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Agenda item 9

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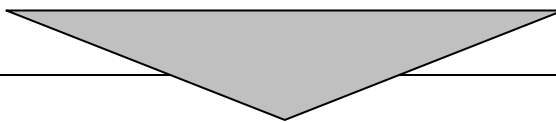
Nutritional Support to Vulnerable Groups in the Five Eastern Provinces

Number of beneficiaries	631,475
Duration of project	Four years
Cost (United States dollars)¹	
Total cost to WFP	22,680,602
Food cost to WFP	14,065,655

¹One US dollar equals one Cuban peso.

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Note to the Executive Board



This document is submitted for approval by the Executive Board.

The Secretariat invites members of the Board who may have questions of a technical nature with regard to this document, to contact the WFP staff focal point indicated below, preferably well in advance of the Board's meeting.

Senior Liaison Officer, Latin America and Caribbean Region(OLC): Ms. G. Segura tel.: 066513-2207

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Executive Summary

As a consequence of the economic crisis that has affected Cuba over the last decade resulting from the collapse of its traditional trade partners, food availability has decreased substantially. This has occurred despite great efforts by the Government and economic measures that, to date, have been unable to restore the pre-1989 food availability levels, placing at risk the food security of the most vulnerable population groups.

In parts of the country these vulnerable groups show serious nutritional deficiencies. A vulnerability analysis carried out in 1999 by the Institute of Physical Planning (IPF) and WFP showed that the five eastern provinces of Cuba, Las Tunas, Holguín, Granma, Santiago de Cuba and Guantánamo, have the highest levels of vulnerability to food insecurity. The study identified different degrees of vulnerability at the municipal level. Food conditions in the country were worst in 1993, when daily average energy consumption was 1,865 kcal per capita, representing 65 percent of the average consumption recorded in 1989.

Moreover, a recent study carried out by the Institute of Nutrition and Food Hygiene (INHA) and the Ministry of Public Health in the five eastern provinces of Cuba showed that there are serious deficiencies in food consumption. The average diet in these areas contains under 75/80 percent of the minimum recommended amount of proteins and less than 50 percent of the minimum recommended amount of fats. This low fat consumption interferes with the absorption of liposoluble vitamins.

Recurrent droughts and the consequent loss of harvests in these provinces has reduced food availability, affecting the nutritional situation of the population. In 2000, severe drought has again affected these provinces.

Another problem identified is the high percentage of women that begin their pregnancy with low weight, most of them suffering from anaemia. Similarly, some of the expectant mothers register an insufficient weight increase during pregnancy, which constitutes a determining factor in the low weight of newborns.

According to surveys, approximately 40 percent of the 0 to 2-year-old children have iron-deficiency anaemia, with varying degrees of severity. This high percentage indicates serious public health problems, particularly in the targeted areas.

For the last 40 years, the Government of Cuba has been implementing a free and compulsory national education programme for children up to 9th grade (14 years old). Although children in day-care centres and primary schools (boarding and semi-boarding) receive food from the Government, there are significant deficits in their food and micronutrient consumption.

In accordance with Executive Board decision 1999/EB.A/2, WFP focuses its development activities on five objectives. This project addresses Objective 1 (enable young children and expectant and nursing mothers to meet their special nutritional and nutrition-related health needs) and Objective 2 (enable poor households to invest in human capital through education and training). Over four years, the project will target 631,475 beneficiaries from vulnerable groups in the most affected areas of the eastern region.

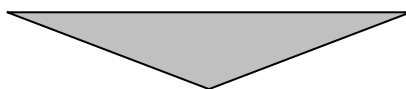
Fortified food containing micronutrients and vitamins will be distributed. This food will be produced locally from wheat flour, rice, vegetable oil and edible fat supplied by WFP. The Government will meet the processing costs for production of the fortified food, specifically fuel and electricity costs, salaries and administrative costs.



This project will be an integrated intervention with partners of the United Nations Development Group (UNDG) in the targeted areas. The Government has agreed to prepare the Common Country Assessment (CCA) and United Nations Development Assistance Framework (UNDAF) jointly with United Nations agencies.

The four-year project would require WFP to provide a total of US\$22,680,602, including US\$14,065,655 in food costs.

Draft Decision



The Board approves project Cuba 6258.00—Nutritional Support to Vulnerable Groups in the Five Eastern Provinces (WFP/EB.1/2001/9-A).



PROBLEM ANALYSIS

1. Food availability in Cuba has decreased substantially since the beginning of the last decade due to the collapse of its traditional trade partners, which has caused a crisis in the economy. In spite of measures taken by the Government to ensure an adequate supply of food to priority population groups, the situation continues to be a matter of serious concern and is aggravated by the recurrent natural disasters that have hit the country.
2. The economic crisis affects both the production and import of food and in particular the supply of some food commodities distributed to the general population through the ration system. Edible fat, animal protein (meat) and dairy products (milk) have been the most affected among the staple food items of the Cuban diet.
3. In 1993, conditions affecting food availability were particularly severe. The result was a daily average energy consumption of 1,865 kcal. per capita, 65 percent of the average consumption recorded in 1989.
4. The vulnerability analysis carried out in 1999 by the Institute of Physical Planning (IPF), and supported by WFP, showed that the five eastern provinces of Cuba—Las Tunas, Holguín, Granma, Santiago de Cuba and Guantánamo—have the highest levels of vulnerability to food insecurity in the country. The study identified different degrees of vulnerability at the municipal level. Furthermore, additional studies undertaken by the Institute of Food Hygiene and Nutrition (INHA) on the nutritional status of the population in these provinces showed that food consumption was insufficient in all municipalities.
5. Recurrent droughts in these provinces have resulted in the loss of harvests. Food availability has been affected and the nutritional status of the population has deteriorated. Again in 2000, these provinces have been hit by drought.
6. A matter of concern in these provinces is the population's low fat consumption level—less than 50 percent of the recommended daily intake of 75 grams. This low fat consumption can interfere with the absorption of liposoluble vitamins. Protein consumption in these eastern provinces is also low and fluctuates between 75 and 88 percent of the recommended amount (72 grams). Furthermore, carbohydrate consumption is relatively high, which indicates low diet quality. This, together with the low consumption of fruit and vegetables, creates some mineral and vitamin deficiencies.
7. The Government's integrated health policy, developed during the last 40 years, guarantees free and universal access to health services and care. Particular importance is given to programmes directed to mothers and children. The Ministry of Public Health considers the health of future mothers during pregnancy and the prevention of low weight at birth as top priority issues.
8. However, 14 to 24 percent of expectant mothers begin their pregnancy with a weight lower than normal. Thirty percent of expectant mothers suffer from anaemia. Weight increase during pregnancy is insufficient for 15.6 percent of women. These maternal conditions are determining factors in the low birth weight of children.



9. The nutritional status of expectant mothers is closely monitored by family doctors and obstetricians, and special nutritional support at the community level is available to cover their specific requirements. Furthermore, expectant mothers are periodically checked and all of them receive a universal supplement.
10. During pregnancy, health staff, including voluntary health workers (*Brigadistas Sanitarias*), visit each expectant mother to brief her on conscientious parenthood, breast-feeding practices, etc.
11. According to surveys, approximately 40 percent of children under the age of 2 have iron-deficiency anaemia, with varying degrees of severity. Such widespread anaemia indicates serious public health problems, particularly in the targeted areas. This anaemia appears to be caused by the low quantity and quality of iron in the diet.
12. Food intake in health institutions of the eastern provinces, according to surveys conducted by INHA, does not meet energy, fat or protein requirements. The recommended proportion of approximately 63 percent of energy provided by carbohydrates, 12 percent by proteins and 25 percent by fats is not being achieved. The provinces of Holguín and Guantánamo present the lowest levels of fat availability (15 and 18 percent, respectively). This situation needs to be corrected—products like meat, oil, vegetables and fruits are almost absent from the diet.
13. Cuba has a free, universal and compulsory education programme for children up to 9th grade (age 14). There are three categories for primary schoolchildren: i) regular (attendance all day and no food is provided at school); ii) half-boarding (attendance all day, a small snack and lunch are offered at school); and iii) boarding (attendance all days of the school month with all meals provided at school). Boarding and half-boarding schools have been established for the children of working mothers and for those located in isolated geographical areas.
14. The daily nutritional amounts recommended by INHA for primary schoolchildren are 2,100 kcal, 63 grams of proteins and 65 grams of fat. For the day-care centres the recommendations are 1,400 kcal, 42 grams of proteins and 45 grams of fats. In spite of the efforts made by the Government to meet the recommendations indicated above, there are still significant deficits in food and micronutrient consumption.
15. Similarly, the results of a study carried out on the boarding and half-boarding schools during 1999/2000 indicate that, compared with the current food norms prevalent since 1992, children in day-care centres receive only 76 percent of the recommended levels of meat products, while the half-boarding children receive 60 percent and the boarding children 65 percent. Fish/meat consumption was found to be particularly low (31, 27 and 44 percent, respectively). For fats the percentages are 27, 13 and 20 respectively, and in the case of vegetables, the percentages are 46, 44 and 75 percent of the norm.
16. Regular primary schoolchildren, who are the majority of all students, are in the worst nutritional condition because they do not receive the ration of milk and cereal that is provided by the Government until the age of 7. The Appraisal Mission observed that, since it is usually the case that only one of the parents works, these households may have less income. These children suffer from short-term hunger at the beginning of the school day, as their food intake at home is insufficient.

Previous WFP Assistance

17. Emergency operation (EMOP) 6037.00—"Relief Food Assistance to Drought Victims in the Five Eastern Provinces of Cuba", which ended in December 1999, provided valuable experience and lessons. Through this EMOP, approximately 257,000 beneficiaries in the



five eastern provinces were assisted during 1999. Emergency food rations were distributed to vulnerable groups assisted through the Ministries of Education, Public Health and Domestic Trade. Beneficiaries were children in primary and secondary, boarding and half-boarding schools as well as expectant and nursing mothers in health institutions and other vulnerable groups such as the elderly and handicapped.

18. Furthermore, local industry, which processed the food commodities supplied, received a significant boost through the EMOP, which allowed factories to work at full capacity. The local factories of the Ministry of Food Industry have the necessary technical capacity and experience to produce and distribute fortified products at the national level.
19. The only WFP development project in the country supports food production by providing credit to farmers and cooperative members in Granma Province and will end in early 2001.

PROJECT OBJECTIVES

Long-term Objective

20. The project's long-term objective is to contribute to improving the nutritional status of vulnerable groups and pre-primary and primary schoolchildren in the five most vulnerable provinces of Cuba through the utilization of micronutrient supplements.

Immediate Objectives

21. The project's immediate objectives are to contribute to:
 - a) improving the nutritional status of and reducing anaemia in expectant and nursing mothers and children under 2 in the targeted areas, by providing a food supplement enriched with micronutrients;
 - b) relieving short-term hunger among pre-primary and primary schoolchildren and increasing their learning capacity by providing food supplements enriched with micronutrients; and
 - c) promoting nutrition, health and sanitation education in health centres and schools by providing training materials and education programmes.

EXPECTED OUTPUTS

22. The following outputs are expected during the life of the project:
 - a) 180,509 people in vulnerable groups will receive fortified food rations as follows: 52,133 expectant and nursing mothers and people in other vulnerable groups will receive a fortified cereal blend and oil; 128,376 children from 6 months to 2 years old will receive a cereal blend fortified with iron and vitamins (see Table 4, Annex III);
 - b) an average of 413,130 girls and boys in pre-primary and primary schools will receive a daily ration of fortified cereal blend and a biscuit enriched with micronutrients. A total of 37,836 children in day-care centres (2 to 5 years old) will receive a ration of oil (see Table 4);
 - c) all the directors and managers of health institutions and education centres, as well as staff directly involved in food preparation, will be trained in nutrition, health, hygiene



and sanitation. Training materials including posters and leaflets will be provided, together with television programmes and “spots”.

ROLE AND MODALITIES OF FOOD AID

Functions

23. The food supplement enriched with micronutrients that will be provided to expectant and nursing mothers will lower the risks of anaemia and help improve the health of newborn babies. For children between 6 months and 2 years old, the food supplement will reduce anaemia rates and will complement the long-term strategy of promoting breast-feeding after the fourth month that is currently being implemented by the Ministry of Public Health. Nutrition education will contribute to the promotion of breast-feeding and improved weaning practices. Food enriched with vitamins and iron for children from 6 months to 2 years old will help reduce anaemia and malnutrition as well as support the adequate growth of children.
24. Food supplements for pre-primary and primary schoolchildren will improve their food intake and, therefore, their nutritional status. They will contribute towards an adequate intake of calories, proteins and micronutrients and address the problem of short-term hunger by allowing the timely consumption of snacks. Linkages with nutritional training programmes will lead to healthier eating and improve nutrition, hygiene and sanitation habits, thus contributing to the sustainability of the project's long-term objective.

Food Inputs and Commodity Justification

25. Children from 6 months to 2 years of age will receive a daily ration of cereal enriched with iron and vitamins.
26. Expectant and nursing mothers will receive a fortified cereal and oil ration. This same ration will be issued to persons in other vulnerable groups assisted by the project.
27. Pre-primary schoolchildren (2 to 5 years old) will receive a ration of oil and meat to supplement the meals already received at their institutions. Primary schoolchildren will receive enriched cereal and biscuits as a snack. Oil and canned meat/fish will be included in the ration, for primary children in boarding and half-boarding schools, since they receive lunch and dinner at their schools. This food supplement will enable children to improve their learning capacity.
28. During the project's third and fourth year, the meat/canned fish and oil rations in health institutions as well as boarding schools will be reduced and progressively phased down. During the last year of the project, WFP will not distribute fortified cereal to regular and half-boarding primary schoolchildren, since it is foreseen that the Government will do this with its own resources. This will reduce the quantities of commodities to be supplied by WFP.
29. Tables 1 and 2 in Annex III provide information concerning the food volumes to be supplied by WFP, the rations to be distributed and their nutritional value. Food rations have been determined on the basis of the particular requirements of each specific group to compensate for the most important deficiencies.



PROJECT STRATEGY

30. The project will be under the general coordination of the Ministry for Foreign Investment and Economic Cooperation (MINVEC). This Ministry will coordinate activities at the national level with the Ministry of Education (MINED), the Ministry of Public Health (MINSAP), the Ministry of Food Industry (MINAL) and the Ministry of Domestic Trade (MINCIN). This structure is replicated at the provincial and municipal levels.
31. MINSAP and MINED will be responsible for food deliveries to the beneficiaries in health and education centres, while MINCIN will be responsible for the distribution of food through its outlets to expectant and nursing mothers and children under the age of 2.
32. MINAL, through its local factories, will have an important supporting role since it will be responsible for processing the necessary enriched products that will be distributed to beneficiaries. WFP, on the basis of the Appraisal Mission's technical recommendations, and bearing in mind the capacity of the Cuban food manufacturing industry and local food habits, will supply the required commodities to produce the necessary enriched products for the beneficiaries.
33. INHA will be responsible for the coordination of the educational component, which deals with health, nutrition, hygiene and food handling. It will use the provincial and municipal hygiene and epidemiology structures of MINSAP.
34. This educational component will systematically train workers involved in food handling, institution administrators, workers with supervisory roles in the centres and the direct beneficiaries of the project. Appropriate material will be adapted to transmit the educational message effectively.
35. The Federation of Cuban Women, through the voluntary health workers, will have an important role in all aspects of the project. They work closely with the families in their own communities giving priority to expectant and nursing mothers in order to monitor their health status, improve breast-feeding practices, and provide them with nutritional education. These voluntary health workers are mothers belonging to the Federation, who receive training from family doctors to enable them to monitor children under 2 years old in day-care centres as well as the under-5 year olds who attend informal education centres.

Food Logistics

36. The Ministry of Domestic Trade (MINCIN) will be responsible for receiving food commodities in the port of Santiago de Cuba, and transporting it to the provinces. In coordination with the education and health sectors, MINCIN will be responsible for: i) the delivery of commodities in warehouses of the recipient health and education institutions; and ii) the distribution of food rations through its regular outlets to the beneficiaries who are not in health institutions.

✦ Exchange of Commodities

37. The project will distribute 2,812 tons of fortified cereal to children under the age of two and 8,067 tons of fortified cereal to expectant and nursing mothers and children from 6 to 12 years of age. In addition, 10,055 tons of fortified biscuits will be distributed to children 6 to 12 years of age. Also, women in maternity homes and children in boarding and semi-boarding schools will receive 573 tons of canned fish or meat.



38. The fortified cereals and biscuits will be produced locally. To this end, WFP will supply 38,916 tons of wheat flour, 5,008 tons of rice, 2,901 tons of vegetable oil and 1,106 tons of edible fat as an exchange of food items.
39. The fortified cereals and biscuits will be manufactured locally and will cost less than similar imported commodities. As an example, the high-energy enriched biscuits that WFP distributes in other countries have an f.o.b. price of US\$1,100/ton, with an energy supplement of 450 kcal/100 grams. If international transportation is added at US\$108.10/ton, the imported biscuit would cost approximately US\$1,208.10/ton. By comparison the biscuits to be produced by local factories for this project will cost WFP approximately US\$520/ton with an energy supplement of 406 kcal/100 grams, inclusive of internal transportation costs to the capitals of the five eastern provinces. The lower prices are a result of the Cuban Government's decision to meet the processing costs for the production of these commodities.

BENEFICIARIES AND BENEFITS

40. In the health sector 180,509 beneficiaries including expectant and nursing mothers with their children under the age of two, and other vulnerable groups will be the direct beneficiaries. Of the total number of beneficiaries in this sector, 114,424 are women, which represents 63.3 percent.
41. In the education sector an average of 413,130 boys and girls attending pre-primary and primary schools and 37,836 children in day-care centres (2 to 5 years old) will be the direct beneficiaries. Girls represent approximately half of those enrolled. Indirect beneficiaries are their parents and the schools that will receive kitchen utensils, as well as the school staff who will be trained. In this sector the number of beneficiaries will decrease gradually in line with a decrease of approximately 2 percent per year in the rate of enrolment. This reflects the current trend of population growth.

Anticipated Effects of the Project on Women

42. One of the government programmes that will work jointly with this project is the Mother and Child Programme, through which all expectant mothers in the five provinces and mothers who nurse children up to six months old will be assisted. WFP supplementary food rations will increase the daily food intake, of great importance during this critical period of life for mothers and their children, who are more exposed than others to risks of malnutrition and anaemia.
43. In the majority of the health and education institutions, most of the staff who will be handling, preparing and serving the food are women. They will benefit from improvements in their working conditions brought about by the construction of efficient stoves and the provision of kitchen utensils and cleaning material that will allow them to carry out their tasks much more efficiently and easily. These women will benefit most from the training programmes on the use and hygienic handling of food that will be offered by specialists from the National Centre for Health Promotion and Education (CNPES).
44. Out of a total of around 250 persons who will be involved in the manufacture of commodities and biscuits in local factories, 120 are women. In 1999, when EMOP 6037.00 was being implemented, these factories were working at approximately 40 percent of their productive capacity, due to the lack of raw materials. With the increase in production that will result from the project, the factories will work at full capacity. This will benefit



women who will have their full working day guaranteed during the four years of the project, and will thus be paid their full wages.

45. The inclusion in the project of a school snack for primary schoolchildren will help to improve the health of young girls and diminish the risk that they will suffer from anaemia when they reach puberty.

PROJECT SUPPORT

46. The Government, both in the health and education sectors, has good operational capacity with a sufficient number of capable employees to carry out the school and health activities planned under the project. Furthermore, it has sufficient staff in the service areas and the necessary infrastructure in the warehouses for the adequate storage, handling and preparation of the food that will be provided by WFP. Nevertheless, kitchens, stoves and cooking utensils need to be improved or renovated. Some necessary non-food items are included in the budget as well as resources for training and funds for the fortified cereal blend and biscuits that will be produced locally.
47. The educational component will include training concerning health, good feeding habits, nutrition, and food handling to ensure optimum use of food and adequate consumption in terms of quantity and quality of the ration. Training courses on participation techniques for hygiene inspectors that provide a better knowledge of good production practices and the dangers and critical points in the control of food will also be included. Funds have been estimated for training materials. The promotion or improvement of school and health institution vegetable gardens and the introduction of small farm animals which will contribute to the improvement of food intake is also necessary. To this end FAO and UNICEF, as well as donors such as Japan, Spain, and NGOs, have been approached by WFP and have indicated interest in collaborating with this project.
48. The Canadian International Development Agency (CIDA) was approached by the Appraisal Mission to discuss the possibility of collaborating in the provision of the required vitamin and mineral pre-mix for the fortification of cereals and biscuits, as well as in the reinforcement of the project monitoring and evaluation system and in the health, nutrition and food hygiene training. Canadian collaboration has been very positive in similar projects.
49. In order to implement the monitoring and evaluation aspects of the project, monitors will be included as support staff who will work closely with MINSAP, MINED and MINAL.
50. The Cuban Government will contribute 35,005,632 Cuban pesos as counterpart funding for the reception, storage and distribution of food to beneficiaries and for the production of fortified food required by the project.

Monitoring and Evaluation

51. The monitoring and evaluation system should allow both the Government and WFP to collect reliable and timely information concerning the food resources provided and the achievement of the expected results. WFP will appoint professional staff to assist the Government in fulfilling this task in each province. These WFP monitors will provide support to the health, education, domestic trade and food industry sectors.
52. The Government will ensure data collection at municipal, provincial, and central levels. Since the health, education, domestic trade and food industry sectors have already established procedures for the handling and control of food resources with a satisfactory



level of precision and reliability, these same procedures and instruments will be utilized. The main documents that the project will use are:

- Stock cards or ledgers in all warehouses where there is food movement, registering information of incoming and outgoing food from the warehouses and allowing an accurate record to be maintained of physical stocks and updated book balances.
 - Monthly reports on the number of beneficiaries assisted, WFP food consumed, balances and condition of the commodities in warehouses.
 - Six-monthly reports of the status of non-food items given to education centres, health institutions and local industries.
 - Quarterly reports on the fulfilment of the goals foreseen at the beginning of the project for the health and education institutions.
53. Reports on beneficiaries, and the movement and condition of food and non-food items will be prepared on a monthly basis by the local implementing units of the ministries dealing with health, education, domestic trade and food industry and will be handed over to the province concerned during the first five days of the month following the reporting period. These reports will be consolidated at provincial level and sent to the corresponding national level during the first 15 days of the month. At the central level, the offices of the health, education, domestic trade and food industry sectors will be in charge of consolidating the information from the five provinces and presenting a report to WFP through MINVEC. This information will constitute the basis for the Donor and WFP reports.
54. INHA will be responsible for carrying out the monitoring and evaluation aspects of the project using data from the following existing sources: a) the Food and Nutritional Vigilance System (SISVAN), which offers information twice yearly on school feeding in half-boarding schools, day-care centres and boarders through tray weighing and observation; b) statistics on hospital services offered by MINSAP; data provided by the Food and Nutritional Vigilance System in Health Institutions (VANIS); c) data provided from the contacts of the programme through individual interviews; d) data provided by mother-child nutritional vigilance through control points; e) nutrition surveys designed to measure consumption and impact; and f) surveys on sanitary establishments, inspectors, handlers, directives of the food activities and consumers.
55. In view of the fact that regular primary schoolchildren will receive a daily snack, INHA will design and prepare appropriate reports, including anthropometric measurements taken on sample populations to determine changes in the nutritional status of these children.
56. The indicators by sector and ministry responsible for the implementation of the project will be the following:

📌 **Education**

57. **Results indicators:**

- Number of schools and day-care centres assisted, number and gender of students attending.
- Number of rations distributed per product.
- Number of schools and day-care centres receiving kitchen utensils and cutlery.
- Number of schools and day-care centres that have built efficient stoves.



- Percentage of schools and day-care centres that have received systematic health and nutrition training.
- Percentage of schools and day-care centres that are adequately using educational material for health, nutrition and food-handling training.
- Percentage of trained people in charge of food preparation and handling.
- Percentage of beneficiaries, and mothers and fathers of beneficiaries trained in hygienic food handling.

58. Outcome indicators:

- Percentage of food norms satisfied by the complete ration received.
- Percentage of food norms satisfied by the complementary ration distributed by WFP.
- Percentage of boys and girls assisted by the project consuming a diet that contains less than 70 percent of the recommended allowance in proteins and fats.
- Percentage of primary schools and day-care centres in which hygienic practices are applied in the preparation of food.

Health

59. Results indicators:

- Number of maternity homes assisted, number and sex of the people assisted.
- Number of rations distributed per product.
- Number of maternity homes receiving kitchen utensils and cutlery.
- Number of maternity homes that have constructed efficient stoves.
- Percentage of maternity homes whose staff have been efficiently trained in health and nutrition.
- Percentage of maternity homes that have educational material for training in health, nutrition and food handling and are using it adequately.
- Percentages of people in charge of the preparation and handling of food that have been trained.
- Percentage of beneficiaries trained in hygienic food handling practices.

60. Outcome indicators:

- Percentage of food norms of beneficiaries satisfied by the complete ration they receive.
- Percentage of food norms satisfied by the complementary ration distributed by WFP.
- Percentage of expectant mothers living in homes consuming a diet that contains less than 70 percent of the recommended allowance of proteins and fats.
- Percentage of maternity homes where hygienic practices are applied in the preparation of food.
- Index of body mass (weight/height) of beneficiaries at the beginning, middle and end of the project.
- Index of low weight at birth and weight gain in expectant mothers, measured through control points.



- Percentage of expectant mothers and mothers who have been nursing up to six months with anaemia.
- Percentage of children under the age of two with anaemia.

61. ***Ministry of Domestic Trade:***

- Number of expectant mothers, mothers who have been nursing for up to six months and children under the age of 2 assisted by the project.
- Number of rations distributed.

PROJECT FEASIBILITY AND SUSTAINABILITY

62. The project is technically feasible and is framed within the national policies on health, nutrition and education. Through improvements in nutritional status and health, mainly with the reduction of anaemia among children, expectant and nursing mothers, the project will contribute to the improvement of the quality of life of women and children. It will also contribute to the improvement of food habits and food production for a diversified diet. A detailed feasibility analysis is contained in the technical reports prepared by the experts on the Appraisal Mission.
63. Several alternative food rations were prepared by the Appraisal Mission with the assistance of the government nutrition authorities. Those that address the specific nutritional deficiencies cost-efficiently were selected, also taking into account the advantages of fortified snacks in alleviating short-term hunger.
64. The project is conceived as a package designed to support the education of children and promote positive changes in their eating habits as well as those of expectant and nursing mothers through food supplementation. Training in nutrition, hygienic practices and health accompanied by materials and other non-food items, together with the support given to the local food industry will contribute to the sustainability of the project objectives.

RISKS

65. The main risk lies in the late or non-arrival of WFP food commodities or financial support as well as the lack of government financial support, which would directly affect the achievement of the proposed objectives.
66. Another critical aspect is the capacity of the local industry to produce the fortified biscuits and cereals on time and in the required quantity. However, during the formulation of the project it was ascertained that this capacity exists for the current level of demand.
67. The vulnerability analysis and mapping (VAM) analysis on vulnerability and food insecurity concluded that recurrent drought, floods and cyclones have severely affected the five eastern provinces. Out of the 54 municipalities, 29 are in the category of very high and high drought risk, while 33 are at high and very high flooding and cyclone risk. Consequently, there is a high probability of recurrent food losses caused by such disasters and a resultant direct impact on household food availability.



DISINCENTIVES, DISPLACEMENT AND DEPENDENCY

68. The annual supply of commodities under the project will amount to an average of 12,126 tons of food products (9,729 wheat flour, 1,252 rice, 725 vegetable oil, 144 canned meat or fish and 276 of edible fat). Wheat flour will be exchanged with local food products such as soy flour, dried skimmed milk (DSM) and others for the production of the cereals and biscuit. The annual supply of WFP food products represents a negligible share of average annual production and average annual imports of vegetable oil and rice.
69. It is expected that the quantities of food supplied by WFP will improve beneficiary food consumption. Considering the rather small quantities imported by the project, no adverse effect on local production and trade is anticipated.

COORDINATION AND CONSULTATION

70. The Government presented the project proposal to WFP. It was appraised by a mission conducted by WFP with the participation of experts in the fields of education, health, nutrition and food technology from UNESCO, WHO and FAO. The mission visited the targeted eastern provinces and held discussions with health, education and food industry authorities, as well as with parents, teachers, and the future beneficiaries of the project.
71. The mission's conclusions and recommendations were discussed in Havana with representatives of UNDP, UNESCO, FAO, WHO/PAHO, UNICEF and UNFPA who showed interest in supporting several activities of the project but particularly those related to breast-feeding, nutrition, hygiene and sanitation education as well as the establishment or improvement of fruit and vegetable gardens. This project will be implemented on the basis of joint actions in the target areas.

RECOMMENDATION OF THE EXECUTIVE DIRECTOR

72. The project is recommended for approval by the Executive Board, within the budget provided in Annexes I and II.



ANNEX I

PROJECT COST BREAKDOWN

	Quantity (tons)	Average cost per ton	Value (dollars)
WFP COSTS			
A. Direct operational costs			
Commodity ¹			
– Vegetable oil	2 901	735	2 132 235
– Canned meat or canned fish	573	2000	1 146 000
– Wheat flour	38 916	220	8 561 520
– Rice	5 008	270	1 352 160
– Edible fat	1 106	790	873 740
Total commodities	48 504	290	14 065 655
External transport		108.1	5 243 282
Other direct operational costs		11.7	567 482
Subtotal direct operational costs			19 876 419
B. Direct support costs (see Annex II for details)			
Subtotal direct costs			1 163 100
C. Indirect support costs (7.8 percent of total direct costs)			
Subtotal indirect support costs			1 641 083
TOTAL WFP COSTS			22 680 602

¹ This is a notional food basket used for budgeting and approval purposes. The precise mix and actual quantities of commodities to be supplied to the project, as in all WFP-assisted projects, may vary over time depending on the availability of commodities to WFP and domestically within the recipient country.



ANNEX II

DIRECT SUPPORT REQUIREMENTS (dollars)
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Staff	
United Nations volunteers	240 000
International consultants and SSA	96 000
Local staff and temporaries	40 100
Subtotal	376 100
Technical support services and training	
Project preparation	70 000
Project monitoring and evaluation	100 000
Training	20 000
Subtotal	190 000
Travel and DSA	
Blanket travel	15 000
In-country travel	100 00
Subtotal	115 000
Office expenses	
Rental of facility	10 000
Utilities	10 000
Communications	100 000
Office supplies	60 000
Equipment repair and maintenance	20 000
Subtotal	190 000
Vehicle operations	
Vehicle fuel and maintenance	120 000
Subtotal	120 000
Equipment	
Vehicles	66 000
Communication equipment	12 000
Computer equipment	12 000
Furniture and equipment	12 000
Subtotal	102 000
Other	
Advocacy	30 000
Security	10 000
(other-please specify): VAM	30 000
Subtotal	70 000
TOTAL DIRECT SUPPORT COSTS	1 163 100



ANNEX III

TABLE 1. BENEFICIARIES AND RATIONS PER YEAR

Beneficiaries	Ration	Year 1	Year 2	Year 3	Year 4
Pregnant and lactating	Fortified cereal (25 grams)	X	X	X	X
	Oil (20 grams)	X	X	X	X
Children < 2 years of age	Cereal fortified with iron (15 grams)	X	X	X	X
Health institutions (maternal homes)	Meat or canned fish (10 grams)	X	X	–	–
	Oil (20 grams)	X	X	X	–
Students in primary boarding schools	Fortified cereal (25 grams)	X	X	X	X
	Fortified biscuits (30 grams)	X	X	X	X
	Meat or canned fish (20 grams)	X	X	–	–
	Oil (20 grams)	X	X	X	X
Students in primary half-boarding schools	Fortified cereal (25 grams)	X	X	X	–
	Fortified biscuits (30 grams)	X	X	X	X
	Meat or canned fish (15 grams)	X	X	–	–
	Oil (10 grams)	X	X	X	–
Students in regular primary school	Fortified cereal (25 grams)	X	X	X	–
	Fortified biscuit (20 grams)	X	X	X	X
Day care centres	Oil (10 grams)	X	X	X	–



TABLE 2. RATIONS TO BE DISTRIBUTED AND THEIR NUTRITIONAL VALUE

Food Commodities	FOB Price (Kg)	Nutritional contribution/100g			Education																				
					Boarders					Half-Boarders				External				Day care centers							
		Energy (Kcal)	Proteins (g)	Fats (g)	Sample ration	Energy (kcal)	Proteins (g)	Fats (g)	Ration Price	Sample ration	Energy (kcal)	Proteins (g)	Fats (g)	Ration Price	Sample ration	Energy (kcal)	Proteins (g)	Fats (g)	Ration Price	Sample ration	Energy (kcal)	Proteins (g)	Fats (g)	Ration Price	
Salad biscuit	0.3472	403	10.1	14.15	30	120.9	5.4	8.6	0.0104	30	36.27	3.03	4.25	0.0104	30	120.9	3.03	4.245	0.0104						
Cereal	0.7809	422	7.7	9.3	25	105.5	1.91	2.32	0.0195	25	26.38	1.91	2.32	0.0195	25	105.5	1.913	2.318	0.0195						
Vegetable oil	0.7350	885	0	100	20	177	0	20	0.0147	10	17.7	0	10	0.0074						10	88.5	0	10	0.00735	
Meat or fish	2.00	220	21.0	15	20	44	4.2	3	0.0400	15	6.6	3.15	2.25	0.0300											
Total					95	447	11.5	33.9	0.0846	80	87	8.1	18.8	0.0673		226	4.9	6.6	0.0299		89	0.0	10.0	0.00735	
Ration nutritive value/requirements (%)						22.4	28.8	84.8			4.3	20.2	47.0			11.3	12.4	16.4			4.4	0.0	25.0		

Food Commodities	FOB Price (Kg)	Nutritional contribution/100g			Health																			
					Pregnant women and Lactating mothers					Children < 2 years of age				Maternity Homes and others										
		Energy (Kcal)	Proteins (g)	Fats (g)	Sample ration	Energy (kcal)	Proteins (g)	Fats (g)	Ration Price	Sample ration	Energy (kcal)	Proteins (g)	Fats (g)	Ration Price	Sample ration	Energy (kcal)	Proteins (g)	Fats (g)	Ration Price					
Cereal children < 2 yr	0.48									15	54	0.7	0.01	0.0072										
Cereal expect. mothers	0.7809	422	7.7	9.3	25	105.5	1.9125	2.318	0.0195															
Vegetable oil	0.735	885	0	100	20	177	0	20	0.015						20	177	0	20	0.0147					
Meat or fish	2.00	220	21.0	15.0											10	22	2.1	1.5	0.0200					
Total					45	283	1.9	22.3	0.0342	15	54	0.7	0.01	0.0072	20	199	2.1	21.5	0.0347					
Ration nutritive value/requirements (%)						14.1	4.8	55.8			3.4	2.2	0.0			12.4	6.6	67.2						

Minimum daily requirements by type of beneficiaries

	Energy (kcal)	Proteins (g)	Fats (g)
Boarding and half-boarding students	2 000	40	40
Day care centers	1 600	32	32
Pregnant women and lactating mothers	2 000	40	40
Children under the age of 2	1 600	40	40
Elderly and handicapped	1 600	32	32



TABLE 3

PROBLEM TREE

EFFECTS

PRINCIPAL CAUSES

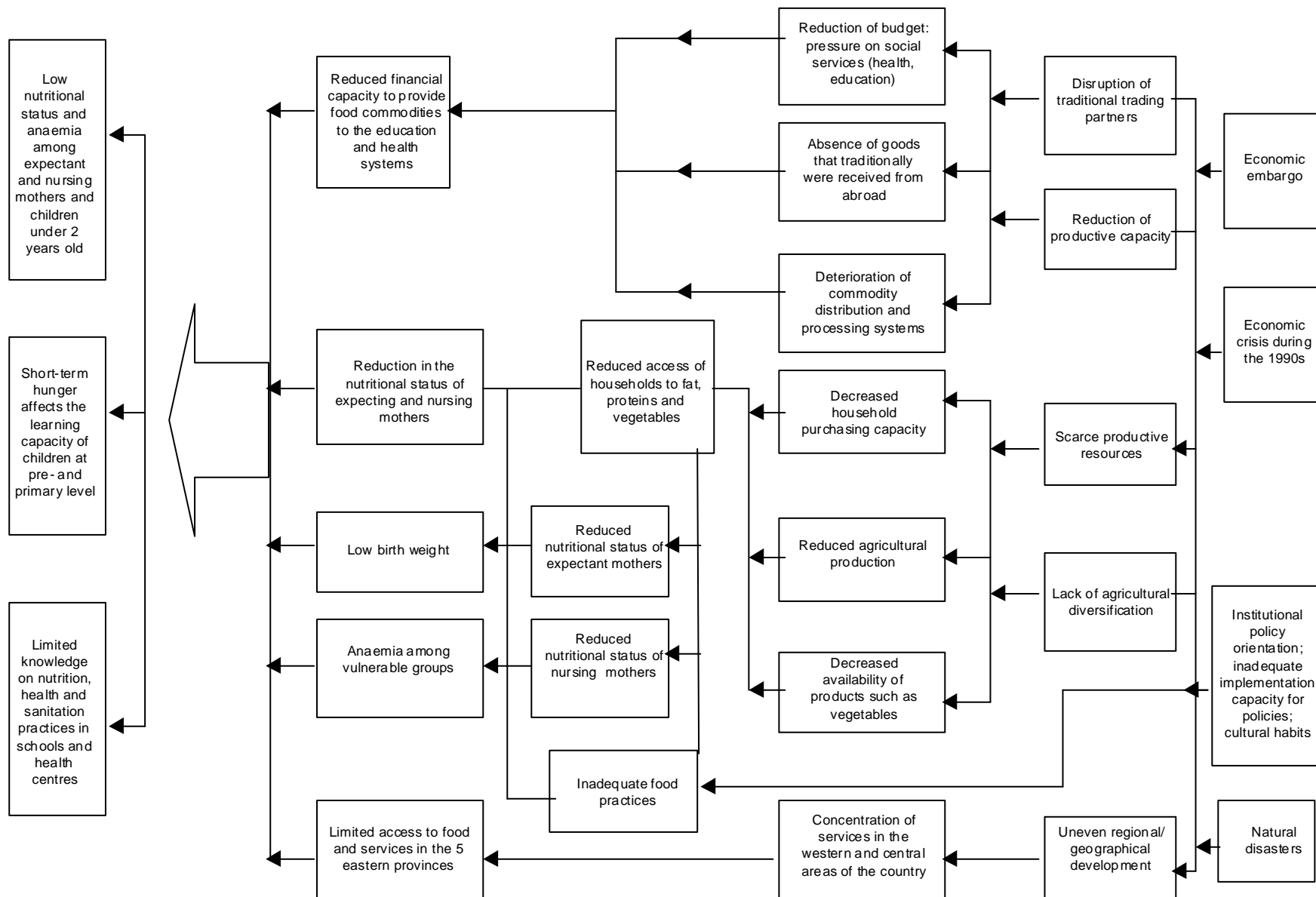




TABLE 4. LOGICAL FRAMEWORK

	PROJECT ELEMENTS	ASSUMPTIONS/RISKS/KEY-ISSUES
Long-term Objective	<ul style="list-style-type: none"> To contribute to the improvement of the nutritional situation of vulnerable groups and pre-primary and primary schoolchildren in the five most vulnerable provinces of Cuba. 	
Immediate Objective 1	<ul style="list-style-type: none"> To contribute in the improvement of the nutritional status and the reduction of anaemia in expectant and nursing mothers and children under the age of two in the targeted areas. 	No assumptions, risks or key issues to be mentioned
Outputs 1	<ul style="list-style-type: none"> During the life of the project, 180,509 persons will receive fortified food rations as follows: 52,133 expectant and nursing mothers, and other vulnerable groups will receive a fortified cereal blend and oil. 128,376 children from 6 months to 2 years old will receive a cereal blend fortified with iron and vitamins. 	No assumptions, risks or key issues to be mentioned
Activities 1	<p>The project will distribute rations to:</p> <ul style="list-style-type: none"> all expectant and nursing mothers in targeted areas as well as other vulnerable groups, who will receive a fortified cereal blend and oil during the last 6 months of pregnancy and the first 6 months after birth. all children between 6 months and 2 years of age, who will receive a ration of fortified cereal blend while in this age period (18 months). 	<ul style="list-style-type: none"> Adequate distribution capacity Adequate programming system Adequate distribution of rations
Inputs 1	<p>Children between 0 and 2 years old:</p> <ul style="list-style-type: none"> 2,812 tons of fortified cereals <p>Expectant and nursing mothers:</p> <ul style="list-style-type: none"> 1,684 tons of fortified cereals 1,348 tons of oil <p>Other vulnerable groups:</p> <ul style="list-style-type: none"> 129 tons of oil 44 tons of canned meat 	<ul style="list-style-type: none"> Timely arrival of food Adequate local production (on time, quantity) of cereals and biscuits Timely supply of micronutrients



	PROJECT ELEMENTS	ASSUMPTIONS/RISKS/KEY-ISSUES
Immediate objective 2	<ul style="list-style-type: none"> To help relieve the short-term hunger and increase the learning capacity of students of pre-primary and primary levels. 	No assumptions, risks or key issues to be mentioned
Outputs 2	<ul style="list-style-type: none"> An average of 413,130 girls and boys in pre-primary and primary schools will receive a daily ration of fortified cereal blend and a biscuit enriched with micronutrients. An average of 37,836 children in day-care centres (2-5 years old) will receive a ration of oil. 	No assumptions, risks or key issues to be mentioned
Activities 2	<p>The project will distribute rations to:</p> <ul style="list-style-type: none"> Boys and girls in primary schools, who will receive a fortified cereal blend and a biscuit enriched with micronutrients during 210 school days per year. Boys and girls in half-boarding and boarding primary schools, who will receive a ration of a fortified cereal blend; biscuits enriched with micronutrients, oil and canned fish/meat during 210 school days per year. Children in day-care centres, who will receive a ration of oil during 210 school days per year. 	<ul style="list-style-type: none"> Adequate distribution capacity Adequate programming system Adequate distribution of rations
Inputs 2	<p>Boarding and half-boarding primary school students:</p> <ul style="list-style-type: none"> 1,311 tons of cereals 2,011 tons of biscuits 589 tons of oil 530 tons of canned fish/canned meat <p>Regular primary school students:</p> <ul style="list-style-type: none"> 5,073 tons of cereal 8,043 tons of biscuits <p>Day-care centres:</p> <ul style="list-style-type: none"> 229 tons of biscuits 	<ul style="list-style-type: none"> Timely arrival of food Adequate local production (on time, quantity) of cereals and biscuits Timely supply of micronutrients



	PROJECT ELEMENTS	ASSUMPTIONS/RISKS/KEY-ISSUES
Immediate objective 3	<ul style="list-style-type: none"> To contribute to the promotion of nutrition, health and sanitary education in health centres and schools. 	No assumptions, risks or key issues to be mentioned
Outputs 3	<ul style="list-style-type: none"> All heads and managers of the health institutions and education centres, as well as the staff directly involved in the food preparation will be trained in healthy eating, nutrition, health, hygiene and sanitation habits. Training materials including posters and leaflets will be provided, together with TV spots and programmes. 	<ul style="list-style-type: none"> Enough attendance Good learning capacity from attendants Correct application of techniques learned
Activities 3	<ul style="list-style-type: none"> Develop an information, education and communication strategy (IEC) on nutritional, healthy food practices, hygiene and sanitation Promote breast-feeding beyond the 4 month post-natal period Production and use of a guide for sanitary education Production and use of educational materials Education sessions for beneficiaries on these issues Education sessions for food handlers on these issues 	<ul style="list-style-type: none"> Availability of trainers – sufficient level of expertise Adequate support in producing guides and materials Enough production of guides and materials Quality control over methodologies
Inputs 3	ODOC: Non-food items: \$ 144,500 Training materials: \$ 120,000 Transformation costs (packing): \$ 302,982 Total: \$ 567,482	<ul style="list-style-type: none"> Timely arrival of NFIs



LIST OF ACRONYMS USED IN THE DOCUMENT

CCA	Common Country Assessment
CIDA	Canadian International Development Agency
DSM	Dried Skimmed Milk
EMOP	Emergency Operation
INHA	Institute of Nutrition and Food Hygiene
IPF	Institute of Physical Planning
MINAL	Ministry of Food Industry
MINCIN	Ministry of Domestic Trade
MINED	Ministry of Education
MINSAP	Ministry of Public Health
MINVEC	Ministry of Foreign Investment and Economic Cooperation
SISVAN	Food and Nutritional Vigilance System
UNDAF	United Nations Development Assistance Framework
UNFPA	United Nations Population Fund
VAM	Vulnerability Analysis and Mapping
VANIS	Food and Nutritional Vigilance System in Health Institutions

