesos per month is granted to the families to supplement their income. To help ensure that the money is used for food, this money is distributed to the female head of the household. This amount is indexed to inflation so the purchasing power remains the same.

Through education and information, families are encouraged to spend this money in a manner that will yield the most improvement in nutrition and well-being. Beneficiaries must make compulsory visits to health services, and parents must attend health courses.

3.12. NEW ZEALAND

3.12.1. School Feeding Programs

There is no national SFP in the country. In order to provide public schools with necessary financial assistance for supporting students in low-income regions, the social security index is used. (10).

One can specify the “Fruit in Schools” program developed by the Ministry of Healthcare and aimed at supporting schools activity in the sphere of improving students’ health and education quality. (24) Due to this program, schoolchildren are provided with the daily norm of fruit consumption. By selecting schools to be engaged into the program, a special attention was paid to those located in regions characterized by the low social security index. For example, in February, 2009 – June, 2010, all schools possessing the social security index of 1-2 were granted with a possibility of being engaged into the program.

SFPs implementation in the most controversial regions is regarded as the most important task of charity organizations. For example, the New Zealand Red Cross provided breakfasts to students of primary schools possessing the social security index of 1 from 2007 till the middle of 2011. (36) Besides, due to the “KickStart breakfast” program implemented by the “Fonterra” milk company and the “Sanitarium” health food factory, schoolchildren living in regions with the low social security index (1-4) are served with free breakfast twice a week. (30).

In New Zealand, child poverty elimination and national SFP development is undertaken by the “Child Poverty Action Group” independent charity organization. (5)

There are programs for providing financial support to schools located in low-income regions taking into consideration the social security index. (42). For example, the social security index determines the volume of those funds allocated by the federal government under the following programs:

Targeted Funding for Educational Achievement (TFEA) – a tool for providing assistance to schools with the social security index of 1-9 as a means of overcoming difficulties typical of students from low-income families.

Special Education Grant (SEG) – a program for providing assistance to schools, whose students undergo difficulties by learning and social integration.

Careers Information Grant (CIG) – a program for providing assistance to schools in respect of obtaining necessary funds meant for reducing expenses related to data provision in the sphere of occupations and vocational guidance. (9, 43)

Different age groups of students are covered by fits and start. (31) For example, the “Kickstart breakfast” clubs operate both at primary and secondary schools while SFS is mainly aimed at supporting primary schoolchildren as it is this very period that is regarded by the “Fonterra” company as determining further growth and development of children.

3.12.2. Regulating and Coordinating Functions of State Structures and Schools

The Ministry of Education performs coordinating and regulating functions in the school feeding sphere. In February, 2009, the National Administration Guideline (5) that served an important tool for providing useful and nutritional food in schools was abolished.

The Ministry of Healthcare develops feeding norms considering various dietary needs, recommendations for students and school food suppliers. (18)

The food safety assurance legislation is developed by the Ministry of Agriculture and Wood Industry. (22)

The New Zealand Food Safety Authority controls food products compliance with legislative requirements.

Schools management should ascertain itself of the fact that food providers supply food products meeting the reference nutrient intake. Contracts should include the following important points: offered products (in accordance with feeding recommendations for children and supplied food regulatory measures), food preparation, food security, quality control (ways of the contract provisions compliance are specified). (4)

3.12.3. School Feeding Legislation

The legal requirements to food quality are specified in four principal documents (16):

- the Food Act 1981
- Animal Products Act (APA) 1999
- the Agricultural Compounds and Veterinary Medicines (ACVM) Act 1997
- the Wine Act 2003.

The food industry sphere is governed by the Australia New Zealand Food Standards Code. (1) Producers comply with legal requirements in the sphere of food security provision based on special programs (20, 22):

- Risk Management Programs (RMPs)
- Food Safety Programs (FSPs)
- Wine Standards Management Plans (WSMPs).

Food industry enterprises should operate in accordance with the Food Hygiene Regulations 1974 or implement the Food Safety Program (FSP)) in accordance with the provisions of the Food Act 1981. (21)

Under the Animal Products Act (APA) 1999, Risk Management Programs (RMPs) should be performed by all producers supplying or processing animal products. RMP is aimed at providing quality and proper marking of animal products as well as combating negative impacts of chemical, physical and biological factors within the technological process. (46)

The School Canteen Guide to Food Safety & Nutrition (NZ) 2011 is developed for providing necessary information resources to managers and canteen personnel for the purpose of children protection against food-borne diseases. (48)

Besides, there are recommendations meant for suppliers in respect of every food product and ways of it being served at schools. (3)

3.12.4. Ways of Food Provision

There are three ways of providing food to schoolchildren:

- lunch order. Students should order lunch by selecting one of possible options at the beginning of every school day. Ordered lunches are delivered to classrooms or distributed before the lunch hour. The menu includes cakes, stuffed rolls, biscuits and beverages:

- school buffet. Students can buy mainly ready-to-eat prefabricated products, including chips, various beverages, yogurts, cereal bars, tarts and candies. Besides, schoolchildren can purchase fresh baked food and stuffed rolls;

- canteen. Students are offered hot and cold meals, including hamburgers, sushi, stuffed rolls, sandwiches, soups, pasta, salads, and fried potatoes. Besides, one can purchase ready-to-eat prefabricated products, including chips, various beverages, yogurts, cereal bars, tarts and candies. Students can have their lunch at the canteen or take food with them.

Food can be provided to students by one of the abovementioned ways in 70% of primary and 90% of secondary schools. As a rule, primary schools opt for ordering lunches while at secondary schools students can purchase food in a school buffet or canteen though a possibility of ordering lunch is still preserved. However, most students do not purchase food at school on a daily basis. (53)

The abolishment of school feeding legislative regulation by the federal government resulted into the growth of harmful food products sales at schools. In the long-term, such a policy will lead to obesity, diabetes and other chronic diseases. (27, 50) Quite few schools sell fruit. Healthy products are sold at a high price. Over 50% of children and 60% of teenagers buy food in school canteens but very few of them consume healthy food. (51)

3.12.5. Food Provision Management

Such large companies as “Sanitarium” and “Fonterra” possess their own international distribution channels. (12) “Progressive Enterprises”, CJSC specializing in retail trade via the “Countdown” supermarket network provided food products for SFP implementation to the “Red Cross” charity organization in 2007-2011.

Logistics is managed by “Freshmax” and “Americold NZ Limited”. “Freshmax” supplies the “Countdown” supermarket network with fresh food products due to distribution centres in Oakland, Palmerston North and Christchurch. Products delivered to stores are supplied by providers from all over New Zealand, if possible, food products are purchased from local farms.

“Americold NZ Limited” provides chilled and frozen food products using distribution centres in Oakland, Palmerston North and Christchurch like “Freshmax”. (45, 23)

The “Freshmax” company controls the whole production cycle “from seedbed to plate”. The company cooperates with the best agricultural manufacturers supporting them by means of the “Freshmax” technological and travelling groups that help to ensure food quality and security. Besides, the company monitors the package requirements compliance providing quality control at this important stage.

3.12.6. School Food Cost

The average cost of breakfast provision at primary and secondary schools with consideration of food cost and other expenses related to its preparation and serving (7) are given below:

| | |
|--|---------------|
| Cost of one breakfast | 2\$ |
| General administrative expenses (per one school) | 1,000\$ |
| Annual expenses related to SFP implementation (monitoring, control) (per one school) | 12,000\$ |
| Annual expenses related to school food purchase (per one student) | 400\$ |
| Data for schools located in regions characterized by the low social security index (1-3) (annual figures): | |
| Number of schools engaged into the program: | 614 |
| Expenses related to SFP implementation (monitoring, control): | 7,400,000\$ |
| Food expenses: | 10,900,000\$ |
| General administrative expenses: | 600,000\$ |
| Total cost: | 18,900,000 \$ |

3.12.7. SFP Financing

The government supports public schools activity. However, the budget funds allocated for SFP implementation are distributed by the ministries. For example, 12 million dollars is allocated for the “Fruit in Schools” program implemented by the Ministry of Healthcare on an annual basis. (49)

On the whole, SFP functioning is determined by the amount of payment performed by students’ parents as well as donations provided by commercial and charity organizations. (29)

The cost of school food provision to children makes up 250 dollars per week. (2)

Schools hold the budget allocating a part of its funds for school feeding provision. Parents make regular annual contributions in the amount of 100-250 dollars while a part of these funds is meant for students’ food compensation. School councils activity is supervised by the board of trustees that is accountable for the activity implemented at schools to the Ministry of Education. (32)

The total volume of federal monetary funds provided to schools and allocated for the initiatives related to feeding and students’ health improvement makes up 6 million dollars. (52)

3.12.8. Engagement of Business Structures and Other Organizations

As a rule, school councils are free to select food providers for SFP implementation.

In 2007-2011, the “Red Cross” charity organization program was implemented with participation of “Progressive Enterprises”, CJSC. “Progressive Enterprises”, CJSC owns the “Countdown” supermarket network that provided food products for SFP through the “Red Cross”. In the middle of 2011, the program was suspended in the wake of the “Countdown” supermarket

network refusal to provide school breakfasts. Breakfasts provision cost the supermarket network 200,000\$ per year. (55).

The “KickStart Breakfast” program is implemented by the “Fonterra” company and the “Sanitarium” health food factory. Since February, 2009, these structures have been supplying food products (milk and cereals correspondingly) for the “KickStart Breakfast” program implementation (30) to schools with the social security index of 1-4 on a free basis. Since then they have managed to provide schoolchildren with over 2.7 million nutritional breakfasts. The program is valid only twice per week for the purpose of bringing home to students the idea of healthy food necessity at the beginning of their school day. Currently, the program engages over 18,400 participants from 488 schools with the social security index of 1-4.

The “Healthy Heart” fund SFP is aimed at improving students’ health by providing them with nutritional and healthy food in sufficient amounts. The program has been valid at primary and secondary schools of New Zealand since 1989. (34)

The “Fonterra” company has also started implementing the “School Milk” program, which will enable schoolchildren to receive milk on a free basis. (13,14).

3.13. PAPUA-NEW GUINEA

3.13.1. School Feeding System Status

The Department of Education (DOE) provides nutrition education at all levels in both formal and informal education. Nutrition education is often incorporated into different subjects offered in primary and secondary schools. In community schools, for example, concepts and skills in nutrition education are taught in agriculture, health, community life and science. In provincial high schools nutrition education is one of the main components of home economics.

Other subjects such as agriculture, guidance and science have also integrated knowledge and skills on nutrition. Nutrition education is vital because it enables students to:

- Understand the relationships between food, good growth and all aspects of human development.
- To develop the skills of hygiene, food preparation and storage.
- To develop the skills in making wise decisions about food selection, preparation and consumption

The *Health Promoting Schools* initiative of WHO is also a key program, which highlights the opportunities to educate children and support healthy school environments. The success of the program is reliant on the enthusiasm of the teachers. Activities include regular preparation of healthy school lunches using traditional food to be enjoyed by all students, buddy systems using older children as role models at lunch, and parents having an opportunity to teach children about customs.

The importance of nutrition education and the crucial role of school setting is demonstrated by the joint UNESCO, WHO, UNICEF, Education International and the World Bank, FRESH framework. The Focus Resources on Effective School Health (FRESH) framework provides school health and nutrition policies, skills based education addressing health, nutrition, hygiene issues and delivers safe and simple nutrition services (deworming, micronutrient supplements and nutritious snacks to avoid hunger etc).

3.13.2. Engagement of Governmental Structures and Non-Governmental Organizations

In conjunction with Department of Health and/or Education and World Health Organization (WHO) initiate and implement nutrition education strategies and provide materials and teaching aids targeting protein energy malnutrition, anemia, noncommunicable diseases and iodine deficient disorders in the country.

The 16th Annual meeting of the National Agricultural Advisory Committee held in 1999 made some significant resolutions and recommendations with regard to national food security. These recommendations must be implemented and used as guides in formulating all national food programs. To promote food security, a farming systems approach is recommended, within which the FAO concept of food security should be pursued namely.

In line with the WHO Child Survival Strategy recommendations a National Child Health Advisory Committee was established in 2006. The Child Health Advisory Committee has a key role in coordinating and supervising Child Health activities. This committee reviews all child health policy areas, new evidence and information and provides recommendations to the National Department of Health (NDOH).

The committee has wide representation, including that from NDOH, the IMCI programme leader UNICEF and WHO, University of PNG, and a community Breast feeding support group. It meets quarterly, overseeing many child health activities. It is a vital link between child health workers, institutions and the NDOH. The CHAC has made recommendations or resolutions concerning all the activities mentioned in this document. A recent advance has been the appointment of an IMCI leader to be a member of the committee. General support to the policy, coordinating, and monitoring roles of the CHAC will be very important to maintaining a coordinated approach to child survival.

3.13.3. Program Development

In 1973, the first elected government formulated eight development aims. These aims can be placed in three groups, those in group 1 are primarily political in context and those in group 2 deal primarily with welfare economics. Group 3 has only one aim, and appears more closely connected to the national goal of PNG ways than any other goal.

In 1978 the National Public Expenditure Plan (NPEP) was introduced, and it caused a major change in the execution of government policy and business. Through this plan, government set in motion a process by which new expenditure would take the form of projects for which funding could be provided for, at the most, four year “rolling” periods. NPEP projects were organized around nine so-called strategic objectives. None appears to be connected with the aim of PNG ways, but this aim is something that is meant to permeate through all strategic objectives.

One of the objectives deals with food production and nutrition. These two elements have been separated because the improvement of nutrition is linked with the national goal of integral human development, while the improvement of food production is linked largely with self-reliance. The implementation of policy, particularly that relating to rural development, was greatly affected by the process of decentralization, which started in early 1977 and continued till 1980, when all the provinces had their own governments. The main focus of the NPEP was rural development; thus many of its activities became provincial functions. Funding came with the transfer of these functions, but in addition the NPEP offered provinces the opportunity to expand them through grants tied for projects. Three approaches were possible:

- Participation in a national sectoral program through collaboration with an appropriate line department,

- Formulation of an integrated rural development project, and
- Submission of projects to NPO separately and directly.

Serious problems of coordination and communication are most likely to occur in the sectors that have been partially decentralized. For example in the agriculture sector, the responsibilities are divided (Table 11):

Table 11

Distribution of responsibilities of mandated institutions

| Responsibility | Mandated Institution |
|------------------------------|--|
| Policy and overall direction | Department of Agriculture and Livestock |
| Research | National Agriculture Research Institute, Oil Palm Research Assotiation |
| Extension | Provincial DPI and other extension agencies such CCEA |

3.13.4. Food and nutrition policy

The first Nutrition Survey was attempted in 1975 to compile a national picture of malnutrition levels in PNG. An inter-departmental working group was set up in 1977 to look into the issues of national food and nutrition policy in Papua New Guinea. This interdepartmental working group came up with the following recommendations:

- DPI (DAL) should be the coordinating agency for developing projects to process foods.
- Food Marketing Corporation and other organizations should be asked to begin development marketing.
- High priority should be given within five years (of 1981) to increase domestic food supplies to Port Moresby.
- Four instruments (Commerce, Transport, DPI and Labour and Industry) should give high priority to projects that develop marketing, processing, storage, transport, wholesaling and retailing of food.
- A nutrition education policy should be implemented.
- Regular nutrition education surveys are to be conducted and the National Planning Office (NPO) would co-ordinate the National Food and Nutrition Policy (NFNP) and report to the National Planning Committee.

The PNG National Nutrition Policy, March 1995 (which is a revision of the 1978 National Food and Nutrition Policy), states that malnutrition remains a significant problem in many areas and appears to be increasing in others.

The Government-presented PNG Medium Term Development Strategy 2005-2010 was the plan for economic and social development, firmly based on the Government's Programme for Recovery and Development. Its primary overall themes are good governance, export-driven economic growth, rural development, poverty reduction and empowerment through the development of human resources. There is a focus on recently-emerging threats to development, such as HIV/AIDS, high population growth, unplanned urbanization, dysfunctional service delivery systems and impediments to land utilization.

The Government Department of Agriculture and Livestock (DAL) developed a National Agricultural Development Plan, following inadequate documentation contained in the National

Agriculture Development Strategy; Horizon 2002-2012 (August 2001) and a White Paper on Agriculture, National Agricultural Development Policies 2001-2012. It is the responsibility of the National Agricultural Research Institute (NARI) to ensure that the new document puts adequate emphasis on the full utilization of traditional crops, including those listed above, rather than relying almost totally on the major export tree crops – oil palm, coffee and cocoa – and on introduced grain crops for national development.

3.13.5. Food Security

A detailed analysis of food security strategies for PNG was carried out and documented by Iguia (2001). Subsequently, the National Food Security Policy 2000-2010 (May 2000) was developed as a response to concerns regarding the level of food imports and hence the long-term sustainability of national food security. The assertion was that PNG should take seriously the need to develop and strengthen its capacity to improve the domestic supply of food. Formulation of the plan involved a review of existing food-related policies; development strategies and programmes; projects and activities in food crops and livestock production; fishery- and forest-derived foods; marketing, processing, preservation and utilization. This was intended to complement the 1995 National Nutrition Policy. It gives, as the primary objective, an increase in and diversification of food production in order to achieve greater self-sufficiency and attain food security, both at national and household levels, by 2015. This can be realized through increased agricultural production and income earning from domestic marketing and exports.

It is important to develop cooperation between agencies dealing with agriculture, health and education, and improve the quality of food and nutrition education in the schools, vocational training centres, village development programmes and the non-formal education sector. Locally-produced foods should be endorsed as 'high quality', thus improving their status. There is a need for information kits and recipes for using local foods.

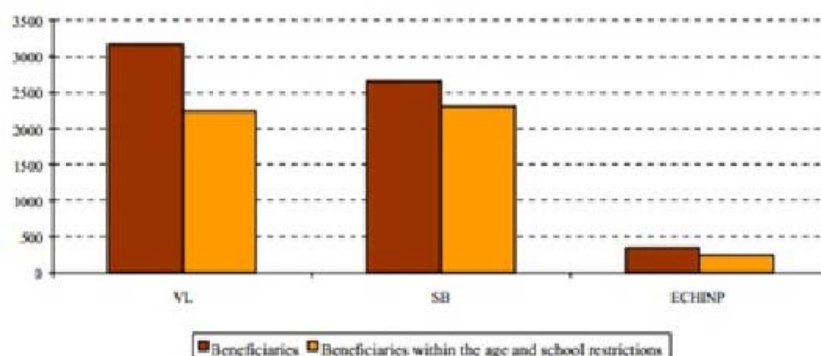
3.14. PERU

3.14.1. School Feeding System Status

Public food programs are receiving increasing attention in Peru after the large increase they experienced during the nineties. During that period, these programs grew not only in budget, but also in number. Several new programs were created that were run by different government agencies, with confusing or overlapping objectives and lack of coordination.

With the household-level information coming from the 2000 LSMS, it is possible to compare the size of the programs by the number of individuals that report themselves as beneficiaries of the program. (see Figure 2) The largest program, based on the number of beneficiaries, was the Vaso de Leche (VL), followed by the School Breakfast (SB). The VL program has 3.1 million beneficiaries, while the SB program has about 2.6 million. It is interesting to see that the number of SB beneficiaries match closely to the number of beneficiaries reported by the program, while that is not the case for the VL program. STPAN (1999) indeed reports that the VL programming is based on a total of 4.9 million beneficiaries. Nevertheless, the same study reports that some case studies found that the programming beneficiaries may be overestimated by as much as 100%.

Figure 2

Size of programs by number of beneficiaries (thousands)

Source: 2000 LSMS.

In addition to having the smallest budget, the ECHINP aggregate also appears as the smallest in terms of the number of beneficiaries, with an even larger difference, suggesting that per capita transfers are also larger for the programs involved. A brief description of each program included in the analysis is given below.

3.14.2. The School Breakfast (SB) Program

The School Breakfast Program is a nutritional program that targets public primary school children. It was created in 1992 with the general objective to improve the nutritional level of children between 4 and 13 years old so that they can enhance their educational achievements and attendance. This program is funded by the central government, through two public institutions: the National Food Assistance Program (PRONAA) and the Social Investment Fund (FONCODES). There did not seem to be much coordination between the two agencies, but FONCODES tended to concentrate much more in rural areas.

The School Breakfast Program evaluated is one of several carried out by the Peruvian government. In this case the program is run jointly with an international agency in three of the poorest departments (INEI, 1994) of Peru: Ayacucho, Apurimac and Huancavelica, all located in the highlands. One of the objectives of the program is to “eliminate hunger and reduce anemia through a nutritional supplement to children in preschool and primary school, so that the students’ ability to learn are improved”. The school breakfast program consists of a cup of a milk-like beverage (with no lactose in it) in three flavors and 6 small biscuits. The nutritional composition of the breakfast is presented in Table 12.

Table 12

Nutritional Composition of the School Breakfast Daily Ration

| | Beverage | Biscuits |
|-------------|----------|----------|
| Iron | 7.2 mg | 6mg |
| Calcium | 480 mg | |
| Phosphorus | 480 mg | |
| Zinc | 6 mg | |
| Vitamin A | 240 mg | |
| Folic Acid | 60 mg | |
| Vitamin B12 | 0.84 mg | |
| Tiamin | 0.60mg | |
| Riboflavin | 0.72 mg | |
| Niacin | 7.8 mg | |
| VitaminB6 | 0.84 mg | |
| VitaminC | 27 mg | |
| Iodine | 72 mg | |

One ration of the breakfast is designed to provide energy (600 Kcal), protein (22.5 grams) and fat (20 grams). Also it is designed to provide 60% of the daily requirements of several vitamins and minerals needed by children, and 100% of the daily requirements of iron. The relatively higher iron supplementation is based on several studies that show the negative relationship between iron deficiency anemia and intellectual development and school achievement (Pollitt, 1990).

The breakfast is centrally produced so as to maintain nutritional quality. The biscuits are ready to eat and the beverage is in powder, so it has to be diluted in boiling water before serving. At each school parents and teachers are expected to form committees to receive and maintain the breakfast supplies and serve breakfast Monday through Friday during the school year (beginning of April through early-December).

One interesting fact is that the school breakfast program is mostly consumed at mid-morning. The reason is that most children have to walk long distances to get from home to school, often times more than 30 minutes each way up or down steep mountains, so parents will not let their children go to school with empty stomachs³ Since most students are not hungry when school classes start (around 8:30 or 9:00a.m.), and as a general rule parents are not available to prepare the beverage before 9:00a.m., the school breakfast is served during recess time (between 10:00 and 11:00 a.m.)

Delivery of breakfast rations occurs within public schools during one of the recreational breaks, and is organized by local committees formed by the mothers. In principle, the ration consists of a cup of a milk-like beverage, fortified with cereals, and six small fortified biscuits, and is the same for all children regardless of their age. In practice, though, local committees make adjustments to incorporate local inputs, mainly milk and grains produced in each area. PRONAA and FONCODES identified beneficiary schools based on the poverty level of the district in which they are located, and the number of students registered in primary levels determines the number of rations.

3.14.3. Vaso de Leche (VL)

The World Bank initiated the Vaso de Leche (“Glass of Milk”) program in Lima in 1984. It uses community municipalities as the basis for providing in-kind transfers of milk and other commodities including cereals and other milk products to households. Priority is given to the ‘firsttier’ group of households which consist of families with lactating mothers and children age six or younger. Once people in this tier have been provided for, the program distributes milk and related commodities to households with children from 7 to 13 years old, and people suffering with tuberculosis.

As determined by the World Bank at the commencement of the program, each municipality has an administrative committee and a Vaso de Leche Mothers’ Committee elected from within the respective neighborhood. These internal organizations determine program beneficiaries as well as the administration and allocation of goods within the municipality. The Vaso de Leche program became increasingly popular during the economic stress and downturns of the 1990s. After about 14 years as a program, Vaso de Leche was catering to 44 percent of households with children from age 3 to 11.

The Vaso de Leche program is based on a good theoretical framework for addressing malnutrition in poor communities. However, as studies have demonstrated, the program fails at various levels of implementation and is not a sustainable solution to the problem of malnutrition. If we measure success of the program with its ability to fulfill its mission, Vaso de Leche fails.

A majority of communal women’s kitchen are found in Lima (60%), with the rest in ‘urban coasts’. This means that most of the population served by this program is actually not poor or extremely poor. A study of this program, conducted by researchers at Tufts University, notes that the percentage of beneficiaries of the Vaso de Leche program that is not poor or extremely poor ranges from 60 to 68%. Most of the resources, therefore, are going to middle income Peruvians. In another study sponsored by the World Bank, David Stifel and Harold Alderman assess the impact of this program on households with low nutritional status before the program. After measuring the nutritional status of the same group of participants after the program, Stifel and Alderman come to the conclusion that even though the program functions well as an in-kind transfer to a large number of poor households, it only serves to decrease malnutrition rates by 0.28 percentage points. This is a dismal improvement rate for a program geared to solving malnutrition in the country.

The VL program started in 1984 and was designed to target children under 6 years old and pregnant or breast-feeding women, but has large leakages towards older children (from 7 to 13 years old) and the elderly. In that sense, it has a significant overlap with the school breakfast program. Funding comes from the treasury to the municipalities, which organize the purchase of the inputs that are then transferred to the registered local mothers’ committees. The mothers’ committees organize distribution to registered households. This often implies the reduction of individual rations when they increase the number of registered beneficiaries.

The distribution occurs in the municipal building, another community building, or the house of the elected local leaders. The ration varies by committee but it tends to include 250ml of milk, cereals and other products, and is often delivered without preparation. This is a key difference with respect to the SB program, and facilitates that the food is allocated among household members according the preferences of the mothers or household head, regardless of the indications of the program.

The size of the transfer to the municipalities is based on the poverty level of the district, but the transfer received by the household is affected by the number of committees registered in the municipality, and the number of families registered in the committees. These committees are in charge of verifying the poverty of the families in their neighborhoods and the presence of children in

the age range. There are no clear rules for the updating of the information and it is often claimed that many families that are not longer poor, or do not have children in the corresponding age, remain as beneficiaries.

3.14.4. Early Childhood Nutritional Programs (ECHINP)

Within the early childhood nutritional programs category, five relatively small programs have been chosen with similar objectives and target populations. All of them focus on children under 3 years of age. Four of them have exclusive nutritional objectives: the Nutritional Assistance Program for High-Risk Families (PANFAR), operated by the MoH, the Infant Feeding Program (PAI), operated by PROMUDEH, and two other programs run by NGOs (Niños and Nutrición Infantil). The fifth included program is the PROMUDEH integral childcare program, Wawa-Wasi, which also targets poor children under 3. All these programs deliver precooked food rations for children under three years old (papillas), but use different locations to distribute them PANFAR uses MoH health facilities and personnel, while the distribution mechanisms of the other programs are heavily based in the participation of the mothers of the beneficiaries, and often use the community center or pre- school buildings.

In the case of MoH programs, public health facilities are responsible for the identification of the socio-economic status of the family. Some health centers have developed means-testing instruments but others rely more on the subjective impression of social assistants. Beneficiaries are also recruited through the centers' extramural activities in which they register information on the socio-economic characteristics of the families and search for newborns and pregnant women. Rules vary by center, but if they are classified as poor or indigent, then they are offered the baskets of the program that applies. Still, the subjectivity of the process allows for significant leakage.

The objective of these programs is to help children that face nutritional vulnerability, but each one uses a different operational definition for nutritional risk. In the case of PANFAR, for instance, they were searching for families with parents with at most primary education or unstable employment status, pregnant and breast-feeding women at nutritional risk and/or who have recently given birth, or having more than three children under five (see Gilman, 2003). A family is eligible if they have four of the above characteristics, or if some of the children under five are undernourished. Eligibility is reviewed every six months, and the subsidy is retired if no child under five is undernourished, which generates a pervasive incentive for which anecdotal evidence is often cited.

Table 13 summarizes the key characteristics of the food programs analyzed in this study. As indicated above, the empirical analysis uses the information available in the Peruvian LSMS surveys. The LSMS is a multipurpose household survey with a representative sample at the national level as well as for 7 regional domains. It collects information on many dimensions of household well-being, such as consumption, income, savings, employment, health, education, fertility, nutrition, housing and migration, incomes, expenditures, and use of public social services.

The benefit incidence information comes from module of social programs (module 12) in the LSMS questionnaire. The first question asks to the key informant whether any member of the household benefited from each program in the 12 months prior to the date of the survey. If the answer is positive, she is asked to identify the members of the household that did. For the most part, I use the 2000 LSMS, which includes a sample of 3997 households and 19,957 individuals. For the marginal incidence analysis, though, I compare two rounds of the LSMS (1997, 2000) which have different sizes but similar sampling procedures and questionnaires in the relevant modules.

Summary of Public Food Programs analyzed

| | School Breakfast (SB) | Vaso de Leche (VL) | ECHINP |
|-----------------------------|---|--|--------------------------------------|
| Start of the program | PRONAA: 1992 FONCODES: 1993 | December 1984 | PANFAR: 1988 Wawa-Wasi: 1994 |
| Type of transfer | Food ration (prepared) | Food ration (pre-cooked) | Food ration (pre-cooked) |
| Delivery mechanism | Public schools | Mother's clubs | MoH facilities |
| Primary Target Group | Children between 4 and 13 years old attending to public primary schools | Children under 6 and pregnant and breast feeding women | Children under 3 at nutritional risk |
| Secondary Target Group | None | Children between 7 and 13, TB patient and elders | None |
| Geographic targeting | Yes | Yes | No |
| Household/ Individual | No | No | Yes |
| Target population size * 1/ | 5'189,807 | 8'802,312 | 2'074,662 |
| Target population size * 2/ | 3,439,627 | 5,651,974 | 1,384,366 |

* Source: 2000 LSM

1/ Target population within the age and school restriction of each program.

2/ Target population within the age and school restriction of each program, who are poor.

3.14.5. Desayunos Escolares

Desayunos Escolares, or the Program of Scholastic Breakfasts, provides financial aid for states to operate programs of food distribution in schools and homes where infants are present. The program is operating in about 72,000 schools and institutions that serve an average of 7.4 million children a day. The program was established in 1966 as a two-year pilot project designed to provide categorical grants to assist schools serving breakfasts to undernourished children. In its first year, the program managed to serve 80,000 children at a cost of \$573,000. In 1975, the program received permanent authorization, continuing to emphasize participation of schools in severe need to improve the nutrition and dietary practices of children of working mothers and poor families.(42)

Studies of the program have shown that Desayunos Escolares has great potential to improve the learning capacity of students by, for example, improving short-term memory and nutritional state of children (43). However, the program would be more effective if it targeted populations with greater nutritional risk. Additionally, since there are two federally-mandated programs that aim to address nutrition in schools, implementation should be better coordinated or programs should be put together to reduce administrative costs and improve efficiency.

3.14.6. World Food Programme

The World Food Programs initiated its operations in Peru in 1964, and since then it has pursued its objectives to reduce poverty and food insecurity by providing food assistance and introducing systems for sustainable food production. WFP's programs are mainly concentrated in the Andean highlands (i.e. areas such as Ayachucho, Apurimac and Huancavalica as well as the region bordering Ecuador (59) where indigenous communities suffer from a greater lack of access to adequate nutrition in comparison with Peru's population on the coast. The World Food Program has attempted to fit its nutrition programs into the larger framework of the Peruvian government's public health objectives. It has also made consistent efforts to establish and maintain collaboration with its biggest donors (e.g. the United States and Canada), and to develop partnerships with local programs including PRONAA and CARITAS to facilitate its efforts in the field. By 2004, WFP's school feeding programs emphasized de-worming for school children, and provided nutritious snacks to help reduce anemia and enhance learning capacity for 82,500 primary school students (mostly girls).⁶⁰

Alternative methods for increasing the food supply and food variety in high altitude regions can include growing robust genetically modified crops and the creation of man-made ponds for fish farming. Although these represent possible programs to address nutritional issues in Peru's rural areas, they will most likely face opposition from local community groups and international organizations concerned with their environmental impacts. There are probably more politically feasible and sustainable ways to address access to healthy food without drastically changing the environment. The World Food Program may provide a better model for food support and sustainable food production.

3.14.7. Problems related to SFP Development and Implementation

In many of the rural regions of Peru malnutrition, especially child malnutrition, is seen as a normal or unavoidable life event. Unfortunately, many regional governments have not prioritized malnutrition as a serious health issue deserving of substantial funding. In November 2006, during the Andean Conference to end malnutrition, President Garcia was quick to blame regional governments for squandering mining tax revenues on new elaborate government buildings and other self-aggrandizement programs, instead of focusing on malnutrition. President Garcia stated that "The cost to countries from failing to eradicate under-nutrition is a staggering six percent of gross domestic product. Not only is under-nutrition impeding the development of individuals, it is acting as a brake on economic development."

At the national level, malnutrition programs are plagued by other problems. While significant resources have been dedicated to the issue over the years, progress has been slow. National malnutrition programs have been characterized by unresponsiveness to local needs and wasted resources. Government officials have reportedly been afraid to allocate resources to nutritional programs with a history of ineptitude, due to the fear that they may later be sued for misuse of funds. Yet another problem is the lack of inter-sectoral cooperation among Ministries and organizations to address more of the root causes of malnutrition, such as transportation and education, rather than simple reliance on food supplementation programs.

3.14.8. Financing

Peru's government supports a multitude of programs that address the challenges of malnutrition in the country. This section describes in detail the four government programs that most

directly address nutrition – Comedores Populares, Vaso de Leche, Desayunos Escolares, and the new PIN (Integral Nutrition Program) initiative – and suggests recommendations for improving each program’s effectiveness. The Peruvian government spends about \$250 million a year on food assistance programs to vulnerable populations in the country.

The programs analyzed are the largest public programs that target the health and nutrition of children in Peru. The total combined budget for the SB, VL and the ECHINP aggregate was US \$ 195 million in the year 2000, and represented more than 80% of the total public resources allocated to food programs. (Table 14) The VL is the largest food program with an annual budget of US \$ 93 million in 2000, closely followed by the SB program. (68 million) The ECHINP aggregate is significantly smaller with a budget of US \$ 35 million.

Table 14

Total Budget for Food Programs in Peru (thousands of US\$)

| | 1998 | 1999 | 2000 |
|---------------------------------------|---------|---------|---------|
| Vaso de Leche (VL) | 97,645 | 90,273 | 93,159 |
| School Breakfast (SB) | 68,013 | 73,547 | 67,935 |
| Child Oriented Food Programs (ECHINP) | 38,324 | 55,471 | 34,673 |
| Sub-total | 203,982 | 219,291 | 195,767 |
| Total budget food programs | 234,565 | 266,967 | 240,278 |

Source: 1998-1999, STPAN (1999). 2000, Institute Cuanto (2001).

Over half of government expenditures for nutrition programs in Peru are spent on the Programa Vaso de Leche and Comedores Populares. In 2000, about 59% of the Peruvian government expenditure for food assistance was concentrated in these two programs, 43.1% and 15.8% respectively. Desayunos Escolares also receives a significant portion of funding from the government for its nutrition-targeted programs. With about \$51 million invested in Desayunos Escolares in 2002, it is the second most funded public nutrition program in Peru.

3.15. PHILIPPINES

3.15.1. School Feeding Program

The School Feeding Program⁵⁷ in the Philippines is called Breakfast Feeding Program (BFP) which was redesigned in SY 2010-2011 and piloted in selected schools in three (3) provinces using indigenous foods. Funds from the national government were transferred to the schools to enable the school heads to manage and implement the program at the school level. In SY 2011-2012, it was covered additional schools from sixteen (16) provinces.

The Department of Education (DepEd) initially conceptualized and launched the Breakfast Feeding Program (BFP) in 1997 to address the *short-term hunger (STH) syndrome* among the public school children. *Short-term hunger* is a condition experienced by children who do

⁵⁷ Descriptions and data presented in this chapter have been provided by Maria Corazon C. Dumlao, Officer-In-Charge, Health and Nutritional Center, Department of Education, Republic of the Philippines, by email at request of SIFA/

not eat breakfast and walk long distance to reach school. As the program progressed, it shifted to address a more serious problem of *undernutrition* which is a global public concern because it commonly causes death among children. However, this is preventable and treatable according to World Health Organization (WHO). According to the DepEd-Health and Nutrition Center (HNC) 2010 Report, 15.58% of the children in public elementary schools are undernourished and poor health and nutrition have ill-effects on the academic performance of the children. Under the Millennium Development Goals (MDGs), the target is to reduce the prevalence of *undernutrition* by 50% in 2015. Thus, the DepEd issues the Guidelines on the Implementation of the Breakfast Feeding Program for School Year (SY) 2011-2012 to arrest *undernutrition* among school children.

The BFP aims to rehabilitate at least 70% of the beneficiaries at the end of 100-120 feeding days. Specifically, the program aims to ensure 85-100% attendance among the target beneficiaries and improve the children's health and nutrition values and behavior.

Initially, the BFP was implemented in the selected three divisions/regions: namely: Division of Pangasinan under Region I, Division of Bohol under Region VII and Division of Lanao del Norte under Region X. The divisions were selected from among the twenty (21) divisions which are modeling the *Quality Management System (QMS)* following the policy principles of School-Based Management (SBM). It was expanded to the remaining fourteen (14) regions based on the following criteria:

- a. prevalence of *undernutrition*;
- b. training provided to school heads on SBM;
- c. capacity of the school heads to manage;
- d. disbursement and liquidation of funds; and
- e. awareness on procurement rules and regulations.

All regional directors (RDs), schools division/city superintendents (SDSs) and school administrators are enjoined to extend full administrative support to the management of the program. The School Health and Nutrition (SHN) personnel are expected to monitor the preparatory activities and the full implementation of the program and ensure submission of Program Terminal Reports (PTRs) at the end of the Feeding Program.

3.15.2. Breakfast Feeding Program Operational Guidelines (SY 2011-2012)

3.15.2.1. Description

The Breakfast Feeding Program (BFP) was initially conceptualized and launched in 1997 to address the "short-term-hunger syndrome" among public elementary school children. Short term hunger is a condition experienced by children who do not eat breakfast and/or walk long distances to reach school that result to non-attendance and/or inattentiveness in class. As the program progressed, it shifted from just addressing the short-term hunger to addressing a more serious problem of *undernutrition* in schools.

The BFP aims to provide hot meals to children following the developed standardized recipes using malunggay and 20 day cycle menu utilizing locally produced and/or grown foods. By following the menu, the beneficiaries are assured of additional 300 calories per day to address their nutritional deficiencies. To avoid commodity fatigue, a variety of vegetables from their garden produce may be added in the menu. This is the reason why schools are encouraged to establish vegetable gardens to serve as food basket and have a ready source of vegetables in school. Food

preparation maybe handled by the homeroom PTA on rotation basis or through the home economics/feeding teachers. The feeding program is also utilized as an avenue for the development of health and nutrition values and behavior among the children.

The BFP is to be implemented at the school level in accordance with decentralization efforts introduced through RA 9155 and the policy principles of School-Based Management (SBM) of DepED. The BFP also builds on the successful experiences in Negros Oriental with the localization of the Food for School Program. It is expected that the BFP will be included as part of the School Improvement Plan (SIP).

3.15.2.2. Objectives

General:

To rehabilitate at least 70% of undernourished beneficiaries at the end of 100-120 feeding days.

Specifically, the program aims to:

1. ensure 85-100% attendance among target beneficiaries; and
2. improve the children's health and nutrition values and behavior.

3.15.2.3. Mechanics of implementation

A. Priority target areas and schools

1. Pilot implementation

The BFP targeted the three (3) divisions from the 21 divisions modeling the Quality Management System (QMS) following the policy principles of School Based Management (SBM). These divisions were selected on the basis of geographic coverage (Luzon, Visayas and Mindanao), readiness on submission of nutritional status data, quick response to data requested, and familiarity with the guidelines on fiscal management.

Prioritization of schools shall be based on SBM assessment result and prevalence and magnitude of undernutrition.

2. New implementers for SY 2011-2012

The new implementers for SY 2011-2012 were identified by the Regional Health and Nutrition Unit (RHNU) Staff based on the following criteria: prevalence of undernutrition, training provided to school heads on SBM, capacity of the school heads to manage, disburse and liquidate funds, and awareness on procurement rules and regulations.

B. Priority target beneficiaries

The target beneficiaries shall be the undernourished kindergarten and Grades 1 to 3 pupils in identified schools. These grade levels are prioritized due to the high level of dropout rate, vulnerability to illnesses and undernutrition and they are considered at the critical stage of mental and physical development.

Each school is expected to record and submit the names of the beneficiaries, with their birthdate, age, weight in kilograms, height in meters, date of weighing and nutritional status during the first month of feeding.

C. Duration

To achieve a significant impact on the nutritional status of the children, the feeding shall be done for 100-120 days that is expected to commence within June 2011 to March 2012. The feeding days may be shortened if the actual beneficiaries exceeded the target beneficiaries or it may be extended if the actual beneficiaries are below the target beneficiaries. The following formula shall be followed in computing for the actual number of feeding days:

No. of feeding days = Budgetary allocation for feeding
(actual beneficiaries X P15.00)

A DepED Memorandum to this effect shall be issued prior to the commencement of the program.

D. Creation of BFP Core Group

The school heads/principals shall create a BFP Core Group from among the school personnel (teaching and non-teaching) and parents who shall be responsible in managing and implementing the program for the whole feeding cycle, they can only be replaced for valid reasons. The BFP Core Group shall be composed of two (2) teaching personnel and one (1) parent or one (1) teaching personnel and two (2) parents. The names of the BFP Core Group shall be submitted by the School Head to the Division Office as reference in granting service credits to teachers.

The BFP Core Group shall be responsible for the following:

1. Finalize the cycle menu for the whole duration of feeding;
2. Identify the target beneficiaries based on the set criteria;
3. Together with the school head, identify parents/volunteers who shall help in the whole duration of the program (these parents/volunteers should be in a good health condition);
3. Prepare the schedule of parents/volunteers who shall prepare the foods, cook the menu for the day, prepare the feeding area, supervise the daily feeding and wash the dishes;
4. Train the parents who shall help in the program on food pre
5. Do the recording and reporting using BFP Forms, and
6. Submit the terminal report at the end of feeding to the Division Office through the District Office.

E. Commodities

The school heads/principals shall have the authority to choose which food items to feed the targeted children based on the suggested recipes (Annex 2). In choosing the food commodity, special consideration should be given on the availability and sustainability of the supply in the area, reasonability of the prices and nutritional value that will help address the nutritional deficiencies among the children. A one-month or two-months cycle menu consisting of rice and a viand shall be prepared and followed.

From the Cycle Menu, the school head shall prepare a Work and Financial Plan (WFP) and a Project Procurement Management Plan (PPMP) for submission to the Division Office.

F. Procurement and delivery

1. The procurement of the food commodities shall follow the provisions of Republic Act 9184, otherwise known as Government Procurement Reform Act, and its revised implementing rules and regulations (Rule 1, Sec. 4.3 of the IRR). The existing school's Bids and Awards Committee (BAC) shall be responsible for the procurement of supplies and materials eligible for funding. In the absence of a committee, the School Head shall create one through a memorandum. The school's BAC shall be composed of five members consisting of school personnel. In the interest of check and balance, the school head shall not be a chairperson or member of the school's BAC. School SAC's recommendations for award shall be subject to school head's approval. Purchase orders shall be signed by the school head. Inspection and acceptance of goods shall be performed by the school's authorized representative.

2. All procurement shall be done through competitive bidding, except as provided in Rule XVI of the IRR of R.A. 9184.

3. Subject to the approval of the Head of Procuring Entity, and whenever justified by the conditions provided in R.A. 9184, the procuring entity may, in order to promote economy and efficiency, resort to any alternative methods of procurement, provided the most advantageous price for the Government is obtained. For this Program the Guidelines for Shopping and Small Value Procurement issued by the Government Procurement Policy Board (GPPB) shall be followed (Appendix 18 of the IRR).

4. For the procurement of food commodities, Negotiated Procurement particularly, Small Value Procurement (Section 53.9 of the IRR) may be used, provided, the threshold is not more than P500,000.00 as prescribed in Annex H of the IRR. At least three (3) suppliers will be invited to submit proposals.

5. The Request for Quotation (RFQ), indicating the specification, quantity, Approved Budget for the Contract (ABC), packaging, delivery and payment terms and quality/conditions of the item to be procured, shall be prepared by the School BAC and signed by the Chairperson.

6. In planning for procurement, the end-user should consider the most economical and efficient means of procuring food items, considering that quality of product and "freshness" should be guaranteed. Hence, ingredients needed in preparation for daily menu should be identified and summarized using the RFQ/Market form (Annex 3). For example, no. of kilograms rice/ "malagkit", kg. of chicken, garlic, onions, etc. for each menu per day.

7. The RFQ must also prescribe the manner by which price quotations shall be submitted i.e., by sealed or open quotation, and the deadline for their submission. In all instances, however, information relating to the examination, evaluation, and comparison of price quotations shall be kept confidential and should not be disclosed to any other party except to those officially concerned until award of contract.

8. RFQs shall also be posted for a period of seven (7) calendar days in the Philippine Government Electronic Procurement System (PhiiG-EPS) website, website of the procuring entity, if available, and at any conspicuous place reserved for this purpose in the premises of the procuring entity (e.g. school bulletin board), or other conspicuous place in the community (e.g. market, brgy. Hall, daycare center). However, in the following instances, this posting requirement shall not be applicable: (i) when there is an unforeseen contingency requiring immediate purchase under Section 52.1(a) of the IRR; or (ii) RFQs with ABCs equal to Fifty Thousand Pesos (Php 50,000.00) and below. The School BAC may seek assistance from the Division BAC if not the Procurement Service with regard to posting in the PhiiG-EPS.

9. After the deadline for submission of price quotations, an Abstract of Quotations shall be prepared setting forth the names of those who responded to the RFQ, their corresponding

price quotations, and the lowest quotation submitted. The school head shall approve the abstract of quotation if in accordance with the procurement process as provided by law.

10. Award of contract/Purchase Order shall be made to the lowest calculated and responsive quotation which complies with the specifications and other terms and conditions stated in the RFQ. The procuring entity must validate whether it is entering into a contract with a technically, legally and financially capable supplier by requiring the submission of relevant documents or through other means, e.g. business licenses, tax account number, availability of official receipts for payments received (and other accounting and auditing requirements).

11. For information purposes, all awards shall be posted in the PhiG-EPS website, website of the procuring entity, if available, and at any conspicuous place reserved for this purpose in the premises of the procuring entity except for those with ABCs equal to Fifty Thousand Pesos (Php 50,000.00) and below.

12. The terms for delivery and payment maybe made on a regular basis; e.g. daily, weekly every two (2) weeks provided it is indicated in the Contract/P.O.

13. The commodities should be delivered directly to the school. There shall be no additional charges for packaging and delivery of food commodities.

An authorized representative if not the principal/school head shall be responsible for receiving the deliveries of the food commodities.

a. He/She shall randomly check the deliveries to determine quality and quantity as well as check for expiration date if applicable.

b. In case the principal or school head is not available at the time of delivery, he/she shall designate an authorized representative to receive the commodities as confirmed in an authorization letter.

14. The authorized person of the school to receive food commodities shall use Form No. 2 in recording the deliveries of food commodities.

G. *Nutritional assessment of beneficiaries*

Height and weight of beneficiaries in targeted schools will be taken by the school nurse or the teacher using BFP Form 1. This data shall be the basis for assessing the improvement on the nutritional status of the children at the end of the program.

1. The new WHO Child Growth Standards shall be used as the basis for the computation of the nutritional status.

2. Baseline data shall be taken at the start of the feeding, every three months and end-line data at the end of the program.

3. A calibrated weighing scale, preferably beam balance, shall be used to take the weight and steel tape for the height.

H. *Feeding proper*

Feeding shall be done in the morning preferably before the start of classes. If and when feeding is conducted in between class sessions, children must be fed at the school feeding center/area or separate room to avoid disruption of classes.

1. Mechanics:

a. The food commodities shall be served and consumed inside the feeding area. Food commodities shall not be brought outside the school.

b. The parents of the children beneficiaries shall provide the feeding utensils such as plates, spoon and fork, placemats, table napkins/towels, and other feeding paraphernalia. They shall likewise be responsible for the washing of used utensils.

c. The principal or school head or his/her authorized representative shall be responsible for supervising the daily feeding.

d. Feeding shall commence as soon as food stocks are received.

e. Highest standard of hygiene for the preparation and serving of food must be practiced and observed.

f. Aside from feeding, the children should be taught proper hygiene such as washing of hands before and after eating, table manners, prayers before and after meals, simple concepts on health care, and importance of nutrition for their health and development, among others.

g. In order to facilitate the feeding and not to over-burden teachers, the PTAs, and other volunteer workers shall be mobilized and tapped to assist in the conduct of the feeding.

h. Children who participated in daily feeding shall be recorded in BFP Form 2.

i. In cases of any interruption i.e., school is used as temporary evacuation center, the principal or school head shall ensure that the feeding activity shall be for the targeted children only.

2. Adherence to Food Safety

Food safety standards shall be strictly enforced and adhered to at all times by complying with the following:

- a. Availability of potable water and hand washing facilities;
- b. Well-maintained, clean, well-ventilated and pest-free environment;
- c. Proper selection of foods and enduring they are fresh and in good quality;
- d. Washing/cleaning food items before storing;
- e. Storing dry goods dry storage area and perishable foods in cold storage area;
- f. Preparing/Cooking of foods on the day it will be served;
- g. Availability of food covers and containers for safekeeping;
- h. Hygienic practices on food preparation, cooking display, serving and storage;
- i. Ensuring that non-food items are not in the kitchen area, or if it cannot be avoided, they should be properly labeled and segregated from food items;
- j. Observing the expiry dates of food commodities; and
- k. A first-in first-out (FIFO) policy shall be observed in withdrawing stocks for the storeroom.

1. Storage and control system

A system on storing and control of food items in schools should be in place to ensure a smooth program implementation. School heads must allocate a space in school for storing foods. If no space is available, the principal may coordinate with the PTA or barangay officials for the provision of storage areas. To avoid the demand for large storage spaces, a staggered delivery system of food commodities maybe arranged with the supplier.

J. Attendance of pupils

Daily attendance of pupils and conduct of feeding shall be accomplished by the BFP Core Group using BFP Form 1. This will be used to monitor as to whether there was improvement on the attendance of the pupils and in their nutritional status.

K. Financial operations

1. The DepED Central Office, through the Budget Division, shall prepare Sub-ARO based on the approved listing provided by the Health and Nutrition Center. Sub-ARO shall be released to Division Offices concerned with copy furnished to Regional Offices.

2. Upon receipt of SARO, Division Offices shall request their corresponding Notice of Cash Allocation (NCAs) to their respective Regional DBM copy attached Sub-ARO and listings of recipient schools. NCAs shall be requested in accordance with the program of Division Offices relative to implementation of school feeding program.

3. Upon receipt of NCAs, a check shall be prepared and issued in favor of the School Principal/Head. The remaining allocation of the recipient schools shall be released upon submission of liquidation reports pertaining to the previous releases.

4. The manual on the Simplified Accounting Guidelines and Procedures for the use of Non-Implementing Units/Schools shall be adopted to account the receipts, utilization and liquidation of funds of non- implementing units.

5. Division Accountants are reminded of the necessary bond of the School Principals/Heads. Additional bond shall be sourced from the MOOEs of Division Office.

6. Immediately upon release of check to recipient schools, Division Accountants shall prepare and submit the Statement of Expenditures (SOEs) to their Regional Accountants for consolidation and the latter shall submit the consolidated reports to the Central Office-Accounting Division. It is encouraged however, that advance copy from the Division Offices may be sent directly to the Central Office-Accounting Division.

7. Expenses allowed under this program shall be food items only. Other expenditures necessary to implement the program such as transportation expenses, water, LPG, charcoal, firewood and kerosene are chargeable to HNC program funds allocated for the purpose.

8. The school heads shall be responsible in ensuring prompt liquidation of funds every three (3) months.

L. Monitoring and Evaluation

The program shall be monitored periodically to assess efficiency and effectiveness as follows:

National Level - semi-annual
Regional Level - quarterly
Division Level - bi-monthly
District Level - monthly

M. Submission of Reports

All school heads shall be responsible in the submission of a terminal report to include the following: program accomplishments; list of names of beneficiaries; issues encountered and actions taken; good practices or lessons learned and pictorials.

All terminal reports shall be submitted to the Division Office through the District Office, then to the Regional Office, and to the DepED Health and Nutrition Center. The Region and Division Offices are expected to consolidate all reports before submission to the Central Office.

N. AWARDS AND INCENTNES

1. Granting of service credits to teachers

The services rendered by the teachers who are members of the BFP Core Group are eligible for service credits in accordance to the provisions of DepED Order No. 53., s. 2003 "Updated Guidelines on Grant of Vacation Service Credits to Teachers". The school haeds are responsible for granting such incentives.

2. Search for Outstanding School Implementer of BFP

The best school implementer of BFP shall be recognized and awarded accordingly at the end of the feeding period based on the following criteria:

- a. percentage of beneficiaries rehabilitated to normal status;
- b. compliance to guidelines;
- c. prompt submission of liquidation reports;
- d. establishment of vegetable garden;
- e. good practices developed and lessons learned;
- f. involvemenUsupport of parents and community;
- g. advocacy and social/resource mobilization activities

A best school implementer of BFP shall be identified from each region and the Most Outstanding BFP Implementer shall be awarded from among the seventeen (17) regional winners.

COMPLEMENTARY ACTIVITIES FOR EFFECTIVENESS AND SUSTAINABILITY

1. Deworming

a. Beneficiaries shall be dewormed before the start of the feeding so that the child will get the full benefit of the nutrients of the food.

b. The DOH shall provide the deworming medicines to schools through the regional health and nutrition unit that will be distributed to division offices and to schools.

c. The school nurse/feeding coordinator, teacher-in-charge, barangay health workers shall obtain parental approval before administering the deworming medicines and should be under the supervision of the medical officer.

2. Integration of the Essential Health Care Program (EHCP)

The Essential Health Care Program (EHCP) is a school-based health program of the DepED in partnership with the Local Government Units (LGUs), Fit for School Inc., and other stakeholders like UNICEF, Procter and Gamble, GMA Kapuso Foundation, Lamoian Corporation and Philippine Dental Association (PDA). The program advocates simple, doable and cost-effective health interventions that will promote cleanliness and prevent sickness among our school children.

EHCP is taught in schools and daycare centers as venues for health promotion and behavior change as they are the most appropriate places to reach children in a structured and organized way.

The package consists of daily handwashing with soap, toothbrushing with fluoride toothpaste and bi-annual deworming of children. Particular attention should be given to the importance of handwashing with soap and water as the simplest, most cost-effective way of improving sanitation and hygiene; reducing incidents of diarrhea by 44%; reducing acute respiratory infection by 25%; and preventing skin and eye infections and intestinal worms; thereby, increasing school attendance by 20% and improving academic performance.

Under EHCP, each child gets one toothbrush and has access to toothpaste, soap and deworming tablets. The amount needed for these materials is only P25 per child for the entire school year.

3. Orientation of Program Implementers

a. An orientation shall be held among school principals or school heads, teachers, day care workers, barangay officials, organizations of community and parents (i.e. PTAs, DCSPGs) and other stakeholders before program implementation to ensure effectiveness, common understanding of the program and the roles and responsibilities of implementers and stakeholders. It is also a good opportunity to seek the support of the community members (i.e., school alumni, affluent families, private corporations) in providing weighing scales (beam balance), storage facilities (refrigerators or freezers) and cooking and feeding paraphernalia.

b. DepED in coordination with the local TWGs, shall conduct the orientation for each level.

c. Topics for orientation shall include:

- i. Overview of the program
- ii. Background/rationale
- iii. Operational guidelines
- iv. Roles of PTA and other stakeholders in program implementation
- v. Training/Cooking demonstrations for teachers and parents
- vi. Food preparation and food safety concepts

4. Food Production in Schools/ School based Alay Tanim Program

a. *Gulayan sa Paara/an* Project (GPP) of DepED.

b. In compliance to DepED Memo No. 234, all schools should plant at least 50 malunggay trees within the school premises. An area in the school shall be allotted for production of nutrient-rich fruits and vegetables like: legumes, root crops, leafy green and yellow fruits and vegetables for feeding of underweight school children as well as to provide planting materials for home gardens. In urban areas, schools may adopt an urban gardening technology.

c. Initial planting materials shall be provided to the schools by the local agriculture office for the malunggay trees within the school premises.

d. The barangay council shall be encouraged to designate an area in the community where the parents of the beneficiaries could establish a communal vegetable garden as primary source of vegetables for the supplementary feeding. Initial planting materials may be provided to the households by the local agriculture office or the barangay council upon request.

e. Retention of good seeds and planting materials shall be encouraged as a regular source of replanting materials for sustainability.

5. Productivity, Life and Values Development Training

a. LGUs, in collaboration with NGOs and other government agencies are encouraged to conduct trainings on the following areas for parents in order to sustain family food security, increase school retention and improve the nutritional status of children in the long term.

i. Values formation

ii. Sustainable food production/gardening technologies

- Bio-intensive gardening (BIG)
- Food Always In The Home (FAITH) approach
- Gulayan sa Paaralan Project
- Fish culture using cement tank/drum
- Urban gardening

iii. Livelihood/income generating projects

b. Nutrition education

i. Nutrition education in schools aims to create positive attitudes, skills and promote life-long healthy eating and lifestyle behaviors. Thus, nutrition concepts consistent with the Nutritional Guidelines for Filipinos should be integrated in class discussions.

ii. Information education and communication materials provided by the NNC, i.e. posters on the Daily Nutritional Guide for Children 7-12 years, vegetables, eggs; *Pagkaing Sapat at Abot Kaya* exhibit materials; billboard on *Gabay sa Wastong Nutrisyon*, vegetable and egg; and *Pabasa sa Nutrisyon* kit could be used.

Beneficiaries and costs are given in Table 15.

Table 15

**BREAKFAST FEEDING PROGRAM (SY 2011-2012)
TOTAL RECIPIENTYS FOR SY 2011-2012 (PILOT AND NEW AREAS)**

| REGION | DIVISION | DISTRICT | SCHOOLS | BENEFICIARIES | | | FEEDING | OPERATIONAL | TOTAL |
|--------|-----------------|-----------|------------|---------------|--------------|---------------|----------------------|-------------------|----------------------|
| | | | | Kinder | Grades I-III | Total | COST | COST | COST |
| I | PANGASINAN I | 2 | 15 | 84 | 287 | 371 | 667 800.00 | 22 260.00 | 690 060.00 |
| | PANG I PILOT | <u>29</u> | <u>113</u> | | | <u>11 003</u> | <u>26 407 200.00</u> | <u>667 200.00</u> | <u>27 074 400.00</u> |
| | | 31 | 128 | 84 | 287 | 11 374 | 27 075 000.00 | 689 460.00 | 27 764 460.00 |
| II | QUIRINO | 8 | 18 | 88 | 1 009 | 1 097 | 1 974 600.00 | 65 820.00 | 2 040 420.00 |
| III | ZAMBALES | 2 | 21 | 194 | 725 | 919 | 1 654 200.00 | 55 140.00 | 1 709 340.00 |
| IV-A | BATANGAS | 1 | 15 | 0 | 1 853 | 1 853 | 3 335 400.00 | 111 180.00 | 3 446 580.00 |
| IV-B | OCC MINDORO | 9 | 24 | 828 | 3 950 | 4 778 | 8 600 400.00 | 286 680.00 | 8 887 080.00 |
| | OR MINDORO | <u>1</u> | <u>4</u> | <u>144</u> | <u>555</u> | <u>699</u> | <u>1 258 200.00</u> | <u>41 940.00</u> | <u>1 300 140.00</u> |
| | | 10 | 28 | 972 | 4505 | 5477 | 9 858 600.00 | 328 620.00 | 10 187 220.00 |
| V | SORSOGON | 4 | 59 | 682 | 2 152 | 2 834 | 5 101 200.00 | 170 040.00 | 5 271 240.00 |
| VI | KABANKALAN | 5 | 64 | 649 | 3 747 | 4 396 | 7 912 800.00 | 263 760.00 | 8 176 560.00 |
| | BACOLOD CITY | <u>6</u> | <u>16</u> | <u>413</u> | <u>2 623</u> | <u>3 036</u> | <u>5 464 800.00</u> | <u>182 160.00</u> | <u>5 646 960.00</u> |
| | | 11 | 80 | 1 062 | 6 370 | 7 432 | 13 377 600.00 | 445 920.00 | 13 823 520.00 |
| VII | BOHOL | 8 | 21 | 0 | 1 000 | 1 000 | 1 800 000.00 | 60 000.00 | 1 860 000.00 |
| | BOHOL PILOT | 37 | 289 | | | 8 222 | 19 732 800.00 | 1 214 400.00 | 20 947 200.00 |
| | NEGROS ORIENTAL | <u>23</u> | <u>75</u> | <u>382</u> | <u>1 894</u> | <u>2 276</u> | <u>4 096 800.00</u> | <u>136 560.00</u> | <u>4 233 360.00</u> |
| | | 68 | 385 | 382 | 2 894 | 11 498 | 25 629 600.00 | 1 410 960.00 | 27 040 560.00 |
| VIII | LEYTE | 10 | 89 | 942 | 2 532 | 3 474 | 6 253 200.00 | 208 440.00 | 6 461 640.00 |
| IX | ZAMBO DEL | 14 | 22 | 178 | 835 | 1 013 | 1 823 400.00 | 60 780.00 | 1 884 180.00 |

| | | | | | | | | | |
|---------------|-------------------|------------|--------------|--------------|---------------|---------------|-----------------------|---------------------|-----------------------|
| | NORTE | | | | | | | | |
| X | LANAO DEL NORTE | 6 | 12 | 98 | 458 | 556 | 1 000 800.00 | 16 680.00 | 1 017 480.00 |
| | LANAO PILOT | <u>23</u> | <u>67</u> | | | <u>4 286</u> | <u>10 286 400.00</u> | <u>332 800.00</u> | <u>10 619 200.00</u> |
| | | 29 | 79 | 98 | 458 | 4 842 | 11 287 200.00 | 349 480.00 | 11 636 680.00 |
| XI | DAVAO ORIENTAL | 8 | 28 | 564 | 1 545 | 2 109 | 3 796 200.00 | 126 540.00 | 3 922 740.00 |
| XII | SULTAN KUDARAT | 9 | 56 | 582 | 1 896 | 2 478 | 4 460 400.00 | 148 680.00 | 4 609 080.00 |
| Caraga | SURIGAO DEL NORTE | 5 | 20 | 277 | 1 025 | 1 302 | 2 343 600.00 | 78 120.00 | 2 421 720.00 |
| CAR | KALINGA | 8 | 12 | 107 | 338 | 445 | 801 000.00 | 26 700.00 | 827 700.00 |
| NCR | QUEZON CITY | 1 | 7 | 610 | 2 481 | 3 091 | 5 563 800.00 | 185 460.00 | 5 749 260.00 |
| ARMM | MAGUINDANAO | 4 | 6 | 304 | 1 703 | 2 007 | 3 612 600.00 | 120 420.00 | 3 733 020.00 |
| TOTAL: | 21 | 223 | 1 053 | 7 126 | 32 608 | 63 245 | 127 947 600.00 | 4 581 760.00 | 132 529 360.00 |

3.16. RUSSIA

3.16.1. General Status of School Feeding

As of the beginning of the 2008 academic year, in the Russian Federation the total amount of students of 7-11 years made up 4,983.3 thousand people while of 11-18 years – 8,015.5 thousand people. The hot meals coverage amounts to 77.5%. Only breakfasts are provided to 58.8%, only lunches – to 21.9%, two meals daily – to 19.3%, snacks – to 3.2% of children. Canteen food is purchased by 25.0%⁵⁸.

The analysis of the results of the 2002 All-Russian Preventive Medical Examination that implies the checkup of 30,400 thousand children of all age groups revealed the decrease of the healthy children percentage (from 45.5% to 33.89%) along with the double growth of the share of those children suffering from chronic diseases. 8% of the examined children were characterized by certain health deviations, i.e. 4.5% suffered from weight deficit, 2.1% - from overweight while 1.6% were rather short. Besides, the children's health was considerably affected by their families' low incomes, which did not allow providing these children with ultimate nutrition within their residence area as well as paying for food at education establishments. So it is no wonder that within that period weight deficit was registered by 6.16% of young men of 17-18.

The existing situation called for certain measures implying fulfillment of the following tasks:

- scientific foundation of directions of students catering arrangement improvement, increase of food quality, harmony and security;
- development of food and information technologies at catering units of general education establishments;
- creation of the efficient management system in this sphere;
- gradual increase of state support of the school feeding system and full provision of hot meals to schoolchildren;
- reasoning for the system of measures aimed at personnel development;
- development of private-public partnership and civic institutions, mechanisms of public control over students catering status;
- determination of the catering sphere legal and regulatory framework improvement directions at general education establishments;
- growth of measures efficiency in respect of building rational food behavior and knowledge about healthy eating foundations by children, teenagers and their parents.

3.16.2. National School Feeding Program

There is no National School Feeding Program (SFP) in Russia. Large regional programs are developed and implemented, for example, those in Moscow and some other federal subjects.

For purposes of school feeding improvement, the Russian Federation implements the following framework measures, including:

1. Measures aimed at resolving tasks related to infant and maternal mortality level decrease, enhancement of people's reproductive health, health of children and teenagers implying arrangement of high quality hot meals provision to schoolchildren and students of elementary vocational education establishments, including free meals for children from low-income families (Conception of Demographic Policy of the Russian Federation till 2025 adopted by Order of the President of the Russian Federation No 1351 as of 09/10/2007).

⁵⁸ Report of the Federal Service for Consumer Rights Protection and Human Welfare of the Russian Federation on the sanitary and epidemiological situation in the Russian Federation in 2008

2. Measures under Regulation No 799 of the Government of the Russian Federation approving the 2008-2009 Rules of Providing Federal Financial Support to Subjects of the Russian Federation for Implementing Experimental Projects Related to Students Catering Arrangement Improvement at State General Education Establishments of the Subjects of the Russian Federation and Municipal General Education Establishments.

3. Experiment aimed at improving students catering arrangement at state general education establishments of the subjects of the Russian Federation and municipal general education establishments (Order No Pr-2065 of the President of the Russian Federation d.d. December 10, 2005).

In 2008-2011, within the experiment framework the subjects of the Russian Federation considered all aspects of high quality and accessible well-balanced school feeding arrangement, including technological, organizational and management, legal and regulatory, educational ones. Within four years of the experiment implementation, 2 billion 100 million rubles (2008 – 500 million rubles, 2009 – 1 billion rubles, 2010 – 300 million rubles, 2011 – 300 million rubles) was allocated from the federal budget. Besides, 2 billion 458 million rubles was provided from regional and local budgets for the experiment implementation. So the consolidated budget funds allocated for the experiment implementation in 2008-2011 made up over 4.5 billion rubles.

Upon the experiment completion, the following meaningful results were achieved:

- out of the co-financing funds, school catering units were repaired and reconstructed, outdated service lines were substituted in accordance with the sanitary and epidemiological requirements to their placement, space and planning and constructive decisions;

- out of the federal funds, school catering units were furnished by modern technologically advanced equipment in accordance with the requirements to equipment, inventory, utensils and containers specified by the Sanitary Regulations and Norms;

- out of the regional and local funds, new furniture, utensils for school canteens, specialized automobile transport were purchased;

- systems of school feeding non-cash settlements are being integrated, which allows preventing improper use of parents' money meant for hot breakfasts and lunches payment;

- food rations and approximate cycle menus were developed and approved for students in accordance with the Sanitary Regulations and Norms.

4. Regional programs related to school feeding system arrangement improvement, etc. In 2011, in 35 regions the specified measures were implemented within the framework of regional programs, in 48 regions they were taken within long-term regional programs of education development, programs of state policy implementation in the sphere of healthy eating, demographic development programs, etc. In 63 subjects of the Russian Federation, municipal programs of school feeding arrangement improvement were valid. In 2012-2014, the abovementioned experiment regional coverage will be extended.

The result of the abovementioned and other framework measures testifies to the fact that at schools engaged into the experiment:

- about 96% of all students are provided with well-balanced hot meals;

- monitoring of students' health state revealed a certain degree of stabilization as well as a well-defined trend of schoolchildren's health improvement. Within the reported period, the age group of 5-9 grades students was characterized by the decrease of the amount of those schoolchildren suffering from food-born diseases (anemia – from 0.49% to 0.37%, obesity – from 0.62% to 0.59%, digestive diseases – from 2.57% to 2.3%). The share of 10-11 grades students with the 1st health group increased (from 2.42% to 3.11%). The amount of schoolchildren suffering from digestive diseases had fallen from 0.97 to 0.86% by the end of 2011.

For the purposes of further school feeding arrangement improvement in all subjects of the Russian Federation, it is planned to:

- continue conducting the annual all-Russian school feeding monitoring for the purpose of assessing its status and implementing a comparison analysis of the results of regional and municipal executive bodies corresponding activity;
- create basic resource centres for coordinating activity related to students catering arrangement improvement and personnel development in each of eight federal districts within the framework of the Federal Target Program of Education Development;
- ensure efficient activity of regional training sites for instructing school and catering unit managers and responsible specialists about modern school feeding arrangement technologies on the basis of interregional cooperation;
- continue activity aimed at building the health eating culture by children, their parents, and teachers.

3.16.3. Institutional Framework

In the Russian Federation, the structure of school feeding system participants can be considered on the basis of organizations and plants makeup, their objectives and tasks in the process of its functioning. The main types of activity (tasks) implemented in this sphere include delivery, production, management and control, consumption. These types of activity are performed by the following system participants:

- raw materials suppliers for manufacturing school feeding products (agricultural products manufacturers and suppliers);
- services suppliers operating in the sphere of catering arrangement at general education establishments (school food manufacturers);
- managing and controlling organizations;
- school food consumers (students and personnel of general education establishments).

The structure of school feeding participants in the Russian Federation is given in Fig. 3.

3.16.4. Policy

The state authorities of the Russian Federation directly related to the sphere of students catering arrangement are entitled to do the following:

- to provide orphaned children and children without parents' guardianship with free food within the period of their staying at a corresponding state or municipal establishment;
- to ensure additional backing of catering arrangement events at municipal education establishments.

Feeding support of most students of general education establishments as well as funds allocation for purchasing equipment, utensils and furniture is not included into the obligations of the Russian state authorities.

The general powers of the state authorities of the Russian Federation related to the sphere of students catering arrangement include the following:

- state policy implementation in children's interests;
- development and implementation of regional education development programs with consideration of national and regional peculiarities;
- establishment of additional requirements extending the scope of federal requirements to education establishments in respect of construction norms and regulations, sanitary norms, students' health security for education establishments within the jurisdiction of the subject of the Russian Federation;
- control and supervision over education establishments of the subject of the Russian Federation and municipal education establishments.

Functions related to the sphere of students catering arrangement.

Ministry of Education and Science of the Russian Federation

The Ministry of Education and Science of the Russian Federation along with the subordinate Federal Education and Science Supervision Agency can perform them within the scope of its general functions, for example, by developing the state policy and legal and regulatory legislation in the sphere of education, social support and students social security.

The Federal Service for Consumer Rights Protection and Human Welfare of the Russian Federation is an authorized federal executive body implementing control and supervision in the sphere of people's sanitary and epidemiological welfare provision, consumer rights protection and consumer market. The Federal Service for Consumer Rights Protection and Human Welfare of the Russian Federation possesses the following principal powers in the sphere of public catering:

- controlling and supervising the Russian Federation obligatory legal requirements fulfillment in the sphere of people's sanitary and epidemiological welfare provision, consumer rights protection and consumer market.;
- licensing of other types of activity within the Agency competence;
- informing the state authorities of the Russian Federation, local government bodies and population about the sanitary and epidemiological situation and those measures taken or people's sanitary and epidemiological well-being provision;
- arranging and conducting sanitary and hygienic monitoring;
- auditing activity of legal persons, individual entrepreneurs and citizens related to the sanitary legislation and Russian legislation fulfillment in the sphere of consumer rights protection and rules of particular products sale.

Ministry of Agriculture of the Russian Federation

The Ministry of Agriculture of the Russian Federation is a federal executive body performing functions related to state policy development and legal and regulatory control implementation in the agro-industrial sphere, including animal farming, veterinary, crop production, regulation of the agricultural, raw materials and food markets, food and processing industries, sustainable development of agricultural areas, industrial fishing, which can coordinate the school feeding sphere within the framework of the abovementioned functions.

Within its competence scope, the Ministry of Agriculture of the Russian Federation controls and coordinates the activity of the subordinate Federal Agency for Veterinary and Phytosanitary Supervision.

The Federal Agency for Veterinary and Phytosanitary Supervision is the federal executive body implementing control and supervision in the sphere of veterinary, provision of quality and safety of grain, cereals, compound animal feedstuff as well as components of their production, and performs functions related to people's protection against diseases common for people and animals.

The subject level of the Russian Federation

The regional ministry and department of education

The regional education management bodies of the subjects of the Russian Federation are not legally obliged to manage and control catering arrangement of general education establishments students both on regional and municipal levels. Their functions in this sphere are determined by the Education Law though it does not reflect the specifics of these powers.

It is reflected in a variety of forms and degrees of local bodies' engagement into the issues related to the sphere of students catering arrangement, including development of school feeding programs and proposals as well as food delivery arrangement, placement of orders for students catering arrangement or creation of municipal (regional) school feeding enterprises.

Currently, most regional education management bodies are not directly engaged into managing students catering arrangement at general education establishments. In certain cases, their engagement can be determined by emergency situations occurrence in the sphere of school

feeding arrangement and is implemented by certain measures aimed at eliminating the Russian education legislation violations (by means of forwarding binding prescriptions to education establishments and local government bodies performing management functions in the education management sphere) as well as these prescriptions fulfillment control.

The territorial agency of the Federal Service for Consumer Rights Protection and Human Welfare of the Russian Federation performs main agency functions (i.e. control over production processes safety and school feeding implementation, food products security, their storage and transportation within its jurisdiction) in the subjects of the Russian Federation.

The territorial agency of the Federal Agency for Veterinary and Phytosanitary Supervision performs main agency functions (control over food products security within its jurisdiction) in the subjects of the Russian Federation.

The territorial agency of internal control bodies of the Ministry of Finance of the Russian Federation performs the following functions:

- controlling targeted use of funds allocated by the federal budget and state non-budgetary funds;
- performing documentation auditing and assessing the financial and economic activity of organizations of any property forms under motivated regulations of law enforcement bodies;
- conducting audits and checkups of the Russian subjects and local budgetary funds allocation and distribution;
- controlling duly elimination of violations revealed within the financial and economic activity of those organizations audited by the agency as well as incurred damage compensation.

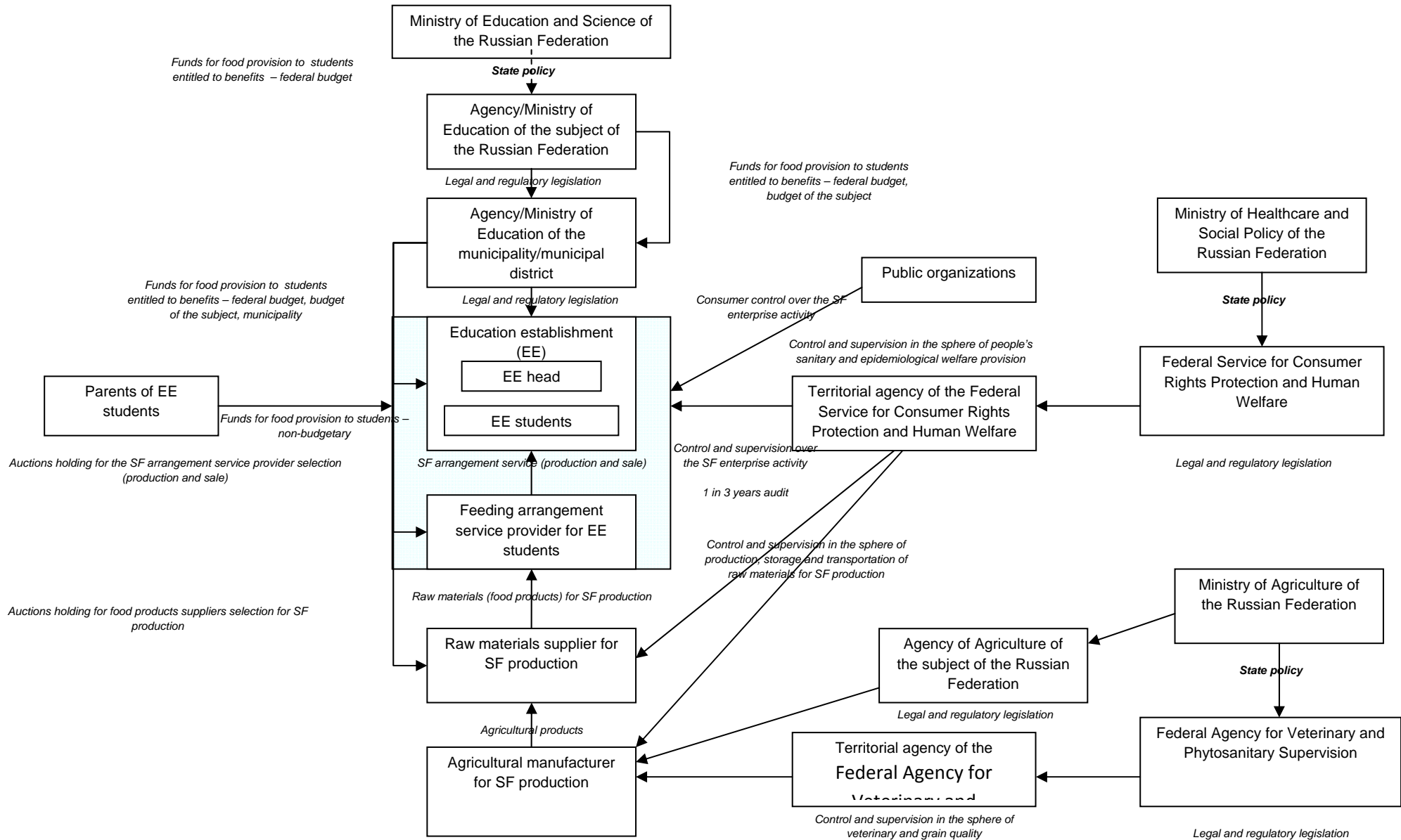


Figure 3 – Principal structure of school feeding system participants

Municipal level

Education municipal management

The municipal education management bodies are not legally provided with any obligations and rights relevant to the sphere of management and control over students catering arrangement at general education establishments; however, being the education establishments founder, the education agency is entitled to implement control over establishments activity, including those operating in the sphere of catering arrangement.

The municipal education management bodies perform the following functions:

- general methodological management of school feeding arrangement at subordinate establishments;
- complex resolution of those issues related to catering funding considering the volume, procedure, forms and terms of the material and technical base improvement, selection of companies dealing with school feeding arrangement and receiving budgetary funds for covering food provision to children entitled to benefits (by means of order placement procedures);
- funding of food provision to children entitled to benefits;
- allocation of financial funds meant for development and enhancement of the material and technical base of general education establishments, compensation of expenses in the catering sphere;
- management of capital assets of those companies operating in the sphere of school feeding system functioning provision;
- coordination of municipal services, district agencies, school canteens operation and development of the single methodology for improving forms and methods of students catering arrangement, food provision, development of the material and technical base of public catering enterprises;
- arrangement of cooperation with internal control bodies.

The general education establishment head performs the following functions:

1. Engagement into arrangement of general education establishments students catering (financial, organizational, management issues: contractors selection, contracts conclusion, engagement into audits, consideration of those provided with food, fundraising for food provision of those children not entitled to benefits). The degree of the general education establishment head engagement is determined by the catering is arranged:

- independent (staff cooks) – the school head is directly engaged into students catering arrangement and resolves financial, organizational, management issues: suppliers search and selection, rations development and approval, price building, assurance of sanitary norms and regulations fulfillment, consideration of those provided with food, fundraising for food provision of those children not entitled to benefits;
- outsourcing (catering arrangement is transferred to an external school feeding arrangement company on a contractual basis): a catering arrangement company selection, engagement into audits, consideration of those provided with food, fundraising for children catering.

The school feeding arrangement company performs the following functions at general education establishments:

- arranging general education establishment students catering, providing fulfillment of necessary sanitary and hygienic norms (production processes and school food products security), school rations requirements (rations makeup, meals amount, product range, nutritional and energy value);
- resolving tasks within the product quality management system (including arrangement of laboratory and other food products research);
- production processes management, planning of school food production and sales;

- management of school food price building (production processes optimization, search for ways of decreasing the school food cost value);
- company personnel management.

The current legislation of the Russian Federation does not provide a full scope of norms governing the powers of the Russian state bodies, state governmental bodies of the subjects of the Russian Federation, local government bodies in the sphere of students catering arrangement at general education establishments.

Therefore, under the legislation, no state governmental level is provided with a structure bearing full responsibility for arranging students catering at education establishments. These functions are partially referred to municipal agencies or education departments (in rare cases – to regional ones). In this case, these structures possess neither sufficient powers for managing (controlling) school feeding arrangement, nor specialized knowledge in the catering arrangement sphere.

Catering arrangement and creation of conditions for operation of public catering organizations subsidiaries is included into the scope of the education establishment obligations. The education establishment head is responsible for catering arrangement and ultimate hot meals provision to students.

The medical personnel along with teachers and managers are responsible for complying with sanitary and hygienic norms, students feeding regime and food quality.

Catering arrangers take full responsibility for ensuring its quality and security.

Therefore, only the school head is currently responsible (under the existing legislation) for completeness, quality and security of food provided to students. In this case, he/she is not furnished with any efficient tools of students catering arrangement management and control.

Market relations development, modification of legal and property forms of education establishments and public catering enterprises have resulted into a necessity of changing school feeding management system and mechanism of its participants cooperation. The school feeding management system modernization implies a single structure creation, whose main components include management bodies possessing clearly defined powers for ensuring efficient, continuous system operation.

3.16.5. Program design

The efficient way of resolving the current problems in the sphere of school feeding arrangement is the special-purpose approach application.

So, the Program for the School Feeding System Modernization at General Education Establishments of the Russian Federation (hereinafter referred to as “the Program”) is currently developed in the Russian Federation.

Taking into consideration the interrelation of the main set tasks with objectives and tasks of priority national projects in the sphere of health, education and agro-industrial complex development, it is reasonable to mark the Program with the Presidential status.

The Program structure includes the following:

1. Program objective and tasks.
2. Catering arrangement at general education establishments and reasoning for its required resolution on the basis of the presidential program.
3. System of framework measures.
4. Mechanism of the Program implementation.

The Program objective implies preserving and enhancing children’s and teenagers’ health by means of providing students of general education establishments with accessible, high quality, safe and well-balanced food products.

The Program main tasks include:

- improving the legal and regulatory framework of the catering sphere at general education establishments as its social catering component;
- improving arrangement, increasing quality and balance as well as ensuring students catering security on a gradual basis;
- increasing state support of students food provision on a beneficial basis;
- achieving the full students coverage with well-balanced hot meals on a gradual basis;
- creating a state funding body for providing beneficial food products to students;
- establishing the state order for delivering food and rendering services of various legal forms to organizations related to students food provision at general education establishments;
- developing the private-public partnership in this sphere;
- developing civic institutions and mechanisms of public control over the students catering status at general education establishments;
- arranging the system of students catering status monitoring at general education establishments;
- improving arrangement, quality control and security of students food provision at general education establishments;
- developing contractual and property relations in this sphere;
- improving the catering system material and technical base at general education establishments;
- further developing social catering production industrialization;
- increasing personnel qualification, ensuring labour safety in catering units of general education establishments;
- developing information technologies and improving automated means of management and control;
- building rational feeding behavior and knowledge about healthy eating foundations by children, teenagers and their parents.

The school feeding system modernization on the federal level should be regarded as the process of fulfilling a task related to building and developing the specialized branch of the Russian economy, providing attraction of social, financial and economic, agricultural and industrial blocks of the Government of the Russian Federation.

The Target Program of the Ministry of Agriculture of the Russian Federation “Food Production Development in the Russian Federation for Organized Groups Food Provision for 2013-2015” is also meant for contributing to school feeding modernization.

The program objective implies modifying the existing system of organized groups food provision by means of introducing modern energy-efficient technologies for well-balanced food rations production at industrial food enterprises.

The program tasks include the following:

- creating modern plants for manufacturing ready-to-eat dishes and prefabricated food products of various readiness state by industrial methods;
- creating production and logistics centres for assembling and delivering food rations;
- launching capacities for manufacturing certain food products characterized by set features at the operational food industrial plants;
- developing food industrial production in property organizations of the Russian subjects and municipal units;
- developing financial and economic, organizational and technological mechanisms contributing to increasing comprehensive food provision to organized groups.

In order to develop proposals related to resolving the issue of students feeding improvement in the sphere of education of the Russian Federation in whole, it is reasonable to conduct complex

research and scientific work considering the problems of catering organization at preschool, general education, specialized, primary, secondary and higher vocational education establishments of the Russian Federation.

3.16.6. Procurement

The average annual demand for food products for all Russian schoolchildren depending on their age groups (7-11 and 11-18 years of age) is given in Table 16.

Table 16

The average annual demand for food products for all Russian schoolchildren

| Name of products | Average annual demand for food products for all schoolchildren (breakfast + lunch), tons, thousand l | | |
|---|--|-------------|---------|
| | 7-11 years | 11-18 years | Total |
| Black (wheat) bread | 33,488 | 80,796 | 114,284 |
| White bread | 51,313 | 109,670 | 160,983 |
| Wheat flour | 8,262 | 14,296 | 22,558 |
| Cereals, legumes | 40,178 | 81,453 | 121,631 |
| Macaroni products | 11,589 | 23,321 | 34,910 |
| Potatoes | 114,832 | 236,656 | 351,488 |
| Fresh vegetables, greens | 180,953 | 335,472 | 516,425 |
| Fresh fruit | 151,141 | 243,162 | 394,303 |
| Dried fruit, including briar | 8,431 | 13,904 | 22,335 |
| Horticultural juices, fortified beverages, including instant ones | 41,860 | 67,330 | 109,190 |
| 1 st category trimmed meat (bone-in meat) and byproducts | 58,802 | 115,156 | 173,958 |
| 2 st category gutted chickens (1 st category gutted fowl) | 33,969 | 63,369 | 97,338 |
| Fish fillet | 20,672 | 45,411 | 66,083 |
| Sausage products | 3,533 | 8,488 | 12,021 |
| Milk (2.5%, 3.2% mass fat fraction) | 96,291 | 177,472 | 273,763 |
| Cultured milk products (2.5%, 3.2% mass fat fraction) | 26,162 | 42,081 | 68,243 |
| Cottage cheese (mass fat fraction under 9%) | 22,350 | 39,320 | 61,670 |
| Cheese | 5,839 | 12,652 | 18,491 |
| Sour cream (mass fat fraction under 15%) | 8,419 | 15,683 | 24,102 |
| Butter | 17,145 | 33,643 | 50,788 |
| Vegetable oil | 11,153 | 20,577 | 31,730 |
| Dietetic egg | 12,753 | 23,959 | 36,712 |
| Sugar | 35,671 | 58,849 | 94,520 |
| Pastry | 7,674 | 12,344 | 20,018 |
| Tea | 227 | 365 | 592 |
| Cacao | 1,779 | 2,862 | 4,641 |
| Bakery yeast | 159 | 255 | 414 |

| | | | |
|---|--------|--------|--------|
| Salt | 4,186 | 9,426 | 13,612 |
| Industrially produced vegetable marrow paste (for children and teenagers) | 11,093 | 17,843 | 28,936 |
| Bay leaf | 2 | 4 | 6 |
| Potato starch | 1,221 | 1,964 | 3,185 |
| Citric acid | 146 | 242 | 388 |
| Tomato puree | 4,890 | 11,038 | 15,928 |
| Bread crumbs | 3,205 | 6,307 | 9,512 |
| Vanillin | 4 | 7 | 11 |

Under Law No 94-FZ d.d. 21/07/2005 on Placement of Order for Products Delivery, Works Performance, Services Provision for State and Municipal Needs”, general education budget establishments are regarded as municipal customers. Delivery of technological equipment, furniture, inventory and utensils is performed upon the auction results. In most cases, placement of orders for the specified products is implemented by specially created local government bodies authorized to perform order placement functions for municipal customers. Such bodies implement functions for municipal customers while municipal customers, i.e. general education establishments, sign up municipal contracts. As a rule, cooperation of general education establishments (schools) and the specified body is implemented according to the following procedure:

- schools forward an application containing a school demand for the specified products to the Agency (Department) of Education of a corresponding local government body;
- the Agency of Education summarizes all schools applications and forms a procurement item as well as requirements to it, which will be further regarded as an integral part of the auction documentation;
- an authorized body forms auction-related documents considering the provided data about a procurement item and requirements to it.

High quality prefabricated food, dishes and culinary products manufacturing by school feeding enterprises should imply application of raw materials complying with the requirements of the current regulatory, technical documentation and safety requirements.

Products delivered to an enterprise should be supported by certain documents submitted by their manufacturer, providing specification of such information as the production date, terms and conditions of products storage. A supporting document should be preserved until a product is sold.

Schoolchildren products listed in Sanitary Regulations and Norms 2.3.2.1078-01 are subject to state registration, upon the results of which a state registration certificate is processed.

In the Russian Federation, there are mainly regional markets of agricultural raw materials and food products delivery to general education establishments. In the subjects of the Russian Federation, the school food manufacturing sphere implies just agricultural and livestock local products application, which allows providing low purchase prices for raw materials and as a result a moderate cost value of finished products. The use of local raw materials has a favourable impact upon the status and level of economic development of the subject of the Russian Federation, its stability, contributes to job growth and unemployment decrease.

3.16.7. Community Participation and Ownership

Public organizations, including parents' committees and the All-Russian public organization "Society for Protection of Education Services Consumer Rights", implement control over operation of enterprises, students catering arrangement, quality of catering, food supply, and the material and technical base status.

Business structures engagement into control and assistance with school feeding arrangement is not provided in all regions. Such traditions have not been established in the Russian Federation yet.

3.16.8. Funding

The average raw materials cost value of breakfast and lunch within the recommended menu for children of 7-11 and 11-18 years of age in the Russian Federation is given in Table 17.

Table 17

The average raw materials cost value of breakfast and lunch within the recommended menu for children of two age groups for 24 days

| Meal | Average raw materials cost value for 24 days, rubles | |
|-----------|--|-------------|
| | 7-11 years | 11-18 years |
| Breakfast | 16.99 | 20.13 |
| Lunch | 37.15 | 42.87 |
| Total | 54.15 | 63.00 |

The price for school food products is formed on the basis of the school food raw materials cost value and single trade mark-up. In accordance with Regulation of the Government of the Russian Federation No 239 d.d. 07/03/1995 on "Measures for Prices (Tariffs) State Regulation", executive bodies of the subjects of the Russian Federation are entitled to manage the trade mark-up of products (goods) sold by catering enterprises by general education schools.

The average price of breakfast and lunch within the recommended menu for children of two age groups is given in Table 18.

Table 18

Average price of breakfast and lunch within the recommended menu for children of two age groups

| Meal | Average price, rubles | |
|-----------|-----------------------|-------------|
| | 7-11 years | 11-18 years |
| Breakfast | 27.18 | 32.21 |
| Lunch | 59.44 | 68.59 |
| Total | 86.62 | 100.80 |

Thus, the average school breakfast price with consideration of the average trade mark-up makes up 29.7 rubles, the lunch price – 64 rubles while the average cost of these two meals is equal to 93.7 rubles.

The general annual demand for monetary funds for raw materials and school feeding arrangement makes up 130.6 billion rubles and 209 billion rubles correspondingly.

Under Federal Law No 184-FZ d.d. 06/10/1999 on “General Principles of Arranging Legislative (Representative) and Executive State Government Bodies of the Subjects of the Russian Federation” and Law of the Russian Federation No 3266-1 d.d. 10/07/1992 on Education, financing of food provision to certain categories of students at the expense of the budget of the subjects of the Russian Federation is possible within the framework of the following powers:

- social support of those citizens finding themselves in a difficult life situation as well as orphaned children, street children, children without parents’ guardianship (except for children studying at federal education establishments), families with children (including multi-child families, single parents), low-income citizens;

- full or partial covering of expenses meant for provision for citizens in need for social support, within the study period (categories of citizens are specified by laws of the subjects of the Russian Federation for education establishments within jurisdiction of the subjects of the Russian Federation and municipal education establishments);

- a right to establish additional measures for social support and assistance for certain categories of citizens irrespective of federal laws provisions determining the specified right.

In accordance with Order of the President of the Russian Federation No 431 d.d. 05/05/1992 on “Measures for Social Support of Multi-Child Families”, executive bodies of the subjects of the Russian Federation should provide free food for multi-child families (breakfasts and lunches), i.e. for general education establishment students, at the expense of all students’ funds, production activity deductions and other non-budgetary allocations.

Other special norms determining powers of state bodies of the subjects of the Russian Federation in the sphere of students catering support are not provided by legal and regulatory acts of the Russian Federation.

Covering students catering expenses at general education establishments as well as cost of equipment, utensils and furniture purchase for catering units of general education establishments are not regarded as the direct obligation of state bodies of the subjects of the Russian Federation.

According to Order of the President of the Russian Federation No 431 d.d. 05.05.1992 on “Measures for Social Support of Multi-Child Families”, executive bodies of the subjects of the Russian Federation should provide free food for multi-child families (breakfasts and lunches), i.e. for general education establishment students, at the expense of all students’ funds, production activity deductions and other non-budgetary allocations. Currently, free catering funding provided by Order of the President of the Russian Federation no 431 d.d. 05/05/1992 is implemented within the framework of powers of state bodies of the subjects of the Russian Federation.

In whole, one can draw a conclusion that functions of the federal executive bodies, subjects of the Russian Federation and local government bodies in the sphere of students catering arrangement are still not specified.

Powers of municipal regions and city districts related to education provision arrangement include arrangement of training and education but not their content, including catering services at education establishments. Students catering arrangement does not deal with local issues so students catering financing is not included into the list of expenditure obligations of municipal education.

Local budget financing of corresponding expenses is possible within the framework of providing additional measures of social support and assistance for certain categories of citizens irrespective of federal laws provisions determining the specified right (Paragraph 2, Clause 5, Article 20 of Law on Local Government).

Local government bodies of a municipal region (city district) are entitled to resolve issues not included into the competence of local government bodies of other municipal units, state bodies and not

excluded from their jurisdiction by federal laws and laws of the subjects of the Russian Federation, exclusively at the expense of local budget net profits (except for grants and subsidies provided by the federal budget and budget of the subject of the Russian Federation).

Currently, local budgets provide funds for catering arrangement only for children from low-income and multi-child families. As a rule, students hot meals are paid by parents' funds.

In whole, the school feeding system financing can be improved by the following directions:

- a step-by-step transition to differentiated financing of students catering depending on their belonging to various social groups and hot meals coverage;
- determination of a mechanism for providing required subsidies for school feeding arrangement to certain subjects of the Russian Federation;
- consideration of all actual expenses on school feeding arrangement within the price structure;
- improvement of a mechanism for covering expenses on fixed production assets renewal and current maintenance;
- establishment of a centralized system of school feeding arrangement with the school food production facility as the centre of production and commodity-money flows.

3.16.9. Supplemental Information

General consumption of main foodstuffs in the school and social feeding sector of Russia for 35 million people equals to more than 12 million tons of food and a turnover of agricultural products of more than RUB 650 billion per year.

Considering the consumption in other organized communities in which the nutrition support measures can also be conditionally considered as food aid, the general rates and consumption of food products consist of more than 69 million people (about 50 % of the population), more than 18 million tons of food with a turnover of more than RUR 1 trillion per year.

World experience and especially of the USA shows that the school nutrition and other categories' nutrition is directly linked to agriculture support measures. The US Department of Agriculture runs more than 15 programs for social food aid which concern more than 70 million people. The most important of them are the food coupon program, school nutrition programs and the program for food provision to pregnant women and nursing mothers. The direct food aid for the population is an universal instrument of agriculture development under the WTO and of social support for large parts of the population.

On December 16, 2011 in Geneva in terms of the 8th WTO Ministerial Conference was signed the Protocol of Accession of the Russian Federation to the World Trade Organization (WTO).

Procedurally, Russia is not yet a full WTO Member and probably will not be until mid-summer 2012 (at the earliest). By the terms of Russia's accession, the Russian Duma has until July 23, 2012 to ratify the country's accession agreement. Russia will then become a full WTO member 30 days after its government formally notifies the WTO that it has ratified the deal.

Commitments on Aggregate Measurement of Support (AMS) stipulate that the domestic support level shall amount to 9 billion U.S. dollars (only in terms of the Amber Box) until 2013; this level will allow to implement the Government Program for Agricultural Development and Regulation of Markets of Raw Materials, Agricultural Goods and Foodstuffs for 2008–2012. Later on, within the transitional period it is planned to reduce the domestic support down to 4.4 billion U.S. dollars by 2018 that corresponds to the average level of subsidies to Russian agricultural sector for 2006—2008.

Commitments imply that upon accession to the WTO Russia will not use export subsidies for the agricultural sector (at present no such subsidies are granted).

Russia shall assume the commitment to bind the AMS volume at the level of 4.4 billion U.S. dollars that corresponds to the reference period of 2006–2008. However, immediately upon Russia's accession to the WTO the permitted level of support will amount to 9 billion U.S. dollars which will be gradually reduced down to the bound level of 4.4 billion U.S. dollars (meaning that in practice upon Russia's accession the level of support corresponding to the reference period is not to be reduced, but to be increased).

The terms and conditions of Russia's membership in the WTO also underline the importance of providing food aid to vulnerable parts of the population. According to the WTO these support measures belong to the "green box" and can be applied by the State upon its own discretion and without restrictions. This is what makes such programs an important instrument for the support and development of agriculture and for ensuring the food security of the State.

The terms and conditions of Russia's membership in the WTO require modification by 2018 of the forms and methods of support of the Russian agriculture that relate to the "yellow box". This requires an attentive study and a right implementation of the different forms of food aid for the population while securing these measures by respective actions on agriculture development.

Considerable volumes of the current consumption in social nutrition and in organized communities can be logically completed by providing food aid to other poor and vulnerable parts of Russian Federation's population- to families with multiple children, retirees, handicapped persons, lone mothers etc. This way will be solved not only one of the important social and economic tasks in the area of healthy nutrition of the population and its focused support, but also tasks related to Russia's agriculture development and food security.

It shall be mentioned separately that the Russian food production, especially grain and the products of its processing, that is destined for export in order to secure vulnerable parts of the population in other countries can also be considered as "green box" measures. These steps can be implemented as a part of humanitarian operations within different types of multilateral collaboration and as a part of bilateral food aid programs.

3.17. SINGAPORE

3.17.1. School Feeding Programs

The Health Promotion Board (HPB) cooperates with the Ministry of Education for the purpose of the Healthy School Tuckshop (Canteen) Program implementation. The program is aimed at increasing the accessibility level of more healthy products in school canteens within the complex program involving teachers, parents, suppliers, parents and students.

HPSC serves as a means for healthy eating promotion among students of primary and secondary school. For the purpose of this objective achievement, there is dishes chronology maintained on the school walls, which steps up the program interactivity and is regarded as its integral part.

This program is in line with the existing SFP, i.e. Healthy Eating in School Program (HESP), within the framework of which about 10 main principles of school canteens feeding are described.

This program implies schools being awarded with a special prize. In order to receive the "Healthy Eating in School" prize, all school food providers are assessed by dieticians accredited by HBP for their compliance with 10 principles of HESP:

1. Beverages sold at school on a commercial basis should be marked by the "healthy food" logo. In case of preparing beverages or desserts (e.g. coffee, tea, green bean soup, etc.), the sugar content should be equal to or under 7g/100ml. A beverage should contain no artificial sweeteners (e.g. aspartame). Beverage and dessert preparation should not imply any sweeteners use (e.g. syrup, sugar,

honey). In all vending machines (including those located outside the canteen), only beverages marked by the “healthy food” logo should be sold.

2. Deep fried dishes (e.g. deep-fat frying) and preserves should be sold no more than once per week. Such dishes include deep fried chicken nuggets, breaded chicken patties, sausages, preserved vegetables, etc

3. In case high-fat ingredients (e.g. coconut milk/cream, whole milk, yogurt, cheese, mayonnaise, sour cream) are used for preparing food and beverages, ½ of their amount should be replaced by similar but low-fat ones (skim milk, non-fat condensed milk, light yogurt, light mayonnaise, light cream). No butter, lardon and melted butter should be used for food preparation.

4. Use of skinless meat and poultry.

5. Provision of the recommended amount of vegetables served along with rice and noodles.

6. Provision of at least 2 types of fresh fruit every day.

7. Gravy/sauce/soup can be served only upon students’ request and up to two spoons. This recommendation is referred to rice dishes traditionally served with sauce or gravy.

8. The canteen should be equipped with at least 2 cold water coolers.

9. Sandwiches should be made from coarse floor/whole-wheat bread in the 50/50 ratio (i.e. a sandwich can be made using one slice of white bread and one slice of whole-wheat bread).

10. Limited sale of chips, biscuits, tarts, patties in favour of other snacks marked with a special logo.

In 2009, 87% of the Singapore schools were awarded with this prize.

In case any violations of healthy eating principles are revealed in a school awarded with the “Healthy Eating in School” prize, HBP will consider an issue of it being deprived of this prize.

The healthy food menu includes corresponding proportions of products of four main groups, including rice and its alternatives, meat and its alternatives, fruit and vegetables. For students to receive a certain amount of nutrients required for their growth, the menu is made up on the basis of the main eating principles for children and teenagers. Every canteen provides at least two menu options.

Counteragents engaged into the SFP are offered special culinary master classes and individual consultations with dieticians and professional cooks for the purpose of instructing dishes producers about healthy methods of food preparation. Food providers obtain knowledge in the sphere of healthy food preparation, for example, that of brown rice, and the students’ portion amount.

3.17.2. School Feeding System Status

Currently, school canteens operate within the framework of the Individual Stallholder System (ISS) or Single Tender System (STS).

Within either of these systems, the school is responsible for selection and appointment of contractors on the basis of criteria and procedures established by the Ministry of Education.

In accordance with ISS, contractors are selected on the basis of applications received from particular persons. In case of STS, a contractor is appointed on a competitive basis. As a result, one contractor takes responsibilities for serving all students’ eating places in a school canteen setting prices controlled by the Ministry.

3.17.3. Criteria and Process of Providers Selection

Criteria of providers selection include the following:

- a possibility of providing schools with food and beverages complying with standards set by HPB;

- a possibility of ensuring good services and high food products quality at reasonable prices;
- a high level of hygiene and sanitary norms.

Appointment of new providers at new schools implies the following:

- As a rule, a new school forms a technical specification for counteragents in August, before the new academic year beginning;
- Applications are NOT selected according to the principle “the first to come – the first to be served”;
- Applicants can download a special form on the website of the Customer Service Centre at MOEHQ, North Buona Vista Drive, or that of the Ministry of Education;
- A special committee selects appropriate candidates;
- Potential candidates are invited for interview;
- Successful candidates should get registered and complete the basic course devoted to the food hygiene (WSQ BFHC) and submit an application for obtaining a license (NEA);
- All applicants are informed about their results in November/December.

Schools should conduct monitoring of food and beverage quality in canteens for the purpose of ensuring further compliance with healthy eating habits. Parents can also provide assistance to schools for healthy eating assurance by means of expressing their feedbacks and desires.

3.18. CHINESE TAIPEI

N/A

3.19. THAILAND

The school feeding system in Thailand is described on the basis of the review on the status and issues of SFPs in Thailand⁵⁹. The material will be specified upon the Seminar results.

There are three interconnected and complementary programs implemented within the country:

- School Lunch Programme,
- School Milk Programme,
- Agriculture School Lunch Project.

3.19.1. School Lunch Programme (SLP)

3.19.1.1. Context and aims

The Fund for School Lunch of Primary School Act B.E. 2535 was enacted in 1992, securing annual central government funding for the national SLP (WFP 2007; Jumpatong 2007: 2). The Act states that the aim of the programme is to alleviate nutritional problems among school children. The key concern, especially in the early years, was malnutrition (i.e. underweight). Other aims, as identified by Jumpatong (2007: 1; see also Chittchang 2005), include:

- enhancing food security;
- promoting desirable eating habits;
- promoting full growth and development of children.

⁵⁹ Yoko Kanemasu. Thailand. A desk review of the school feeding programmes, July 2007. WFP. <http://documents.wfp.org/stellent/groups/public/documents/newsroom/wfp207425.pdf>

In addition, there are a number of roles that the SLP may potentially play and that are beginning to attract greater attention. For instance, the Ministry of Education today acknowledges the importance of food education and agricultural activities, which are being integrated into the programme.

3.19.1.2. Target beneficiaries

The SLP is implemented in all public primary schools (approximately 30,000 schools) in grades 1-6 and kindergarten. It targets children suffering from malnutrition and, to a lesser extent, children living in poverty in remote rural areas (Table 19).

Table 19

SLP Beneficiaries

| | Oct 97- Mar 98 | May-Sep 98 | Oct 98- Mar 99 | May- Sep 99 | Oct 99- Mar 00 |
|----------------|-------------------|---------------|-------------------|----------------|-------------------|
| Kindergarten | 642,628 | 844,302 | 687,940 | 687,943 | 738,542 |
| Primary school | 1,539,235 | 2,024,565 | 1,680,793 | 1,885,864 | 1,848,662 |

Source: SRC et al. 2000: 142

The free school lunch entitlement criteria are:

- all malnourished children in schools operating under the Ministry of Education;
- all students at the Border Patrol Police (BPP) schools operating under the BPP Bureau, the Royal Thai Police (which are located in harsher rural conditions with inadequate facilities);
- all students at the Royal-Public Welfare schools;
- economically disadvantaged students (but not all of these children are covered, as described below.) (Chittchang 2005).

About 1.8 million primary school children and nearly 700,000 kindergarten children currently benefit from the programme annually; this is equivalent to about 30 percent of all school children and covers all malnourished school children and about half (48.81 percent in 1998) of the school children living in poverty (Jumpatong 2007:2). The government grant is used by individual schools either to engage private catering services or to purchase foodstuffs, which are cooked at school facilities by teachers, students and community volunteers (especially mothers) taking turns (due to the absence of kitchen staff in schools).

Students in the higher grades often take turns assisting in food preparation, serving, and cleaning (Ibid.: 6). Jumpatong (Ibid.: 4) identifies four modalities of school feeding in the country, three of which involve SLP funding:

- Lunch is provided entirely on the basis of family funding (i.e. students can afford to buy lunch); this is for relatively privileged schools in urban areas;
- Free lunch is provided to poor or underweight children and sold to others; this is for schools in suburban or middle-income communities;
- Free lunch is provided to poor or underweight children. Additional food is given to those who bring only rice from home and sold to those who can afford it; this is for schools in semi-rural areas;
- Free lunch is provided to all students; this is common in schools in remote areas.

3.19.1.3. Funding

Under the 1992 Act, the central government was required to provide US 14 million dollars each year to the Fund for School Lunch of Primary School until a total funding of 6,000 million baht (US\$203 million) was reached. The programme was to be operated on the Fund's interest and the target of 6,000 million baht was reached in

2000. However, due to the lower interest rate and fluctuations in the national economy, an additional budget of about 2,000-3,000 million baht (US\$68-101 million) has been allocated annually by the government (Chittchang 2005; Jumpatong 2007: 2). In a personal interview, Jumpatong (2007) estimated the current additional funding to be around 5,000 million baht (US\$169 million) per year.

The government initially provided 5 baht (US\$0.17) per child per day throughout the 200 days of the school year. This amount was increased following the recommendations of an evaluation study conducted by Mahidol University in 1995 (Chittchang 2005), first to 6 baht (US\$0.20) in 1999 (SRC et al. 2000: 142; CRC 2004:115) and then to 10 baht (US\$0.34) in 2004 (Chittchang 2005; Jumpatong 2007: 2, WFP 2007). In 2007, a budget of over 5,143 million baht (US\$174 million) has been allocated for the programme. The annual programme budget from 2000 to the present is shown in Table 20.

The budgetary allocation – first to LAOs (such as municipalities and tambon administrative organizations) and then to schools – is determined on the basis of the number of children with malnutrition, which in turn is determined by a national growth monitoring system. Teachers in all primary schools since 1986 have carried out weight-for-age growth monitoring (using the Thai standard) and children found to be malnourished by this procedure are entitled to free school lunch (Kachondham et al. 1992). Until around 2003, the provincial primary education supervisor⁶⁰ used these growth-monitoring data for allocating resources to individual schools. Following the decentralization of education management, schools submit these growth-monitoring results in an annual report to LAOs, which then report directly to the central government for budgetary allocation (Ibid.; Jumpatong 2007, personal interview and communication).

Table 20

Annual Budget for the LP

| YEAR | KINDERGARTEN | | PRIMARY | | TOTAL | |
|------|--------------|------------|-------------|------------|-------------|------------|
| | Thai Baht | US\$ | Thai Baht | US\$ | Thai Baht | US\$ |
| 2000 | 443,125,2 | 10,198,526 | 1,103,197,2 | 25,390,084 | 3,212,506,2 | 35,588,610 |
| 2000 | 443,125,2 | 10,198,526 | 1,223,058,6 | 28,148,694 | - | 38,347,220 |
| 2001 | 494,344,8 | 11,174,170 | 1,268,105,4 | 28,664,254 | 3,272,054,4 | 39,838,424 |
| 2001 | 406,015,2 | 9,177,568 | 1,103,589 | 24,945,526 | - | 34,123,093 |
| 2002 | 871,540,8 | 20,174,514 | 2,207,146,8 | 51,091,255 | 3,078,687,6 | 71,265,768 |

⁶⁰ Provincial education offices have since been replaced by Local Education Areas as part of the education reform of 2004, which decentralized education management to improve outcomes through increased community participation (Jumpatong 2007 personal interview; ADB 2007).

| | | | | | | |
|-------|-----|--|-------------|-------------|--------------|-------------------|
| 2003 | N/A | | 2,556,091,2 | 64,498,872 | 2,556,091,2 | 64,498,872 |
| 2004 | N/A | | 3,394,436,6 | 87,485,493 | 3,394,436,6 | 87,485,493 |
| 2005 | N/A | | 5,004,598 | 122,093,174 | 5,004,598 | 122,093,174 |
| 2006 | N/A | | 5,279,190 | 146,237,786 | 5,279,190 | 146,237,786 |
| 2007 | N/A | | 5,143,944 | 174,370,964 | 5,143,944,2 | 174,370,964 |
| Total | - | | - | | 44,859,435,4 | 1,250,289,7 24 |

Note: The Thai fiscal year is from 1 October to 30 September. The budget is allocated twice a year, which is why there are two entries for years beginning in 1995.

Source: Ministry of Education, Thailand, 2007

As for economically disadvantaged children, the central government provides funding to the most deprived provinces on the basis of the provincial poverty index and therefore it does not reach all children in need. Teachers at each school compile the number of children in need of free school lunch for financial reasons, which is reported to LAOs in an annual report, which is in turn reported to the central government for budgetary allocation. The system today is considerably localized; the government funding bypasses provincial governments and is allocated directly to LAOs and then to schools. The system relies primarily on local knowledge – individual teachers’ personal knowledge of their students and their needs – rather than official surveys (Jumpatong 2007, personal interview). According to Jumpatong (Ibid.), this system rests on the fact that most teachers are residents of local communities and that community members enjoy close relations and personal knowledge of each other. While significantly different from formal procedures characteristic of Western bureaucratic systems, this has proven to be suitable and accurate in the Thai context (Ibid.).

Although the central government subsidy does not reach all economically disadvantaged children, LAOs at the local level provide supplementary funding to cater for those who are not covered. Consequently, 95 percent of all school children (including those who can afford to pay and do not receive free lunch) currently have access to lunch every day at school (Jumpatong 2007: 4). The remaining 5 percent may receive free lunch a few days a week, which is due not necessarily to financial constraints but to the problems of access; most of these children are located in remote, hard-to-reach areas, which creates logistical problems for providing meals (Jumpatong 2007, personal interview). This suggests significant progress since 1995, when the Mahidol University evaluation study found that the funding was insufficient and that some schools had to discontinue the service whenever the funding ran out (Chittchang 2005).

3.19.1.4. Governance

The programme has been implemented under the initiative of the Ministry of Education. Since 2001, the Ministry of Interior, which is in charge of provincial and local government, has also been involved as part of the wider decentralization process.⁶¹ The Ministry of Education manages the interest from the Fund for School Lunch of Primary School, whereas LAOs, under the Ministry of Interior, manage the additional central government funding and provide supplementary funding for the cost of free lunch for economically disadvantaged children. At the school level, individual schools

⁶¹ Thailand has undergone some decentralization of power to local governments, which began with the seventh NESDP (1991-1996) and was formally enshrined in the 1997 constitution (World Bank 2007b; Wegelin 2002: 2).

exercise authority over the actual use of the grant and the implementation of the programme. Matters relating to the sourcing, cooking and serving of food are left entirely to individual school policies and initiatives (Jumpatong 2007, personal interview).

3.19.1.5. Procurement

The procurement mechanism of the programme has not been documented in detail. As noted above, the SLP today operates under a decentralized system whereby individual schools are given the authority to determine the procurement method (e.g. where the food is produced, whom to buy it from and how the food is cooked and served) and how to use the subsidy (Ibid.). The purchasing process is informal and does not involve public tenders; there is no formal procurement mechanism or emphasis to promote local sourcing. However, despite this absence of formal policy, local sourcing is a very common practice under the programme. Most schools (estimated to be around 90 percent) purchase perishable food items (such as fresh vegetables and meat) from local producers, often via local markets. A small minority (estimated to be less than 10 percent), mainly in urban areas, engage the services of private catering companies (Ibid.). While local procurement (especially market purchase) may be distinguished from procurement of locally produced food, Jumpatong (2007, personal interview) estimates that most of the food procured is of local provenance. It may be speculated that schools customarily purchase local produce on a regular basis.

In this sense, the programme is implicitly and potentially largely “home-grown.” Jumpatong (Ibid.) explains that local sourcing is a normal practice in Thailand, where the use of imported or transported food in school lunch is almost unheard of given its higher price and the availability of cheaper and fresh local food. Schools may also complement purchased food with student agricultural activities, as described below. Only sauces and seasonings are normally obtained from large manufacturers (Ibid.).

3.19.1.7. Recent initiatives and improvements to the programme

The programme has undergone a number of improvements since its inception in the areas of nutrition, meal quality, education and programme implementation in general. While the initial aim of the programme was to simply feed the target group, it has since broadened to encompass issues such as the improvement of meal quality, school agriculture, food education and community involvement.

3.19.2. School Milk Programme

3.19.2.1. Context and aims

The significance of the School Milk Programme (SMP) needs to be understood in the context of dairy farming in Thailand. The systematic development of the industry began in the 1960s with royal patronage and government support (FAO and APAHCA 2002; Delgado et al. 2003; Itsaranuwat and Robinson 2003; Garcia et al. 2005). The central government, with the aim of developing small-scale production, has been largely instrumental in the growth of the industry by facilitating the import of breeding stocks, providing production subsidies and tariff or quota protection and playing a coordinating role between dairy producer cooperatives and dairy processing companies. The Department of Livestock Development and the state enterprise Dairy Farming Promotion Organization have played a particularly prominent role (Ibid.).

Shielded from international competition and supported with production subsidies, milk production began to boom in the early 1980s (Itsaranuwat and Robinson 2003: 6-7). Dairy farmers – mostly rural smallholders who require assistance in organized milk collection, delivery, processing and technical services – have historically been aggregated into cooperatives, which are today organized under the Ministry of Agriculture and Cooperatives; there were 114 such units in 2001 (Ibid.: 8).

About 95 percent of the raw milk produced by small-scale dairy farmers is collected by these local cooperatives and sold directly to the market or to state-owned and/or private dairy processing companies⁶² (Delgado et al 2003; FAO and APAHCA 2002; Itsaranuwat and Robinson 2003: 6-8; Garcia et al 2005).

Notably, government efforts have been aimed at milk production and consumption. Since 1985, the National Milk Drinking Campaign Board and the National Youth Bureau have conducted a campaign which, with private sector funding, publicized the dietary value of milk under a slogan that is recognized throughout the country today: “Have you had your milk today?” (Itsaranuwat and Robinson 2003: 7). The introduction of the SMP, which specifies that subsidized milk is to be sourced only from domestic production with full contents of Thai raw milk, may be seen as part of the Thai government’s ongoing policy to promote dairy farming.

The National Milk Drinking Campaign Board was established in 1985, following farmers’ protests over unsold milk. It initiated a pilot programme in selected areas of Bangkok and Chiangmai in which the parents of primary school and kindergarten children purchased milk at 25 percent less than the normal price through monthly coupons. Suwanabol (n.d.) notes this as the origin of the national SMP. The programme officially started in 1992 to provide 200 ml of free milk to all first-year kindergarten children (Chittchang 2005; Suwanabol n.d.). In 1995, it was expanded to cover all children up to Grade 1 in public schools. Since 2005, 200 ml of free milk, costing 5 baht (US\$0.17), is provided in the morning to all public kindergarten children and students in Grades 1-4 in all public primary schools for the 200-250 days of the school year (Chittchang 2005; UNESCO Bangkok n.d.; SRC et al. 2000: 143; Jumpatong 2007, personal communication). The programme is expected to cover up to Grade 6 eventually. As of 2005, 6.09 million children benefited from the programme (see table below).⁶³

The available information suggests that the SMP has two key aims. First, like the SLP, the programme promotes healthy growth of young children and milk was selected as a supplementary drink for its dietary value (Chittchang 2005; Jumpatong 2007, personal interview and communication). As a related goal, the programme is also intended to improve school attendance with the offer of free milk (Itsaranuwat and Robinson 2003: 7; Jumpatong 2007, personal interviews and communication). The programme also has a key function of supporting the dairy industry and the livelihoods of dairy farmers.

The SMP provides an outlet for the produce and further contributes to creating a future market by encouraging children to develop a taste for milk from an early age (Suwanabol n.d.; FAO and APHCA 2002; Delgado et al. 2003). Recently, the programme has sought to maximize the involvement of local farmers’ cooperatives, thereby enhancing its rural development potential. Therefore, it may be said that the SMP has goals of promoting nutrition and health, dairy farming and rural development.

⁶² The other 5 percent is sold to local middlemen who tend to offer slightly higher prices (Delgado et al 2003).

⁶³ Supplementary milk is also provided by other government agencies such as the BMA, the Department of Local Administration, BPP Command and young child development centres under the Department of Community Development (SRC et al. 2000: 143).

3.19.2.2. Funding and governance

The programme was initially implemented by the Ministry of Education, but has since been decentralized and administered by LAOs under the Ministry of Interior (Jumpatong 2007, personal interview). The central government budget is directly allocated, though LAOs, to individual schools which purchase their own milk. The Ministry of Education continues to monitor the programme implementation, whereas the Ministry of Agriculture and Cooperatives oversees the milk supply (Ibid.). The annual budget, beneficiaries, grades and the number of school days covered by the programme from its inception in 1992 to 2003 are shown in Table 21.

Table 21

SMP Annual Budget, Beneficiaries, Grades and Number of School Days Covered

| FISCAL YEAR | GRADE | No. OF STUDENTS | No. OF DAYS PROVIDED | BUDGET | |
|-------------|--------------|-----------------|----------------------|---------------|-------------|
| | | | | Thai Baht | US\$ |
| 1992 | Kindergarten | 696,625 | 120 | 278,600,000 | 10,912,651 |
| 1993 | Kindergarten | 1,267,199 | 120 | 423,800,000 | 16,567,613 |
| 1994 | Kindergarten | 1,623,683 | 200 | 1,207,600,000 | 48,101,969 |
| 1995 | K – Grade 1 | 2,802,612 | 200 | 1,715,000,000 | 68,055,488 |
| 1996 | K – Grade 2 | 3,518,192 | 200 | 2,213,200,000 | 86,284,700 |
| 1997 | K – Grade 3 | 5,010,776 | 200 | 4,334,770,000 | 92,623,198 |
| 1998 | K – Grade 4 | 5,389,842 | 200 | 5,323,750,000 | 145,856,376 |
| 1999 | K – Grade 4 | 5,841,732 | 200 | 5,356,430,000 | 141,892,366 |
| 2000 | K – Grade 4 | 5,905,000 | 200 | 5,981,350,000 | 137,660,770 |
| 2001 | K – Grade 4 | 6,224,752 | 200 | 6,070,190,000 | 137,210,575 |
| 2002 | K – Grade 4 | 5,836,286 | 230 | 6,752,350,000 | 156,304,073 |
| 2003 | K – Grade 4 | 5,961,373 | 230 | 6,819,030,000 | 172,067,312 |

Note: In 2001, Grade 5 and 6 students with malnutrition problems were included.

Source: Jumpatong 2007, personal communication

3.19.2.3. Procurement

The procurement mechanism of the programme, like that of the SLP, is scarcely documented. Nevertheless, it appears that it has undergone some significant changes in recent years (Ibid.). In the last decade, purchasing of school milk was administered at the provincial level by the provincial educational office. Due to the lack of efficiency and accountability in this system, the procurement policy was subsequently changed to allow individual schools to take responsibility for purchasing milk for themselves, according to the programme guidelines. These guidelines required schools to purchase milk from the nearest producers, whether or not they were situated in the same province, and to give priority to local farmers' cooperatives or agricultural colleges. This policy has since been refined in order to prevent intense competition where large cooperatives and companies tend to have a significant advantage over small cooperatives.

Under the current system, the country is divided into three school milk zones. The consumers (i.e. children) and the suppliers of milk must be within the same zone (e.g. raw milk in zone 1 must be processed by a dairy in zone 1 and be consumed by schools in zone 1). This zoning is intended to ensure a balance of supply and demand and a more equitable allocation of resources. Dairies wishing to be a school milk supplier must first be certified by the Ministry of Industry, possess a valid food safety certificate from the Thai Food and Drug Administration and have a long-term contract to buy local raw milk. By 2004, all school milk suppliers must be HACCP (Hazard Analysis and Critical Control Points) certified. All school milk must be made from liquid raw milk and not from powder (Suwanabol n.d.; Jumpatong 2007 personal interview and communication).

In contrast to the SLP, the SMP has an explicit emphasis on local procurement and, more specifically, on procurement of local produce. If the SLP is an implicitly “home-grown” programme with informal procurement practices, the SMP may be described as an explicitly “home-grown” programme supported with a formal procurement mechanism and policy. Such an explicit emphasis on local sourcing may not have been a feature of the programme in the past; at least one writer commented in 2003 that local dairy cooperatives played a minimum role in the SMP because most of the milk was procured from “the politically-based business firms in Bangkok” (Delgado et al 2003).

3.19.2.4. Impact

The impact of the SMP on national milk consumption and production is notable. The annual per capita milk consumption increased from 2 litres in 1984 to 23 litres in 2002; the dairy market similarly expanded from 290 million litres a year in the early 1990s to 1,146 million litres by 2003. Local herd size also grew from 132,000 in 1989 to 412,000 in 2003 (Suwanabol n.d.; see also Garcia et al 2005: 1). Delgado et al. (2003) suggests that the growth of the industry between 1993 and 1995 is largely attributable to the programme. School milk accounted for more than 30 percent of the total liquid milk market around 2003 and the share has grown since then to about 50 percent (Ibid.; Suwanabol n.d). In short, as Itsaranuwat and Robinson (2003: 7) note, the SMP has “played a key part in promoting milk consumption across the whole country.” This has positive implications for the livelihoods of small-scale farmers, who make up the majority of the milk producers in Thailand, especially under the current procurement policy favouring local cooperatives. Although no empirical data are available to demonstrate the scale of the impact, a Ministry of Education official confirms that farmers’ cooperatives currently constitute the largest proportion of school milk suppliers (Jumpatong 2007, personal interview).

3.19.3. HRH Princess Maha Chakri Sirindhorn’s Agriculture For School Lunch Project

Thailand currently operates one other major school feeding programme. Although it is more or less supplementary in nature, it has a longer history and is implemented in conjunction with the SLP and the SMP in many remote rural schools. Its contribution warrants brief attention.

In 1980, Her Royal Highness (HRH) Princess Maha Chakri Sirindhorn initiated the Agriculture for School Lunch Project with the aim of alleviating food insecurity and malnutrition among school children in remote rural areas. The project has been implemented in almost every BPP school in combination with the SLP and the SMP. In 2004, it was extended to secondary schools and today it targets 478 schools (Table 22).

The project encourages school agriculture in order to improve the quality and frequency of school lunch in remote rural areas. Under the project, HRH provides agricultural materials and tools, plant seeds, animal breeds, cooking utensils, technical training and budgetary and other assistance to facilitate and promote agricultural activities (i.e. crop and animal husbandry) by students as part of the

curriculum (Ibid.).⁶⁴ The project is a food security measure and also has an educational emphasis, as it aims to equip students with agricultural skills and knowledge to be transferred to their families and used in their future careers. Most BPP school students come from remote farming communities in which such training is likely to be of value (Viravat 2007, personal interview).

Table 22

Number of participants in 2004

| | |
|--------------|---------------|
| Toddler | 436 |
| Preschool | 17,130 |
| Primary | 44,853 |
| Secondary | 5,970 |
| Islam | 888 |
| Novice | 1,720 |
| Total | 70,997 |

The produce from students' agricultural activities is sold to the school cooperative shop and then cooked by parents, students and teachers according to the nutritional guidelines of the project (WFP 2007). The school cooperative purchases the food with the 10 baht-per-child grant (US\$0.34) available from the SLP. The grant thus operates as a kind of revolving fund, circulating in the school. It has an additional benefit of giving students an opportunity for training in convening cooperate committees, debate and bookkeeping. If schools do not produce sufficient food, additional foodstuffs are obtained through community donation or market purchase. Prior to 1992, BPP schools received assistance only from this project. With the introduction of the national SLP and SMP, however, the combination of the three programmes has served to guarantee good quality meals for school children in remote rural areas (Ibid.; Viravat 2007, personal interview).

Community participation is a key element of the project. Children, teachers, parents and other community members cooperate in agricultural activities and meal preparation, which serves to strengthen community networks and cohesion. Schools are envisaged as "learning centres" where community members, along with students and teachers, acquire new agricultural and hygienic skills and knowledge (Ibid.).

The key activity components of the project include:

- school agriculture, by using integrated agricultural techniques;
- meal preparation with the assistance of mothers and community members
- taking turns under teachers' supervision;
- promotion of food preservation;
- provision of iodized drinking water;
- periodical nutritional surveillance (e.g. weight and height measurement and goitre examination);
- deworming;

⁶⁴ In some cases in which agricultural activities are not possible (e.g. in child development centres and monastic schools), the Princess provides funding for purchasing foodstuffs and powdered cow milk or powdered soy bean milk as supplementary food (WFP 2007).

- teacher training in agriculture and nutrition;
- student training in agricultural techniques (e.g. meal preparation, healthy eating and sanitation);
- continuous monitoring and evaluation by concerned agencies.

Despite its longer history, the project covers more limited areas and schools than the SLP and the SMP and plays a supplementary role. Its role in local procurement is rather limited because the food used to prepare the meals is produced by students themselves. When additional foodstuffs are purchased, they are usually sourced from markets in towns some distance away from the BPP schools which are mostly located in remote, mountainous areas (Viravat 2007, personal interview). The significance of the project lies primarily in its nutritional, food security and educational benefits to rural school children rather than in immediate socio- economic benefits to local farmers.

3.19.4. Conclusions

On the basis of the limited information available for this case study, it is possible to make the following observations about the potential and challenges for the SLP and the SMP, especially in relation to their “home- grown” elements:

1. The SLP was established and has thus far been implemented with aims specifically related to health and nutrition. Its scope is expected to broaden and diversify in the future, as the emphasis shifts toward quality and the wider educational and socio-cultural potential of school feeding.

2. Despite the absence of a clear procurement policy or mechanism, the SLP is (possibly largely) “home-grown” in practice. This implies the potential for strengthening and improving current practice and a challenge to facilitate the home-grown aspect through appropriate institutional, technical and policy support.

3. Although it has undergone significant improvement, the SLP, as a considerably localized programme, continues to face budgetary restrictions, the need for appropriate infrastructural, technical and personnel support and clear national and local government policy.

4. The SMP, in contrast to the SLP, has operated with two objectives: promoting health and nutrition and supporting dairy farming. Although the available information suggests that the emphasis until recently was on the procurement of national, rather than specifically local, produce, the current policy indicates a clear intention to encourage greater involvement of local milk producers, implying significant “home-grown” elements.

5. Despite such existing and potential home-grown elements, the scarcity of empirical data does not permit a valid understanding or measurement of the precise impact of the SLP and the SMP on small-scale local producers. A better understanding of the actual procurement practices and their impact on local producers and rural economies requires further research, especially substantial field work.

3.20. USA

3.20.1. Major food assistance programs

USDA administers five major domestic food assistance programs that exclusively or primarily serve the nutritional needs of children⁶⁵:

⁶⁵ <http://www.ers.usda.gov/Briefing/ChildNutrition/>

- National School Lunch Program
- School Breakfast Program
- Child and Adult Care Food Program
- Summer Food Service Program
- Fresh Fruit and Vegetable Program.

The child nutrition programs work individually and in concert to provide a nutritional safety net for children and together account for one-quarter of USDA's domestic food and nutrition assistance outlays.

In fiscal 2010, USDA spent \$17 billion on these programs.

The National School Lunch Program (NSLP) is the Nation's second largest food and nutrition assistance program. In 2010, it operated in over 101,000 public and nonprofit private schools (grades K-12) and residential child care institutions. The NSLP provided low-cost or free lunches to over 31.6 million children daily at a cost of \$10.5 billion.

Any student in a participating school can get an NSLP lunch regardless of the student's household income. Eligible students can receive free or reduced-price lunches:

- Free lunches are available to children in households with incomes at or below 130 percent of poverty
- Reduced-price lunches are available to children in households with incomes between 130 and 185 percent of poverty.

In 2010, school cafeterias served more than 5 billion lunches, more than half of them free or at a reduced price. ERS-sponsored research found that children from food-insecure and marginally secure households were more likely to eat school meals and received more of their food and nutrient intake from school meals than did other children.

The School Breakfast Program (SBP), founded by the Child Nutrition Act of 1966, provides nutritious meals to students at participating schools (and to children in a few residential child care institutions). Eligible students receive free or reduced-price breakfasts.

The number of schools participating in the SBP increased dramatically in the early 1990s, growing by nearly 9 percent annually between fiscal 1989 and fiscal 1995. Since then, the number of participating schools has continued to increase, although participation still lags that of the NSLP (with more than 101,000 schools and residential child care institutions participating). In 2010, 88,642 schools and residential child care institutions participated in the SBP, up from 87,814 in 2009.

Student participation in the SBP has also grown. In fiscal 1989, 3.7 million students participated in the program on a given school day, and a total of 658 million breakfasts were served. In fiscal 2010, 11.6 million students participated in the program daily, 5 percent more than the previous year. Most participants have high need; of the 1.9 billion breakfasts served, 75 percent were free and another 9 percent were provided at reduced price. Spending for the program totaled \$2.8 billion in 2010, 10 percent more than in the previous year.

The Child and Adult Care Food Program (CACFP), as part of the changes required by Congressional reauthorization of the program in 2010, will be allowed to provide suppers to children attending after-school programs in high-need areas, where at least 50 percent of children are eligible for free or reduced-price meals. In addition, reauthorizing legislation requires USDA's Food and Nutrition Service (FNS) to develop new nutrition standards for CACFP meals and snacks that better reflect current Federal dietary guidance.

The Summer Food Service Program (SFSP) in 2010 provided meals to 2.3 million children each day at 38,471 sites during the program's peak month of July. SFSP served almost 134 million meals and snacks at a cost to USDA of almost \$359 million in fiscal 2010, primarily during summer vacation.

The USDA Fresh Fruit and Vegetable Program makes fruit and vegetable snacks available at no cost to all children in participating schools. The program began in 2002 as a pilot program in a small number of schools. It has since become a permanent program that was expanded to cover selected schools in all 50 States, as part of the 2008 Farm Bill.

The Nutrition Programs Title of the 2002 Farm Act provided \$6 million for USDA to award to schools through a Fruit and Vegetable Pilot Program (FVPP) for the 2002-03 school year. The 2004 Child Nutrition and WIC Reauthorization Act made the Fruit and Vegetable Pilot Program permanent and expanded it to more States. The 2008 Farm Bill expanded it to all States, along with the District of Columbia, Guam, Puerto Rico, and the Virgin Islands. However, it is available in selected schools in each State based on need—schools in which a high proportion of students are eligible to receive free or reduced-price school meals. The current Fresh Fruit and Vegetable Program is administered by USDA's Food and Nutrition Service (FNS).

USDA provides after-school snacks to school children through either its National School Lunch Program (NSLP) or the Child and Adult Care Food Program (CACFP).

In addition to serving NSLP lunches, schools can offer nutritious snacks as part of after-care educational programs or enrichment activities. Snacks are subsidized on a sliding scale, based on whether students qualify for free, reduced-price, or full-price lunches. Schools in which at least 50 percent of students qualify for free or reduced-price meals are “area eligible” and fully subsidized for all participating students. Participation in the NSLP After-School Snack Program—authorized by Congress in 1998—although smaller than lunch and breakfast program participation, is growing. The program reached an average of 1.3 million snacks served daily in fiscal year (FY) 2010 and over 219 million snacks served that year. Almost all snacks were served in high-need area eligible schools.

Through USDA's Child and Adult Care Food Program (CACFP), after-school snacks can be served by third-party sponsors of community-based after-school enrichment programs in those areas, where at least 50 percent of the children are eligible for free and reduced-price meals. Beginning in 2000, some State CACFP programs were given the option to offer after-school suppers through community programs in these at-risk areas. In December 2010, Congress extended this option to all of the States. Through this option, community programs may also serve breakfast or lunch on weekends, holidays, and school breaks, addressing gaps that may occur when at-risk children are not in school.

3.20.2. Social Protection System for Vulnerable Groups of Children

Free school lunches or lunches at preferential prices can be served by any public or nonprofit private school, or preschool establishment providing that the following key requirements are observed: nondiscrimination, food security rules observance, students provision with dishes complying with healthcare norms.

The federal and state government allocates necessary funds and food surplus to schools engaged into the program. Due to NSLP, some 30 million of children in the USA receive school lunches on a free or preferential basis, which allows providing children from low-income families with nutritional food.

The federal incomes regulations help to determine who can apply for a free school lunch or lunch at a preferential price. Children from families provided with federal or state food support are entitled to receive free school lunches.

Free school lunches are available for children from families, whose income does not exceed 130% of the poverty level. Lunches at preferential prices can be provided to children from families, whose income makes up 130-185% of the poverty level. Children from families, whose income is over 185%, pay the full price for their lunch; nevertheless, their meals are partially sponsored by the federal budget. Local authorities can set their own prices for lunches providing that their feeding programs are of nonprofit character. (18)

The federal incomes regulations are changed every year. For example, for the period from July 1, 2001 till June 30, 2012, 130% of the poverty level makes up 29,055 dollars for a four-member family, 185% - 41,348 dollars. In 2009-2010, the similar indicators made up 28,665 and 40,793 dollars correspondingly. (12)

3.20.3. Food Provision Management

Purchase, distribution and processing of food products necessary for SFP require certain decisions on the federal and regional levels, on the level of school districts and coordinators of the school food distribution system.

The Department of Agriculture initially determines what food products should be purchased from producers on the federal level defining their types, amount and other characteristics. Besides, the Department of Agriculture can purchase already processed products on the federal level.

The next step implies a resolution adopted by the state authorities responsible for food products distribution related to the fact what products included into the list provided by the Department of Agriculture should be supplied to state schools on the basis of school districts' orders and/or their own preferences.

On the local level, food products are ordered to the amount allocated by the federal government; besides, a decision related to their further processing and final product characteristics is made.

Under the federal legislation, schools cannot specify particular dishes or their amount in their orders but should define what food products and in what amount are to be ordered, their processing method, what companies can act as partners and what products and in what amount are to be ordered from them. Besides, schools can set standards in the sphere of energy value and requirements to final products.

Companies dealing with school food production or distribution can also make decisions related to offered food products considering such factors as market demand, potential profit and expenses. (3)

3.20.4. National Standards and Dietary Guidelines

In the USA, the Dietary Guidelines for Americans are developed by the Department of Agriculture along with the Department of Healthcare and Social Security. The guidelines are updated once in five years providing further publication of new provisions containing reliable information for the American citizens of over 2 years of age related to the fact how to considerably decrease the calorie intake, choose products correctly and lead an active lifestyle for achieving and maintaining the normal weight, reducing risks of chronic diseases as well as health preservation in whole.

It was January 31, 2011 that the Dietary Guidelines for Americans were last updated. Due to the fact that one third and over two thirds of the US grown-up population suffer from overweight or obesity, the Guidelines seventh revision emphasizes the ration energy value reduction and physical activity increase. (5)

In 2011, the “My Pyramid” Dietary Guidelines for Americans were replaced by the system called “My Plate”.

The key system provisions can be represented by 10 principles (17): observe the daily calorie intake; eat less trying to enjoy your food; eat by small portions; consume the following products more frequently (vegetables, fruit, whole-wheat products, skim milk or low-fat milk (1%), dairy products); switch to skim milk or low-fat milk (1%); make sure that one half of all consumed cereals should account for whole-wheat products; consume unhealthy products more seldom; control the natrium content in products; drink water instead of sugar-containing beverages.

3.20.5. Food Products Security

The state authorities set food security standards, conduct inspections for food products compliance with the established standards, ensure enforcement of regulations.

January 4, 2011, the US president, Barak Obama signed up the law extending the state powers in respect of food security control (Food Safety Modernization Act). This law allows the Food and Drugs Administration to provide extremely efficient public health protection due to the food security system enhancement. Therefore, the department can focus not only on overcoming consequences of food security problems but also preventing their occurrence. (16)

Besides, the Food and Drugs Administration is now entitled to prohibit distribution of food not complying with the food security criteria by refusing to register a certain food enterprise. It is noteworthy that an enterprise may encounter problems with registration not only in case its manufactured products pose a threat to people’s health but also if this enterprise does not take any measures for protecting consumers against unhealthy products and shutting down the line. A manufacturer of poor quality products should also study the causes of this controversial situation and take appropriate measures in order to avoid its reoccurrence. In case a manufacturer does not comply with this task, the situation should be resolved by the Food and Drugs Administration. (8)

It is also noteworthy that in 2010 the US Department of Agriculture has cracked down on companies supplying food products to schools. The implemented measures are aimed at checking existing suppliers’ products and assessing potential risks before food-born diseases have occurred and spread. (22)

3.20.6. Expenses, Prices, Financing

SFP food production expenses have considerably increased. The average costs of SFP food production are given in Table 23. (14)

Table 23

The average costs of SFP food production

| | Average figure | Range |
|--|------------------------------|---|
| Food production expenses (2007-2008 academic year) | 2.63\$ | 1.15\$ - 3.72\$ |
| Food production expenses (2008-2009 academic year) | 2.90\$ | 1.50\$ - 3.87\$ |
| Food production expenses growth | Expenses increased by 0.27\$ | The expenses growth made up 0.03\$ - 0.75\$ |

73 % of SFPs increased food prices for students paying the full cost of dishes to make up for costs caused by the food production expenses growth. The average food prices for students paying the full cost of dishes are given in Table 24. (14)

Table 24

Cost of dishes

| | Primary school | Secondary school (5-8 grades) | High school (9-12 grades) |
|------------------------|-----------------------|--|--------------------------------------|
| 2007/08 Food prices | 1.74\$ | 2.02\$ | 2.11\$ |
| 2008/09 Food prices | 1.86\$ | 2.16\$ | 2.23\$ |

Prices of breakfasts (under the School Breakfast Program - SBP) and lunches (under the National School Lunch Program) in 2009/2010 academic year (Table 25). (1)

December 13, 2010, the US president, Barak Obama, signed up a new law governing children feeding at schools (Healthy, Hunger-Free Kids Act). According to the document, it is necessary to increase the amount of children exercising an access to SFPs and to improve the provided food quality, which will allow resolving issues of hunger and obesity.

Due to this law, more fresh fruit and vegetables appeared in school canteens while the provided milk is represented by skim or low-fat milk. Besides, it is planned to set a single lunch price of 2.46\$ in all schools. However, different states still pursue different price policies. For example, in Fairfax district, Virginia, the lunch price at primary school makes up 2.65\$ while at secondary school – 2.75\$, though in Austin, Texas, the lunch price makes up 2.15\$ and 2.50\$ correspondingly. (20)

Table 25

Prices of breakfasts and lunches

| School | | Breakfast (SBP) | Lunch (NSLP) |
|---------------|--------------------|----------------------------|-------------------------|
| Primary | Full price | 1.00\$ | 1.70\$ |
| | Preferential price | 0\$ | 0.40\$ |
| | Second helping | 1.65\$ | 3.25\$ |
| | Milk | 0.50\$ | 0.50\$ |
| Secondary | Full price | 1.40\$ | 2.00\$ |
| | Preferential price | 0\$ | 0.40\$ |
| | Second helping | 1.65\$ | 3.50\$ |
| | Milk | 0.50\$ | 0.50\$ |

In 2010, federal funds allocated for SFPs financial support were distributed in the following way: 70.9% of the total amount was allocated to school lunch and snack programs, 20.8% - to SBP, 8.2% - to food products purchased at extra charge and less than 1% - to school milk programs. (10)

For SFP at a particular school to be federally supported, local school district should obtain a permit issued by the State Department of Education. In case a permit is provided, all public and nonprofit private schools in the district can be engaged into the program. In order to launch the program on a district or school level, one should select a competent body (an independent nonprofit organization) that would provide food supply under SFPs as well as determine what students and in what quality can participate in the program.

The Food and Nutrition Service (FNS) by the US Department of Agriculture deals with distribution of SFPs grants among states based on the amount of dishes of each category provided by a particular state within the previous budget year (free lunches, lunches at a preferential price, full price lunches as well as milk, snacks, and breakfasts) multiplied by the federal subsidy rate for each type of dishes. In order to provide SFPs federal funding, states should allocate for SFPs funds in the amount of 30% of the total volume of federal support received in 1980 (Table 26). (19)

Table 26

Federal SFPs expenses, million \$

| Federal SFPs expenses, million \$ | | | | | | | | |
|-----------------------------------|-------------------------------|--------------------------|--------------|----------|------------------|-------|---------|------------------------|
| (As of December 1, 2011) | | | | | | | | |
| Budget year | Allocated monetary funds | | | | Related expenses | | | Total federal expenses |
| | National School Lunch Program | School Breakfast Program | Milk Program | Total | Established norm | Extra | Total | |
| 1997 | 4,934.1 | 1,214.3 | 17.4 | 6,165.8 | 590.9 | 28.8 | 619.7 | 6,785.4 |
| 1998 | 5,101.6 | 1,272.2 | 16.8 | 6,390.6 | 642.5 | 85.7 | 728.2 | 7,118.8 |
| 1999 | 5,314.5 | 1,345.5 | 16.5 | 6,676.5 | 661.1 | 43.8 | 704.9 | 7,381.4 |
| 2000 | 5,492.9 | 1,393.3 | 15.4 | 6,901.6 | 606.6 | 48.6 | 655.2 | 7,556.8 |
| 2001 | 5,612.3 | 1,450.1 | 15.5 | 7,078.0 | 802.2 | 60.6 | 862.8 | 7,940.8 |
| 2002 | 6,049.6 | 1,566.7 | 16.1 | 7,632.3 | 720.6 | 82.6 | 803.3 | 8,435.6 |
| 2003 | 6,340.6 | 1,651.8 | 14.3 | 8,006.7 | 696.9 | 151.7 | 848.7 | 8,855.3 |
| 2004 | 6,663.1 | 1,775.8 | 14.2 | 8,453.1 | 762.5 | 200.5 | 963.0 | 9,416.1 |
| 2005 | 7,055.3 | 1,927.2 | 16.4 | 8,998.9 | 824.0 | 151.1 | 975.1 | 9,974.0 |
| 2006 | 7,387.9 | 2,041.9 | 14.6 | 9,444.4 | 772.9 | 29.4 | 802.3 | 10,246.7 |
| 2007 | 7,706.1 | 2,163.5 | 13.6 | 9,883.2 | 1,017.0 | 16.2 | 1,033.2 | 10,916.4 |
| 2008 | 8,265.0 | 2,365.6 | 14.9 | 10,645.4 | 1,034.0 | 18.5 | 1,052.5 | 11,697.9 |
| 2009 | 8,873.0 | 2,582.5 | 14.0 | 11,469.5 | 933.7 | 185.4 | 1,119.1 | 12,588.5 |
| 2010 | 9,750.3 | 2,859.2 | 11.9 | 12,621.4 | 1,044.1 | 83.8 | 1,127.9 | 13,749.3 |
| 2011 | 10,062.8 | 3,018.1 | 12.3 | 13,093.2 | 1,035.2 | 163.8 | 1,198.9 | 14,292.2 |

Data for 2011 are based on a preliminary assessment and should be checked.

3.21. VIET NAM

3.21.1. School Feeding System

Viet Nam lacks a single school feeding program. There are separate SFPs developed by regions. They operate mostly due to support of the government and various non-governmental organizations.

School lunches programs (within the framework of which students usually have their daily meal) are valid only in urban and few rural schools. However, these programs are funded not by the state budget but by parents. In case a family cannot afford to pay for lunch, it is not provided. The average lunch includes soup, set of vegetables, tofu or fish. As a rule, there are four or five options; besides, pickled eggplants or hardboiled eggs can be offered. The set of products varies on a daily basis. The average lunch cost makes up 18,000 dong (86 US cents).

From the social point of view, the main SFP objective implies combating malnutrition and underweight among children. Therefore the Vietnamese SFP focuses on low-income social groups support.

USD 3.55 million was allocated for the 2010-2012 “Integrated Nutrition and Food Security Strategies for Children and Vulnerable Groups in Vietnam” program implementation.

The UN special bodies (WHO, UNICEF and FAO) provide support to the Department of Maternal and Child Healthcare and National Food Service Institute within the framework of the “Integrated Nutrition and Food Security Strategies for Children and Vulnerable Groups in Viet Nam” program implementation.

For three years (2010-2012), the UN has been offering assistance to the Vietnamese government for resolving an issue of constant malnutrition of the most vulnerable social groups focusing on combating growth retardation and malnutrition. The program is oriented at a certain group of provinces with a high level of growth retardation. The selection is also based on local capacities for the program measures implementation.

Along with short-term perspectives, the program includes certain long-term strategies related to feeding quality improvement by means of increasing accessibility and quality of crops and products of animal origins (meat, milk and fish).

The program principal tasks include:

- 1) improvement of systems for products quality monitoring, increase of maternal and children nutrition quality as a landmark of the feeding environment state;
- 2) improvement of babies and schoolchildren nutrition;
- 3) mineral nutrients shortage decrease for the target group of children and women;
- 4) improvement of care and treatment for children suffering from malnutrition and children nutrition quality increase in emergency situations.

The state implements the “School Milk” program but currently only in Vung Tau province. Milk deliveries are funded by the province budget. Since 2011, the “School Milk” national program was to be carried out with partial employment of parents’ resources. It is assumed that the program will cover not only schoolchildren (220-250 ml of milk 3-5 times per week, 9 months per year) but also preschoolers (110-120 ml of milk 1-2 times per week, 12 months per year).

3.21.2. Food Products Quality Management

For the purpose of providing consulting assistance to the Ministry of Healthcare in respect of issues of food products quality management, hygiene and safety, the Department of Food Products Quality Management was created in 1999. The Department of Food Products Quality Management controls nutrition hygiene, safety and food products quality.

The Department tasks include the following:

- development of food products standards and safety rules coordination;

- food products testing;
- audit and licensing of joint enterprises;
- investigation of food intoxication outbreaks as well as cooperation with preventive healthcare centres and medical teams in respect of preventive measures implementation.

3.21.3. Third Party Organizations Engagement

“Love Education” fund. The Vietnamese families launched the school lunches program for poor children at the Tan Liang primary school that cannot go home for lunch. Some of them suffer from malnutrition, which affects their ability to take advantage of the learning process. Their lunch used to include rice and a small amount of vegetables. Due to the shortage of proteins and very restricted nutrition, these children were characterized by growth retardation and in some cases even the extreme degree of malnutrition.

“Food for Thought” fund. At the moment, the fund implements the “Food for Thought” program enabling to provide poor children with school meals, which means energy and health required for studying. Under this program, students are supplied with a school lunch consisting of proteins (meat and an egg), a yogurt, rice, vegetables and fruit. Its monthly cost makes up \$14 for one child.

3.21.4. Humanitarian Organizations Support

Currently, there is the Pediatric Nutritional Supplement Program carried out in Viet Nam. The program encompasses primary schools, whose teachers are informed about the efficient nutrition foundations, instructed how to use local resources for supporting the food ration required for children.

The Pediatric Nutritional Supplement Program was launched in 2004 as a local initiative represented by the GIAO Diem Fund for Humanitarian Studies. This program involved 379 preschoolers from 35 kindergartens located in distant rural areas. Children received a daily nutritional supplement, including soymilk with peanuts or biscuits, or sweet rice with soya-corn blend as well as chewable multivitamins and calcium.

In 2006, AmeriCares jointly with Abbott and Abbott Fund provided support to GIAO Diem by the Pediatric Nutritional Supplement Program extension. By 2009, due to the Abbot financial and other assistance as well as AmeriCares administrative and subject-related instructions, the program had covered 1,718 children in the central provinces of Quảng Trị and Hue as well as the southern province of Dong Thap.

The main program tasks include the following:

1) **nutrition.** Children received two cups of fresh soymilk, peanuts, snacks including fruit, rice water, vitamins with iron and calcium on a daily basis. Schoolchildren engaged into the program underwent a regular health check conducted by healthcare specialists;

2) **teaching and learning.** The program provides for onsite seminars for parents and teachers to inform them what right nutrition and childcare imply as well as how to use such local materials and resources as soybeans for children meals preparation.

3) **infrastructure improvement.** Besides donations for well-balanced feeding provision, grant support for school canteens modernization was ensured.

According to teachers’ observations, students’ nutrition improvement resulted into a higher degree of concentration, energy and cooperation among the program participants. The Pediatric Nutritional Supplement Program managed to decrease the anemia level among the target social groups by some 30%, which allowed 1,360 children to achieve their normal weight in the 2006-2007 academic year.

3.21.5. Volunteers Engagement in SFPs

SFPs are mostly coordinated by school personnel, community members, students and their parents on a volunteer basis. Volunteers fulfill the following tasks: SFP menu compilation, food purchase, food preparation and distribution, cleaning before and after a meal.

4. CONCLUSIONS AND RECOMMENDATIONS

The research of school feeding status and problems testifies to the fact that they are closely related to such issues as poverty and inequality combating, food products economic and physical accessibility provision for vulnerable social groups, food security on the whole. In spite of those actions implemented by the international community, the APEC economies face large and urgent tasks related to development and implementation of complex social programs of food provision and healthy eating support for all sections of population, mainly poor and low-income ones.

Further development of the school feeding system can and should imply a perspective of becoming a new dominant idea of the APEC economies socio-economic development, including food systems and related institutional modifications.

This status of school feeding development will allow providing progressive shifts in respect of high quality and safe feeding arrangement for a large population category in accordance with scientific recommendations. Besides, it will ensure incentives for extending production and purchase of local goods of a set quality through additional fundraising meant both for local food products purchase and branch technical and technological development.

It will result into an impulse of food systems modernization, from farms to end-consumers, including infrastructure and required logistics. It is what one of the tasks related to school feeding development in the APEC region implies.

The WTO membership imposes certain restrictions upon the direct support of the APEC economies agriculture but promotes the gravity centre of federal financial resources application being shifted to the end-user's sphere. The food demand formed in such a way will lead to supply activation, including the sphere of agriculture. It ensures prerequisites for the capital influx to the sphere of food production and distribution, new jobs creation, and incomes increase.

The research of school feeding issues demonstrated a necessity of further activity aimed at developing a unified and coherent system of factors, single terms and definitions, school feeding status assessment criteria and indicators, methods of calculation, processing and analysis of corresponding development programs.

One should especially emphasize an issue of creating an information resource for statistics collection, storage and exchange in the sphere of school and social feeding programs in the APEC region. It will enable to take consistent measures for establishing such tools of sustainability and food security increase as regional food (grain) fund used for evening out food prices spikes and satisfying students' needs.

Other direction of joint activities related to increasing school and social feeding programs efficiency implies such programs transformation into a mechanism of agricultural support not contradicting the WTO requirements.

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6. APPENDIX

Questionnaire for Country Interviews⁶⁶

I. Background

Do all schools participate in the national school feeding program? If not, how are certain schools targeted?

How many children participate in your country's school feeding program each school day?

Please specify all feeding modalities used:

- Breakfast
- Snack
- Lunch
- Take-home ration (THR)
- Milk program
- Other

II. Transition to National Program

How long have you operated a national school feeding program?

What events influenced your transition to a national school feeding program?

What other organization(s) operated school feeding programs in your country before the national school feeding program started? Please list the major organizations.

What were the major steps in transitioning to a national school feeding program?

Did you have any special funding to assist with the transition? If so, please state the amount and source of funding.

Did you have special technical assistance to help with this transition? If so, who provided this assistance? Please describe the assistance given.

III. Institutional Framework

Which Department or Ministry administers the program? If there is more than one, what are their respective roles and how do they coordinate?

Does the administrative agency designate a person responsible for the overall administration of the national school feeding program?

Does the national administrative agency have a monitoring and evaluation process for the national program?

Who actually operates the program at the local level? What is the role of the provincial/state governments?

Do other organizations in your country sponsor school feeding programs? For example, provinces/states, local communities, non-governmental organizations, others?

⁶⁶ Extracted from: Country Policy and Funding Mechanism Study. November 2009. Prepared by the Global Child Nutrition Foundation. www.gcnf.org

IV. Policy Framework

Is there a legal basis for the national school feeding program? For example, is there a law, executive order or other written policy pronouncement?

Briefly describe any major policies associated with the school feeding program.

What are the objectives of the national policy? Have these objectives been clearly articulated in writing or communicated by government leaders?

Do any of these objectives link school feeding to local farm production?

V. Program Design

Does your national school feeding program reflect the legislative priorities?

Is there a regulatory (or other written procedure) that establishes the program requirements?

If yes, what kinds of requirements are included in the framework:

- Nutritional requirements for meals
- Food procurement requirements
- Student/school eligibility for meals
- Community involvement
- Other

Are certain students targeted to participate in the national school feeding program? If so, how?

Are meals planned to meet the recommended daily nutritional requirements?

VI. Procurement

Are the food items used in the school meal programs linked to local farm production? If so, in what ways?

Are there federal or provincial requirements for purchasing food from local farmers?

If so, what is the source of these funds and how are they used?

Are there provisions for purchasing food from a particular group of farmers?

Can you estimate what percentage of food used in the school feeding program is grown in the country?

What percentage is grown within 50 kilometers (30 miles) of the school?

What is the source of foods procured from other than local farm production?

Please list the foods most commonly used in school feeding.

VII. Community Participation and Ownership

In what ways do local communities contribute to the school feeding program (i.e., through labor, food or cash contributions?)

Are parents and local stakeholders involved in planning and evaluating the program? In what ways?

VIII. Funding

What is the current program budget? Has it changed over time? How?

What is the funding source(s) for your program?

- Federal government
- Provincial government
- Local communities
- NGOs
- Private sector contributions
- Taxes
- Parental cash payments
- In-kind
- Other

If from federal or provincial sources, where does their money come from?

- Tax on luxury items
- Cell phones
- Sales taxes
- Airport tax
- Other

If from taxes, does the government provide incentives, such as tax breaks on other items or give other benefits?

How are funds reflected in the national budget (line item or part of larger budget)?

Does the federal government clearly identify funds to be used for school feeding?

What department is responsible for the program's financial administration?

Are federal funds passed on to Provinces and/or local program operators? If yes, how are they allocated or paid?

Is there an audit process to track whether funds are being used for their intended purpose? If so, who is responsible for such monitoring?

Have there been allegations of financial mismanagements or "leakages?" If so, has corrective action been taken?

Do you have a procedure for measuring the cost of the program and/or projecting future costs? If yes, please describe.

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