STAFF APPRAISAL REPORT

BANGLADESH

INTEGRATED NUTRITION PROJECT

APRIL 26, 1995

Population and Human Resources Division
Country Department I
South Asia Region
Currency Equivalents

Currency Unit = Bangladesh Taka (Tk)
Crore Taka = 10 million Taka
Lakh Taka = 100,000 Taka
US$1 = Tk 40.25
(April, 1995)

Fiscal Year (FY)
July 1 - June 30

ABBREVIATIONS

BRAC - Bangladesh Rural Advancement Committee
CBNC - Community-Based Nutrition Component
CNC - Community Nutrition Center
CNO - Community Nutrition Organizer
CNP - Community Nutrition Promoter
FAO - Food and Agriculture Organization
GMP - Growth Monitoring and Promotion
GTZ - Deutsche Gesellschaft für Technische Zusammenarbeit
ICB - International Competitive Bidding
IDA - International Development Association
IEC - Information, Education and Communication
ISNC - Inter-Sectoral Nutrition Cell
ISNF - Inter-Sectoral Nutrition Fund
Kcal - Kilocalories
KfW - Kreditanstalt für Wiederaufbau (Germany)
LCB - Local Competitive Bidding
MOHFW - Ministry of Health and Family Welfare
NGO - Non-Government Organization
OED - Operations Evaluation Department
PEM - Protein Energy Malnutrition
TOR - Terms of Reference
UNICEF - United Nations Children’s Fund
USAID - United States Agency for International Development
VDP - Village Defence Party
WHO - World Health Organization
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This report is based on the findings of a Pre-Appraisal Mission which visited Bangladesh in January, 1994 and which was subsequently deemed to be an Appraisal Mission. The Mission was jointly fielded by IDA and UNICEF. The IDA members were: Mr. S.K. Sudhakar (Mission Leader and the then Task-Manager), Mr. S. Sundararjan (Current Task-Manager), Mr. Philip Gowers (Chief, Population and Health Office), Mr. Richard Heaver (Senior Management Specialist), Ms. Gigliola Baruffi (Public Health Specialist), Mr. Humayun Hye (Consultant, Public Health), and Mr. James Levison (Consultant, Agricultural Economics). UNICEF members were: Mr. Urban Jonsson (then Senior Nutrition Adviser, UNICEF, New York / currently Regional Director, UNICEF, Kathmandu), Mr. Rolf Carriere (UNICEF Representative to Bangladesh), Mr. John Rohde (UNICEF Representative to India), Mr. Eric Laroche, Mr. Thane Myint, Mr. Iqbal Kabir and Mrs. Mira Mitra (Health & Nutrition Team, UNICEF, Dhaka). The report has been endorsed by Mr. Paul Isenman (Director, Country Department 1, South Asia Region) and Mrs. Barbara Herz (Chief, Population and Human Resources Division, Country Department 1, South Asia Region), who provided valuable guidance in its preparation. Mr. J.P. Correia da Silva (Senior Legal Counsel), Mr. John Fringer (Senior Procurement Specialist) and Mr. R. Wiratunga (Senior Disbursement Officer) provided inputs to this report in their respective areas of expertise. Mrs. Jasbir Chhabra (Program Assistant) assisted with the costing and Mrs. Juicy Zareen Qureishi-Huq (Staff Assistant) provided secretarial support. The Peer Reviewers for this project were: Mr. Alan Berg (Senior Nutrition Adviser), Mr. James Greene (Principal Nutrition Specialist) and Mr. George Plant (Special Adviser to Chief of Resident Mission in China).
BANGLADESH

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Credit and Project Summary

**Borrower:** People’s Republic of Bangladesh.

**Implementing Agency:** Ministry of Health and Family Welfare (MOHFW)

**Beneficiary:** Not applicable

**Poverty:** Program of Targeted Interventions. The Project would reduce poverty by improving educability and productivity through better nutrition. It focuses on undernourished and poor women and children. Beneficiaries would be selected on nutritional rather than income criteria; but since the poorest, especially women, tend to suffer from severe nutritional deficiencies, they would benefit most from the project.

**Amount:** SDR 40.1 million. (US$59.8 million equivalent), including retro-active financing of US$0.5 million to cover start-up costs of the Project Office.

**Terms:** Standard with 40 years maturity.

**Commitment fee:** 0.50% on undisbursed credit balance, beginning 60 days after signing.

**Onlending Terms:** Not applicable.

**Objectives:** This six-year project will initiate development of a national nutrition program whose long-term goal is to improve nutritional status so that malnutrition would eventually cease to be a public health problem. The three intermediate objectives are: (i) national capacity building; (ii) community empowerment for action against malnutrition; and (iii) to achieve measurable nutritional impact in areas exposed to all components.

**Description:** The project will have three components: A. **National Level Nutrition Activities.** This component will have four sub-components: (i) Program Development and Institution Building, to develop national capacity in nutrition and to promote needed policy research and operations research; (ii) Information, Education and Communication (IEC) Development to assess current behavioral aspects relevant to nutrition and develop appropriate messages and materials for use in IEC activities through inter-personal methods at the community level and through the mass media at the national level; (iii) Strengthening of Existing Nutrition Activities, particularly by expanding and improving the effectiveness of efforts to control micronutrient deficiencies and by strengthening the current initiative to promote breast-feeding; and (iv) Project Management, Monitoring and Evaluation to help finance a Project Office and carry out baseline surveys, a mid-term review, and a final evaluation based on sound methods and measurable indicators for processes, inputs, and outcomes related to the project’s objectives; B. **Community-Based Nutrition Component (CBNC),** focusing on Growth Monitoring and Promotion activities with targeted and supervised supplementary feeding at the village level in community nutrition centers, which would serve as a locus for inter-personal Information, Education and Communication (IEC) and mobilization of community actions to promote nutrition. This component would be phased in gradually, beginning in six thanas in the first year (including a pilot intervention of an experimental targeting strategy which entails special nutritional and health services to newly wed couples and their first child), and after a review of the first two years’ experience, adding 17 more thanas in each of the third and fourth years, for a total of 40 thanas; C. **Inter-Sectoral Nutrition Program Development,** to improve nutrition through efforts beyond the scope of CBNC, by emphasizing
nutritional aspects of activities in various sectors and by supporting innovative actions with potential nutrition impact. An Inter-Sectoral Nutrition Fund would be established. Sub-project proposals meeting agreed criteria, from Government or Non-Governmental Organizations (NGOs), would be financed from the fund after being cleared by an Inter-Sectoral Nutrition Cell in MOHFW and by IDA.

Benefits:

The project would help to: (i) increase the Government’s capacity to formulate a sound national nutrition program and to implement it effectively; (ii) improve the nutritional and health status of children under two years of age and of women; (iii) increase child survival and thereby strengthen the demand for family planning services; (iv) prevent permanent damage in children, resulting in a healthier population in the long-term; (v) increase the learning capacity of children and the productivity of the present and future citizens of Bangladesh; and (vi) improve women’s social status through a special focus on them.

Risks:

The project faces three principal risks. (i) The country now has limited capacity to implement nutrition activities. The project seeks to reduce this risk in several ways. It would phase the introduction of the main nutritional intervention, while working to expand implementation capability. It would support a strong Project Office to ensure effective project implementation and include a component for Program Development and Institution Building. The project also includes an intensive involvement of NGOs in project execution. Technical assistance will also be provided by UNICEF and by Institute of Nutrition, University of Mahidol, Thailand. (ii) Coordinating and implementing activities undertaken through different ministries under the Inter-Sectoral Component could pose difficulties. To mitigate this risk, the project would require the establishment of an Inter-Sectoral Nutrition Cell within the Ministry of Health and Family Welfare as well as substantive inputs from the respective ministries; the project would also involve NGOs with relevant field experience in the preparation and implementation of inter-sectoral sub-projects. (iii) There is a risk that volunteers might be ineffective as Community Nutrition Promoters and Community Nutrition Organizers. The project would minimize this risk through strong training and supervision at the field level, particularly through NGOs.

Estimated Costs (including contingencies):

<table>
<thead>
<tr>
<th></th>
<th>Local (US$ million)</th>
<th>Foreign</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Level Nutrition Activities</td>
<td>18.2</td>
<td>2.4</td>
<td>20.6</td>
</tr>
<tr>
<td>Community-Based Nutrition Component</td>
<td>38.9</td>
<td>0.2</td>
<td>39.1</td>
</tr>
<tr>
<td>Inter-sectoral Nutrition Program Development</td>
<td>7.3</td>
<td>0.3</td>
<td>7.6</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>64.4</strong></td>
<td><strong>2.9</strong></td>
<td><strong>67.3</strong></td>
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Financing Plan:

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<tr>
<th>Financier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
</tr>
<tr>
<td>IDA</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
</tr>
</tbody>
</table>

Estimated IDA Disbursements (US$ Millions):

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</thead>
<tbody>
<tr>
<td>Annual</td>
<td>3.3</td>
<td>3.6</td>
<td>9.6</td>
<td>14.6</td>
<td>14.1</td>
<td>14.6</td>
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<tr>
<td>Cumulative</td>
<td>3.3</td>
<td>6.9</td>
<td>16.5</td>
<td>31.1</td>
<td>45.2</td>
<td>59.8</td>
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Net Present Value: Not Applicable
### BANGLADESH

#### INTEGRATED NUTRITION PROJECT

**Basic Data**

<table>
<thead>
<tr>
<th></th>
<th>1970</th>
<th>1990</th>
<th>Most Recent Estimate</th>
<th>South Asia</th>
<th>Low-income Countries Worldwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNP per Capita (US$)</td>
<td>100.0</td>
<td>210.0</td>
<td>220.0</td>
<td>320.0</td>
<td>350.0</td>
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#### POPULATION AND VITAL STATISTICS

<table>
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<th>Most Recent Estimate</th>
<th>South Asia</th>
<th>Low-income Countries Worldwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (million)</td>
<td>66.7</td>
<td>106.7</td>
<td>115.0</td>
<td>1,152.2</td>
<td>3,127.3</td>
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<tr>
<td>Crude Birth Rate (per thousand)</td>
<td>48.0</td>
<td>35.0</td>
<td>34.0</td>
<td>32.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Crude Death Rate (per thousand)</td>
<td>21.0</td>
<td>14.0</td>
<td>13.0</td>
<td>11.0</td>
<td>10.0</td>
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<tr>
<td>Sex Ratio (females/100 males)</td>
<td>92.8</td>
<td>94.9</td>
<td>94.9</td>
<td>93.6</td>
<td>95.6</td>
</tr>
<tr>
<td>Population Density (Per sq. km. of total land)</td>
<td>463.0</td>
<td>740.7</td>
<td>768.0</td>
<td>224.5</td>
<td>80.5</td>
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<tr>
<td>Total Fertility Rate</td>
<td>7.0</td>
<td>4.6</td>
<td>4.4</td>
<td>4.2</td>
<td>3.8\a</td>
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<td>Contraceptive Prevalence Rate</td>
<td>7.7b</td>
<td>31.4</td>
<td>45.1c</td>
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#### POPULATION AGE STRUCTURE (%)

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<th>Most Recent Estimate</th>
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<th>Low-income Countries Worldwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 14 Years</td>
<td>45.4</td>
<td>42.9</td>
<td>42.3</td>
<td>38.0</td>
<td>35.4</td>
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<tr>
<td>15 - 64 Years</td>
<td>51.1</td>
<td>54.0</td>
<td>56.8</td>
<td>57.7</td>
<td>60.6</td>
</tr>
<tr>
<td>65 and above</td>
<td>3.5</td>
<td>3.1</td>
<td>0.9</td>
<td>4.3</td>
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#### URBANIZATION

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<th>Low-income Countries Worldwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Population (million)</td>
<td>5.1</td>
<td>18.7</td>
<td>22.5</td>
<td>314.7</td>
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</tr>
<tr>
<td>As a percentage of Total Population</td>
<td>7.6</td>
<td>17.5</td>
<td>20.3</td>
<td>26.4</td>
<td>39.0</td>
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#### HEALTH

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<th>Most Recent Estimate</th>
<th>South Asia</th>
<th>Low-income Countries Worldwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Expectancy at Birth (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>44.0</td>
<td>51.0</td>
<td>52.0</td>
<td>59.0</td>
<td>58.0</td>
</tr>
<tr>
<td>Male</td>
<td>46.0</td>
<td>52.0</td>
<td>53.0</td>
<td>59.0</td>
<td>61.0</td>
</tr>
<tr>
<td>Infant Mortality Rate (per 1,000 live births)</td>
<td>140</td>
<td>105</td>
<td>103</td>
<td>92</td>
<td>71</td>
</tr>
<tr>
<td>Maternal Mortality Rate (per 1,000 births)</td>
<td></td>
<td>6\d</td>
<td>6\e</td>
<td>4.4</td>
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BANGLADESH
INTEGRATED NUTRITION PROJECT

Basic Data (Continued)

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<th>1970</th>
<th>1990</th>
<th>South Asia</th>
<th>Low-income Countries Worldwide</th>
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</thead>
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<tr>
<td><strong>EDUCATION</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>School Enrollment (%)</td>
<td></td>
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<tr>
<td>Primary School</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>35</td>
<td>68</td>
<td>75</td>
<td>98</td>
</tr>
<tr>
<td>Total</td>
<td>54</td>
<td>73</td>
<td>88</td>
<td>105</td>
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<tr>
<td>Secondary School</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Female</td>
<td>-</td>
<td>11</td>
<td>29</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>17</td>
<td>39</td>
<td>41</td>
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<tr>
<td><strong>NUTRITIONAL STATUS</strong></td>
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</tr>
<tr>
<td>Prevalence of Stunting'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(% Children 6-71 mths)</td>
<td>68.7</td>
<td>65.5</td>
<td>64.2</td>
<td></td>
</tr>
<tr>
<td>Prevalence of Underweight'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(% Children 6-71 mths)</td>
<td>71.5</td>
<td>66.5</td>
<td>68.3</td>
<td>58.5</td>
</tr>
<tr>
<td>Prevalence of Wasting'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(% Children 6-71 mths)</td>
<td>14.8</td>
<td>14.7</td>
<td>16.7</td>
<td></td>
</tr>
<tr>
<td><strong>FOOD AVAILABILITY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>AT NATIONAL LEVEL</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(Metric Tons)</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Total food requirement</td>
<td>16.6</td>
<td>18.5</td>
<td></td>
<td></td>
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<tr>
<td>Net Food Production</td>
<td>14.5</td>
<td>16.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Gap</td>
<td>2.4</td>
<td>1.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy availability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Calories/day/capita)</td>
<td>1868</td>
<td>1922</td>
<td></td>
<td>2245</td>
</tr>
</tbody>
</table>

1. Height for age below the reference median by 2 or more standard deviations.
2. Weight for age below the reference median by 2 or more standard deviations.
3. Weight-for-Height below the reference median by 2 or more standard deviations.
BANGLADESH
INTEGRATED NUTRITION PROJECT

Basic Data (Continued)

Notes: Most recent estimate is for 1991 unless specified.
\(\text{a}\) Excluding China and India TFR is 5.2.
\(\text{b}\) Data are for 1975.
\(\text{c}\) Data are for 1994.
\(\text{d}\) Data are for 1980.
\(\text{e}\) Data are for 1988.

Sources:
World Bank, Asia Technical Department, Population Issues in Asia, Department Series No.5, September, 1993.
BANGLADESH
INTEGRATED NUTRITION PROJECT

I. SECTORAL BACKGROUND

A. Nutritional Situation in Bangladesh

1.1 General Background. Bangladesh is a tropical riverine country of about 115 million people. The population density of this country is the highest in the world, excluding city states like Hong Kong and Singapore. The country's economy is largely agrarian but 53% of the population are landless and the prevalence of absolute poverty (inability to afford a daily intake of 1805 calories) rose from 22% in 1985-86 to 27% in 1988-89. Recent investigations appear to indicate that overall poverty (inability to afford a daily intake of 2100 calories) might be declining but absolute poverty levels have not fallen. It is one of the least developed countries in the world with a Gross Domestic Product of US$220 per capita. The poor health status of Bangladesh is evidenced by infant, under-five and maternal mortality rates of 103, 180 and 6 respectively, per 1,000 live-births. The literacy rate is only 35% with the female literacy rate being even lower at 22%. Most of the women work in their households and have little decision-making power. All these facts point to the existence of an overall climate conducive to undernutrition, particularly among women and young children.

1.2 Major Nutritional Problems. Bangladesh suffers from some of the severest malnutrition problems in the world. The primary forms of malnutrition found in Bangladesh are: childhood undernutrition in the form of protein-energy malnutrition (PEM); all-round maternal undernutrition as evidenced by low weight, short stature and anemia in pregnant and lactating women; and disorders of micronutrient deficiencies, particularly among all ages of Vitamin A, iron and iodine. The effects of childhood undernutrition, beginning with a low birth weight (estimated to occur among 35-50% of births in Bangladesh) continue into adulthood, particularly among the females whose malnutrition is compounded by the strains of adolescence, maternity, and lactation.

1.3 The prevalence of PEM among children is very high, and has remained almost the same for the last decade. Thirty three percent of all children under six years of age are severely stunted and another 31.2% moderately stunted. As many as 68.3% of the children are under-weight and 16.7% wasted, the highest rates in Asia. Malnutrition plays a role in about two-thirds of under-five deaths; of these, 73% are related to mild and moderate malnutrition. Given the greatly disadvantaged start by way of a low birth-weight followed by inadequate breast-feeding by their undernourished mothers, average Bangladeshi infants are already below the lower end of the range of anthropometric values found among Western babies during the first three to six months. The late and insufficient introduction of

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1 Protein-Energy Malnutrition (PEM) is the most widespread form of malnutrition among young children, arising from a deficiency of both proteins and energy (calories). It manifests itself as Kwashiorkor or Marasmus in its severest forms but the majority of the cases which fall in the mild or moderate categories often go unrecognized unless the child is weighed. The first indicator of PEM is under-weight for age.

2 Stunting refers to reduced height for age, which is a sign of retarded growth due to chronic malnutrition - often accompanied (in its severest forms) by retarded mental development as well. Stunting is defined as severe if height-for-age is less than the reference median by 3 standard deviations or more and moderate if between 2 and 2.99 standard deviations.

3 Weight-for-age below the reference median by 2 or more standard deviations.

4 Wasting is a sign of PEM, which refers to loss of muscle mass resulting in a "skin and bone" appearance - generally assessed by the ratio of weight to height.
complementary feeding further retards the infant's growth; usually the child does not pick up its pace of growth before two years of age. By then, it is too late to reverse the early growth lag which persists throughout life and similarly some of the damages done to mental development are irreparable. The weight-for-age curve of Bangladeshi children continues to lie below the third percentile of the Harvard Standard, though it runs roughly parallel to the standard from around the second year of life onward; the older children cope better with the adverse milieu of a food-insecure and unhealthy household, while being unable to regain lost ground.

1.4 **Maternal Malnutrition.** The nutritional status of women is not well-documented in Bangladesh but the average weight and height of women are 39-41 kilograms and 147-148 centimeters respectively, indicating significant levels of undernutrition. Mothers' weight gain during pregnancy is poor and after delivery they end up losing about 1 kilogram as compared to the pre-pregnancy weight. Iron and folic acid deficiencies afflict pregnant and lactating women particularly severely, leading to anemia (para 1.5). As the Bangladeshi women bear and nurture children out of their already depleted bodies more frequently than the women in the developed world, their situation is even more poignant.

1.5 About 70% of mothers and children in Bangladesh suffer from nutritional deficiency anemia. Studies in Matlab conducted by the International Center for Diarrheal Disease Research have shown that 25% of maternal deaths are associated with anemia and hemorrhage. Maternal anemia significantly contributes to intra-uterine growth retardation leading to low-birth weight babies. Anemia in infancy and childhood greatly reduces the cognitive abilities essential to the mental development of the growing child.

1.6 **Vitamin A deficiency** leads to xerophthalmia in children, and an estimated 30,000 Bangladeshi children go blind each year due to this deficiency. The prevalence of night blindness, an early sign of vitamin A deficiency, is as high as 1.7%. Vitamin A is also known to provide protection from infectious diseases in children. Besides leading to morbidity, Vitamin A deficiency also contributes significantly to childhood mortality by increasing the severity of infectious diseases resulting in higher case fatality rates.

1.7 **Iodine Deficiency Disorders** pose a major risk for the physical and mental development of the people living in iodine deficient environments in Bangladesh. The food grains and fish from the iodine deficient soil and water particularly in the northern region of Bangladesh contribute to the hyperendemicity of iodine deficiency disorders in these areas. Iodine deficiency causes cretinism and mental retardation in children. About 10.5% of Bangladeshi population suffer from goiter and an estimated 60% of the people living in hyperendemic areas are affected. Two million under-five children suffer from iodine deficiency disorders. Another 20 million children and women are considered to be at risk. Intake of foods low in iodine is the primary cause of iodine deficiency disorders. The high physiological needs for thyroxin during pregnancy increase the risk of iodine deficiency disorders among women. The intake of goitrogenic foods also hinders utilization of dietary iodine.

1.8 **Determinants of Malnutrition.** All the known causes of malnutrition are at play in Bangladesh. These determinants are grouped commonly under the heads of food insecurity, poor health conditions (and insufficient access to good health care services) and inappropriate household feeding and eating practices (caring practices or "care" for short). Inadequate dietary intake of energy, proteins, vitamin A, iodine, iron and other micronutrients constitutes the primary and most direct cause of malnutrition in Bangladesh as elsewhere. There has been a downward trend in per capita intake of calories over time resulting in widespread chronic dietary deficiency. At present, the average energy intake is only 80% of Food and Agriculture Organization (FAO) recommendation (2,310 kilo calories per person per day). Such low intake has been attributed, inter alia, to inadequate food supply, poverty and lack of education. Moreover, diseases that affect dietary intake by reducing appetite and/or decrease
absorption of nutrients, e.g., diarrhoea, respiratory infections and parasitic infestations, are widely prevalent in Bangladesh.

1.9 As for food availability, food balance sheet studies show a gradual decrease of average energy available per capita per day from 2,250 kilocalories (Kcal) in 1962-64 to 1,860 in 1983-85, followed by a slight increase to 1,927 in 1986. Considering the rapid population growth, it is surprising that per capita energy availability has not declined even more than it has; this is probably due to impressive gains in agricultural production, particularly in the case of rice. The successes in rice cultivation have been accompanied by decreased production of minor cereals, pulses, oilseeds and fruits resulting in a nutritional imbalance in terms of national food production. Moreover, the statistics on supply depict only part of the food security situation; the picture described is based on production data not on consumption patterns. Disparities in purchasing power evidently lead to greatly unequal distribution of available food, and averages mask worse deficiencies in actual calorie intake by the less fortunate populations. Important gaps remain between production and consumption, since food availability at the national level is no guarantee of household food security and even the latter does not necessarily result in equitable food distribution within the household.

1.10 Tables 1.1 and 1.2 show the relationship of childhood PEM with family income and land ownership as observed by the most recent child nutrition survey of 1992 carried out by the Bangladesh Bureau of Statistics. These relationships are shown for stunting which indicates chronic malnutrition and wasting which reflects severe acute PEM. While the prevalence of stunting decreases with increased per capita income and increased land ownership, nearly 30% of even the highest income group and over 35% of those who own more than 5 acres show stunting. Income and land ownership do not show any clear relationship with wasting. The report of the most recent survey by the Bangladesh Bureau of Statistics does not present data on the relationship of income and land ownership with the third indicator of malnutrition, namely weight- for-age but the previous survey of 1989-90 showed that almost 55% of the highest income group were underweight! In summary, these data clearly show that malnutrition in Bangladesh is not limited to the poor food-insecure households.

Table 1.1: Malnutrition in Children by Per-Capita Income, 1992

<table>
<thead>
<tr>
<th>Annual Income per capita (Taka)</th>
<th>Stunting (&lt; = 2 SD)</th>
<th>Wasting (&lt; = 2 SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 4,000</td>
<td>54.6</td>
<td>7.0</td>
</tr>
<tr>
<td>4,000 - 4,999</td>
<td>48.6</td>
<td>4.7</td>
</tr>
<tr>
<td>5,000 - 5,999</td>
<td>52.7</td>
<td>8.7</td>
</tr>
<tr>
<td>6,000 - 7,999</td>
<td>39.5</td>
<td>7.7</td>
</tr>
<tr>
<td>8000+</td>
<td>28.4</td>
<td>7.3</td>
</tr>
</tbody>
</table>


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Table 1.2: Prevalence of Stunting Among Children by Land Ownership, 1992

<table>
<thead>
<tr>
<th>Household Total Land (Acres)</th>
<th>Stunting %</th>
<th>Wasting %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 0.05</td>
<td>43.2</td>
<td>6.5</td>
</tr>
<tr>
<td>0.05 - 1.00</td>
<td>50.8</td>
<td>7.6</td>
</tr>
<tr>
<td>1.00 - 2.50</td>
<td>42.9</td>
<td>7.4</td>
</tr>
<tr>
<td>2.50 - 5.00</td>
<td>31.8</td>
<td>2.7</td>
</tr>
<tr>
<td>5.0 +</td>
<td>35.2</td>
<td>5.2</td>
</tr>
</tbody>
</table>


1.11 Health and Environment. The well-known interaction between infection and malnutrition is amply evident among Bangladeshi children. A recent survey showed that approximately a fourth of the children had at least one diarrheal episode in the three months preceding the survey. The International Center for Diarrhoeal Disease Research found that children suffering from diarrhea are twice as likely to suffer from acute malnutrition as those without diarrhea and the risk of severe wasting increased with the number of episodes. About 75% of the child's life is spent in illness mostly due to infections. The chief immediate causes of death in infancy are diarrhea, respiratory infections and neonatal tetanus. Low birth weights and malnutrition potentiate the death risks of these diseases. Roughly two-thirds of under-five deaths are due to such potentiation, 75% of it being associated with mild and moderate malnutrition.

1.12 Age differentials. Table 1.3 shows the distribution of stunting and wasting by age groups among the male and female children of Bangladesh. These data on the relationship of malnutrition with age are very telling, indeed; not only do they point to the age at which the problem is best dealt with, they also provide insights into the role of behavioral aspects (para 1.13) in causing malnutrition in Bangladesh. Both acute and chronic PEM show a marked rise in the age group 12-23 months; but while wasting declines after that, stunting stays at about the same level. Such difference between the younger and older children is mainly explained by three facts: (i) the younger children are to be fed, while the older ones eat; thus the older children better manage to overcome acute malnutrition but are unable to reverse the earlier losses; (ii) poor maternal nutritional status is an important determinant of malnutrition in the young infant but as the child grows, his/her nutrition is less affected by the mother's nutritional status and (iii) much of the losses incurred in growth and development (physical and mental) are not recoverable after two years of age. These observations provide the strongest basis yet for targeting nutrition interventions on pregnant and lactating mothers and on younger children.

1.13 Caring Practices. The observation that some of the older children improve their weight, despite the fact that they need more food than the younger ones, makes it difficult to explain childhood malnutrition purely on the basis of lack of food in the household. Together with the weak relationship between malnutrition and income levels (para 1.10), these data argue strongly that behaviors related to feeding of young children have at least as much (if not more) to do with the serious problem of malnutrition in Bangladesh as poverty and the resultant household food insecurity do. Most children are breast-fed up to one to two years of age, but breast-feeding is often combined with bottle-feeding, increasing the risk of diarrhoeal episodes. Colostrum is rejected by 60-90% of mothers; exclusive breast-
feeding up to 6 months hardly exists; and 60% of hospitalized malnourished children are bottle-fed. Weaning practices are poor and complementary food is generally inadequate with low nutrient density. The frequency and manner of breast-feeding also affect the quantity of milk consumed by the infant. Behavioral factors have a considerable influence on maternal nutrition as well, in view of the cultural beliefs supplying reduced eating during pregnancy, the fact that the woman of the family usually eats last and least and the lack of equity between the girls and the boys in terms of access to household resources, not the least of which is food.

Table 1.3: Prevalence of Stunting and Wasting by Age, and Gender

<table>
<thead>
<tr>
<th>Age Group (months)</th>
<th>Stunting</th>
<th>Wasting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>6-11</td>
<td>36.3</td>
<td>33.0</td>
</tr>
<tr>
<td>12-23</td>
<td>71.1</td>
<td>61.2</td>
</tr>
<tr>
<td>24-35</td>
<td>53.5</td>
<td>67.5</td>
</tr>
<tr>
<td>36-47</td>
<td>67.0</td>
<td>69.5</td>
</tr>
<tr>
<td>48-59</td>
<td>64.7</td>
<td>73.1</td>
</tr>
<tr>
<td>60-71</td>
<td>74.9</td>
<td>70.8</td>
</tr>
<tr>
<td>Total</td>
<td>62.8</td>
<td>65.6</td>
</tr>
</tbody>
</table>


Among women as well as children, while food availability and health status are important factors affecting nutrition, caring practices-feeding (including breast-feeding), culture-specific consumption practices (particularly by women), intra-household food distribution, personal hygiene constitute the most significant, hitherto unaddressed set of nutritional determinants in Bangladesh.

B. Current Programs

Although there is no separate Government program to deal with malnutrition in Bangladesh, considerable investments are being made in programs which directly or indirectly seek to address factors that impact on nutritional status. The Bangladesh National Nutrition Council consisting of senior administrators, policy makers and nutritionists from different concerned ministries and agencies was established to oversee the development of a nutrition policy and coordinate nutrition activities across the relevant sectors. But so far the Council has not been very effective, partly due to inadequate resources and lack of authority. Recently the Prime Minister has agreed to chair the National Nutrition Council, raising the expectation that nutrition might get its long overdue share of attention. The national aspiration for "basic food ("Daal, Bhaat") for everyone" needs to be expanded to include good nutrition, which requires more than just food.

Programs aiming to ensure household food security directly by providing subsidized food supplements to vulnerable population groups or indirectly through enhancing food production or income transfer strategies are being carried out under the Ministries of Relief and Rehabilitation, Agriculture and Food. Investments in enhancing food supply in Bangladesh have yielded fairly good results; crop diversification, more efficient distribution systems and land ownership reforms are some further steps which could be beneficial. Besides, programs such as Homestead Garden Promotion under the Ministry
of Agriculture add to household food security. Programs aiming at income/food transfer to the weaker sections of society have been operating with variable effectiveness and at considerable cost. Examples of such programs undertaken by the Government are: Vulnerable Group Development, Rural Maintenance Program, Food for Work schemes and the Palli Rationing Scheme (recently dismantled due to its serious problem of leakage). More recently, a Food for Education scheme has also been introduced. One of the drawbacks of all these efforts is that they are currently not targeted based on nutritional vulnerability. They are either national level investments (such as enhancing overall food production) or when they are targeted, the selection criteria are generally landlessness, low income or destitution among women. While these are reasonable proxy indicators of undernutrition, direct targeting based on nutritional criteria would clearly be more precise, though operationally more difficult; also, in some schemes the targeting has been to men, because these schemes have been designed around construction projects typically employing men. Such projects are also limited by the fact that construction work is generally not carried out during seasons when food insecurity is greatest. Another aspect of these programs which needs improvement is to ensure that the food reaches the intended beneficiaries; leakage of varying degrees exists in all these programs, since none of them carries out supervised on-the-spot feeding. Lastly, as discussed before, income transfers do not necessarily translate into increased food consumption or improved nutrition, least of all among the women and children, in view of the strong male decision-making tradition which is universal in Bangladesh households, as in the rest of the region. Thus there is a clear need to reorient and retarget some of these investments in food security if they were to have the desired nutritional impact. The feasibility and cost-effectiveness of such nutritional targeting and reorientation need to be ascertained.

1.17 The successes of green revolution technologies has led to more rice availability at lower prices, with the potential for increased access to food for the poor. The time has come, therefore, to focus national nutrition efforts on household feeding and caring practices; improvements in these practices could help ensure full nutritional benefits of the said increase in food security.

1.18 The health and family welfare programs aim to provide primary health care and family planning services to the rural communities through a network of Thana Health Complexes, Rural Dispensaries and Union Health & Family Welfare Centers. About 45% of the population have access to some health care facilities albeit lacking in quality and consequently under-utilized. Since 1982, in an effort to improve the access to the Health and family planning services, satellite clinics have been organized by female field workers to provide a range of maternal and child health and family planning services. Recent improvements in primary health care activities include: better management of diarrhea with mothers being trained to prepare home-made oral rehydration solution and a successful Expanded Program of Immunization with a coverage of more than 65% of children with full immunization. The contraceptive prevalence rate is about 45%. Further improvements are needed in terms of access to more effective and better quality health care, especially Maternal and child health, so as to make sure that the health dimension of the nutritional pre-requisites is satisfactorily fulfilled.

1.19 In terms of water supply and sanitation, at present about 85% of the households have access to tube-well for drinking water compared to only 45% in the 80's. However, around 46% use surface water for domestic purposes. Open space is used by 84% of the households for waste disposal and less than 10% use sanitary toilets. The challenge now is to educate the rural populations on appropriate behaviors related to personal hygiene and environmental sanitation which in turn affect the health and nutrition status.
1.20 To control vitamin A deficiency and its consequences, GOB instituted the Nutritional Blindness Prevention Program in 1973. High potency Vitamin A capsules are distributed twice a year to children 6 months to 6 years of age throughout the country. While this program is supposed to cover the whole country, in practice less than half the children have received the benefit of this program. Recently, the Ministry of Health and Family Welfare issued a directive to combine vitamin A supplementation with immunization services. This integration is expected to help increase the Vitamin A coverage levels among young children. Ultimately, the solution to the problem of vitamin A deficiency lies in increasing the availability and consumption of green leafy and yellow vegetables and fruits. The Bangladesh Agricultural Research Council has developed a number of improved production technologies in this regard. The Homestead Vegetable Production Program of Ministry of Agriculture is implemented in 100 Thanas.

1.21 Through the satellite clinics pregnant women receive iron and folic acid tablets. A program for the control of intestinal parasites has also been included under the Fourth Population and Health Project, currently being financed by a consortium of donors led by IDA. The reduction of intestinal parasites, particularly that of hook-worm infestation, would help control nutritional anemia. Options for fortifying appropriate foods with iron and Vitamin A need to be explored.

1.22 The long-term strategy to control iodine deficiency is through universal iodization of salt. The required legal framework is in place but effective enforcement of the law is still a difficult challenge. The Bangladesh Small and Cottage Industries Corporation and the Bangladesh Standards and Testing Institution are responsible for the production and quality control of iodized salt for purposes of marketing. The iodized salt production is being undertaken with the support of the United Nations Children’s Fund (UNICEF) and under the Fourth Population and Health Project. To provide an immediate short-term control measure against iodine deficiency disorders, GOB embarked on a campaign to administer injectable iodine (lipiodol) in 1985. Thus far approximately 65% of the target population (males 0-15 years and females 0-45 years) have received the injection in 30 hyperendemic subdistricts. A proposal to switch from injections to capsules has been shelved since the program is not expected to continue once universal salt iodization is achieved.

1.23 A few Non-Government Organizations (NGO) have been active in the field of nutrition, some directly, but most as part of their child care, health care or rural development activities. Most notable of these are Bangladesh Rural Advancement Committee (BRAC), Helen Keller International, CARE and Save the Children Fund. In particular, a recent pilot intervention undertaken by BRAC in one thana (Muktagacha) is very relevant to the approach being proposed in this project (para 1.38). By virtue of their small size and their style of operations, NGOs have generally found it easier to promote community empowerment and other innovations. Similarly, within their limited scope of activity, NGOs have developed useful experience and expertise, and would be a significant resource to any major effort against malnutrition. Particular areas where NGOs have been found to possess strong potential are: community mobilization, training of field-level workers, quick field-testing of operational techniques, development and delivery of Information, Education and Communication (IEC) messages, inter-sectoral coordination (between the sectors that a given NGO is involved in), logistics of supplying commodities on time and maintaining adequate stock levels and project management. Two limitations in relying on NGOs for providing nutrition services are: (i) NGO presence covers a small part of rural Bangladesh and their capacity is typically limited to activities in small well-defined areas; no one NGO could possibly cover the whole of Bangladesh with an intensive nutrition program of the type envisaged; such a project would have to be primarily a GOB venture, with the help of several interested NGOs in areas where this is feasible; (ii) almost all the NGOs in Bangladesh are currently totally dependent on foreign assistance and could simply collapse if and when such assistance is withdrawn; this raises concerns of sustainability, unless GOB owns the project activities and is fully committed to their implementation with NGO support.
After a careful consideration of the benefits and risks, it was decided that active NGO participation would be beneficial to the proposed project and is contemplated in a major way.

C. Main Issues in Nutrition and the Government’s Strategy

1.24 The place of nutrition in national development has long received less attention than it deserves. The appreciation of the development consequences of malnutrition and its causation, and the awareness of available solutions have, until recently, not been uniformly accurate or extensive among the policy-makers and decision-makers of Bangladesh. Moreover, interventions impacting on nutrition status have, of necessity, been scattered across various ministries and/or departments; these sectoral actions have not been coordinated through a single agency responsible for nutrition. Though the Ministry of Health and Family Welfare (MOHFW) has been formally identified by the Rules of Business as being responsible for nutrition, it was not given a clear authority to coordinate nutrition-related actions across sectors. Most activities impinging on nutrition have been carried out primarily with goals other than nutrition per se: say, to improve agricultural production for economic reasons or to enhance food availability (not necessarily to improve nutrition). This fact has meant that the agencies carrying out such programs were not always aware of their nutritional import. As for MOHFW itself, its contribution to nutrition has been mainly through the health dimension, i.e., control of childhood infections and provision of maternal care, apart from a few specific micronutrient interventions. A comprehensive national program of nutrition has so far not been embarked upon in spite of attempts to establish a "coordinated nutrition program" under the Bangladesh National Nutrition Council and a "comprehensive nutrition project" under the Institute of Public Health Nutrition; neither of these came to fruition because the institutions concerned have lacked the necessary expertise or mandate. As a result, within the complex of nutrition issues, substantial areas have remained unaddressed.

1.25 Incomplete understanding of the causation of malnutrition. As in most developing countries, the predominant perception in Bangladesh has been that malnutrition is the result of poverty and household food insecurity. The extent of poverty, landlessness, underemployment, population density and proneness to natural disasters confirm and strengthen this perception. Some appreciation of the role of health conditions in determining nutritional status has existed but there has been, until recently, very little recognition of the third dimension, i.e., caring practices. This incomplete understanding of determinants of malnutrition by politicians and policy-makers, and even by some nutritionists in Bangladesh, has seriously skewed the country’s efforts to combat malnutrition in the direction of tackling poverty and food insecurity with no community-based interventions aimed at behavioral change. A clearer analysis of causation of malnutrition would also lead to a better targeting of such interventions; though malnutrition is highly prevalent among under-five children and to a significant extent among school children and adults, the intervention that is likely to bring the most benefits would be that on children 0-24 months and on women; such a targeting strategy was not adopted in Bangladesh prior to this project’s preparation.

1.26 Incomplete appreciation of the consequences of malnutrition. The magnitude and seriousness of the implications of PEM as well as micro-nutrient deficiencies in terms of: a) infant, child and maternal morbidity and mortality; b) the incomplete emotional, intellectual and cognitive development of children, and their reduced ability to learn; and c) the lowered productivity of adults in the labor force, were not fully appreciated. Besides, the fact that the burden of malnutrition on the health care system leads to a drain on the economy has often been missed. Recent research results, showing that even the so-called ‘moderate’ malnutrition has significant adverse effects on morbidity and mortality need to be more widely known. Thus, while malnutrition is acknowledged to be widespread, its significance as a constraint to national development has been thus far underestimated. Unless one focuses on the development impact of malnutrition, particularly on the lower educability and productivity, the opportunity costs of not investing in better nutrition are not obvious.
Weak institutional base for nutrition. Several institutes, councils and committees in Bangladesh have been engaged in various nutrition-related activities. Examples of these institutions are: the Bangladesh National Nutrition Council, the Institute of Public Health Nutrition, the Institute of Nutrition and Food Sciences and the Institute of Food Sciences and Technology. But, for the most part, the generally poor commitment to nutrition at higher levels has resulted in scant resources and a lack of adequate staff for these institutions and limited exposure to global nutrition experiences has led to a less than full development of local expertise; the roles and mandates of these institutions have been overlapping with each other and unclear; none of them has been given sufficient authority or responsibility for program implementation; they have not had much impact in increasing or rationalizing investments to combat malnutrition, or in making current nutrition-related programs more effective. Until recently therefore, insufficient advocacy has led to low awareness and commitment in turn resulting in inadequate resources to build a constituency for nutrition in Bangladesh.

The nutrition investment gap. Much as the causation or consequences of malnutrition have been ill-understood, there has been a lack of awareness about what could be done to prevent or reduce malnutrition. A general sense of resignation has prevailed that until poverty is eradicated malnutrition is bound to persist. Until recently, it was not recognized that investment in well-conceived nutrition programs can have high returns and such recognition is still not universal. Besides the overall low priority accorded to nutrition, there is a significant investment gap within nutrition. Investment has focused on achieving self-sufficiency in the basic staple foods (rice and, more recently, wheat); and on food aid to "economically vulnerable groups" of population. While the value of such investments in agriculture and food programs and health services and the continued need to strengthen and expand them are unquestionable, there has been practically no investment in programs to improve caring practices at the household level. One of the central issues sought to be addressed by this project is this investment gap in the areas of caring practices. Caring practices would be improved through: education and mobilization of communities to understand the causes and consequences of malnutrition and to enable them to combat it; and the counseling of individual families so that the women eat better and young children are fed better.

Inequitable and inefficient targeting of food programs. Since the late 1980s, much of the monies spent on food aid, food subsidies, and food-for-work schemes in Bangladesh have been inequitably targeted. 70-95% of the US$60 million spent annually on the recently withdrawn rural ration scheme, were estimated to have been lost by system leakage. The remaining food programs operate at an estimated annual cost of about US$ 250 million, not including the newly announced Food for Education scheme. Considerable resources are also being spent on food subsidies for civil servants, the police, and the military - population groups which are not necessarily the most food-insecure. Even where food schemes are aimed at the disadvantaged, it has been impossible to target food aid at the malnourished, because there is no institutionalized system to monitor the weight and growth of the nutritionally vulnerable. Targeting has therefore often been based on estimates of income or landlessness, characteristics that do not fully cover nutritional vulnerability.

Aside from inequities in targeting and related leakages, other factors in the design of many food programs have affected their effectiveness in improving the nutrition of vulnerable groups. For example, some programs benefit primarily men rather than the nutritionally more vulnerable women and young children in their households. Most food-for-work schemes are related to the construction of roads, culverts and bridges, on which work can only be undertaken in the dry season; yet the seasonal peaks of malnutrition are mainly in the wet season when crops have not yet been harvested, diarrhea and malaria peak, and energy expenditures on cultivation are greatest. A recent study by the International

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Food Policy Research Institute found the Vulnerable Group Development scheme to have the least amount of leakage; however, even among the VGD beneficiary households, caloric adequacy among females (especially pregnant and lactating women) was much lower than that among men\(^7\). The study also concluded that there was no significant difference in the nutritional status of pre-school children between program and control groups.

1.31 **Malnutrition is a wider problem than starvation.** Equating nutrition with food, and malnutrition with poverty is one of the commonest flaws in the understanding of nutrition issues. While poverty leads to food insecurity resulting in starvation at the extreme, malnutrition affects people of almost all income groups in Bangladesh (Tables 1.1 and 1.2). Being less dramatic than starvation, malnutrition attracts less attention though it is a more pervasive problem. Food programs such as Vulnerable Group Development are essential to address both the problems among the abjectly poor. But they need to be complemented with community-based efforts at changing household behaviors, at the heart of the problem of malnutrition among those who are relatively more food-secure as well. Such community-based efforts would not deliver food aid in the sense of emergency relief for a limited group of people in a disaster situation; but they would rather seek to address an endemic problem that prevails even during "normal" times. Evidently Bangladesh needs both types of interventions - economically targeted food aid to those in the extreme end of the poverty spectrum and nutritionally targeted activities aimed at household behaviors; undoubtedly there would be population groups which would qualify for both types of targeting. The two sets of interventions should work in close complementarity in order to address the problem of malnutrition comprehensively.

1.32 **Weak inter-sectoral focus on nutrition.** The different resources available in existing programs for health, agricultural extension, soft credit, employment and income generation have not been coordinated and focussed on nutrition, for at least four reasons. First, there has been no mechanism to identify who, at the village level, is malnourished. Second, communities and local governments have not perceived the seriousness of the malnutrition problem and have not been empowered to seek help from the appropriate higher agencies. Third, improved nutrition has seldom been a priority at any level: nutrition has been everybody's business, but nobody's responsibility. Fourth, there has been no institutional mechanism at the local level to bring agencies together, and no signals have been coming from higher up in the system to encourage these agencies to work inter-sectorally at the field level.

1.33 **Government commitment.** Notwithstanding the issues raised in paras 1.24 to 1.32, more recently there has been a recognition that investments in nutrition not only benefit the national economic development but are an essential pre-requisite for it. If the majority of Bangladeshi people are undernourished and ill, the resultant loss of productivity can frustrate the investments in infrastructure or industry aimed at building the economy. Recognizing the value of investing in human capital and in order to mitigate the suffering caused by malnutrition, GOB has included nutritional goals as part of its Fourth Five Year Plan, ratified the Convention on the Rights of the Child and reaffirmed its commitment to these goals at the International Conference on Nutrition in Rome (1992). The close and continued involvement of the Planning Commission and the Prime Minister's Office in the development of a national nutrition program demonstrates GOB's appreciation of the macro-economic and inter-sectoral framework within which nutrition must be dealt with. GOB has included the project in its Three Year Rolling Investment Program and intends to make adequate budgetary provisions for the project in the Annual Development Plan from FY96 onwards. GOB has formally sought IDA's assistance for its nutrition efforts.

\(^7\) International Food Policy Research Institute (IFPRI), 1993: Food Consumption and Nutritional Effects of Targeted Food Interventions in Bangladesh.
D. Role of international agencies other than IDA

1.34 In the past, there has been a remarkable similarity between the investments in nutrition by international development partners and those by GOB, in that they display a comparable lack of investment in efforts at changing household behaviors related to caring practices. A possible reason is that donors have been reluctant to put money into areas where they did not see strong GOB commitment. Thus, the foreign aid relating to nutrition have generally been on food, family planning and health, with the exception of some support to micronutrient programs. One of the goals of foreign assistance has been to rationalize total development investment in the country through the policy dialogue that ensues from such assistance; and such policy dialogue in respect of nutrition has been developing in the past two years between GOB and its development partners, primarily UNICEF and IDA in the context of this project. UNICEF has been providing considerable financial and technical support to the salt iodization program in Bangladesh. The United Nations Development Program has been coordinating the efforts of UN agencies involved in Nutrition, which were primarily directed at food aid, managed by the World Food Program. The World Health Organization (WHO) and FAO have made limited attempts to develop some programs. The United States Agency for International Development (USAID) has supported, through Hellen Keller International, some nutritional surveillance activities.

1.35 GOB's participation in the International Conference on Nutrition in Rome (1992) and the subsequent preparation of this project have been accompanied by an increased awareness of and interest in nutrition issues on the part of GOB and some donors: Asian Development Bank, FAO, Germany - both Kreditanstalt fur Wiederaufbau (KfW) and Deutsche Gessellschaft fur Technische Zusammenarbeit (GTZ) - United Nations Development Program, United Nations Population Fund and WHO.

E. Rationale for IDA's involvement

1.36 Relevance to Country Assistance Strategy. The project is fully in line with IDA's Country Assistance Strategy for Bangladesh	extsuperscript{8}, discussed by the Executive Directors on February 17, 1994, in which human resources development aspects are seen as crucial to achieving the overarching national goal of poverty alleviation (para 34 of the Strategy paper). Improving nutritional status of women and children is a critical objective of national development, without which the investments made by GOB, IDA and other development partners, in health, family planning, education and women's development are unlikely to yield their full benefits. The Strategy (para 35) specifically recognizes the IDA assistance to GOB in preparing this community-based project involving the participation of NGOs.

1.37 Though substantial investments are being made on food and health programs, there is no other source of significant financing currently available to Bangladesh for a community-based nutrition program and without IDA support to this project, malnutrition is not likely to be addressed comprehensively in the foreseeable future. IDA has been actively involved in the health and population sector of Bangladesh and its entry into nutrition would produce beneficial synergies. Through its proven ability to engage GOB in a policy dialogue in the sector, IDA is in a unique position to assist it in nutrition. IDA's extensive experience with nutrition projects worldwide and its familiarity with the malnutrition issues specific to Bangladesh (thanks to a sector study in 1985 and to subsequent project preparation activities) enable IDA to provide the necessary leadership for a concerted action against malnutrition. The implementation experience with IDA-supported population and health projects has been positive and there is a good likelihood that a nutrition project under MOHFW would prove successful. The project takes account of the experience under the Fourth Population and Health Project.
components of which are directly or indirectly oriented to nutrition, and seeks to build linkages with the existing health and family planning programs in the country.

1.38 The experience gained in BRAC’s pilot project. Fashioned after the Bank-financed Tamil Nadu Integrated Nutrition Project, BRAC has been implementing for over two years, a Community Based Pilot Nutrition Initiative in one Thana, i.e., Muktagacha. Covering an estimated population of 156,000 including 5,000 under-two children, 20,000 women of child-bearing age and 5,000 adolescent girls, that project’s main strategy is Growth Monitoring and Promotion (GMP) with intensive IEC efforts by a dedicated grass-roots level worker. This worker is a married woman with a minimum of eight years of schooling and permanently residing in the village with an inclination to work for the community. One such worker per village, selected through community mobilization efforts, undertakes GMP and tasks such as registering pregnancies, births and deaths, imparting health and nutrition education, conducting women’s group meetings and making daily household visits to look into the health and nutritional needs of the community, especially the vulnerable group, i.e., women and children. Initial evaluation reports of the BRAC’s project have shown that such community-based strategy is feasible and that tangible improvements have been made in the nutritional status of children and women included in the program (80% of under-two children where covered by GMP and 73% of the children graduating from the program showed weight gain); most significantly BRAC’s experience has shown that improved caring practices have resulted from the community-based interventions. Important lessons learnt from BRAC’s pilot activities have been incorporated in this Project’s design (Annex 1) and operational lessons emerging from the Project itself will also be taken account of as it is implemented in a phased manner (para 2.37).

1.39 Lessons from Bank’s Involvement in Nutrition in Other Countries. Although this would be the Bank’s first nutrition project in Bangladesh, the Bank’s experience in several other countries, e.g., India (Tamil Nadu), Indonesia, Guinea-Bissau and Colombia as gleaned from their Project Completion Reports and OED evaluations, have yielded valuable lessons for the design of the Bangladesh project. Some of the most important of these lessons are: the feasibility of community-based interventions like growth monitoring, targeted food supplementation and nutrition IEC, the need for a strong political commitment and the involvement of GOB in project preparation, the inter-sectoral nature of the problem which calls for an inter-sectoral solution, the essential characteristics of the field workers, their minimum required numerical strength and the necessity for their good training and very close supervision of the labor-intensive tasks of community-based nutrition interventions. Based on these lessons, the project proposes to lay the greatest emphasis on such community-based interventions, suggests careful targeting based on field tests, will test two ratios of community Nutrition Promoters (CNP) to the population they serve - one per 1,000 and one per 1,500 population - and provides for two supervisory personnel for every 20 CNPs, includes field-based training of volunteers rather than an institution-based approach, includes a strong IEC component, stresses monitoring and evaluation, includes a mid-term review to allow mid-course corrections to operational strategies and contemplates a specific inter-sectoral program development with the innovative idea of setting up an Inter-sectoral Nutrition Fund (ISNF) to encourage agencies other than MOHFW to undertake nutritionally oriented programs within their respective sectors. Annex 1 presents the lessons from earlier Bank projects on nutrition, which have been incorporated into this project.

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Growth Monitoring and Promotion (GMP) has evolved into one of the standard approaches in malnutrition control. This approach involves regular weighing of children, charting the weights against the child’s age, on a standard growth chart to monitor his/her weight gains compared with established norms and taking appropriate action if the growth falters. The action to be taken would include nutrition counseling of the mother (or alternative care-taker as the case may be) and could include supplementary feeding of the child.
II. THE PROJECT

A. Introduction

2.1 This project is the first attempt by GOB to develop a comprehensive and coordinated program to reduce malnutrition among its people. In the past, there have been smaller, isolated programs or activities directed at specific micronutrient problems, some not-so-small programs aiming to improve the food availability for the under-privileged sections of the society, either directly or by increasing their incomes and the broad array of activities constituting the country’s health program. All these contribute to better nutrition but are not nearly enough by themselves, as evidenced by the serious state of malnutrition obtaining currently in Bangladesh (para 1.2 to 1.7). GOB has recognized that investment in the nutrition of its people is an important contribution to the human resources capital of the country and is committed to making this investment adequate and appropriate and to optimize its returns. This project is the beginning of a long-term effort eventually aiming to benefit the whole country, realizing the aspirations of GOB as expressed at the International Conference on Nutrition held in Rome in December, 1992 and at the World Summit for Children of 1990.

B. The Conceptual Basis

2.2 Malnutrition is a significant cause of ill-health, faltering physical growth, reduced mental abilities, loss of productivity and death. Therefore it is a serious impediment to national socioeconomic development as well as a major cause of pain and suffering. The attainment of good nutritional status requires that three essential sets of conditions be met: (i) conditions which ensure the availability of adequate and appropriate food at the household level; (ii) conditions that lead to good health, particularly freedom from childhood infectious diseases such as measles, respiratory infections and diarrhoea and intestinal parasitic infestations; and (iii) appropriate behaviors, collectively known as caring practices in terms of eating, feeding, hygiene and health-related behaviors, and psycho-social aspects at the household level, especially as applied to women and young children. All these determinants of nutritional status are closely related to socioeconomic and cultural factors which play a crucial role in whether or not a given people are well-nourished.

2.3 While poverty is a principal cause of household food insecurity and therefore an underlying cause of under-nutrition, studies in Bangladesh show that lack of good nutrition is not exclusively prevalent in the poor households (para 1.10). Increasing household incomes is likely to increase food availability for the family, though not necessarily concomitantly; moreover, the appropriateness of the food choice and intra-household food distribution particularly as relevant to women and young children would not be addressed by increasing incomes alone. Though successful poverty alleviation is perhaps the long-term solution to many of the problems of poor families (including malnutrition), it would take considerable time and resources to achieve. A study\(^{10}\) on poverty and basic needs had estimated that it would take 79 years to eliminate the average energy deficit in the lowest decile of the Bangladeshi population, if the country’s per capita income grew at the rate of 1.5% and the food prices remained unchanged. On the other hand, effective nutrition projects have demonstrated that, in the shorter-term, significant improvements could be made in nutritional status, without waiting for poverty alleviation efforts to bear fruit. In fact, such nutritional status improvements would contribute considerably to poverty alleviation goals by enhancing the learning capacity and productivity of the population. Thus the concept behind this project is to view nutritional improvement as a means of poverty alleviation rather than as its result.

2.4 Ensuring good nutrition is generally a multi-sectoral responsibility due to the multiplicity of its determinants. As an outcome it falls within the purview of the health sector, but clearly cannot be dealt with by a ministry of health alone in any country. Agriculture, Food, Education, Social Welfare, Women’s Affairs, Environment (water supply and sanitation, in particular) are just some of the other key sectors involved. Depending on how these sectoral responsibilities are configured within a given country, even a greater number of ministries could be contributing directly or indirectly to the nutritional status of its people. This multi-sectoral nature of nutrition frequently leads to a lack of clarity on who is responsible within a government to ensure good nutrition. Generally therefore, the various efforts by the sectors concerned are largely uncoordinated. Thus any comprehensive nutrition program ought to make a conscious effort to bring together the activities of all the relevant sectors. This project incorporates this concept through its inter-sectoral component.

2.5 Of the three groups of conditions which determine good nutrition, the third group, which encompasses caring practices, deserves a special elaboration, firstly because it is frequently neglected and secondly because it is here that tangible and sustainable impact can be made without major improvements in socio-economic situation or in the effectiveness of the health care system. The action required in this area is less about service delivery but more about behavioral change; it is not about creating dependence but about empowering people to help themselves. This fact makes it more difficult for a system to handle caring practices from a traditional service delivery approach - unlike food security and health which are usually addressed through respective services. But it is this same fact that makes its benefits more lasting, once the desirable behavioral changes have been brought about. For such changes to occur the project proposes to begin by understanding and reinforcing the current coping strategies which the people have successfully evolved over time in the face of adverse conditions; effective community mobilization would be the key to the success of this strategy. Encouraged by a few successes elsewhere, including in Bank-financed projects, the project proposes to focus primarily on this area of caring practices, while simultaneously facilitating and strengthening the efforts already being made to address the other two areas, namely, food security and health conditions. Section E describes the project components.

C. Objectives and Targets

2.6 The project seeks to initiate a national program of nutrition. The ultimate goal of the national program would be to reduce malnutrition in Bangladesh to the extent that it ceases to be a public health problem and to improve the nutritional status of its population, particularly children under five years, women and adolescent girls. This long-term goal is sought to be reached through the following three intermediate objectives:

(a) to improve the capacity of national level nutrition institutions in Bangladesh in the areas of advocacy, analysis of causation and consequences of malnutrition, policy advice, operational research, and operational support of national programs;

(b) to improve the capacity of communities, households and individuals in the project area to understand their nutritional problems in practical terms and take appropriate action to address them at their own level; and

(c) to improve the nutritional status of the population in the project area, with particular emphasis on pregnant and lactating women and on children.

2.7 The nutritional impact goal would be measured mainly on the basis of the following quantitative targets to be reached after five years of Community-Based Nutrition Component (CBNC), the geographical coverage of which would be phased in (thanas to be selected as per agreed criteria, set out in annex 2):
(a) reduction of severe malnutrition by 40% and moderate malnutrition by 25% as measured by weight-for-age, among under-two children;

(b) restoration of rate of growth, as measured by monthly weight-gain, among at least 50% of under-two children included in GMP;

(c) reduction of disorders resulting from vitamin A and iodine deficiency and their consequences by half; and

(d) reduction of iron-deficiency anaemia among children and pregnant and lactating women by a third.

For those thanas where malnourished pregnant women will also be included in the supplementary feeding program, the following additional targets will be set:

(e) reduction of low birth-weight occurrence by half of the baseline level;

(f) improvement in maternal weight gain by at least 50% in at least 50% of the pregnant women;

2.8 More detailed quantitative targets based on appropriate indicators to measure inputs, process, outputs and outcomes are being developed (para 2.23). While outcome and impact evaluation would be carried out at the end of the project, progress during the project would be monitored through a nutrition surveillance system. In addition, process indicators would be used, some of which would be:

(a) Registration and nutritional screening of 50% of pregnant women by the end of the first trimester;

(b) registration of 80% of 0-24 month children; and

(c) 80% of registered children receive at least 18 out of 24 monthly weighings, charted accurately on their weight charts.

2.9 In addition to the direct nutritional impact targets stated in para 2.7, the project would contribute to the national goals of reducing infant mortality from 110 to 55 per 1,000 live births and reducing maternal mortality from 600 to 300 per 100,000 births by the year 2000.

D. Strategies

2.10 The main strategies which the project proposes to adopt are based on considerations of cost-effectiveness and long-term sustainability of project benefits. The project takes a holistic view of malnutrition causality and seeks to set in place a comprehensive national nutrition program that covers the three groups of factors, namely, food, health and caring practices. A careful look at the programs already in operation and cost-effectiveness considerations dictate that existing suboptimal investments on a given set of activities must first be optimized and rationalized before additional resources are spent on the same activities; in other words new investments must be made only on activities which are critical to the project goals and show a clear investment gap. This analysis has led to the decision that the project funds would primarily be spent on the area of caring practices while simultaneous support is given to the optimization of existing investments in food and health through inter-sectoral action. Thus, the project’s focus on the community-based approach directed at caring practices is in fact part of a well-rounded strategy.
2.11 *Cost-effectiveness considerations* have played an important role in the choice of the target population group for the community-based nutrition component: GMP would be an expensive approach if applied to all the children and therefore the target group for GMP has been chosen carefully, namely children under two years of age, since combating malnutrition in these groups is most likely to yield the maximum lasting benefits (which would eventually be enjoyed by a larger part of the population as these children grow) at reasonable costs. As for the pregnant and lactating women, they are included in supplementary feeding in similar projects elsewhere, and the nutritional benefits of such approach have been shown but the literature is silent on the cost-effectiveness of such an approach. Therefore, supplementary feeding of pregnant and lactating women will be undertaken on an experimental basis for the first two years, with adequate budgetary provision to expand into all thanas subject to an evaluation of the experience in these two years; pregnant and lactating women will of course be included in all thanas for IEC activities. An alternative, even more selective, targeting strategy will be tested to try and reduce costs further; this strategy would select newly married couples and their first child until its age of two, with other severely malnourished children included through periodic screening. Being an innovative targeting strategy not evaluated elsewhere it will be tried out in just one thana during this project.

2.12 The rationale for choosing targeted GMP as the central strategy for CBNC is that it is the best known technique, which could be used effectively to demonstrate to the mothers (or alternative caretakers in the family, as the case may be) the effect of appropriate feeding practices on childhood growth. While growth monitoring alone is of doubtful value in improving nutritional status, combined with the carefully targeted, and supervised supplementary feeding with a strong element of counseling [the P (promotion) in GMP], it has been proven to be of significant nutritional impact. Moreover, the promotion part could serve as the locus for community mobilization leading to community awareness and action as well as for inter-sectoral synergies at the grass-root level. In the long run, such community movement could become a vehicle for other social sector activities: the women who meet everyday at the nutrition center would have an opportunity to discuss other issues germane to their own needs.

2.13 It is the *sustainability consideration* that led to the basic approach of this project, namely helping people help themselves, through behavioral change rather than a long-term dependence on food aid. This theme is at the heart of CBNC, which relies totally on community action and changes in household behavior brought about through interpersonal IEC to sustain nutritional benefits. It is also the basis of the component on institution building, which seeks to develop national capacity to address malnutrition so as to reduce dependence on foreign technical assistance. The project also seeks to heighten general awareness of the problem and its solutions at political, policy and decision levels, in order to ensure continued GOB commitment to the program, which is clearly a crucial element of sustainability.

2.14 The *project strategies* which have been formulated based on the above reasoning may be summarized as follows:

(a) Supporting the formulation of a clear national nutrition program backed by strong political commitment to implementing it;

(b) Strengthening the national level institutional capacity to direct and coordinate nutrition activities effectively and to develop effective monitoring mechanisms;

(c) Facilitating existing and innovative efforts by various sectors to ensure adequate household food security, access to quality health care services, sanitation and safe water supply;
(d) Effecting positive changes in caring practices related to eating, feeding and personal health at the household level, focusing on pregnant and lactating women and children under two years of age;

(e) Promoting people’s involvement in dealing with their problems of malnutrition, to ensure sustainability; and

(f) Strengthening existing nutrition activities, particularly oriented towards the control of micronutrient deficiencies.

E. Project Description

2.15 The project would have three components.

(a) National Level Nutrition Activities (US$19.0 million) with four sub-components:

(i) Program Development and Institution Building (US$2.7 million)
(ii) IEC Development (US$4.4 million)
(iii) Strengthening Existing Nutrition Activities. (US$6.4 million)
(iv) Project Management, Monitoring and Evaluation. (US$5.5 million)

(b) Community-Based Nutrition Component (CBNC) (US$32.6 million).

(c) Inter-Sectoral Nutrition Program Development (US$7.0 million).

National Level Nutrition Activities (US$19.0 million)

2.16 Program Development and Institution Building. The component will support the development of an effective national nutrition program to translate the aspirations expressed at the International Conference on Nutrition (Rome, 1992) and the World Summit for Children (1990), undertake advocacy at the highest policy levels, maintain high political commitment and coordinate the development of national expertise to tackle malnutrition. The roles of institutions already working on different aspects of nutrition will be reviewed, streamlined and coordinated in the overall national context, with a view to ensuring complementarity among their activities. The review will also assess specific areas which need strengthening and recommend appropriate resources to effect the required strengthening. This will also include the role of NGOs and their future place in the national nutrition program beyond this project. The component will also provide funds for policy research and operations research relevant to nutrition. Training and fellowships will be arranged for selected staff so as to update their knowledge and skills. Annex 3 contains a more detailed description of this component. Agreements were reached during negotiations with GOB that by December 31, 1996, a review of the major national level institutions active in nutrition or related fields in the country will be carried out acceptable to IDA, that the results of the review will be furnished to IDA for comments and that the recommendations of the review, taking account of IDA’s comments, will be carried out.

2.17 Information, Education and Communication (IEC) Development. IEC is the central philosophy of CBNC. Most of IEC delivery under the project will be done through CBNC. However, since the development of IEC messages and materials is a substantial task unto itself and since some advocacy and mass media campaigns would be carried out separately from CBNC, these activities have been grouped as a distinct component.
2.18 The development of appropriate nutrition IEC messages and material would be coordinated at the national level by a separate unit which would be established as part of the Project Office under MOHFW. This unit will be headed by a Deputy Director supported by a few technical staff. The terms of reference (TOR) of the IEC unit will be subject to review by IDA, as part of the TOR for the whole Project Office. Audience research to understand fully the cultural and behavioral aspects relevant to nutrition, and to assess IEC needs is the first step and such research has already been initiated. Message development and the production of IEC materials would follow the results of the formative research as part of the project. These activities would be contracted out to private firms who have proven expertise in IEC message development. A more detailed description of this component is provided in annex 4.

2.19 Strengthening Existing Nutrition Activities. This component seeks to improve the coverage and effectiveness of existing programs which directly address different types of malnutrition: i.e., Campaign for the Protection and Promotion of Breast-Feeding, Vitamin A distribution, iron and folate tablet provision to pregnant women and control of iodine deficiency disorders. Since these programs are in place in most parts of the country, this component will not be limited to the sites chosen for CBNC; however, particular attention would be paid to CBNC sites to ensure the attainment of measurable nutritional impact (targets stipulated in para 2.7). Besides direct interventions such as Vitamin A distribution, this component will work closely with homestead gardening programs and with the IEC component to ensure that appropriate messages are included on foods rich in micronutrients.

2.20 Specifically, the component will finance the following activities: strengthening the program on control of anemia, supporting breast-feeding, including the "Baby-Friendly Hospital Initiative"; improving operational efficiency of Vitamin A (it has been estimated that there are no resource gaps for the commodities themselves); establishing mechanisms to test the quality of iodized salt produced in the country and to make sure that the legal requirements are fulfilled (preventing the marketing of non-iodized salt); and promoting the consumption of iodized salt and foods rich in vitamins and minerals through specific IEC activities. Annex 5 provides a more detailed description of this component.

2.21 Project Management, Monitoring and Evaluation. Effective monitoring is especially significant in the context of the proposed project, for two reasons: (i) the core program approach is new for Bangladesh and (ii) the implementation responsibility for the project activities (especially the inter-sectoral ones) is spread out between various ministries/departments and some NGOs. Therefore a careful and tight system of monitoring is being included. Annex 6 gives a more detailed description of the monitoring and evaluation system planned under the project.

2.22 Baseline surveys will be conducted in each of the CBNC thanas and in comparable control thanas as the first field activities so as to obtain a pre-project picture of nutritional status, as relevant to the project objectives. The unit of baseline surveys would be the thana, though information would also be made available on union and village levels from service statistics of the project. The baseline surveys are an important step and would involve all parties concerned (not least of all, the community) at various levels. Baseline data are also being gathered on behaviors as part of IEC formative research. The planned review of national level agencies and institutions active in nutrition in Bangladesh should provide the baseline information necessary for the evaluation of the component on program development and institution building. To reduce the noise from secular trends while evaluating achievements over time, the surveys will include control thanas; the nutrition surveillance system set up by Hellen Keller International will also be established in a sample of the project thanas to provide comparative data for intervention and control areas. Surveys in the six first-year thanas and two control thanas have already been initiated with UNICEF assistance.

2.23 Continuous monitoring of the project as well as a mid-term evaluation at the end of three years will be based on a predetermined set of indicators which measure inputs and process as well as
outputs and outcomes. Long-term impact (on productivity, learning capacity and economic development) will not be feasible to measure within the project's life; but outcomes in terms of nutritional improvement will be measured. Annex 6 includes an initial list of suggested indicators, in addition to the key indicators listed in para 2.7 and 2.8. Further expansion of the project beyond the first three years, will take account of results from the mid-term evaluation. In addition, annual reviews have been provided for, including semi-annual IDA-UNICEF joint supervision missions. The annual review at the end of two years will be of special importance; the experience from the first six CBNC thanas will be carefully evaluated at that time in order to learn lessons for the subsequent expansion as per the planned phasing of CBNC.

2.24 The responsibility for monitoring and evaluation would be vested in the respective implementing ministries/departments/NGOs for individual project components. The overall monitoring and evaluation will be carried out by the Project Office with the technical assistance of a Management and Technical Support Team. Agreements were reached during Negotiations with GOB that baseline surveys will be carried out in each project thana before CBNC activities are started, that by June 30, 1998, a mid-term evaluation will be conducted by independent professional experts in accordance with TOR satisfactory to IDA; that a review system will be established and carried out, providing progress reports to IDA at semi-annual supervision missions.

Community-Based Nutrition Component (CBNC) (US$32.6 million)

2.25 This is the core component of the project and is described in fuller detail in annex 7. The first activity under this component will be community mobilization, which would involve: the formation of women’s groups (and/or interacting with any existing ones) and building a rapport with them; learning the specific local context as relevant to the proposed project activities; identifying a suitable woman meeting agreed selection criteria and acceptable to the community for selection as CNP; determining the appropriate mechanism for the procurement of raw materials, preparation, packaging and delivery of supplementary food; agreeing on a suitable location for the Community Nutrition Center (CNC) which will be the center of operations (see para 2.32). The central activity of this component is GMP with a strong element of IEC. This involves regular monthly weighing of children to monitor their growth and using this process to counsel mothers by showing them when there is a problem and what to do about it. It also entails very selective and targeted supplementary feeding of very vulnerable children and women, who meet nutritional criteria. The supplementary feeding is primarily intended as a demonstrative tool to provide counseling to the mothers, and secondarily to help the severely malnourished children recover. It is not intended to replace the normal food which the children get at home. The food will be a snack which is easy to prepare from a pre-cooked food base. It will not be distributed on a take-home basis but will be fed to the malnourished women and children at feeding centers at a time of the day which is different from the usual meal time; this approach of on-site feeding provides the opportunity for counseling and ensures that the food is actually consumed by the intended beneficiaries. The CNC itself may eventually become the community forum where the women meet regularly and build a community action program, not just for nutrition but for a broader range of welfare efforts.

2.26 Minimizing leakage of food. Though supplementary feeding is being proposed primarily as an educational tool and the project is neither designed as nor intended to become a feeding program, per se, since considerable amounts of food supplements are involved, careful thought was given to minimizing leakage to unintended persons. The following specific safeguards have been built into the Project design in this regard: on-site supervised feeding strategy; the special composition of the food supplement, which renders it less amenable to sale in the open market; close supervision of the project activities by NGO(s); and decentralized procurement of food supplements, which brings the process closer to the community thus making it more transparent.
2.27 The project will try two different targeting approaches for CBNC:

(a) *the general targeting strategy*: children under two years will come under Growth Monitoring, severely malnourished and growth faltering children under two years (meeting criteria based on weight-for-age charts) and malnourished pregnant mothers (meeting criteria based on mid-arm circumference) would be brought into the supplementary feeding program. Selected children will be fed *ad libitum*, with an estimated average portion of 300 Kcal/day, six days a week for a period of 4 months and mothers, a 600 Kcal portion everyday for 4 months during pregnancy and 6 months into lactation. The supplementary feeding of pregnant and lactating women will be undertaken in 3 of the 6 first-year thanas and the experience in those thanas compared with the other two at the end of two years before expanding to all the project thanas. Besides active IEC and nutrition demonstrations, an effort will be made to provide access to adequate primary health care (through existing health/family planning infrastructure) with an emphasis on Maternal and child health and a coordinated package of inter-sectoral services (such as homestead gardening, female education, income generation activities, etc.) relevant to nutrition with special attention to the households with people belonging to the target group; and

(b) *an experimental targeting strategy* (to be tested as a pilot in one thana): all newly married couples in the covered area will be provided a special package of health and welfare services (the services under GOB's health program directed at the general population are not at adequate levels of quality, access and completeness); IEC, with a particularly strong nutritional counseling focusing on the period from pregnancy to two years after child-birth, preferential treatment at health/family planning facilities with an emphasis on maternal and child health care and particular attention to childhood infections, inclusion in homestead gardening program, special provision to their household in terms of access to safe water supply and sanitary facilities, etc. The couples' first pregnancy will get extra attention, including supplementary feeding of the mother and/or the child if they meet nutritional criteria, full pre-, intra- and post-natal care, breast-feeding promotion, complete immunization (for the mother and the child). The couples will leave the program when the first child is two years old (at that time, if the child is in the supplementary feeding program, the child would stay in and complete it). This strategy is expected to get the attention of the young women and men when they are most receptive to counseling and it is hoped that eating/feeding behaviors inculcated in them would be sustained. An added advantage of this targeting strategy is that it would reduce the number of beneficiaries which one community worker needs to take care of. Moreover, the fact that the couple is eligible for the package only until the first child is two years old might serve as an incentive to postpone the first pregnancy, a useful contribution to the national goal of fertility reduction. Lastly, in the cultural context of Bangladesh, the newly-married couples are seen as beginning their lives and therefore looked upon favorably; this makes such a targeting strategy locally acceptable.

2.28 If done effectively, CBNC will change the household feeding and eating behaviors in a positive way. When the load of severe malnutrition is reduced sufficiently in a given site and when adequate behavioral change has been brought about, this component could be phased out gradually. It is difficult to predict precisely the time required to reach that stage but a rough estimate would be 10-15 years of operations. Following such a period, the communities themselves could then carry on the essential aspects of GMP, without a need for project inputs; regular weighings of children could continue by community volunteers and when malnourished children are identified, they could be referred to the health services (which would not be overburdened by such cases if the level of malnutrition is not as high as it currently is). Such community take-over of nutrition activities has occurred in Indonesia. The project would involve the local government representatives (Union Parishad, Thana Development Committee, etc.) to ensure their participation and ownership of the project activities. The high degree
of NGO participation in project activities (see para 4.4) would further enhance the possibility of community ownership.

2.29 Growth Monitoring is the only reliable way to identify children who are severely malnourished or falling behind in growth. When combined with the task of growth promotion, i.e., supervising the supplementary feeding and carrying out subsequent counseling, this is a labor-intensive task. From experience in similar projects elsewhere, e.g., Tamil Nadu, India, it is known that one community-level worker per 1,000 population would need to work for about 4 hours a day, for six days a week. In order to assess the worker population ratio required in the Bangladesh context, the project will try two ratios: 1 per 1,000 and 1 per 1,500 in the first two years. The final ratio to be adopted will depend on a review after two years. Such a worker has to be from within the community and well-accepted by the people of the community. In the cultural context of Bangladesh, such a worker has to be a woman with healthy and well-nourished children of her own, so that she could serve as a model mother. The workers also need to have a minimum education of 8th grade. In this project, such workers are proposed to be called Community Nutrition Promoters (CNP). Their immediate supervision will be provided by Community Nutrition Organizers (CNO), who will be stationed at the Union level in the ratio of 1 per 10 CNPs and further up the system, the project would have a Thana Nutrition Coordinator at the Thanas level to oversee all CBNC activities in the given Thana. The vital need for adequate training of these workers and their intensive supervision for the successful implementation of this project has been recognized and detailed plans for such training and supervision have been prepared as part of the Project Implementation Volume. Annex 8 describes the training needs of project personnel, including these workers.

2.30 The possibility of using existing workers and supervisory cadres for the task of GMP under the project was seriously considered. Given the current workload of existing grass-root level health and family planning workers, it is neither feasible nor desirable to add to their responsibilities further. Moreover, they are not available at the village level. The same applies to personnel of other sectors, such as teachers and agricultural extension workers. However, at the Thana level, it has been decided by MOHFW that the Assistant Thana Family Planning Officer would serve as the Thana Nutrition Coordinator, avoiding the creation of a new post. As for CNPs and CNOs, the project would select women meeting agreed criteria (annex 9) from existing community development volunteers, for instance, the members of the Village Defence Party (VDP). In case suitable candidates are not available from VDP in a given village or union, the selection would be made from the rest of the community and the selected person(s) could then join the VDP. Since the activities of CNP involve a range of welfare services, a strong cooperation between CNPs and the other sectoral personnel at the field level would be ensured through the involvement of the Union Parishad.

2.31 CNPs and CNOs would need to be suitably compensated for the additional community service they perform under the project. But they would not form a new cadre of GOB workers; rather they are members of the community who would be contracted to perform specific community service work. The project would finance the costs of honoraria for CNPs and CNOs, which have been agreed at Tk. 500 and Tk. 1,000 each per month respectively.

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11 The Village Defence Party (VDP), is a volunteer group in rural Bangladesh with a registered membership of about five million people. The group is financed and organized under the Ministry of Home Affairs and given training in life-skills and vocational skills - but the majority of the registered volunteers have not yet been trained. It was originally created as a community movement to protect villages. It has since become a development volunteer organization and people wishing to contribute to community development activities could register with it. The VDPs do not have a fixed job description but are called on to give some of their time to community work from time to time as necessary. Though the organization has retained its name, "defence party", it is neither militant nor political.
2.32 The project would need, in each of the village/community where CBNC would operate the CNC, 500-1000 square feet of secure accommodation where project materials including food stocks could be stored, simple food preparation facilities exist and about 40-50 women and their children could be accommodated during feeding and IEC sessions. The first option to arrange this would be to get the local communities to contribute such a space for the use of the project. Judging from the experience of conducting satellite clinics for family planning/Maternal and child health services, such an option appears to be feasible. Failing this, possibilities of using existing public buildings such as schools will be explored. If this also proves to be infeasible, a suitable accommodation would be rented, in which case, the project would finance the cost of such rental. In addition, incidental expenses in running the CNC, such as cleaning supplies, will also be financed from the project up to 300 taka per month per CNC.

Inter-Sectoral Nutrition Program Development (US$7.0 million)

2.33 The main purpose of this component would be to respond to nutritional program needs through efforts beyond the scope of CBNC, by supporting innovative actions with a potential for positive nutrition impact, carried out by sectors other than health/family planning. It would enhance the nutrition benefits of those sectors' programs, say, through better targeting and/or coordination. It is not feasible to bring all the activities in every sector of import to nutrition under one project; such activities should be rightfully carried out by the respective sectors from their regular allocation of resources; this component does not seek to replace those resources. Therefore, this component will support the nutritional reorientation of various sectoral activities, retargeting them to the nutritionally vulnerable population and/or initiation of innovative activities but not the mere expansion of programs that are already the normal responsibility of a given ministry.

2.34 An Inter-Sectoral Nutrition Fund (ISNF) will be established by GOB to finance facilitating activities to accomplish the reorientation/retargeting. Government Departments and NGOs will be able to draw on this fund to undertake specific activities or obtain seed monies to pilot new initiatives which would contribute to the goals of this project. After their pilot phase, such new programs would be financed out of the respective sector's own resources. NGOs such as Grameen Bank and BRAC have considerable experience in income generation activities (especially targeted to women), which are very relevant to enhancing household food security. Therefore, sub-projects including such activities to be carried out by NGOs with a proven track-record would also be potential candidates for funding under this component. Only proposals meeting agreed criteria (Annex 10) will be financed from the ISNF. Agreement was reached during Negotiations with GOB that, promptly after Credit-signing, the proposed ISNF will be established and operated in a manner satisfactory to IDA.

2.35 An Inter-Sectoral Nutrition Cell (ISNC) has been established as part of this project to bring about inter-sectoral coordination with regard to nutrition and to monitor and oversee the progress of the inter-sectoral component. The cell will be headed by a Joint-Secretary, MOHFW, with representation of the relevant sectoral ministries and the NGOs. The sectoral ministries currently being considered for inclusion in the cell are: Ministry of Agriculture, Ministry of Food, Relief and Rehabilitation, Ministry of Fisheries and Livestock, Ministry of Women's Affairs, Ministry of Education, Ministry of Local Government and Rural Development, Ministry of Home Affairs (under whom the VDP organization is placed) and Ministry of Social Welfare. Interested NGOs will be represented jointly by two representatives. The cell will be staffed by clerical and other support staff and housed in the Secretariat buildings within MOHFW. Agreement was reached during Negotiations with GOB that ISNC will be maintained and operated with the authority to clear sub-project proposals to be financed from ISNF, based on criteria agreed with IDA and that each sub-project proposal to be financed from the fund will be subject to prior review and approval by IDA.
Three sub-project proposals currently being developed for financing under this component are: (i) integrating homestead vegetable production with CBNC; (ii) examining the consumption and nutritional impact of agricultural policies and programs with a view to appropriate modifications; and (iii) homestead poultry production as a means of generating earnings and nutrient supplements for the poor households. Proposals (i) and (ii) are being developed by the Ministry of Agriculture and the proposal (iii) belongs to Ministry of Fisheries and Livestock. These three proposals meet the selection criteria but would be subject to further technical review by IDA before being finally selected for funding. The Project has been costed with adequate monies to cover activities worth US$7.5 million (including contingencies) from ISNF; if any of the above three proposals are not found to be suitable for funding, other appropriate activities meeting agreed criteria and selected as per agreed procedures, could be financed from ISNF. Examples of other activities which might be included in the future are: reorienting and retargeting food programs such as Vulnerable Group Development, Rural Maintenance Program and Food for Work schemes under the Ministry of Relief and Rehabilitation; targeted credit programs to food-insecure households to improve their earning capacity - particularly that of women in these households (through NGOs as well as GOB); inclusion of nutrition elements in school curricula; inclusion of nutrition elements in the training curricula of grass-root level workers of the relevant sectors and IEC activities to promote the proper use of safe water and of sanitary latrines.

F. Geographic Scope and Phasing

The field activities of the CBNC would be phased in, so that a total of 40 thanas (out of Bangladesh’s 460 thanas), i.e., about 8-9% of the population would have been covered by the end of the project period; activities such as program development, institution building and IEC development would be at the national level; IEC message delivery will be through CBNC by inter-personal methods and nationwide through mass media; most inter-sectoral activities are intended to closely follow CBNC phasing, with some possible exceptions depending on resource requirements and absorptive capacity at the national level (e.g., studies of consumption and nutrition effects of agricultural or food policy); and the support to existing micronutrient activities would be extended throughout the country. After the BRAC pilot initiative, CBNC under this project is the first large scale venture of this sort to be undertaken in the country. Therefore a carefully graded approach is being proposed for the phasing in of CBNC. During the first year, CBNC would be limited to six thanas and no new thanas will be added in the second year to allow adequate time for start-up activities and to refine operational details of community mobilization, communications and service delivery, in these initial thanas. Learning from the experience in these thanas, and taking account of findings from the review after the first two years, 17 more thanas would be added in the third year and 17 more in the fourth year. The results of a mid-term evaluation at the end of three years would determine the pace of further expansion as also the subsequent design of the project. The project itself is intended as the first phase of a national community nutrition program, which would be expanded to the rest of the country following favorable evaluation at the end of six years, and subject to implementation capacity.

The geographic location of the project’s field activities would be determined through application of the following decision rules, which are amplified in annex 2: (a) at least one district would be included per division, to allow testing in different environments; (b) about half the thanas would be covered in each project district, to make it cost-effective to develop project support systems, and to allow an element of local competition for entry into the project; (c) a range of distressed and non-distressed districts and thanas would be chosen; (d) but districts and thanas which are the most disaster-prone or lack basic health infrastructure, would be avoided so as to give the proposed project reasonable chance of success; (e) only thanas with at least 80% of infants fully immunized would be selected. The six thanas for the first year have already been selected, one from each Division. Agreement was reached during Negotiations with GOB that by June 30, 1996 and by December 31, 1996, the thanas for introducing CBNC in the third and fourth years will be selected as per criteria agreed with IDA.
G. Gender Perspective

2.39 Women, particularly during pregnancy and lactation, form a principal group of beneficiaries of this project. Therefore, they stand to profit directly from the project’s nutritional impact. Moreover, the community-based project activities are directed at social mobilization and community empowerment, which would have to occur primarily through the advancement of women’s status in the society. All the grass-root project personnel in CBNC would be women, thus creating income-generating opportunities. More income-generating opportunities will be created by this project, as the supplementary food in CBNC is proposed to be prepared, packaged and provided by women’s groups at the village level and/or small-scale industries at the union level. Rural credit schemes (from GOB’s own funds) have also been included as a possible inter-sectoral activity - again leading to potential enhancements in women’s income and status. Improved nutrition status among children would result in increased child survival, in turn reducing fertility and thereby benefiting women’s health. The project activities would take account of the male members of the households as well; one important reason is the Bangladeshi cultural context in which men control key decisions about the types and amounts of foods purchased. Project monitoring indicators will be gender-disaggregated and gender equity will be a strong consideration in the recruitment of higher level project staff.

H. Environmental Aspects

2.40 No detrimental environmental impacts are expected to occur due to the proposed project activities. The inter-sectoral component of the project is likely to benefit the environment by promoting the use of improved sanitary latrines and safe water supply. The indirect project benefit of reduced population growth (as a result of increased child survival) would lead to a decreased burden on the environment.
III. PROJECT COSTS, FINANCING, DISBURSEMENT AND PROCUREMENT

A. Project Costs

3.1 **Cost Summaries.** The total cost of the project, including duties and taxes, is estimated at about Taka 2,690 million or US$67.3 million equivalent. Duties and taxes would amount to around US$805,200 (1.2% of the total costs). A breakdown of costs of the proposed project by component and by categories of expenditure appears in tables 3.1 and 3.2 respectively. Detailed project cost tables by component, categories of expenditure and years of implementation are in Annex 11.

**Table 3.1: Project Costs by Component**

<table>
<thead>
<tr>
<th>Components</th>
<th>(Taka Million)</th>
<th>(US$ Million)</th>
<th>% of base costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
<td>Total</td>
</tr>
<tr>
<td>National Level Nutrition Activities</td>
<td>671.9</td>
<td>89.3</td>
<td>761.2</td>
</tr>
<tr>
<td>Community-Based Nutrition Component</td>
<td>1,296.9</td>
<td>8.7</td>
<td>1,305.6</td>
</tr>
<tr>
<td>Inter-Sectoral Nutrition Program Development</td>
<td>266.3</td>
<td>10.4</td>
<td>276.7</td>
</tr>
<tr>
<td><strong>TOTAL BASE COSTS</strong></td>
<td>2,235.1</td>
<td>108.4</td>
<td>2,343.5</td>
</tr>
<tr>
<td>Physical Contingencies</td>
<td>141.1</td>
<td>2.2</td>
<td>143.3</td>
</tr>
<tr>
<td>Price Contingencies</td>
<td>390.3</td>
<td>13.0</td>
<td>403.3</td>
</tr>
<tr>
<td><strong>TOTAL PROJECT COSTS</strong></td>
<td>2,766.5</td>
<td>123.6</td>
<td>2,890.1</td>
</tr>
</tbody>
</table>

**Table 3.2: Costs by Expenditure Categories and Financiers including contingencies (US$ '000)**

<table>
<thead>
<tr>
<th>Expenditure Categories</th>
<th>IDA</th>
<th>Government</th>
<th>Total</th>
<th>Foreign Exchange (Excluding Taxes)</th>
<th>Local Duties &amp; Taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INVESTMENT COSTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods, other than food supplements</td>
<td>8,929.2</td>
<td>89.9</td>
<td>1,002.6</td>
<td>10.1</td>
<td>9,931.8</td>
</tr>
<tr>
<td>Vehicles</td>
<td>217.4</td>
<td>55.0</td>
<td>177.8</td>
<td>45.0</td>
<td>395.2</td>
</tr>
<tr>
<td>Equipment, Furniture, Supplies</td>
<td>3,805.8</td>
<td>82.2</td>
<td>824.8</td>
<td>17.8</td>
<td>4,630.6</td>
</tr>
<tr>
<td>Training Materials</td>
<td>1,565.8</td>
<td>100.0</td>
<td>---</td>
<td>---</td>
<td>1,565.8</td>
</tr>
<tr>
<td>Therapeutic Nutrients</td>
<td>1,182.6</td>
<td>100.0</td>
<td>---</td>
<td>---</td>
<td>1,182.6</td>
</tr>
<tr>
<td>IEC Materials</td>
<td>2,159.5</td>
<td>100.0</td>
<td>---</td>
<td>---</td>
<td>2,159.5</td>
</tr>
<tr>
<td>Therapeutic Food Supplements</td>
<td>20,965.5</td>
<td>88.2</td>
<td>2,791.6</td>
<td>11.8</td>
<td>23,757.1</td>
</tr>
<tr>
<td>Technical Assistance(^{12})</td>
<td>14,332.4</td>
<td>100.0</td>
<td>---</td>
<td>---</td>
<td>14,332.4</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy Support</td>
<td>1,783.3</td>
<td>100.0</td>
<td>---</td>
<td>---</td>
<td>1,783.3</td>
</tr>
<tr>
<td>Project Preparation &amp; Implementation</td>
<td>10,793.1</td>
<td>100.0</td>
<td>---</td>
<td>---</td>
<td>10,793.1</td>
</tr>
<tr>
<td>Institutional Development</td>
<td>1,756.0</td>
<td>100.0</td>
<td>---</td>
<td>---</td>
<td>1,756.0</td>
</tr>
<tr>
<td>IEC Activities</td>
<td>4,074.6</td>
<td>100.0</td>
<td>---</td>
<td>---</td>
<td>4,074.6</td>
</tr>
<tr>
<td><strong>RECURRENT COSTS</strong></td>
<td>11,526.2</td>
<td>75.6</td>
<td>3,667.7</td>
<td>24.1</td>
<td>15,193.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>59,827.7</td>
<td>88.9</td>
<td>7,461.9</td>
<td>11.1</td>
<td>67,289.6</td>
</tr>
</tbody>
</table>

\(^{12}\) The expenditure category, "Technical Assistance" includes Consultant Services, Training, Fellowships, Workshops/Seminars, Research and Studies and Monitoring/Review Activities. Annex 11 presents the costs under these different types of Technical Assistance.
3.2 **Basis of Cost Estimates.** Cost estimates have been made based on information provided by GOB and calculations made by UNICEF and IDA experts. Costs of therapeutic nutrition supplementation and other consumables are based on estimates obtained locally. Costs of compensation for CNPs are calculated at 500 taka per month and incidental expenses for running the CNCs at taka 300 per month; compensation for CNOs is costed at Tk. 1,000 per month; these were found by local enquiries to be the reasonable amounts for the required purpose. These estimates concurred with the information provided by an NGO who has already implemented similar activities in the communities. Salaries and allowances of GOB personnel in the Project are estimated on the basis of GOB pay scales.

3.3 **Taxes and Duties.** All imported goods are subject to custom duties and taxes. Duties and taxes applied to this project amount to 1.2% of the project costs and will be financed by GOB.

3.4 **Contingency Allowances.** Physical contingencies have been calculated at 10% on vehicles and 5.0% on other goods. Price contingencies have been applied using the Bank guidelines at 4.0% for 1995, 4.0% for 1996, 4.0% for 1997, 4.5% for 1998, 4.5% for 1999 and 5.0% for 2000 for local price increases and at 2.2% for each of the project years for international price increases. A purchasing power parity assumption for the exchange rate was applied to offset the difference between local and foreign inflation in the project years.

3.5 **Foreign Exchange Component.** The estimated foreign exchange component of the project costs is the equivalent of US$ 2.9 million or 4.4% of total project costs and is calculated as follows: Equipment and furniture: 4%; vehicles: 55%; and expatriate technical assistance: 100%.

3.6 **Recurrent Cost Implications.** The total recurrent costs of the project when fully operational in 40 thanas as per the proposed phasing is about US$13.5 million spread over 6 years. The main incremental recurrent expenditures in the project are for the honoraria to CNPs and CNOs and the costs of running the CNCs (operating expenses). The CNPs and CNOs will not be GOB employees and will be compensated only on a temporary basis through NGOs. The thana-level staff are being drawn from existing staff under MOHFW and therefore do not entail additional costs. Additional staff positions being created because of the project are minimal (mainly at the Project Office and ISNC) and the total salary costs of such staff are budgeted at only US$653,700 for the entire project period. If the CBNC activities were to be continued beyond the project period, the recurrent costs of such activities are estimated to be about $70,000 per thana per year; however, CBNC activities should not be required in a given thana on an indefinite basis; they are intended to be phased out gradually after 10-15 years. The Government will bear the cost of salaries and allowances, maintenance of vehicles and equipment and custom duties and taxes; the Government will also take on the incremental recurrent expenditures which will be financed by IDA on a declining basis (para 3.14).

**B. Financing**

3.7 Of the total estimated project costs of US$67.3 million, the IDA credit of US$59.8 million amounts to 88.9% and the GOB contribution of US$7.5 million amounts to 11.1%. All expenditures involving foreign exchange would be met from the IDA credit. Cost recovery by way of user charges is not considered feasible in the context of Bangladesh in view of the extreme poverty of the intended beneficiaries. Table 3.3 shows the financing plan.

**Table 3.3: Project Financing Plan**

<table>
<thead>
<tr>
<th>Financier</th>
<th>Local (US$ million)</th>
<th>Foreign (US$ million)</th>
<th>Total (US$ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>7.5</td>
<td>0.0</td>
<td>7.5</td>
</tr>
<tr>
<td>IDA</td>
<td>56.9</td>
<td>2.9</td>
<td>59.8</td>
</tr>
<tr>
<td>Total</td>
<td>64.4</td>
<td>2.9</td>
<td>67.3</td>
</tr>
</tbody>
</table>
C. Procurement

3.8 The items of procurement included in the project and the methods of procurement to be used in the case of each item are provided in table 3.4. The project will not finance any civil works.

**Table 3.4: Procurement Methods**
(US$ million including contingencies)

<table>
<thead>
<tr>
<th>PROJECT ELEMENTS</th>
<th>Procurement Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ICB</td>
</tr>
<tr>
<td>1. Vehicles</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td>(0.22)</td>
</tr>
<tr>
<td>2. Equipment, supplies and furniture</td>
<td>4.63</td>
</tr>
<tr>
<td></td>
<td>(3.81)</td>
</tr>
<tr>
<td>3. Training materials</td>
<td>1.56</td>
</tr>
<tr>
<td></td>
<td>(1.56)</td>
</tr>
<tr>
<td>4. Books and Journals</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
</tr>
<tr>
<td>5. IEC Materials (development &amp; production)</td>
<td>2.16</td>
</tr>
<tr>
<td></td>
<td>(2.16)</td>
</tr>
<tr>
<td>6. Therapeutic Nutrients</td>
<td>1.18</td>
</tr>
<tr>
<td></td>
<td>(1.18)</td>
</tr>
<tr>
<td>7. Therapeutic Food Supplements</td>
<td>23.76</td>
</tr>
<tr>
<td></td>
<td>(20.96)</td>
</tr>
<tr>
<td>8. Technical Assistance, (including Studies &amp; Training)</td>
<td>14.33</td>
</tr>
<tr>
<td></td>
<td>(14.33)</td>
</tr>
<tr>
<td>of which, Policy Support</td>
<td>1.78</td>
</tr>
<tr>
<td>Project Preparation &amp; Implementation Support</td>
<td>10.79</td>
</tr>
<tr>
<td>Institutional Development</td>
<td>1.76</td>
</tr>
<tr>
<td>9. IEC Activities (campaigns, etc.)</td>
<td>4.07</td>
</tr>
<tr>
<td></td>
<td>(4.07)</td>
</tr>
<tr>
<td>10. Salaries and Allowances (\d)</td>
<td>0.60</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
</tr>
<tr>
<td>11. Other Recurrent Expenditures (\d)</td>
<td>14.60</td>
</tr>
<tr>
<td></td>
<td>(11.52)</td>
</tr>
<tr>
<td>Total</td>
<td>2.16</td>
</tr>
<tr>
<td></td>
<td>(2.16)</td>
</tr>
</tbody>
</table>

Note: Figures in parenthesis are the respective amounts financed by IDA.

a/ Other procurement methods include local shopping, consultant services, development of training materials through an NGO and administrative expenditures following Government procedures.
b/ GOB: Completely financed by the Government of Bangladesh.
c/ Other recurrent expenditures include honoraria for the field workers, incremental operating expenditures involved in the running of the community nutrition centers and of the Project Office.
d/ These project elements represent non-procurement expenditures.

3.9 All project procurement will be made in accordance with the respective IDA guidelines. Project-financed consultants would be recruited according to the Bank's guidelines for Use of Consultants by World Bank Borrowers and World Bank as Executing Agency. Standard bidding documents will be used.
3.10 IEC materials (total value, $2.16 million) will be procured through International Competitive Bidding (ICB). Vehicles, equipment, furniture and supplies (total value, $5.03 million) will be procured by Local Competitive Bidding (LCB); however, bicycles and other small items of equipment, which may be needed on an urgent basis may be procured through UNICEF. The equipment and supplies to be procured under the project are to be spread over the project period (according to the phasing of the project activities), making each bid too small to attract international bidders; moreover, the items to be procured are all locally available, e.g., utensils for the community nutrition center, shoulder bags, measuring tapes, stationery items and growth charts. Training materials (total value $1.56 million) will be developed by the NGOs who will be involved in project implementation using their own staff; at the present time competitive bidding is not feasible for this purpose since there is only one NGO, i.e., BRAC, which has the experience and expertise to undertake this task effectively in line with the project design. Therapeutic nutrients i.e., iron tablets and vitamin A capsules, (total value, $1.18 million) will be procured from UNICEF.

3.11 Therapeutic food supplements (total value, $23.76 million) will be produced by women's groups, cooperatives, cottage industries or other community-based systems within the villages using locally available raw materials (wheat, jaggery, pulses and oil). The raw materials (total value, $14.8 million) included in the $23.76M cost of food supplement will be procured by the respective community based systems from the local markets by prudent shopping. The rationale for such a local community-based procurement is as follows: (a) the supplementary feeding operation is to be carried out in nearly 8,000 villages by as many CNPs; central procurement of food ingredients, preparation, packaging, storage and distribution would call for a highly efficient system of managing the logistics of these steps; the current systems in Bangladesh are not capable of handling these additional requirements effectively without an interruption in the supply of food supplements; (b) local procurement at the village level would encourage community involvement and ownership; it would also provide income-generating opportunities for women, thus complementing the project objectives; (c) all the raw materials are generally available in the rural communities of Bangladesh; (d) spreading the procurement over the many villages might also increase the transparency of the process and reduce the scope for mismanagement of funds, since the CNPs are close to the beneficiaries and the amounts involved are divided into smaller portions; (e) it is desirable to keep the process of preparation closer to the point of operation to minimize loss of shelf-life due to transportation and other delays involved in distributing the food. Based on the estimated cost of food supplements to be procured per village, a limit of $1000 per year per CNP would be appropriate for this item of procurement.

3.12 The amount of procurement to be managed at the central level is relatively small, since the main item of procurement, i.e., therapeutic food supplements would be provided in a decentralized manner. As for centrally procured items, the procurement unit under the Directorate-General of Family Planning will be responsible for the procurement goods and the Project Office will be responsible for the procurement of Technical Assistance (total value, $14.33 million). UNICEF would assist in the recruitment of individual consultants for technical assistance as may be deemed necessary by GOB. The procurement plans for such centrally handled items are included in the overall implementation plan.

3.13 All ICB procurements, LCB packages for the procurement of goods estimated to cost in excess of $200,000 and requirements for consultant services in excess of $100,000 with firms and those in excess of US$50,000 with individuals will be subject to prior review by IDA. This would cover approximately 24% of the total value of procurement under the project.
D. Disbursements

3.14 Disbursement percentages. Table 3.5 shows the different disbursement categories and disbursement percentages against each of them.

Table 3.5 Disbursement Categories and Percentages

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount of the Credit Allocated (Expressed in SDR Equivalent)</th>
<th>% of Expenditures to be Financed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goods (other than therapeutic food supplements and IEC materials)</td>
<td>4,090,000</td>
<td>100% of foreign expenditures, 100% of local expenditures (ex-factory cost) and 80% of local expenditures for other items procured locally</td>
</tr>
<tr>
<td>Therapeutic Food Supplements</td>
<td>12,650,000</td>
<td>100% in FY1996 through FY1998 90% in FY1999 and FY2000 and 80% in FY2001 and thereafter</td>
</tr>
<tr>
<td>IEC Materials</td>
<td>1,300,000</td>
<td>100% of foreign expenditures, 100% of local expenditures (ex-factory cost) and 80% of local expenditures for other items procured locally</td>
</tr>
<tr>
<td>Consultant Services, Studies and Training (^1/)</td>
<td>8,580,000</td>
<td>100%</td>
</tr>
<tr>
<td>IEC Activities</td>
<td>2,420,000</td>
<td>100%</td>
</tr>
<tr>
<td>Incremental Operating Costs</td>
<td>7,070,000</td>
<td>100% in FY1996 through FY1998 90% in FY1999 and FY2000 and 80% in FY2001 and thereafter</td>
</tr>
<tr>
<td>Unallocated</td>
<td>3,990,000</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>40,100,000</strong></td>
<td></td>
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\(^1/\) This includes all Technical Assistance: consultant services, training, fellowships, workshops/seminars, and studies.

3.15 Special Account. A Convertible Taka Special Account will be opened with a commercial Bank on terms and conditions satisfactory to IDA, including appropriate protection against set-off, seizure or attachment. The authorized allocation for the Special Account has been agreed at Tk. 80 million; however, such authorized allocation shall be limited to Tk. 24 million until the aggregate amount of withdrawals from the Credit plus the total amount of all outstanding special commitments entered into by IDA shall equal or exceed SDR 2.7 million. The authorized allocation would be withdrawn from the Credit and deposited into the Special Account to facilitate smooth implementation by allowing more immediate access to the Credit when required. Withdrawals from the Special Account shall be against the eligible categories listed in table 3.5; such withdrawals from and subsequent replenishments of the Special Account will be made as per standard procedures, detailed in the Development Credit Agreement. Accounting and auditing requirements that apply to project expenditures shall apply equally to those expenditures reimbursed through the Special Account.

3.16 Required Documentation. Disbursements up to a limit of US$200,000 in respect of project expenditures on procurement of goods, up to US$100,000 in respect of consultant services provided by firms and
up to US$50,000 in respect of consultant services provided by individuals will be made against withdrawal applications supported by Statement of Expenditure certified by the Project Director and by MOHFW, such limits being applied to each individual disbursement. The Project Office will retain all relevant documentation in respect of such statements of expenditure and make them available to IDA for review on request. Expenditures greater than the above limits will be reimbursed against fully documented withdrawal applications.

3.17 Although ISNF is to be established by GOB as an open fund, it will not be a mechanism to advance monies from the IDA Credit. The disbursement criteria and documentation requirements for the activities financed from ISNF will be the same as for similar activities being carried out under the rest of the project. The ISNF will be a GOB fund to attract good sub-project proposals from various agencies and to facilitate inter-sectoral action.

3.18 The disbursement projections in table 3.6 take account of the planned phasing of CBNC and the retroactive financing of preparatory costs up to US$ 500,000, - incurred after March 1, 1995 - under the categories of goods and consultants' services. In order to ensure adequate project readiness, i.e., for activities to begin in full swing once the Credit is declared effective, the Project Office has already been created, key staff have been recruited and office accommodation and other facilities arranged. Furthermore, baseline surveys, preparation of training materials and audience research for IEC message development are to be carried out prior to Credit-signing. The purpose of retroactive financing is to cover the costs of these startup activities.

*Table 3.6: Project Disbursement Projections (US$ Millions)*

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<tr>
<td>Annual</td>
<td>3.3</td>
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<td>6.9</td>
<td>16.5</td>
<td>31.1</td>
<td>45.2</td>
<td>59.8</td>
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</table>
4.1 Preparation process and status. Project preparation has been carried out through close collaboration between GOB, IDA and UNICEF and in consultation with other development partners, including Asian Development Bank, Germany (KfW and GTZ), USAID, United Nations Development Program, WHO and NGOs. Specific NGOs who have been involved are: BRAC, which is currently implementing a project in one thana on very similar lines as CBNC; Hellen Keller International, which has put into place a nutrition surveillance system and is interested in expanding such a system into the project thanas; Grameen Bank; CARE; Save the Children Fund (US and UK) - who have all had previous nutrition experience in the country. Comments and suggestions were provided by the bilateral donors financing Fourth Population and Health Project as well. The project concepts, design, activities, and implementation plans were agreed between GOB and IDA, UNICEF Missions and further details were worked out by several working groups under MOHFW, Ministry of Agriculture and Ministry of Fisheries and Livestock, coordinated by a Project Preparation Steering Committee in MOHFW. The Government then approved a project concept paper after it was reviewed by IDA. In line with agreements reached at the negotiations and with the project description contained in this SAR, GOB has prepared a Project Proforma (PP). Technical support to GOB for further preparation continues to come from UNICEF, the Bank, and BRAC. A detailed Project Implementation Volume, including an implementation plan and monitoring plan, has been drafted. The draft Project Implementation Volume was discussed during the Negotiations and will be finalized at the Project Launch Workshop. A Memorandum of Understanding for technical cooperation between GOB and the Institute of Nutrition, Mahidol University, Thailand has been prepared. The Institute is internationally recognized in the field of nutrition and its technical assistance should contribute to local capacity building.

4.2 The role played by UNICEF. UNICEF's technical support went far beyond participation in joint missions with IDA; more than 20 studies were carried out by UNICEF specifically to meet the technical requirements of this project. UNICEF's resources were readily made available for such studies, consultancies and study tours both to provide high quality scientific inputs into the project preparation and to develop awareness and commitment among policy-makers and managers of GOB. UNICEF is also assisting already with the preparation of training curricula and materials and the Project Implementation Volume. The formative research for IEC message and material development is currently under way and results are expected shortly. UNICEF's Board of Directors recently approved a proposal to raise supplementary funds up to a limit of $15 million to provide additional technical support to this project during its implementation. This UNICEF supplementary mechanism would be one possible mode of channeling possible future funding that might be made available by bilateral donors; thus, while the project does not currently include cofinancing, it is expected that donors other than IDA would become substantively involved (through UNICEF or directly) in the future. Such additional involvement would become particularly appropriate if this project proves successful and resources are required for its expansion to other parts of the country.

4.3 Implementation Responsibility. The CBNC and IEC components and related monitoring and evaluation would be the responsibility of MOHFW, which will be discharged through the establishment of a Project Office accountable to a National Steering Committee through a National Nutrition Management Committee, both under MOHFW. The project will provide for a Management and Technical Support Team consisting of four or five consultants to assist the Project Office. Team members would include people with expertise in training, monitoring and evaluation, community nutrition, and project management. The Government and IDA have agreed outline terms of reference for the technical assistance; detailed terms of reference are now being prepared, to be included in the revised Project Implementation Volume. Agreements were reached with GOB during negotiations that in accordance with TOR acceptable to IDA, the Project Office will be maintained and operated with adequate staff, funding and other facilities and by September 30, 1995, Management and Technical Support Team would be established and maintained with the necessary expertise, to assist the Project Office. The Inter-Sectoral Nutrition Program Development component would be coordinated by the proposed
ISNC. The sub-projects under the inter-sectoral component would be implemented by the line ministries or departments or NGOs, which put forth the respective proposals. The Ministry of Home Affairs will be co-opted in the project implementation inasmuch as the project volunteers are to be selected from the VDP. At the district, thana, union and village levels, Nutrition Management Committees will be set up with representatives from the various ministries and departments involved. Annex 13 presents an organizational chart for the project.

4.4 NGO Involvement. This project has been designed to include a major role for NGOs in its implementation. In view of BRAC's expertise in community-based nutrition activities, BRAC has been more closely involved in this project's preparation and is expected to continue its participation in implementation as well. However, NGO participation has not been limited to BRAC; others such as Hellen Keller International, CARE, Grameen Bank, and Save the Children Fund (US & UK) are also interested and would be involved. Two modalities of NGO support to project implementation will be adopted: (a) some thanas will be wholly contracted out to NGOs for the management and implementation of all CBNC activities; in each of these thanas, a selected NGO will take the full responsibility for all activities, including the recruitment and training of the various field personnel, community mobilization, procurement, preparation, packaging and delivery of food supplements, payment of salaries/honoraria and allowances, procurement of equipment and supplies, quality control, supervision and monitoring and IEC activities; they would use the existing GOB systems for the provision of Primary Health Care services as necessary and for inter-sectoral coordination; they will provide monitoring reports to GOB on an agreed format and periodicity; (b) in the other thanas, GOB will use its own management structure to run the project activities, assign Assistant Thana Family Planning Officer as Thana Nutrition Coordinator, recruit the community nutrition promoters and organizers from the VDP (see paragraph 2.30 above) as far as possible, procure equipment and supplies and be responsible for monitoring and administrative supervision of field personnel; NGO support will be provided in the following key areas: community mobilization, training and technical supervision of field personnel, logistics of preparing, packaging and supplying food supplements, including quality control. The terms of reference for NGO involvement in project implementation were discussed during the Negotiations, and will be finalized at the Project Launch Workshop, taking account of IDA's comments. Agreement was reached during Negotiations that GOB will enter into an agreement with one or more organizations acceptable to IDA, and in accordance with terms of reference satisfactory to IDA, which will govern such organizations' participation in the field-level activities under the project.

4.5 Implementation Schedule. CBNC is to be phased in to cover six thanas in the first year. Then, after a review at the end of two years, 17 more thanas are to be included in each of the third and fourth years. The broad implementation schedule of project activities is shown in annex 14; more detailed action plans for each component will be included in the Project Implementation Volume. Agreement was reached during Negotiations that by September 30, 1995, GOB will prepare and furnish to IDA, for its concurrence, a detailed implementation and monitoring plan and thereafter carry it out in a timely manner.

4.6 Monitoring and Evaluation. There is a separate component to ensure strong monitoring and evaluation (para 2.21 - 2.24). This not only reflects the importance attached to these essential functions in this project but also allows the clear and separate allocation of funds to them. Such a design also brings together these aspects in the overall project context, since the implementing responsibility for the components is divided between different agencies. The monitoring proposed under the project would be the responsibility of each participating ministry and the Project Office. ISNC would be responsible for pulling together the inter-sectoral monitoring reports. A specific provision is being made for a special review of the first 6 CBNC thanas after two years, a mid-term evaluation at the end of three years to take stock of project progress, glean lessons from implementation experience and determine the scope and nature of further expansion of the project, applying mid-course corrections as may be necessary. At the end of the project period another evaluation will be carried out. As measurable nutritional impact is likely to take 5 to 10 years of intensive efforts, and as the project is being phased in, continuous monitoring of process indicators is of immediate importance. But outcome indicators are also being
included in the baseline for purposes of eventual impact evaluation. IDA-UNICEF supervision missions would be carried out twice a year. Annex 15 provides a tentative schedule of supervision missions, which would review the reports derived from GOB’s regular monitoring, besides holding discussions with the Project Office and other concerned GOB officials, NGOs and development partners. Agreements were reached during Negotiations with GOB that a review system would be established and carried out and that progress reports will be furnished to IDA at the semi-annual supervision missions.

4.7 Funding Mechanism, Flow of Funds and Accountability. The Project Finance Cell (PFC) which administers the donor funds under the Fourth Population and Health Project, will administer the Special Account of the project in accordance with GOB procedures as agreed with IDA. The PFC will function as the Treasury in accordance with the financial rules of GOB for this project. The Special Account will be established in a scheduled bank (preferably Sonali Bank). As per the allocation in the Annual Development Program of the project, authorization for release of funds will be obtained from the Ministry of Finance at the beginning of the fiscal year and PFC will then release funds in favor of the Project Director on a quarterly basis, in advance. The Project Director will then place the funds at the disposal of Assistant Thana Family Planning Officer who will be the Drawing and Disbursing Officer at the Thana level. This Officer will disburse the funds to cover salaries and operating expenses to CNP and CNO every month. The Project Director will also release funds on a quarterly basis to the implementing NGO as per the Memorandum of Understanding between GOB and the NGO. The NGO and the Assistant Thana Family Planning Officer will be responsible for record-keeping, furnishing expenditure statement, and vouchers as necessary, to the Project Director. The Project Director will coordinate all financial transactions relating to the project, furnish necessary reports and returns to the PFC and IDA for settlement of advances made and for claiming replenishment. Detailed procedures will be developed by PFC for guiding the accounting staff at various levels and steps will be taken to ensure that the expenditure accounting for the advances are submitted promptly. A copy of these detailed instructions for various levels of accounting staff for this project will be included as part of the Project Implementation Volume. No additional advances will be provided until expenditures for previous advances have been accounted for. At the thana level, a bank account will be opened by Assistant Thana Family Planning Officer to receive the funds from PFC. He/she will ensure timely disbursement of fund to CNP/CNO and the NGOs. Similarly, the NGOs will have accounts to manage the project funds effectively. ISNF will be established as a separate GOB Fund and managed by PFC. Implementing agencies will draw funds from ISNF as per sub-project proposals cleared by ISNC and by IDA; then they will place these funds at the disposal of appropriate field-level officials and obtain accounts of expenditure. The ISNF will then be replenished by reimbursements from the IDA Credit against appropriate disbursement categories for eligible expenditures. The PFC is adequately staffed and has experience in dealing with accounts, and with procedures required by IDA. The Project Director has an account set-up which will maintain and keep records of fund flows and expenditure. He/she, along with PFC, will be responsible for monitoring, control and supervision of accounting administration over other project implementing agencies.

4.8 Accounts and Audits. The following agreements were reached with GOB during Negotiations: that GOB will maintain records and accounts in accordance with sound accounting practices, to reflect the operations, resources and all expenditures in respect of the project; that such records and accounts, including those for the Special Account, will be audited in accordance with appropriate auditing principles, consistently applied, by independent auditors acceptable to IDA; that a certified copy of the reports of such audit will be furnished to IDA not later than nine months after the end of the respective fiscal years; that such other information concerning the said records, accounts and the audit as may be reasonably requested by IDA will be furnished by GOB; that, in addition to the foregoing, GOB will, in respect of withdrawals made on the basis of statements of expenditure, retain until at least one year after IDA’s receipt of the audit report for the fiscal year in which the last withdrawal is made, all records evidencing such expenditures; that such records will be made available to IDA’s representatives on request; that such records will be included in the aforementioned annual audit reports; and that the report of such audit will contain a separate opinion by the said auditors as to whether the statements of expenditure submitted, together with
the procedures and internal controls involved in their preparation, can be relied upon to support the related withdrawals.

V. BENEFITS AND RISKS

A. Benefits

5.1 The project would contribute to the following direct benefits: (a) an enhancement in GOB capacity to formulate a sound national nutrition program and to implement it effectively; (b) an improvement in the nutritional status of children under 2 years of age and of women and a consequent increase in child survival rates; (c) higher status for women as a result of the project focus on women and the social mobilization efforts under the project; and (d) increased productivity, and improved learning capacity, as a result of improved nutritional status. Indirect project benefits include (a) a greater acceptance of contraception as a result of improved child survival; (b) better general health status, particularly among mothers and children; (c) consequent cost savings for the health care system and therefore to the economy as a whole; (d) improved community organization in rural Bangladesh, which could prove to be an advantage to other programs which do not have a grass-root level infrastructure but need one for their activities. In view of some of its new strategies, the project is likely to yield useful lessons on community-based nutrition efforts, not only for Bangladesh, but for other similar programs elsewhere, especially in the South Asia region. If inter-sectoral coordination turns out to be successful, the mechanism proposed under the project could become a model for such cooperation across the sectors.

5.2 Cost per beneficiary. The nutritional impact would, in the first instance, be on the population groups targeted by CBNC. In the long run, however, they would accrue to the other segments of the population as well, because of basic changes in household behaviors related to health and nutrition; also the benefits of preventing growth lag among children under two years would result in increasing proportions of better nourished population as these children grow older. It is difficult to estimate the number of beneficiaries precisely, since the impact of nutritional counseling would be felt on different people to different degrees. Even estimating the number of immediate beneficiaries of GMP is not easy, because depending on the nutritional status of the individuals in a given community, they would receive varying levels of service. Counting only those women and children who might receive supplementary feeding as project beneficiaries would result in a fallacious under-count because supplementary feeding is not the main benefit - the project does not seek to set up a feeding program - supplementary feeding is being used primarily as an educational tool. All the women of reproductive age group will be contacted and would receive nutritional counseling, but pregnant and lactating women and children under two years would receive further screening with additional counseling and those who meet nutritional criteria would get supplementary feeding as well. In fact, a smaller number of people requiring supplementary feeding in a given community might indicate a greater success of the project - those who do not need it have perhaps benefited more than those who do. Moreover, calculating costs per beneficiary does not reflect the duration for which such benefit is received; a pregnant and lactating woman would receive supplementary feeding for anywhere from 6 to 12 months, depending on at what point in pregnancy she gets registered; under-two children would get only 4 months of supplementation unless they relapse into the program again. Despite these limitations annex 16 makes an attempt to calculate the number of beneficiaries who would be screened and those who would receive supplementary feeding. Assuming 80% coverage and taking account of the phasing scheme for the 40 CBNC thanas, a total of 3,144,320 women and children are estimated to be screened for malnutrition over the 6-year project period and 1,946,400 of them are estimated to receive supplementary feeding. Since the total cost of CBNC is estimated at US$ 32.6 million, the unit cost per beneficiary screened and counseled would amount to US$10.37. This compares with the US$9.08 per child in the BRAC's pilot initiative and with US$9.41 for 1984-85 in the Tamil Nadu Integrated Nutrition Project. These calculations should be taken merely as indicative of rough unit costs. They would work out much lower if the denominator were to include all the women of reproductive age and all children; in fact, the spill-over benefits of behavioral change would accrue to other family members too.
5.3 Assessing the number of beneficiaries of other components is even more difficult, since their benefits would be spread over the whole country. Suffice it to say that the costs of initiating a national nutrition program as envisaged under this project are a small fraction of expenditures incurred by Bangladesh already on ensuring food security or providing health care services. A recent estimation by UNICEF based on productivity gains and on savings due to reductions in morbidity and mortality puts the benefits of a successful nutrition program at $6.92 for every dollar spent on it.

B. Risks

5.4 Weak GOB capacity may impede the implementation of project activities. The project seeks to reduce this risk in several ways. It would phase the introduction of CBNC while working to enhance implementation capacity. It would support a strong project office assisted by Management and Technical Support Team. It also provides for very substantial NGO participation and considerable technical support is also expected to be given by UNICEF. It includes a specific component on Program Development and Institution Building and makes expansion of its activities contingent on the outcome of a mid-term review.

5.5 Inter-sectoral action and its coordination may be difficult to accomplish due to possible lack of interest, awareness and/or initiative among the relevant line ministries because they have traditionally seen nutrition as the responsibility of MOHFW and because they have not commonly made the link between their sectoral activities and nutrition. The establishment of a separate ISNF would provide additional resources to generate such interest, and the ISNC should help mitigate the risk of poor intersectoral coordination.

5.6 The risk that the VDPs and VDP leaders may be ineffective in their tasks as CNPs and CNOs respectively would be minimized by careful formulation and pre-testing of job descriptions and work routines, gradual phasing of implementation, strong training and supervision support at the field level and effective monitoring and review mechanisms. The NGOs would bring additional resources to training and supervision.

C. Sustainability

5.7 The issue of sustainability has managerial, technical and financial dimensions. It has to be addressed through political commitment, institutional capacity, and community empowerment as well as financial considerations. The resources required should be viewed based on national investment priorities. To ensure financial sustainability, adequate commitment on the part of GOB to continue project activities beyond the project period and a long-term interest on the part of the development partners are essential. The current level of GOB commitment to addressing malnutrition is high. For such commitment to continue, investments in nutrition have to be seen from a strategic perspective both by the Government and by the international development assistance agencies; expenditure on nutrition should be correctly viewed as investment in human capital, an essential pre-requisite for overall development. A key determinant of future financial commitment by GOB and its development partners will be the successful implementation of this project, as it is the first of its kind in Bangladesh.

5.8 Recurrent cost implications are discussed in para 3.6. However, these expenditures would not be incurred indefinitely, as CBNC in its present form would be a time-bound intervention, say for 10-15 years in an area; once the prevalence of malnutrition is brought down to manageable levels, minimal program inputs integrated into primary health care services should suffice. However in the event that CBNC proves to be beneficial in the first 40 thanas, there would obviously be additional costs in expanding project activities to other thanas and in continuing the activities in the 40 thanas beyond the first project period of 6 years. The recurrent costs of such continuation are estimated at about $70,000 per thana per year and the investment costs, at about $150,000 per year. Considering that the recently abandoned Palli Rationing Scheme incurred $60 million annually in food costs alone, the recurrent cost implications of CBNC are not unaffordable by Bangladesh. At $220,000 per thana per year, $60 million
would finance CBNC in nearly 300 thanas simultaneously. These costs could also be staggered over a longer period of time, by opting for a phased expansion of CBNC activities. Political will and implementation capacity would be more significant factors than the costs, in deciding whether nationwide expansion is immediate or phased. It is expected that all costs of expansion would be borne by follow-on projects under the development budget, and not absorbed into GOB’s revenue budget, as eventually, the project activities are to be completely phased out.

5.9 With regard to the managerial dimension of sustainability, a separate Project Office with a sufficiently high-level leadership, a Management and Technical Support Team to assist the Project Office and an inter-sectoral cell in MOHFW are included to provide a strong institutional base for the project. The extent to which NGO participation in the project implementation is being proposed is a welcome innovation and would really go a long way in bolstering management capacity. The extent to which UNICEF plans to provide technical support is another factor contributing to managerial capacity.

5.10 In the long term however, sustainability of the benefits from nutrition interventions is more important than sustaining the project activities. This project is being proposed on the basis that the interventions are time-bound. Sustainability of benefits will depend more on the communities’ understanding of their nutrition problems, their ability to articulate their demands for program assistance, and their involvement in appropriate action for improvement. A major aim of CBNC is to create this capacity for community assessment, analysis and action. The proposals to use community interest and commitment as criteria for entry to the project and to build the central project strategies on IEC at the household levels would contribute significantly to this aim. The conceptual basis is to help people help themselves - by targeting their behaviors - rather than to give hand-outs, creating dependence. The activities to be performed by CNPs in rural Bangladesh would provide a unique opportunity for the women to interact on other social issues at the village level. This could bring about a synergy between the various activities impinging on the well-being of families, using nutrition as a thematic center of community welfare in its broad sense. This is feasible because nutrition is closely related to health, family planning, education, women’s development, agriculture, rural development and other areas that affect the day-to-day life of the village folk. Moreover, since CNPs are drawn from the community, they are more likely to continue to be an active locus of social mobilization beyond the project period. This, combined with the project’s inter-sectoral approach provide for inherent technical sustainability of its strategies.
VI. AGREEMENTS REACHED AND RECOMMENDATION

6.1 During negotiations, agreements were reached with GOB that

(a) before December 31, 1996, a review of the major national level institutions active in nutrition or related fields in the country will be carried out, results shared with IDA, and recommendations implemented, taking account of IDA's comments and suggestions (para 2.16);

(b) before CBNC activities are begun in a thana, a baseline survey of nutritional status will be carried out according to TOR and methodology acceptable to IDA (para 2.24);

(c) by the end of the third year of project implementation, i.e., by June 30, 1998, a mid-term evaluation of the project will be conducted through independent professional experts, as per TOR acceptable to IDA (para 2.24);

(d) a review system will be established and carried out for the project, and GOB will provide progress reports to semi-annual IDA-UNICEF Supervision Missions (para 2.24 and 4.6);

(e) promptly after Credit signing, ISNF will be established and operated in a manner satisfactory to IDA (para 2.34);

(f) ISNC will be maintained and operated with the authority to clear sub-project proposals to be financed through ISNF, based on criteria agreed with IDA, each of such proposals to be subject to prior review and approval by IDA (para 2.35);

(g) by June 30, 1996, and by December 31, 1996, thanas for introducing CBNC in the third and fourth years respectively will have been selected as per criteria agreed with IDA (para 2.38);

(h) the Project Office with adequate staff, funding and other facilities will be maintained and operated and by September 30, 1995, a Management and Technical Support Team will be established and maintained to assist the Project Office with necessary expertise, both as per TOR acceptable to IDA (para 4.3);

(i) GOB will enter into an agreement with one or more organizations acceptable to IDA, and in accordance with TOR satisfactory to IDA, which will govern such organizations' participation in the field-level activities under the project (para 4.4);

(j) by September 30, 1995, GOB will prepare and furnish to IDA, for its concurrence, a detailed implementation and monitoring plan and thereafter carry it out in a timely manner (para 4.5);

(k) project accounts, including those of disbursements made on the basis of statements of expenditure and of withdrawals made from the Special Account, will be audited by independent auditors acceptable to IDA and such audit reports will be furnished to IDA within nine months of the close of each fiscal year (para 4.8).

6.2 There are no special conditions of Credit effectiveness.

6.3 With the above assurances and conditions, the proposed project would constitute a suitable basis for an IDA credit of SDR 40.1 million (US$59.8 million equivalent) to Bangladesh on standard IDA terms with 40 years maturity.
**BANGLADESH INTEGRATED NUTRITION PROJECT**

*Lessons incorporated from earlier projects on Nutrition*

This document describes specific lessons drawn from BRAC's Community Based Pilot Nutrition Initiative and previous Bank-financed nutrition projects in other countries as gleaned from the Project Completion Reports (PCRs) and OED evaluation studies. It also describes how these lessons have been incorporated in the design of the Bangladesh Integrated Nutrition Project (BINP).

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| **BANGLADESH: Community**
| **Based Pilot Nutrition Initiative.**
| **BRAC project in Muktagacha**
| **(1992-94).** | 1. Involvement of the community in the production and distribution of food leads to a better response to the project initiatives, because the community owns them more. | 1. BINP proposes to use a community-based production and distribution system for the food supplements with the help of women's groups. |
| | 2. The need for strong supervision was clear. | 2. BINP provides for one immediate supervisor per 10 CNPs and for strong support from NGOs in project supervision. |
| | 3. The mothers came to the community nutrition center often because it offered them an opportunity to socialize with other women. | 3. BINP indeed seeks to enhance inter-sectoral synergies among related social areas through CBNC, where the women would have a forum to discuss broader issues of interest. |
| | 4. Women who came to the nutrition center found that they learnt not only from the community worker but equally importantly from each other as well. | 4. Community mobilization and development of such learning opportunities are at the center of BINP's design. |
| **INDIA: First Tamil Nadu**
| **Integrated Nutrition Project**
| **(Cr. 1003-IN). Project**
| **Completion Report, December, 1990**
| **Report No. 9259** | 1. The First Tamil Nadu Integrated Nutrition Project (TINP-I) showed that part-time village workers, if properly trained and supported, can substantially improve their community's nutritional status. The project demonstrated unambiguously that growth monitoring is an effective and feasible intervention in large scale nutrition programs. The project showed that targeted supplementary feeding can significantly reduce severe malnutrition. | 1. Growth monitoring and targeted supplementary feeding with the use of carefully selected and trained village-level workers is at the heart of the community-based nutrition component (CBNC) of BINP. |

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<td><strong>INDIA:</strong> First Tamil Nadu Integrated Nutrition Project (Cr. 1003-IN). Impact Evaluation Report by OED. July, 1994 Report No. 13783</td>
<td>2. Key to the success of TINP was great care in planning and execution of process elements with unusual devotion to detail. Critical design features were: carefully defined recruitment criteria for local workers; limitation of field worker tasks to what is manageable and high priority; specification of daily and monthly work routines; decentralized training system; supervisory ratios which facilitate on-the-job training; the use of local women's groups to support project activities; display of performance information to clients and workers at the village nutrition center; and a management information system to rapidly detect performance falling below norms. 3. One area in which TINP was less effective was in ensuring coordination with the health services. Large-scale investment in health infrastructure and supplies is not sufficient to improve performance. Complementary measures are needed on the software side.</td>
<td>2. The same type of attention to detail is being paid in the preparation of BINP as was done in the case of TINP-I. A detailed Project Implementation Volume (PIV) is already under preparation with carefully identified selection criteria, training program, work routines, etc. for the Community Nutrition Promoters (CNP) of BINP. The Consultant assisting the Government on the PIV and one of the key members of Bank missions for the project have been involved in TINP and the design features mentioned in the PCR of TINP have been included in BINP. Supervisory ratio of 1 to 10 for BINP has been determined based on TINP experience. 3. TINP was carried out through the Department of Social Welfare, while the health workers at the grass-root level belonged to the Department of Health. This was largely responsible for the lack of coordination between the project and the health program. Taking this lesson into account, BINP is being placed in the Ministry of Health and Family Welfare and considerable thought has been given to establishing linkages with the health program activities.</td>
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<td><strong>INDONESIA:</strong> Second Nutrition and Community Health Project (Ln. 2636-IND). Project Completion Report, July, 1993 Report No. 11997</td>
<td>1. Five elements that underpin the relatively successful posyandu strategy for improving community nutrition and health: (i) Choice of effective but underutilized interventions with high potential demand and simple technological and delivery requirements; (ii) coordinated delivery of those interventions, at predictable times and at easily accessible places; (iii) a strong sense of community ownership; (iv) a broad national consensus; and (v) promotion based on social marketing methodology. 2. Involvement of all existing, relevant bureaucracies increases and strengthens their interest and commitment.</td>
<td>1. BINP has chosen as its core activity, an effective intervention, i.e., growth monitoring and promotion, with simple technological and delivery requirements: it would deliver these services in the village itself, at the residence of a local person through a CNP selected from the community; community ownership would be ensured through initial activities of community mobilization with the help of NGOs; one of the criteria for choosing project villagers is the willingness of the community to contribute resources to the project, e.g., physical accommodation for the community nutrition center. There is broad national consensus on the project. Social marketing approaches are also contemplated in the preparation and delivery of food supplements for the project. 2. BINP preparation involved all the relevant bureaucracies and NGOs; the inter-sectoral component involves several relevant line ministries.</td>
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<td>Project/Report</td>
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<td>3. The need to build a strong Project Directorate, with the capacity to</td>
<td>3. BINP does provide for a strong Project Office with adequate staff and facilities.</td>
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<td>coordinate and supervise the project activities.</td>
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<td>4. The availability of flexible program operations support fund was an</td>
<td>4. BINP provides for an Inter-Sectoral Nutrition Fund, part of which would be kept</td>
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<td>excellent strategy.</td>
<td>open-ended to fund activities considered necessary at a future date in the project</td>
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<td>5. The inclusion of a mid-term review in the design of the project -</td>
<td>period, in a flexible manner.</td>
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<td>gave the responsible agencies a sense of accountability; it provided</td>
<td>5. BINP also provides for a mid-term review and makes further expansion of the project</td>
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<td>good advice on how to improve the quality of implementation and adjust</td>
<td>activities subject to the findings of the review.</td>
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<td>planned expenditures in light of project experience and changed economic</td>
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<td>environment.</td>
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<td>GUINEA-BISSAU: Population, Health and Nutrition Project [Cr. 1800-GUB].</td>
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<tr>
<td>Completion Report. April, 1993</td>
<td>1. It is important to identify weaknesses of implementing agency and</td>
<td>1. BINP has identified community mobilization, training and logistics of preparing and</td>
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<tr>
<td>Report No. 11759</td>
<td>design projects that are realistically implementable.</td>
<td>delivering food supplements as the main areas of potential weakness in the Government</td>
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<td>2. Technical assistance is an essential component in cases in which the</td>
<td>implementation. Therefore, NGOs will be contracted to undertake these activities even in</td>
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<td>capacity of the sector agencies is low.</td>
<td>those thanas where the Government would manage the project.</td>
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<td>3. Foreign consultant should not work without national counterparts.</td>
<td>2. Besides the NGO support, UNICEF, Dhaka and the Institute of Nutrition, University</td>
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<td>of Mahidol would provide technical support.</td>
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<td>3. BINP does provide for national counterparts to work with expatriate consultants.</td>
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<td>The project would basically be run by Bangladeshis with technical assistance from</td>
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<td>foreign experts only where necessary.</td>
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<td>COLOMBIA: Integrated Nutrition Improvement Project (Ln. 1487-CO). Project Performance Audit Report, April, 1988. Report No. 7180</td>
<td>1. The failure of monitoring and evaluation system made a satisfactory assessment of most components all but impossible.</td>
<td>1. BINP has a separate component on monitoring and evaluation, with distinctly identified resources; BINP provides for a baseline survey in each thana before introducing project activities.</td>
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<td>2. The effectiveness of a supra-ministerial coordinating agency depends on favorable political climate for nutrition; the coordinating entity would benefit from closer ties with a line agency - an institutional arrangement similar to that of Fondo DRI, created within the Ministry of Agriculture.</td>
<td>2. Originally BINP proposed to have the inter-sectoral coordination function located at the Prime Minister's Office. The current proposal is to have an Inter-Sectoral Nutrition Cell (ISNC) located at the Ministry of Health and Family Welfare, which is the line ministry for the project. This proposal falls in line with the lesson from Colombia.</td>
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<td>3. A four year implementation period for a multisectoral project is not realistic. The Bank had been successful in changing the project time-table from three to four years. The project took seven years to implement.</td>
<td>3. BINP is scheduled to be completed in six years (while the original idea was for a 5-year project), in view of the generally experienced need for a longer time.</td>
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<td>4. It is important to distinguish between research tasks for which the borrower feels a real need and is committed to, versus those of primary interest to the Bank. When the Bank's research priorities are not accepted by the borrower, the Bank needs to finance its own research.</td>
<td>4. The Bank does not impose any of its own research priorities on Bangladesh through BINP. The research priorities under BINP would be identified under the Program Development and Institution Building component by the Government of Bangladesh, with the assistance of the Bank and UNICEF provided only on Government request.</td>
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BANGLADESH

INTEGRATED NUTRITION PROJECT

Selection Criteria - Sites for Community-Based Nutrition Component

1. Select at least one district per division, to allow testing in different environments.

2. Cover about half the thanas in a given project district:
   (a) to permit selection of thanas with appropriate conditions (see 3-7 below);
   (b) to allow for competition between thanas for entry into the project; and
   (c) to allow a reasonable number of districts to be in the project, while avoiding scatter all over the country. In practice, for a 40 thana project, this would mean about 8 districts.

3. Choose districts and thanas representing a range of grades of food distress, as defined by the methodology of WFP, which employs a combination of socio-economic and ecological factors.

4. Districts, and thanas within districts, which are most disaster-prone will be avoided, since this project is not designed to cope with post-disaster malnutrition. Regions which are particularly prone to flood or cyclone would be ruled out if the probability of occurrence is likely to undermine project effectiveness.

5. To be eligible, thanas must have a basic health infrastructure, i.e. a properly staffed THC with in-patient beds and full or near full coverage of staffed FWCs. Presence of government or non-government nutrition activities would also be desirable.

6. Thanas with and without the PHC intensification program should be included in the project.

7. Only thanas with at least 80% of infants fully immunized will be included. This is both a sign of effective health care outreach and of community willingness to participate in such programs.

Thanas within a district which satisfied the above criteria would compete for entry to the project based on interest in the project and willingness to contribute local resources. Possible local contributions might be: a place for training CNPs; a share of the honorarium of the local CNP; a site and labor to build a village nutrition center; a share of the supplementary food, in cash or kind; a commitment to seek, through the inter-sectoral component, assistance to improve the food security of the families of severely malnourished children. The mechanism of competition of thanas for entry into the project will be developed by the Government, in agreement with IDA, during the first two years of the project.
1. Any national initiative to mitigate the problem of malnutrition can only be sustained if a strong political commitment is in place and efforts to build the national institutional capacity are accorded a high priority. The political commitment has to be translated into an effective national program which highlights the significance of nutrition in the context of overall development and recognizes the imminence of the need to solve the nutrition problem without waiting for improvements in socio-economic status which are likely to take a long time to take effect and will not automatically eliminate malnutrition.

2. One of the first steps in this direction is to consolidate the progress made so far in terms of the draft national nutrition policy which has already undergone several iterations; more important than giving the policy an official status is to obtain consensus on the content of the future program. Other important actions which are necessary for program development and institution building are: the development of a critical mass of human resources at the national level with a high degree of expertise and the promotion of appropriate research that can stimulate and feed into an effective national nutrition program.

3. The Prime Minister has provided the lead for a strong national nutrition program by agreeing to chair the nutrition council and promoting the aspiration of "Daal Bhat" for everyone. This initiative still needs to be expanded to include nutritional aspects and then operationalized.

Institutional review and streamlining of roles:

4. The project provides for a comprehensive review of the current roles and capacities of existing national level institutions/agencies which undertake various types of activities related to nutrition. Some such institutions are the Bangladesh National Nutrition Council (BNNC), the Institute of Public Health Nutrition (IPHN), Institute of Nutrition and Food Sciences (INFS) in the Dhaka University, Institute of Food Sciences and Technology (IFST) in the Bangladesh Council for Scientific and Industrial Research, and the Institute for Mother and Child Health (IMCH), being developed under the Fourth Population and Health Project. The review would consider NGOs and private institutions as well. The review would be undertaken by independent professional experts experienced in carrying out organizational reviews. The timeframe within which it is to be completed has been agreed as before the end of 1996.
5. The purpose of the review would be to recommend ways to strengthen institutional capacity in the field of nutrition and to streamline the roles and mandates of each institution avoiding duplication and confusion.

**Human Resources for Nutrition - National Level:**

6. A solid human resources base is an essential prerequisite for any national program to succeed. This component will attempt to develop a core group of nutrition experts at the national level who would not only be well-versed with the latest advances in the technical areas related to nutrition but also aware of the programmatic issues and experiences, both national and international.

7. Workshops and training sessions, for nutrition focal points and senior policy makers in the relevant line ministries will be run on a regular basis. The main purpose of these workshops would be to create an understanding of the conceptual framework of nutrition causality to provide an update on the recent developments both in the field of nutrition and in nutrition related projects around the world and encourage non-health sectors to develop activities related to the improvement of nutritional status within their own projects. These workshops will be organized by the Project Directorate with the involvement of appropriate private or public institutions with the relevant expertise.

8. Other activities under this Subcomponent will include international scholarships, appropriate curriculum development for existing and new courses to be conducted by IPHN, INFS, IFST and other national institutions which are likely to be involved in nutrition.

9. The project also includes a technical cooperation arrangement between GOB and the Institute of Nutrition, Mahidol University (INMU), Thailand. This arrangement will, inter alia, provide for the twinning of a national level nutrition institution in Bangladesh with INMU, thus allowing for exchange of visits, fellowships and other modalities of transfer of technology.

**Research Promotion**

10. Essentially, two types of research will be pursued in the pre-project phase and in the project: policy research and operational research.

   **A. Policy Research**

11. Research will be undertaken to guide the development of a National Nutrition Program. The major areas of research will include: (a) analysis of budgetary expenditures to identify nutrition related inputs; (b) continuing research on food policy and its effects on food distribution and household food security; (c) studies on the policy related determinants of malnutrition among women, including studies on caloric expenditure; (d) studies on food
consumption behaviors, intra-family distribution of food, feeding practices, and other caring activities that impact nutritional status; (e) studies on production and employment patterns and their impact on the nutritional status.

12. This list is not exhaustive and will be developed further as more areas of concern and relevance are identified. The research agenda will be set out by consultation between BNNC, MOHFW, the Prime Minister's office and other interested parties. Research will be commissioned and funded by the Project Director and will be carried out by reputable organizations in the private and public sectors.

B. Operational Research

13. The major focus of the operational research will be on the implementation of community based nutrition interventions. Research will determine the feasibility of selected approaches and will continue as needed throughout the duration of the project. The research agenda for this particular component will include areas of implementation, management and impact of food subsidies, impact of communication activities, development of effective means of community involvement, the role of local agencies, including non-governmental organizations. While not strictly a research activity, a comprehensive baseline study is required, including both quantitative and qualitative indicators of the determinants of malnutrition. This study would be carried out by a national institution which would then follow through with further research activities to determine change, impact or failure.

14. The second major area for operational research will be in the field of nutrition education and communication. Formative research will be required to determine the methodology and contents of a nutrition communications strategy, based on current behaviors, attitudes and perceptions of the target audience. Further research will be necessary to evaluate the impact of IEC on nutrition.

15. The third area of research will be intersectoral. Research will determine the most appropriate approaches to nutrition rehabilitation; school health programs; nutritional surveillance and monitoring both nationally and in selected communities at risk; identification and coordination of various sectoral activities that impact on nutrition.

16. Further possible areas for operational research include: food fortification with micronutrients, the development of an urban nutrition strategy, and food quality assurance issues.

Strengthening of the Bangladesh National Nutrition Council (BNNC)

17. In the past BNNC has met infrequently, and its secretariat has not had adequate staff with the required expertise. One of the sub-components under the Fourth Population and Health Project (FPHP) provides the necessary
finances to strengthen BNNC in this regard. Funds are also being provided for supporting BNNC in terms of physical facilities and technical assistance.

C. The Secretariat of the Bangladesh National Nutrition Council

18. The Secretariat of BNNC once considerably strengthened with senior professional capability, would be in a position to provide the Ministry of Health and Family Welfare and other line Ministries with the necessary advice on the development and implementation of nutrition components. The Prime Minister's office and Planning Commission will both require technical support on the feasibility and appropriateness of nutrition related projects proposed by line Ministries. NGOs and other private sector organizations involved in nutrition will benefit from clear advice and leadership in developing cost-effective nutrition interventions. For this purpose in addition to the inputs provided for under FPHP, this Project may contribute further resources to BNNC as may be necessary. As a minimum it is expected that four technically competent and experienced individuals will be needed in addition to an experienced and competent manager who would lead the BNNC Secretariat.

19. In view of the need for considerable efforts to be put into the community based nutrition interventions, IEC, project monitoring and evaluation, the technical strengthening of BNNC should correspond to these areas of expertise. Specific technical assistance (through consultancies) will be required from project preparation stage and should therefore be funded prior to the effective date of the nutrition project possibly through FPHP. Given the diversity of the tasks involved in designing and implementing a community based nutrition project it is likely that in the initial phases and intermittently throughout the project there will be an additional need for short term consultancies. The consultants and project personnel will work closely with the existing staff of the BNNC, IPHN and MOHFW.
1. The component on IEC development has been included mainly to develop messages and materials for use in the project, though these materials could be used in nutrition activities outside the project thanas as well. This component would be managed by the Deputy Project Director (IEC) within the Project Office at the central level, but the actual tasks of formative research, message development and material production would be contracted out to the private sector. The media for delivering nutrition messages would be varied - from interpersonal (counseling) to mass media. The former method will be the primary one through the Community-Based Nutrition Component (CBNC); thus the two components will work in a complementary fashion - the IEC component developing messages and CBNC delivering them. The message delivery through mass media would be done within this component itself.

Framework for Nutrition IEC Strategy

2. The development of an overall national nutrition IEC strategy that builds on successful experiences and establishes linkages with other IEC initiatives in Bangladesh is one of the institutional goals of this project. One such strategy that has been adopted in Bangladesh is based on participatory processes which involve the elements of advocacy for national commitment, social mobilization for partnership building and community participation, and program communication to foster specific behavior change. The IEC component of the proposed project will adopt this model as basis for the development and refinements of community nutrition program IEC strategy.

3. Advocacy consists of the organization of information to arrive at greater consensus on the basic, underlying and immediate causes of malnutrition and appropriate actions which should be taken to address these problems, with a view to gaining political commitment and social leadership for a nutrition program. This is expected to result in the development of a nutrition policy, adequate resource allocation for the program and proper positioning of nutrition in the overall development goals of the country. The channels for advocacy in nutrition could include a whole range of activities such as national conferences, workshops, speeches, special events, appearances, field visits, newspaper coverage, magazine articles, special publications, interactive video, general programming on TV and radio targeted to policy makers, program planners and the general public.

4. In the preparation of this project, a series of consensus building workshops involving key policy-makers and program planners were conducted with UNICEF assistance which generated a high level of awareness about the malnutrition problem and strong political commitment to solving it. This project will continue to support nutrition advocacy to broaden and expand this
political commitment at the national and local levels for implementation of a community-based intervention and inter-sectoral programs which can feed back into a responsive national nutrition policy.

5. **Social mobilization** is the process of bringing together all feasible and practical inter-sectoral allies to raise people's awareness of and demand for a nutrition program, to assist in the delivery of resources and services and to strengthen community participation for sustainability and self-reliance. First, it includes government mobilization aimed at informing and enlisting the cooperation and help of service providers and other government organizations which can provide direct or indirect support. This will be done through training programs, study visits and coverage of the subject by the mass media. Second, community mobilization is geared at informing and gaining the commitment of local political, religious, social and traditional leaders as well as local government agencies, NGOs, women's groups and cooperatives. The methods to be employed include orientation seminars, participation in planning and media coverage to gather and disseminate information on the expected benefits of a successful nutrition program and to muster support for community level demand creation and partnerships.

6. Project preparation for social mobilization will include an analysis of who and where the potential partners are, and a participatory definition of their respective roles in the nutrition program. This exercise can include a series of workshops at the district, thana and union level through a process known as VIPP or Visualization In Participatory Planning (Attachment A). This methodology will be tested at the Thana and union level to determine its appropriate use in consensus building on the malnutrition problem which has also vast implications for the management, logistics support, training and monitoring of CBNC. Initial workshops will help organize representative bodies or implementing structures at all levels, develop guidelines on coordinated involvement, reach agreements on priority targets and conditionalities for access to various services such as GMP, care of teenage girls, pregnant and lactating mothers, homestead gardens, food distribution schemes, income generation and health services that are/will be available in the project areas.

7. Mobilization and demand creation for nutrition and other inter-sectoral services will also be promoted for the program beneficiaries through special campaigns, establishment of community discussion groups aided by traditional or mass media and interpersonal communication. It should be based on an in-depth and comprehensive understanding of the community's social, cultural and economic realities. It should be planned and tested for feasibility to ensure that demand created for nutrition and other programs in the mobilizing process is met. A protocol for introducing CBNC into the community will be developed and refined during the first year of project implementation for use in subsequent project expansion.

8. It is important that the process of social mobilization be monitored and project management will develop some indicators in this regard. An illustrative set of qualitative indicators is given in Annex 13 as a guide
to determine that institutionalization, capacity building, coordination and integration are taking place.

9. **Program communication** includes the process of identifying, segmenting and targeting specific groups/audiences with particular strategies, materials, messages or training programs through various media and interpersonal channels, traditional or non-traditional. It incorporates some concepts of social marketing which include behavior change as the ultimate product, a price tag of malnutrition in terms of social cost, missed opportunities for productivity and intellectual achievement, and the careful design, development and delivery of the messages through formative evaluation. This model also embraces a cyclical model of applied communication which allows flexibility and refinements based on new information received about the expressed perceptions and changing needs of the target audience. The conduct of formative research, strategy and design development, materials development, implementation and evaluation will be repeated for different themes of the program. Initially, program communication themes for social mobilization and GMP will be developed. It is expected that by the end of first year implementation, a proposal for the second round of formative research will be developed according to program needs.

**Formative Evaluation**

10. The first round of formative research for program communication is a requisite activity to be concluded before the project begins. It is important that no production of communications materials will be made before a formative research is completed.

11. Adequate quantitative information and recent studies of family practices including existing feeding patterns of children 0-36 months and pregnant/lactating mothers are available in Bangladesh which can be used in the preparation of formative research. Some special studies to determine specific feeding patterns of the vulnerable groups in different ecological zones and socio-economic groupings in the project areas may be conducted if not enough information is yet known, particularly on the types of foods introduced at various ages, ways of feeding young children, factors and persons influencing those patterns.

12. The problem identification will be initiated by a review of literature and careful analysis of factors which promote or hinder the health and nutrition of the vulnerable groups. It will be followed by qualitative studies to be contracted to a research firm for an in-depth analysis of what mothers actually do, why they practice the observed behaviors and the important determinants of these behaviors. Participant observation, focus group discussions and in-depth interviews will be carried out to obtain such information and to explore the feasibility of improving those practices with existing family resources. The findings will be used to formulate action-oriented objectives for distinct audiences and messages will be designed, field tested, revised and will become the basis for nutrition IEC activities.
The resulting communications strategy will be tested for first year implementation with continuous fine tuning as the project is scaled up.

Communication and Material Development

13. The media production called for in the initial communications strategy will be contracted out to appropriate production firms. The design and strategy developed from the formative research will guide and direct writers, artists and production personnel to prepare messages and materials for each target audience. The weighing of all children 0-2 years and supplementary feeding of those who are growth faltering and non-feeding of those who are growing normally will be the central motivation factor and communication focus in growth monitoring and promotion. Audience segmentation will require modifications to messages accordingly. Messages will be focused on feasible and easy to practice behavioral changes which will have positive effect on child growth. The messages will also reinforce positive practices while seeking to change negative ones. The emphasis for the child will be on giving colostrum and exclusive breastfeeding, introducing appropriate semi-solids after 6 months, supplementary feeding for growth faltering children and feeding during illness. For mothers the emphasis will be on the need for additional food and liquid intake during pregnancy and lactation.

14. The media plan will include packaging of messages into attractive discussion guidelines, curricula, teaching aids, handouts, radio and TV messages, and field worker materials to match audiences, program needs and the identified effective delivery channels. The standard procedure for materials development for the prototype messages will be carried out with pretesting and revising as required, and in consultation with the appropriate authorities.

15. After developing the final messages, relevant groups will be oriented and trained to use the materials and conduct the IEC activities. These will be complemented by actions in the service delivery front. Various channels will be used to repeat key messages. CBNC supervision plan will include actions to monitor and supervise IEC activities adequately.

Evaluation

16. An evaluation to show actual changes in behavior and impact on nutritional status will be designed. This will include (a) an initial baseline study, (b) monitoring/tracking studies, as appropriate and (c) final or summative evaluation.
Visualization in Participatory Planning (VIPP)

1. Most workshops, seminars and training sessions in Bangladesh and other countries are essentially formal affairs where participants are required to listen to a large number of speeches from a dais set rigidly before rows of chairs or a board room style table. Hierarchical relationships are strictly adhered to. Speakers come with fixed positions on various subject matter and attempt to pass on information in lectures, relying on their wit and charm to keep audiences receptive. Very often discussion sessions consist of another series of formal speeches with little or no feedback. Much of the content of speeches is lost to audiences.

2. The methodology used in VIPP is a direct attempt to break down a passive "seminar culture". Although many people may be familiar with participatory methods, VIPP is different. It relies on the preparation of a large number of cards of different shapes, made from art paper of different colors, on which the participants express their main ideas in large enough letters or diagrams to be seen by the whole group. Private note taking is not allowed. Participants are asked to stick to the rule of one idea per card. They are asked to synthesize their thoughts, or the thought of others, on these cards and to display the cards on moveable boards.

3. By this method, everyone takes part in the process of arriving at a consensus. Less talkative participants find a means of expression and those who might normally dominate a group lose control and are forced to let others have their say. By visualizing the group's main proceedings, repetition and circularity in arguments are reduced. If there is a record of the group's progress, visible to everyone, it is easier to point out such repetition.

4. The rule of one idea per card is important. Flip charts with long lists of ideas allow only part of the group process to be visible at one time. Some of the ideas are flipped out of sight. It is possible to pin or tape flip chart paper to a wall or board. However, it is difficult to separate individual ideas, move ideas to other groupings or categories or to collapse the ideas of two sub-groups, ruling out redundancy. If there is one idea per card, all of this is possible. Individuals and sub-groups can identify their own work and see how it fits in with the thoughts of the group as a whole.

5. Finally, with this methodology, it is not necessary to take extensive notes. The proceedings of the workshop, visible to all, can be photographed and a report written from them.
BANGLADESH

INTEGRATED NUTRITION PROJECT

Strengthening Existing Nutrition Activities

The assessment of UNICEF and the project preparation missions showed that current activities on vitamin A supplementation and iodine supplementation to populations at risk need improvements in their management and effectiveness but no additional resource requirements were identified. However, additional resources were found to be necessary to strengthen the activities on the control of nutritional anemia and on the promotion of breast-feeding. Therefore, this component will primarily finance these two sets of activities. This annex provides draft proposals on both these activities. (In the case of vitamin A and iodine, some strengthening could be done within the framework of CBNC in its thanas).

Control of Nutritional Anaemia

1. Background/problem statements:

1.1 Nutritional anaemia is a serious public health problem in Bangladesh. Although anaemia is widespread in the country, it specially affects women in the reproductive age group and young children. Nutrition Survey of rural Bangladesh 1981-82 shows about 50% pregnant and lactating women are anaemic. Recent analysis of data of 393 pregnant women from MCHTI-Azimpur shows that only 0.5% pregnant women in their third trimester had haemoglobin level above normal value (11 gm/dl or above). Remaining 99.5% suffered from anaemia of which 66% falls under severely anaemic category having haemoglobin level 8 gm/dl or less.

1.2 Nutritional anaemia due to Iron Folic Acid deficiency, is directly or indirectly responsible for about 20% of maternal deaths in Bangladesh. Anaemia is also a major contributory cause of high incidence of prematurity, low birth weight, postpartum hemorrhage and perinatal morbidity and mortality. Improved haemoglobin levels in the blood would reduce tissue anoxia caused by hemorrhage and may well reduce death due to hemorrhage. Furthermore, one gram increase in haemoglobin level per 100 ml of blood had been reported to increase the birth weight of a child by 50 gm. Improvement in anaemic status among labor force increases their work output and productivity.

1.3 Existing programme to control anemia at national level lacks clear policy guideline, operation details and coordination among various implementing agencies resulting unsatisfactory coverage and impact.

2. Goals and Objectives: The goal for control of anaemia for BINP has been developed in line with the International Conference on Nutrition and the World Summit for the Children goal and as national target to be reached by the
year 2000. The goal has been set as realistic one to be achieved in about project life within areas where project activities will be carried out.

Goal: Reduction of iron deficiency anaemia among children and pregnant and lactating women.

This particular project will also contribute in partly reduction of following nutrition goals set for the nation:

(a) Reduction of the rate of low birth weight by half;
(b) Improvement of maternal nutritional status during pregnancy;
(c) Reduction in infant mortality rate.

3. Strategies: Considering the magnitude and the seriousness of the problem, the immediate and longer term actions are required to:

3.1 Directly attack the problem, targetting to the most vulnerable groups within operation areas particularly among pregnant and lactating women instead of blanket coverage for total population;

3.2 A sustained improvement in the anaemia status by a more holistic and intersectoral approach along with other components of the project, particularly through intersectoral activities.

3.3 Specific strategies:

(a) Clear targetting strategies for supplementation;
(b) Establishing an effective coordination with CBNC and intersectoral activities;
(c) Establish linkages and effective referral system with existing health facilities/outlets at project operation areas;
(d) Operation research on alternative approaches.

4. Interventions:

4.1 Iron and Folic acid supplementation to all pregnant and lactating women (PLW) in the project areas:

(a) among admitted group for supplementary feeding in the nutrition centres;
(b) all other PLW while they encounter with other health facilities during ante and post natal visits;
Recommended doses:

(i) For pregnant and lactating women - 60 mg of iron and 250 mg of folate twice daily OR

(ii) Same doses twice weekly.

4.2 Treatment of severe anaemia with injectable form of iron. Women with severe anaemia (< 8 gm/dl) will be referred to nearest health facility (Family Welfare Centre) for treatment.

4.3 Promote increase intake of iron and Vitamin C containing foods through health education while they will be admitted in the feeding centres on relevant topics.

4.4 Training for Nutrition workers and other health worker where necessary.

- Ensure the training manual/module for nutrition workers contain appropriate information viz. effect of anaemia on pregnant & lactating mothers, prevention through consumption of iron rich foods and iron supplementation dose for supplementation, identification, and referral of severely anaemic women.

- Incorporation of these topics into ongoing and future training courses for health and family planning workers.

4.5 Operations research: Some reasons for non-success of supplementation and non-compliance to treatment are thought to be gastrointestinal side effects and failure to take regular daily doses. The frequency of side effects are related to the dose of iron. Weekly doses might be better tolerated, and improve compliance rate. Provision would be kept in the project to try out both options (regular daily dose and bi-weekly doses) in different thanas before universalization of one method.

5. Management: Following service outlets of Health & Family Planning Directorate would be used:

5.1 Satellite/Outreach Sites: For pregnant and lactating women not admitted in feeding centre:

(a) During 1st dose of TT: one month supply (60 tablets)

(b) During 2nd or booster dose of TT: two to three months supply (120-180 tablets) depending on the month of pregnancy when 2nd or booster dose is received. This include one month supply for 1st month of lactation.

(c) During 1st dose of DPT: One month supply (60 tablets) to mothers those who accompany their children for 1st dose of DPT.
(d) Treatment for severe anaemia.

5.2 Nutrition Centre: Iron and Folate supplementation only for pregnant and lactating women admitted in the nutrition centres as per above schedule.

5.3 Family Welfare Centre and UHC:

(a) One month supply (60 tablets) during each contact for antenatal and postnatal check-up.

(b) Treatment for severe anaemia.

6. Supply:

6.1 Satellite/Outreach sites, FWC and UHC: From Health and Family Planning Directorate in EPI plus Kit and FWC D&DS Kit.

6.2 Packaging: 30 and 60 tablets in a polythene self sealing bag marked for pregnant and lactating mothers from nutrition centre and other outlets respectively.

7. Cost: Project envisage a total cost of US$6200 for each thana. In addition a total of US$350,000 would be required for training/communication and research. The cost is based on following assumptions:

(a) Four percent of the total population is pregnant at one point of time;

(b) One third of the anaemic cases are in severe form (<8 mg/dl) who would require therapeutic treatment by injectable iron;

(c) Coverage rate would be 80% through various health and nutrition outlets;

(d) 1000 tablets cost US$1.6 (UNIPAC, Copenhagen rate)

(e) All cases including severe form would require total 250 tablets per women treated for a period of total 4 months.
<table>
<thead>
<tr>
<th>Target/Cost</th>
<th>Village</th>
<th>Union</th>
<th>Thana</th>
<th>Total Cost/Thana</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Iron supplementation:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>i. PLWs</td>
<td>32</td>
<td>320</td>
<td>6400</td>
<td>US$3200</td>
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<td>Cost</td>
<td>16</td>
<td>160</td>
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<tr>
<td>Sub-total</td>
<td></td>
<td></td>
<td></td>
<td>US$3200</td>
</tr>
<tr>
<td>b. Injectable Form:</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>ii. Severe cases</td>
<td>10</td>
<td>200</td>
<td>2000</td>
<td>US$3000</td>
</tr>
<tr>
<td>(@US$1.5/case)</td>
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<tr>
<td>Cost</td>
<td>15</td>
<td>300</td>
<td>3000</td>
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<tr>
<td>Sub-total</td>
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<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td>US$6200</td>
</tr>
</tbody>
</table>

Other activities (for the total project period):

(a) Operation research US$150,000
(b) Training/Communication US$200,000
8. **Breastfeeding Program in Bangladesh**

**Project Summary**

1. Name of the Project: Campaign for the Protection & Promotion of Breastfeeding (CPPBF)

2. Sponsoring Ministry: Ministry of Health & Family Welfare

3. Implementation Agency: Ministry of Health & Family Welfare and Campaign for the Protection & Promotion of Breastfeeding (CPPBF)


5. Geographical Coverage: National

6. Total Project Cost in $: $2,623,000

7. Government Contribution: 

8. Beneficiaries: Infants, Children & Mothers

9. **Brief Description**

Breastfeeding is the traditional way of child feeding in Bangladesh although practices deviate far from optimal. In 50% cases BF is initiated at 48-72 hours after delivery. Colostrum is discarded in 2 out of 3 cases and practices of pre-lacteal feeding (honey, sugar water, cow's milk water and mustard oil etc.) is almost universal. Exclusive breastfeeding declines rapidly from 60% at birth to 5% at 5 months. Proper and healthy Weaning practice at right time with appropriate food are rarely done. The non ethical marketing of breastmilk substitutes (BMS) through media and the health professionals are sources of misinformation including breastfeeding practices. All milk powders are considered as breastmilk substitutes and bought whenever it could be afforded by the parents. The use of BMS is more prevalent in urban areas. The medical institutions and health professionals are commonly found to support unethical/practices of BMS in the hospitals/clinics and private practices. In 1991 rooming-in was found universal for hospital delivered babies, exclusive breastfeeding for this group was virtually unknown. Only 2% of mothers of hospital delivered babies were advised properly about breastfeeding.

Concerned with this situation the Campaign for protection & promotion of Breastfeeding (CPPBF) was established as a voluntary and idealistic network in April, 1989 by a group of professionals from medical Institutions, government agencies, U.N. agencies, NGOs with the active support from UNICEF. CPPBF is the focal point for all breastfeeding
activities in Bangladesh. Programs are implemented by the member of a National Executive and six subcommittees through government agencies with active partnership with NGOs. It has a skeletal staff forming the secretariat to implement the activities.

9. The Goal of Campaign for the Protection & Promotion of Breastfeeding (CPPBF): The single goal of the Campaign is to significantly lower the morbidity and mortality of children and women in Bangladesh through successful breastfeeding.

10. The Objectives:

(a) To achieve and sustain universal exclusive breastfeeding for the first six months ensuring colostrum for all babies.

(b) To improve the weaning practices and encourage the continuation of breastfeeding for 2 years or more.

(c) To improve the nutritional status of pregnant and lactating mothers.

11. The following are the principal Project activities:

(a) Formulating and disseminating a National Breastfeeding Policy for maternity/health care facilities.

(b) Advocacy and mobilization of key professionals and allies - professionals bodies, women's group, NGO, GOB departments and donor agencies.

(c) Institution of "Baby Friendly Hospital Initiative in hospitals providing Maternity Services.

(d) Strict enforcement of law prohibiting free and subsidized supply of Breast Milk Substitutes (BMS) in all health facilities.

(e) Comprehensive planning for all health service providers (GOB as well as NGO).

(f) Under taking relevant Research.

(g) Communication for the promotion of BFHI, exclusive breastfeeding and appropriate weaning.

(h) Tradition for Creation of "Mother Friendly Work" place for the Working Women.
11. **Problem:**

11.1 Breastfeeding is the traditional way of childfeeding in Bangladesh although the practices deviate far from optimal. Breastfeeding is initiated in 50% of the cases between 48 and 712 hours when the mother feels "the milk has come in". Colostrum is discarded in majority cases and feeding of prelactial feeds in the form of honey, sugar, water, mustard oil, cow's milk, is almost universal. Exclusive breastfeeding is non-existing, water is given in almost cent percent cases. Proper weaning practices in terms of right time appropriate food and amount are absent. Semi-solid foods are introduced before 4 months of age among one fifth of the infants. About one third infants are given solid food at the age of 6-12 months. The type of complementary foods given are usually rice gruel which lacks in energy density. the frequency and amount are not enough to meet the requirement of the growing baby. The total duration of breastfeeding is shorter among urban elites. At 12 months 20 percent of the urban elites continued breastfeeding compared to 30 percent of poor urban and 80 percent of the rural children continued breastfeeding at 24 months.

11.2 The non ethical marketing of breastmilk substitutes (BMS) through media campaign and health professionals are amongst the major sources of misinformation for patents. all milk powders are considered as BMS and is bought whenever it can be afforded. The use of BMS is more prevalent in urban areas. Many medical institutions and professionals use or prescribe BMS indiscriminately.

11.3 **Government’s Commitment to the Campaign and Global Goal:** The Goal for Campaign for the Protection and Promotion of Breastfeeding (CPPBF) in Bangladesh is to empower all women to breast feed their children exclusively for six months and to continue breastfeeding, with complementary food, well in to second year. This goal was adapted globally in the World Summit for Children in 1990, which subsequently was ratified by the Government of Bangladesh. The strategy to achieve this goal the "Baby Friendly Hospital Initiative (BFHI)" has been promoted globally by UNICEF and WHO in June 1991. The Government of Bangladesh has shown its political commitment by signing the "Dhaka Declaration" by the hon’ble Prime Minister, the hon’ble President and hon’ble Minister of Health and Family Welfare pledging the support, protect and promote breastfeeding.

11.4 To achieve the Goal for breastfeeding in Bangladesh the GOB with the assistance from UNICEF has fixed a "Mid-Decade" goal to make all hospitals (162) having Maternity Services "Baby Friendly" by ending free and low cost supplies of infant formula and Breast Milk Substitute by 1995. It is further proposed to cover by the year 2000, 700 hospitals/health facilities including Thana Health Complexes - providing Maternity Services.
11.5 **Campaign for the Promotion and Protection of Breastfeeding (CPPBF):**

Breastfeeding Promotion in Bangladesh has become active since a Working Group consisting of professionals from Government, NGO, and individuals met regularly since 1989. Subsequently, the CPPBF was created in January 1991 by the initiative of UNICEF and a group of volunteers of professionals from Government, Medical Institution, and NGO's. Since then, CPPBF is considered as the focal point for all breastfeeding activities in Bangladesh. It now functions as the central authority on breastfeeding in Bangladesh.

11.6 CPPBF has a structure of one Executive Committee supported by other six sub-committees. All members of the executive and sub-committee work as volunteers. The members of the Executive Committee meet at least once in a month and decide on policy issues and day to day implementation of the various programs. The six sub-committees implement the activities as outlined in the annual work plan. The day to day activities and the management of various programs are undertaken by the skeletal staff forming the CPPBF Secretariat, which provides:

(a) the meeting facilities for the executive and sub-committees;
(b) acts as an information center for resource papers and publication on breastfeeding;
(c) acts as distribution point for communication material; and
(d) provides the secretarial support and coordinates the various programs.

11.7 **Relation with Government Program:**

(a) The CPPBF activities are covered under the Community Food and Nutrition Program of the Institute of Public Health Nutrition.

(b) Ministry of Health and Family Welfare is responsible for ensuring that the hospitals under their care (at national, district, and subdistrict levels) are "Baby Friendly". NGO's undertake advocacy for exclusive breastfeeding. Professional bodies including doctors and nurses associations are promoting the changes necessary in the institutions under their jurisdiction, and undertaking training of other health personnel.

12. **Financing of CPPBF:**

12.1 Since inception, CPPBF remained under the umbrella of UNICEF which has been the single source of all financial support for:

(a) The various activities/programs;
13. **Future Plan**: 

13.1 It has been decided by the Executive Committee that CPPBF will be turned into a "Trust". The status of Trust will permit CPPBF to accept funds from other sources. It would turn into financially independent organization to have better scope for planning, implementing and monitoring of its program. It is expected that by 1995 the "Trust" will be fully functional.

13.2 To meet the increased need for various activities particularly to make all hospitals in Bangladesh (about 700) "Baby Friendly" by the year 2000. The facilities of the CPPBF secretariat will have to be expanded. This would require:

(a) a bigger office space with more physical facilities and appropriate logistic support; and

(b) increase in number of full time paid staff in the secretariat.

13.3 It is also proposed that to take the activities of CPPBF to the district and sub-district levels decentralization of the CPPBF office is a must in 5 divisions by establishing divisional centers. This is felt necessary to (i) meet the increasing demand from the field; (ii) reduce load on central CPPBF Secretariat; (iii) decentralization the supervision and monitoring mechanism for BFHI and ending of free and low cost BMS; (iv) have sustainability in the program and finally (v) to bring the whole country under the Campaign network.

14. **Project Activities**: The following principal project activities will be undertaken in future to achieve the BF Goals in Bangladesh:

14.1 Updating the National Breastfeeding Policy for hospitals and maternity facilities.

14.2 Continue the Advocacy and mobilization of key professionals political will, professional allies, professional bodies, women's group, NGO's GOB agencies/departments and donor agencies.

14.3 Institute of BFHI in hospitals providing maternity services.

14.4 Strict enforcement of the law prohibiting free and subsidized supply of BMS in all Health facilities.

14.5 Comprehensive training for all health service providers.

14.6 Under taking relevant research.
14.7 Communication for promotion of BFHI

14.8 Communication for promotion of mothers friendly work places for working women.

15. Strategies

15.1 By the year 2000 we have to achieve Baby Friendly Hospital initiative in all the health facilities providing maternity services. During the period from 1995-2000 several activities and combination of various strategies will be followed. They would be flexible enough to accommodate required changes with regular review.

15.2 The following will be the strategy:

(a) Creating, sustaining and supporting an effective national and sub-national networks with GOB agencies, NGOs and other partners.

(b) Creating, implementing and monitoring an appropriate legal framework at all levels.

(c) Integrating breastfeeding promotion and protection into health, FP and other development activities of Government and NGOs programs.

(d) Development of an effective service, research and training strategy immediate importance to the campaign group, for the national and directed towards achieving the goals.

(e) Developing an effective communication strategy and promoting community participation through advocacy, social mobilization and program communication.

(f) Ensuring successful breastfeeding for women in employment and training.

(g) Ensuring adequate child nutrition through successful infant feeding practices.

Based on the above strategies appropriate and essential activities are identified and an annual work plan is prepared by the members of the EC and sub-committees in collaboration with the government counterparts and other NGO partners.

16. Management of the Program: The management will continue to be done by the members of the executive committee and subcommittees. Day to day activities and implementation of various programs will be done by the Central CPPBF Secretariat with its divisional branches.

16.1 At National level: The CPPBF Secretariat with the help of EC and other subcommittees will continue to plan the formulation of policies,
advocacy and lobbing at appropriate level. It will oversee the implementation.

16.2 At divisional, District and below: Respective divisional chapters of CPPBF and affiliated medical colleges/NGO/Institutions/Persons will implement, manage and monitor all Breastfeeding activities. The Divisional CPPBF secretariat will provide the secretarial support for implementation and monitoring of all Breastfeeding activities.

16.3 The district level committees will also be formed to provide Technical support, supervision and monitoring of activities at sub district level.

17. Monitoring and Review Mechanism: A high powered Advisory Committee (comprising of 22 members) headed by the Additional Secretary of Ministry of Health and Family Welfare has been created. An authorized person has been appointed by the GOB to implement the code of marketing and to monitor any violation of code and also to ensure monitoring ending distribution of free and low cost breast milk substitute in health and maternity facilities. Advisory Committee with the help of Code and Research Sub-committee of CPPBF will establish an effective Surveillance System and Monitoring Mechanism at national and sub national levels. The program will be evaluated by an International agency at the end of Project period.

18. Budget:

The budget for the year 1995-2000 are as follows:

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<tbody>
<tr>
<td>1. Program Support</td>
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<tr>
<td>BFHI</td>
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<td>Training &amp; Communication</td>
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<td>94</td>
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<td>Monitoring &amp; Research</td>
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<td>Other Programs</td>
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<td>36</td>
<td>44</td>
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<td>2. Logistic/Supply</td>
<td>45</td>
<td>60</td>
<td>75</td>
<td>120</td>
<td>150</td>
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<tr>
<td>3. Support to CPPBF Secretariat at National and Divisional levels</td>
<td>57</td>
<td>58</td>
<td>59</td>
<td>60</td>
<td>62</td>
</tr>
<tr>
<td>Total : $</td>
<td>335</td>
<td>401</td>
<td>479</td>
<td>624</td>
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<tr>
<td>TOTAL for 5 years = $2,623,000</td>
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<td>Equiv. to Taka 10,49,20,000</td>
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18.1 The approximate cost for BFHI training has been estimated on the basis of 700 health facilities including Thana Health Complexes (397) Private Clinics training Maternity Services, NGO hospitals, Red Cross Maternity Centers, Railway Hospital, Army Hospitals in MCWCs. There will be 2800 trainees for TOT. There will be 21000 staff of these 700 units for BF Hospital training. Cost includes per diem, travel allowance for the trainees and per diem for the trainers for monitoring officers as well as the logistics cost.

18.2 The approximate cost for Communication and Training is estimated on the basis of:

(a) Production of a number of Communication materials for the field workers on the advocacy and information of breastfeeding. These are posters, pamphlets, flash cards and information booklet.

(b) Development of Curriculum for the orientation training of the health family planning workers working at the grass root level (out reach centers) and VDP members working for the nutrition program in 40 thanas.

(c) One day orientation training of the health family planning grass root level workers on the advantages & management of the breastfeeding under the Basic Pre-package Program - (started for 15 district will eventually cover the whole of Bangladesh).

(d) Orientation of the VDP workers of 40 thanas @ 200 worker per thana there will be 8000 such workers. One day orientation training on the advantages of breastfeeding and management of breastfeeding.

(e) Production of 3-4 short films for display from the cinema halls and T.V. on the various topics of breastfeeding including advantages of breastfeeding, mother friendly work places, expression and storage of breast milk etc.

(f) Development & production of Radio spots announcements - 3 times a week during the peak listening hour. The radio spot will include again topics on the advantages of breast milk for infant, mother and family and on the weaning foods.

(g) Utilization of folk media for the advocacy of breast feeding.

(h) Observation of Breastfeeding day/week once in a year.

(i) Observation of Health fortnight twice a year including the programs on the breastfeeding.

(j) Production of news bulletin (bimonthly) (some of these activities will be contracted out to the media people).
18.3 Research and Monitoring.

(a) Approximate cost is estimated for conduction of research in the relevant area of breast feeding - at least 4 research protocols, dissemination of research finding through the workshops, seminars and publications, and Research News Bulletin.

(b) Monitoring of BFHI and BMS code through out the program area in Bangladesh.

18.4 Other programs.

(a) Approximate cost is provided for the attending any meeting, workshop or training outside Bangladesh.

(b) Provision of some incentives for the development of creche - for the babies of working women.

(c) Award for the "Mother Friendly Work Places".

18.5 Approximate cost is estimated for the expansion of the Secretariat of the CPPBF. At present there is a very skeletal staff - which is:

Coordinator -1
Lactation Management Expert-1
Administrative Asstt.-1
MLSS -1

In view of the expansion of the activities the Secretariat needs to be enlarged at the Central level and at the same time for better coordination through out the country divisional coordination committees need to be established.

It is proposed to have:

Coordinator -1
Asstt. Coordinator-2
Accountant -1
Admin. Asstt. -1
Lactation Management-2
Secretary -2
Driver -2
Night Guard -1
Messenger/Peon -1
Cleaner -1
For Divisional Offices:

Asstt. Coordinator (1x5) - 5
Admin. Asstt. (1x5) - 5
Driver (1x5) - 5
Messenger/Peon (1x5) - 5
Cleaner (1x5) - 5

5.2 Logistics for the Central Office as well as Divisional Offices.
Introduction

1. There are two kinds of monitoring under consideration within this project subcomponent: a) Nutrition Monitoring; and b) project monitoring. The former deals with measurements of nutritional status indicators and some parameters related to the causation of malnutrition. It would therefore be largely carried out within CBNC. The latter concerns the regular assessment of project progress in terms of inputs, process, outputs and outcomes.

2. The community-based component of the project aims at strengthening the people's own capacity to assess their nutrition problems, understand their causes, develop locally resource-relevant actions which the community would own and to monitor or re-assess the results of the actions taken. Such a process is driven by the production, communication and use of information.

3. Experience has shown that the early establishment of a community-based monitoring system is of great importance for project mobilization. Such a monitoring mechanism set close to the community will act as a stimulus and a mobilizing force resulting in greater community participation in the project. It will also ensure that interventions are more relevant because they take account of local conditions and are understood by the people concerned.

Information Needs

4. In the development of any information system it is important to identify clearly the users of the information and their needs. Obviously the main users should be those, whose decisions affect nutrition and could be improved by more valid and timely information.

   A. Household Level

5. As far as the young child is concerned, the parents are the first key decision-makers. Monitoring of the child's growth provides an excellent tool in making the problem of malnutrition visible early enough for preventive action to be taken. The actions that can be taken by the household must be based on an analysis of the causes of growth faltering and an assessment of resources available at the household level. This is the prevention/counselling part of GMP. Many households will probably need support from outside the household in preventing malnutrition both in terms of additional resources and advice on how they could be best used.
B. Community Level

6. Eventually all community-based nutrition interventions will have to be owned and driven by the communities themselves. This clearly requires some sort of community organization which would be responsible for identifying, assessing and addressing malnutrition within the community. Such community organizations require an objective way of identifying the households most in need. They require a monitoring system. Once again GMP would provide the broad framework for such a system but the focus would be on the nutritional status of the women and children of the community as a whole, identifying actions to be taken at the community level in terms of using community resources to help those who are in special need. Such decision should be based on agreed criteria, such as ‘lack of growth for two months’ or ‘severely underweight’ at any time. The community organization should monitor the children selected for special treatment up to the point when their growth is adequate. The overall nutrition situation in the community can be monitored by the use of a community weight chart, where the weights of all children weighed are plotted. Such an open and transparent system would help increase the awareness of the community about the extent and nature of the problem and catalyze a more active community involvement in its resolution.

C. Union/Thana Levels

7. Program supervisors at Union and Thana levels also need information about the nutritional status of the populations under their care and how it changes over time. Depending on the actual coverage of the GMP program, different approaches should be used. If the GMP program covers 80 percent or more of the children, data at village level can be aggregated and sent to the Union and Thana levels. If, however, the GMP-program does not cover 80 percent of the eligible children, a sentinel approach should be used. A sentinel system consists of a limited number of carefully selected villages/communities, which would provide information to higher levels on a pre-determined regular basis.

Indicators

8. CBNC of this project will focus on young children, pregnant and lactating women. Weight for age will be used to monitor the nutritional status of young children, weight for height or arm circumference for pregnant and lactating women. Weight gain during pregnancy will also be measured.

9. Monitoring the nutritional status will show whether the problem is getting worse or better, but it will not show why there are changes. In order to be able to provide the right response, information is required not only about the nutritional outcome, but also about the reasons for it. Thus there is a need for nutrition problem monitoring in addition to nutrition status monitoring.

10. Household food security, access to basic health services and a healthy environment and adequate care of children and women are the three
necessary conditions for nutritional well being. In order to understand which of these conditions are not being fulfilled in a given situation, indicators must be found to measure each of them. Some of these indicators need to be defined as appropriate for local context. Some examples of generic indicators are listed below:

### Household food security
- per capita calorie consumption
- price of staple foods
- actual harvest data (food balance sheets)
- weight for height of adult men
- presence or absence of kitchen gardens

### Caring practices
- prevalence of exclusive breastfeeding of children below 4 months of age
- prevalence of sustained breastfeeding at 1 year of age
- feeding frequency
- energy density of complementary diet
- ratio of food consumption by women compared to men.
- practice of decreasing or increasing food consumption by pregnant women.

### Health Service/Environment
- immunization coverage (measles)
- incidence of diarrhoea (in particular persistent diarrhoea)
- use of safe drinking water
- form of excreta disposal

11. If possible, a few resource indicators should also be obtained, such as access to land or to other means of production, income, size of family, and some other local-specific socio-economic indicators.

### Project Monitoring

12. The project will establish a project management information system for monitoring of project inputs, process outputs, service coverage and outcomes. The Union Local Government will be the focal point for all project monitoring. A quarterly report based on predetermined indicators will be prepared for the central project unit (at the national level), with one copy to the Thana coordinator and one copy to the District coordinator. But primarily, the monitoring will be done by the Union level worker/volunteer. The information system will be simple, rational and need-based. The format will be uniform and the whole system will be geared towards the least common denominator, i.e. with the minimum strain on the workload at the grass-root level. A two-way feedback system will ensure that the results of any analysis performed at the central level would be shared with the grass-root level.
Evaluations

13. The whole project will be evaluated after two years of implementation and at the end of the project (after five years). Each evaluation will consist of two parts. The first part will consist of an internal evaluation, wherein all key actors get involved in reviewing progress at village, union, thana and district levels. Information on process outputs and outcomes will be available through the monitoring system at each level. Some additional studies would be commissioned to provide a more detailed understanding of the impact of the project on nutritional status.

14. The second part will consist of an external evaluation, which will follow the normal procedures of the World Bank. Both success factors and constraints should be carefully analyzed in order to facilitate necessary and possible mid-term re-orientation of the Project.

15. Both parts of the evaluation will be based on the specific objectives of the project as stated at the outset, measuring performance against the baseline situation as indicated by appropriate parameters.
BANGLADESH

INTEGRATED NUTRITION PROJECT

Some Suggested Indicators for Monitoring and Evaluation

For the Project area, seven impact goals have been identified. The following indicators will be used for monitoring the achievement of these goals:

(a) Reduction of PEM  
   a.1 Proportion of under-twos who fall below minus 2 standard deviations from median weight for age of NCHS/WHO reference population (moderate and severe under-weight).
   a.2 Proportion of under-twos who fall below minus 3 standard deviations from median weight for age of NCHS/WHO reference population (severe under-weight).
   a.3 Proportion of under-twos who fall below minus 2 standard deviations from median height for age of NCHS/WHO reference population (moderate and severe stunting).
   a.4 Proportion of under-twos who fall below minus 3 standard deviations from median height for age of NCHS/WHO reference population (severe stunting).
   a.5 Proportion of under-twos who move from one nutritional category to the other in an upward direction (i.e., improvement).
   a.5 Proportion of under-twos who move from one nutritional category to the other in a downward direction (i.e., deterioration).

(b) Low Birth Weight  
   b.1 Proportion of live births that weigh below 2500 grams.

(c) Iodine Deficiency Disorders (IDD)  
   c.1 Proportion of population in iodine deficient areas consuming adequately iodized salt (Iodized salt consumption).
c.2 Proportion of children aged 6 to 11 years with any size of goiter (palpable and visible combined).

c.3 Proportion of population aged 6 to 11 years with urinary iodine levels below 10 micrograms/100ml urine.

c.4 Proportions of women with visible goiter

(d) Vitamin A Deficiency

d.1 Proportion of children 2 to 6 years of age with night blindness.

d.2 Proportion of children 6 months to 6 years of age with serum retinol below 20 micrograms/100ml.

(e) Iron Deficiency

e.1 Proportion of women aged 15 to 49 years with haemoglobin levels below 12 grams/100ml blood for non-pregnant women, and below 11 grams/100ml blood for pregnant women.

e.2 Proportion of children below 5 years of age with haemoglobin levels below 12 grams/100ml below.

(f) Nutritional status

(f.1) Proportion of pregnant women who gain 7 kg or more during pregnancy.

(g) Breastfeeding

g.1 Proportion of infants less than 6 months (180 days) of age who are exclusively breastfed (including colostrum).

g.2 Proportion of children 20 to 23 months of age who are breastfeeding.

g.3 Proportion of infants 6 to 9 months (180 to 299 days) of age who are receiving breastmilk as complementary food.
### Interventions and Process Measures

<table>
<thead>
<tr>
<th>INTERVENTIONS</th>
<th>INDICATORS</th>
<th>WHETHER MEASURED BY</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>% or pregnant women registered by the end of the 1st trimester.</td>
<td>SS</td>
</tr>
<tr>
<td>Pre-natal Care</td>
<td>% of registered pregnant women receive three pre-natal exams/counselling sessions.</td>
<td>SS</td>
</tr>
<tr>
<td>Anaemia</td>
<td>% of registered pregnant women receive iron tablets for at least four months</td>
<td>SS</td>
</tr>
<tr>
<td>Tetanus</td>
<td>% of pregnant women receive two anti-tetanus shots.</td>
<td>SU</td>
</tr>
<tr>
<td>Goiter</td>
<td>% of pregnant women with visible goiter get iodine capsule by end of fourth month.</td>
<td>SS</td>
</tr>
<tr>
<td>PEM</td>
<td>% of registered pregnant women at high nutritional risk receive 4 months of food supplementation.</td>
<td>SS</td>
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<tr>
<td></td>
<td>% of lactating women at nutritional risk receive at least 6 months of food supplementations.</td>
<td>SS</td>
</tr>
<tr>
<td>Post partum care</td>
<td>% of registered post delivery women receive five counselling sessions for themselves and their infants in the first 6 months.</td>
<td>SS</td>
</tr>
<tr>
<td>Vitamin A deficiency</td>
<td>% of registered women receive vitamin A mega-dose within 4 weeks of delivery</td>
<td>SS</td>
</tr>
<tr>
<td>Family Planning</td>
<td>Contraceptive Prevalence Rate and Total Fertility Rate</td>
<td>SU</td>
</tr>
<tr>
<td>General</td>
<td>Register % of 0-24 month children through quarterly surveys.</td>
<td>SS</td>
</tr>
<tr>
<td>INTERVENTIONS</td>
<td>INDICATORS</td>
<td>MEASURED BY</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>PEM</td>
<td>% of registered 0-24 month children receive at least 18 out of 24 monthly weighing.</td>
<td>SS</td>
</tr>
<tr>
<td></td>
<td>Additional feeds of complementary food initiated by 6 months in infants.</td>
<td>SU</td>
</tr>
<tr>
<td></td>
<td>% of qualifying children are fed project supplement at least five out of six days a week.</td>
<td>SS</td>
</tr>
<tr>
<td></td>
<td>Referral of severely malnourished children 0-24 months to FWV.</td>
<td>SS/SU</td>
</tr>
<tr>
<td>Vitamin A deficiency</td>
<td>% of registered 0-24 month children should have received 4 vitamin A mega-doses</td>
<td>SS</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>For cases of diarrhea in 0-60 month children in the last two weeks.</td>
<td>SU</td>
</tr>
<tr>
<td></td>
<td>% given increased fluids and continued feeding</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of those who received treatment outside home who received ORS.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of mothers knowing indicators for referral.</td>
<td>SU</td>
</tr>
<tr>
<td></td>
<td>% of cases with bloody diarrhea.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of those referred for diagnosis.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of cases lasting over 14 days.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of those referred.</td>
<td></td>
</tr>
<tr>
<td>Immunization</td>
<td>% of infants receive measles vaccine</td>
<td>SS/SU</td>
</tr>
<tr>
<td>Volunteer Support</td>
<td>Active women's working groups (&gt;9 meetings a year).</td>
<td>SS</td>
</tr>
</tbody>
</table>
Illustrative Process Indicators for Social Mobilization in Community Nutrition Program (IEC)

Institutionalization

1. Broadened and continued political commitment and public support.
2. Increase in funding from various participating sectors.
3. Establishment/strengthening of organizational and structural support.
4. Establishment of nutrition monitoring system and sustained nutritional status surveillance at district, thana and union level.
5. Development and use of participatory training programs.

Coordination and Integration

1. Identification and role definition of potential partners at various levels.
2. Joint planning by participating sectors.
3. Coordinated workplan and implementation schedule.
4. Team approach: continuous dialogue with managers, supervisors, promoters and community leaders.
5. Integration of nutrition efforts with respective routine tasks.

Capacity Building

1. Adequate provision (financial, manpower support) for training and supervision.
2. Better understanding and appropriate response of the community to the problem of malnutrition through a process of assessment, analysis and action.
3. Good prospects for expansion.
4. Community and user's responsibility in the management of services.
BANGLADESH
INTEGRATED NUTRITION PROJECT
Community-Based Nutrition Component (CBNC)

Objectives and Rationale

A. Objectives

1. The overall goal of the community-based nutrition component (CBNC) would be to strengthen communities’ capacity to assess their malnutrition problems, analyze their causes, and make better use of family, community and outside resources to improve their nutritional status. Its specific objectives would be to:

   - develop community and family capacity to monitor nutritional status;
   - develop community and family capacity to care for vulnerable members, especially pregnant and lactating women and very young children;
   - strengthen the outreach and quality of MCH interventions and develop community and government capacity to target them on the nutritionally most vulnerable; and
   - develop community and government capacity to harness the resources of local development programs aimed at increasing income, food security and access to clean water, and target them on the nutritionally most vulnerable.

2. The community-based nutrition component would involve community workers, community groups, local governments and NGOs in achieving the above objectives.

B. Rationale

3. This component is seen as the core of the proposed project, for the following reasons.

   (a) First, malnutrition in Bangladesh is not a problem confined to the very poor. It exists to a significant extent even among groups with enough resources to feed their families adequately. This strongly suggests that increased incomes and hence greater household food security, among the very poor will not necessarily lead to corresponding gains in nutritional status unless accompanied by education which results in changing the way families
feed women and children, and care for their health. Community education is therefore a fundamental intervention, without which other interventions will have little impact.

(b) Second, there is evidence from the distribution of malnutrition in Bangladesh that behavioral change can have a substantial impact on nutrition even in the absence of increased incomes and greater food availability to the household. High overall rates of malnutrition tend to hide the fact that wasting, signalling current acute malnutrition, is heavily concentrated in children under two years; malnutrition in older children and adults consists mostly of stunting, the product of previous episodes of wasting. The fact that wasting falls sharply at age four and five, ages when children are more expensive to feed, suggests that the cause of malnutrition is not just inability to afford food.

4. Malnutrition is in large part the effect of beliefs and customs which result in very young children not being fed enough, as well as not receiving adequate health care. When children are old enough to feed themselves, as opposed to being dependent on being fed by their mothers, their nutrition improves. The same cultural forces also affect the nutrition of women, who in Bangladesh eat only after the rest of the family is satisfied, and therefore tend to eat least. Pregnant and lactating women, like very young children, have their dietary intakes controlled by custom, and cannot easily increase them to meet their increased physiological needs.

5. One reason that families fail to care adequately for pregnant women and young children is that they do not realize they are malnourished. Creating a community capacity to recognize and monitor malnutrition is therefore a key project strategy, as is education to change customary feeding and health care habits. Since families' feeding and health care practices are deeply ingrained in cultural tradition, they are not easy to change; IEC based on mass media alone is not likely to generate an appropriate response. Husbands need to be shown that their wives are malnourished, and parents that their children are malnourished, and then be counselled appropriately. This can be best achieved by a face-to-face approach in the community, through the culturally acceptable medium of a trained community worker volunteer, reinforced by group support from the community. It is for this reason that a community-based approach is proposed for this core component of the project.

6. Notwithstanding the importance of behavioral change in reducing malnutrition, many malnourished families in Bangladesh need better access to food, safe water and health services. The project's intersectoral component describes the key inputs required in these areas and the funding mechanisms proposed for them under the project. But most poor families have neither the knowledge nor the power to access such inputs and services on their own. CBNC would therefore build village and slum communities' capacity to work with local governments and NGOs to harness resources from locally operating projects and programs in these areas, and target them at the nutritionally most vulnerable.
Interventions

7. The following specific interventions would be supported under this component to deal, respectively, with micro-nutrient deficiencies and protein-energy malnutrition.

A. Micro-nutrient deficiencies

8. There is a separate project component to strengthen existing national efforts to correct three key vitamin and mineral deficiencies i.e., of vitamin A, iron and iodine. CBNC would link these efforts to other interventions within its operational thanas.

9. Nutrition education would be given to encourage consumption of foods rich in iron and vitamin A and avoidance of goitrogenic foods. Further details are given in the IEC component. Also, extension efforts encouraging homestead food production (kitchen gardens and poultry farming) under the intersectoral nutrition component would promote the growing of such foods within the household ensuring easy access and affordability.

10. Since dietary behavioral change is difficult and probably a long-term proposition, IEC efforts would also promote the acceptance of vitamin A supplements in capsule form for children under six; iron supplements in tablet form for pregnant and lactating women; and iodine capsules for women of reproductive age. As for micronutrient supplementation per se, since the national requirement is already partly included in other projects, this project would finance the remainder through the component dealing with it.

B. Protein-Energy Malnutrition

11. The component would support the following interventions to prevent and treat PEM.

(a) Screening, education and supplementary feeding of pregnant and lactating women

(i) This will be first attempted on an experimental basis in three of the six first year thanas. An assessment of costs and benefits will be made at the end of two years, the findings of which will determine whether supplementary feeding of PLW should be extended to all the project thanas.

(ii) Pregnant women would be registered by the end of the first trimester, and screened for malnutrition. All pregnant and lactating women would receive education on the quantity and quality of their diet, and the need to rest more during pregnancy. Pregnant women identified as being at risk of having a low birth weight baby (approximately 60%) would receive a daily supplement yielding about 600 calories from the time of screening through the sixth month of lactation. The
most appropriate methodology for workers to measure pregnant women's nutritional risk under field conditions needs to be worked out yet.

(b) Adolescent girls.

(i) A strong technical case can be made for screening and supplementing malnourished adolescent girls for about a year at the onset of puberty. The adolescent growth spurt presents the first (and last) biologically effective opportunity to counteract childhood stunting once the child is past the age of three. Food supplementation to a girl at this age while bones are being formed is the last opportunity to ensure that her pelvis will be big enough for easy child-birth. Moreover, improving the nutrition of adolescent girls helps to ensure that newly weds enter their first pregnancy with adequate body stores. Such a strategy is likely to reduce the proportion of pregnant women who would need supplementation and therefore tantamounts to a preventive approach applied earlier on. Missing the opportunity to correct undernutrition at the adolescent age and consequently delaying supplementation of malnourished women until the second trimester of pregnancy is only a second-best solution. It may be too late for them to put on the weight they need to avoid low birth weight babies and progressive maternal depletion.

(ii) However, nutritional intervention at menarche is a relatively new concept. Its cost-effectiveness is unclear, and in particular it is of unknown cultural acceptability in Bangladesh. Operations research will therefore be carried out on the cultural, operational and financial feasibility of this intervention as part of the program development component which provides for such research.

(c) Growth Monitoring and Promotion (GMP) - Children under 2 years of age

(i) Children belonging to target households (the proposed target groups are defined in the subsequent section) would be weighed monthly from birth to the age of 24 months. Growth monitoring would have three main purposes: first, to demonstrate to parents their child's nutrition status and its growth pattern; second, to help determine the type of follow-on interventions in the areas of caring practices, health and food security; and third, to demonstrate to parents the response of the child's growth path to these interventions. Growth monitoring would therefore be the core intervention, since it would motivate and initiate family, community and government action, and monitor the results.
(ii) Because a) the bulk of wasting is concentrated in the first two years, b) malnutrition after two years is harder to correct, and c) weighing and charting is time-consuming for workers, growth monitoring would be confined to the 0-24 month group. Thereafter, severely malnourished children needing immediate supplementation, if brought to the attention of the CNP, would be referred to the health service facility.

(iii) The growth chart currently being used in Bangladesh is not suitable for the above purposes, since it does not distinguish between the different grades of nutrition status. It will therefore be replaced by a more suitable card; a likely candidate is the UNICEF rainbow/bubble chart, which is easy both for mothers to interpret and workers to fill in. This card is already being field tested in Bangladesh.

(d) **Identification and special care of low birth weight (LBW) babies**

(i) Babies would be weighed as soon as possible after birth. Mothers of LBW babies would receive special education on the care and feeding of new born. Special attention will also be given to the mother’s needs during lactation.

(e) **Education on breast-feeding and weaning**

(i) Mothers would receive education on the use of colostrum and exclusive breast-feeding during the first six months, and continuation of breast-feeding until the age of two. Parents and mothers-in-law would be educated on the need to introduce solid foods in sufficient quantity and quality from the age of six months.

(f) **Health education**

(i) Health education would be given to all families in contact with the program on four main contributors to malnutrition: a) the immunizable diseases (need for immunization); b) diarrhea (hygiene education and home fluid rehydration); c) ARIIs (home care of mild and moderate cases and referral of the severe ones); and d) maternal depletion (need for birth spacing).

(g) **Health check-up and referral**

(i) Children suspected of having health problems would be referred to the Family Welfare Visitor (FWV) or the Medical Assistant for diagnosis and treatment, or further referral. All children of third degree malnutrition and all children failing to gain weight while in the supplementation program would automatically be referred.
(h) **Deworming**

(i) Parasites contribute to malnutrition by absorbing nutrients. However, recent research in many parts of the world shows that deworming is not cost-effective in pre-school children, since at that age wormloads have not built up to levels that make a real difference to nutrition. A study being financed under the Fourth Population and Health Project will, inter alia, help determine the intensity of infestation at different ages and in different parts of Bangladesh. Based on the findings, a decision will be taken whether deworming will be a universal or a targeted intervention for children under the project, and the appropriate drugs for prophylaxis. Such an intervention might prove to be particularly useful for school-age children.

(i) **Supplementary Feeding of Children**

(i) The purpose of supplementation would be to demonstrate to parents through growth charts the substantial and rapid gains in nutrition status that are possible through feeding small additional quantities of food, providing the child is otherwise healthy and without heavy parasite infestation. The limited duration of supplementation would avoid dependence on the program, and emphasize to parents their primary responsibility for feeding the child. The intention of such supplementary feeding is not to deal with the food security problems of the poorest families, which would be addressed through harnessing the resources of income generation programs to help food-insecure families.

(ii) Target group children under the age of two with faltering growth and/or children of grade II malnutrition would receive a special food supplement yielding approximately 350 calories per ration, six days a week for a period of three months, or until they recovered to a normal growth path whichever is longer in duration. Children with a severe degree of malnutrition (grade III) would receive twice the daily ration and for a period of four months, with the same exit criteria. The supplement for children would be fed on the spot at a supervised feeding center within the community, to ensure that they received the full benefit of the supplement.

(iii) Operations research will be carried out to determine an appropriate supplementary food. The criteria will be palatability (including potential for preparation in different ways); nutrient content and density; reliance on locally available ingredients and preparation methods; shelf-life; and cost (including preparation costs). The potential of amylase enrichment, with which ICDDR'B is experimenting, will also be examined, especially with regard to increasing the volume of
food which can be absorbed by third degree children who may need the planned double ration but at the same time be anorexic. Possibilities of fortifying the supplementary food with iron and other micronutrients will also be piloted and expanded to project areas if found feasible.

(j) Food security, water supply and health care interventions

Specific interventions in these areas would be financed under the project’s inter-sectoral nutrition component. The related intervention under CBNC would be to strengthen communities’ capacity to harness resources in these areas and target them on those most in need.

Geographic Phasing and site selection

12. National coverage of this component would not be attempted during the six year life of the proposed project, both because of limited managerial capacity and because of the need to determine the approach(es) for wider application by learning from earlier experiences. Given the differences in health service capacity as well as the social milieu between rural areas and urban slums, it is envisaged that implementation arrangements would be introduced in about two or three sites (both rural thanas and urban slums) during the first year of the project, about 11 more sites will be added in each of the second and third years and then, subject to the mid-term review, CBNC will be further expanded to cover about 50 sites. The total population in the proposed project area would be about 13 million by the end of the project period. Based on the evaluation results, follow-on project(s) would expand the coverage eventually nation-wide. The geographic areas to be targeted will be selected using the criteria outline in annex 13.

Target Groups

13. Targeting is more of an issue for PEM than for micronutrient interventions because of the former’s greater managerial complexity and relatively high cost (especially for GMP). Special care will therefore be needed to target the project resources for PEM interventions at the clients where they are likely to yield maximal results as well as where the need is most. Two client targeting strategies are currently proposed. These alternative strategies would be tested in some Thanars during the first three years of the project. A decision would then be taken on the strategy to be adopted on a large scale, based on a mid-term evaluation.

A. All Vulnerable women and children

14. Under this strategy, the above interventions would be targeted on all pregnant and lactating women and all children 0-36 months in the project area; and, depending on the results of operations research, on all adolescent girls around menarche. These are the groups in society most vulnerable to malnutrition. They are also the groups where intervention can have the greatest effect in preventing malnutrition. The strategy of targeting
resources on pregnant and lactating women and the youngest children is much more cost-effective than trying to treat malnutrition among older children. The focus of the proposed strategy on prevention rather than cure is in line with the national primary health care policy.

15. If this strategy could be successfully managed, targeting the entire nutritionally vulnerable group on the above lines would be the quickest way to make an impact on malnutrition in Bangladesh. It would signal a major commitment to tackling the problem, on a scale already made by several other Asian countries. If the strategy were implemented on a national scale it would imply substantial annual recurrent costs but the long-term cost would be far less. It is expected to be more affordable and certainly more beneficial, for example, than the recently discontinued Rural Ration Scheme.

16. A more significant issue than incremental cost is the managerial challenge of implementing a program targeting the entire vulnerable group, given the very limited existing institutional infrastructure for community nutrition. For this reason, consideration is also being given to a second targeting strategy focusing on a subset of the nutritionally vulnerable group.

B. Newly married women, their children, and all severely malnourished children

17. This strategy will be introduced in one thana as a pilot test as it has not been tried out before. Its costs and benefits will be analyzed at the end of the project for possible expansion in the future project(s).

18. Under this strategy, specific interventions would be focussed on each newly married woman and her family from the time of marriage through the first two years after the birth of her first child; and on any severely malnourished child discovered through a scheme of regular "arm-banding" of the 0-24 months age group (arm-banding is used since it is an easier technique than the weighing used in the strategy outlined in para 4.1 above and the idea of this targeting strategy is to reduce the labor-intensiveness of the other strategy). The rationale for including the severely malnourished is that their risk of death is several times that of normal children; it would therefore be unacceptable not to intervene to help this group. The rationale for choosing the newly married for special attention would be three-fold:

- given the young age at marriage and limited education of young women in Bangladesh, the first pregnancy is the riskiest for both mother and child. Focusing care on the woman at this stage in her life would be targeting the most vulnerable stage of the reproductive cycle

- women who are already suffering from maternal depletion and who have had several malnourished children have formed bad self-care and child-care habits which are hard to correct. The newly married couple is more likely to respond positively to well-planned counselling and encouragement from the community.
Moreover, good care habits formed at the start of marriage are likely to carry over into good care for subsequent children.

- If this strategy is applied with some careful thought, the benefits could be more than nutritional. For example, the package of services provided might serve as an incentive to delay the first child birth since the couple would remain in the program until the first baby is two years old.

- The newly married couples are seen by the community as being at the start of their lives. The idea of helping them can be expected to get a strong acceptance by the community; this has been substantiated by empirical evidence obtained through informal discussions with Bangladeshi communities.

19. This innovative targeting strategy would substantially reduce the number of project clients. Under the ‘entire vulnerable group’ strategy, the clients would number about 30 pregnant/lactating women and about 90 children in the age group of 0-36 month in an average village of a thousand population. Under the ‘newly married’ strategy, the clients would number about 12 newly married women, about 12 of their children, and about 15 severely malnourished. Although all mothers and children in this group would have access to the special package of education and health care interventions, only women pregnant for the first time and their first children would be eligible for food supplementation.

20. This reduction in the size of the target group would have the primary advantage of increasing the quality of interventions by focussing on a more manageable number of clients. Since large scale community nutrition interventions are new to Bangladesh, it is possible that intense attention to a small number of priority clients could be a more effective approach than attempting to reach all the vulnerable women and children, and running the risk of low service quality because of the diffusion of effort.

21. The cost implications of the different targeting strategies are secondary, given that both are cheaper than the broad-based ration and food subsidy schemes already tried in Bangladesh. Nevertheless, targeting project interventions on this subset of the nutritionally vulnerable group would be substantially cheaper than targeting the entire group (although its impact on malnutrition has not yet been tested). Cost savings would be limited for staff, because of the significant ‘fixed cost’ of staffing an effective community-based intervention, but substantial in terms of supplementary food.

Implementation: Community-Based Structure And Processes

22. The component would put in place a structure at the village level capable of providing the above interventions to the chosen target group; and a process which would develop communities' capacity to assess their nutrition problem and its causes, participate in planning and implementing solutions, and help monitor project performance.
A. Structure

23. At the village level, the key structures for implementing the project would be a part-time community nutrition promoter (CNP) in each village, and a women's group interested in health and nutrition, working with the existing village power structure of elders and other influential persons, and the Village Development Committee (VDC).

Community Nutrition Promoters

24. The workload involved in implementing the above interventions is substantial. For example, growth monitoring, counselling and micro-nutrient distribution sessions would take one worker the equivalent of about three days a month for the 'vulnerable group' strategy, and training, record-keeping and reporting would require another two days. Home visits to families needing special attention would need about an hour a day, and supplementary feeding would take two workers about two hours each per day, six days a week. This total workload would average out to about four hours a day for the main worker, plus two hours a day for the secondary worker.

25. Growth monitoring and related activities would take about one and a half days a month as would training, record-keeping and reporting. Home visits would still require an hour a day, because of the large number of grade three children to be followed up, and supplementary feeding would take about an hour and a half a day for one worker. This would average out to about three hours a day.

26. In view of their current duties being already heavy the existing health FP workers cannot be expected to take on the additional workload. Volunteers are unlikely to work for more than three or four hours a week, implying the need for at least six volunteers per village. The cost of the large supervisory cadre which would be required to provide this number of volunteers with adequate supervision and support would exceed the financial savings of using volunteers in the first place. Moreover volunteers would probably be less amenable to project control and accountability and this might risk inconsistencies in the quality and reliability of the crucial interventions. However, it is recognized that the creation of a new permanent cadre of single-purpose workers is not a sustainable on desirable option.

27. It is therefore proposed that the key village level worker would be a Community Nutrition Promoter (CNP), paid a compensation of about Tk. 500 a month. An additional amount of Tk. 300 a month would be provided to cover incidental costs involved in running a community nutrition center on a daily basis. Evidence from previously tried similar community based efforts suggests that honoraria of this size are an adequate incentive for good performance. Remuneration at this level would ensure that the human resources costs of the program remain affordable and more importantly, the worker would not be perceived as a salaried government employee, but rather as a part of the community.
28. CNPs would be women with children, living in the local community, to ensure easy access and social acceptability to their clients. They would have a minimum education of 8th class or equivalent, to ensure sufficient literacy for growth monitoring and reporting. They should preferably be women from the poorer section of the community who have at least one well-nourished child; such women, even before training, would possess maternal and child care skills which they could pass on to others in the community. Detailed selection criteria for CNPs are given in annex 14.

29. Experience from other similar projects suggests that one CNP would be needed to cover a population of 1,000 adequately for purposes of tasks envisaged under CBNC. However, to assess the necessary CNP/population ratio in Bangladesh, this project will test two ratios - 1 per 1,000 and 1 per 1,500, in the three thanas each, in the first two years. A review of the experience in these six thanas will determine the appropriate ratio to be used in the subsequent thanas.

30. The activities of CNPs would provide a unique opportunity for the women to interact on other social issues at the village level. This could bring about a synergy between the various activities impinging on the well-being of families, using nutrition as a thematic center of community welfare in its broad sense.

Community groups

31. In some slums and villages, women's groups have already been formed for health and nutrition purposes, often by NGOs. These would be made use of to assist in project implementation as outlined below. Wherever women's groups have been formed for other purposes, for example income generation schemes, these would be examined to see whether they consist of women interested in health and nutrition improvement, and whether they are suitable for involvement in this project activity.

32. Where such groups do not exist, groups of ten to twenty women would be chosen for their interest in health and nutrition, their willingness to spend a few hours a week helping the program, and for their representation of different social and geographic sections of the community. The groups would normally include the local VDPs and TBAs. They would be trained and used to: a) explain the program's goals and services to the community; b) assist in the process of assessment, analysis and action described below; c) encourage women to participate in project services; and d) assist in health and nutrition education.

B. Processes

Introduction of services: the community contract

33. At the beginning of the program, the women's group would be formed before service delivery is started, and its members, the VDC, the village elders and other influential and interested local people would be informed of
the services to be provided. The participants in this initial mobilization process would be informed that the program services were their right. They would be advised to get in touch with Union Parishad officials or the program's technical supervisors to complain if they did not receive program services as planned.

34. These community representatives would be clearly explained what their major roles would be: a) work with program supervisors to choose a Community Nutrition Worker; b) participate in the process of assessing, analyzing and acting to improve their community’s nutrition status; c) provide a place (such as a school or other public building or a house) where supplementation would be provided, and records could be kept; and d) help monitor the program’s performance in a way that is transparent to the community. Participation in the program would therefore imply a contract in which, the community would be entitled to certain rights in return for assuming certain responsibilities.

Community assessment, analysis and action

35. The community, especially the proposed VDC, the village elders, the women’s group, the school-teacher and the mothers participating directly in the program, would be involved in the following specific ways in assessing the local nutrition situation, discussing its causes and deciding what to do about it.

36. At the beginning of the program in any village or slum, a census and nutritional screening of all project beneficiaries would be undertaken, and the results permanently displayed on a combined Community Growth Chart at the food supplementation (community feeding) center. Thus each interested community member would be aware of the nutrition problem to be dealt with in the area.

37. This community growth chart would be used to raise the community’s awareness of the nutrition situation and generate discussion of its causes and hence of approaches to dealing with it. Program supervisors would work with the community to explain that changes in health and nutrition practices in the families are as critical to addressing malnutrition as improvements in food availability, health services, water supply and sanitation. While the community might need help from the outside for the latter group of actions, support of community groups is particularly valuable and essential for the former.

38. The community and program supervisors would work together to draw up a plan of action to reduce malnutrition in the community. This plan would be on two levels: a) efforts which could be undertaken with the village's own resources, such as providing local employment for a destitute family; and b) those which would require outside assistance, such as the allocation of Public Food Distribution System assistance to needy families, or the provision of a tube-well to the village.
39. This plan of action would then be reviewed at a joint meeting at the Union level between representatives of the VDC, program supervisors and Union Parishad leaders. Union Parishad officials working with program supervisors would then decide on the relative priority of different requests for support, and would approach government departments and NGOs working in the area to seek their support in targeting services on priority local needs. Besides being the main elements of CBNC, this community-driven mechanism is envisaged to be central to how the intersectoral component would be operationalized at the grass-roots level.

Community monitoring

40. The community growth chart would be updated each quarter, and this event would be used as an opportunity for a performance review of project services and other nutrition-related programs, by VDCs, the women’s groups, the Union Parishad and program supervisors.

41. In addition, the women’s group and mothers benefiting from supplementation would have a specific role in monitoring the delivery and use of food supplements. They would be made aware of the amounts of food which should be delivered to the village each month, and a women’s group member would attend the supplementation session each day both to assist the worker and to see that target clients receive their entitlement. The experience of the Vulnerable Group Development Program suggests that preventing food leakages is vital and beneficiary monitoring might be the best way to accomplish that.

NGO Participation

42. Where suitable NGOs are active in areas related to nutrition or in case an NGO is interested in participating in the project in a new thana, their involvement in the project, especially for community mobilization would be encouraged. NGO participation will be of two types: (a) in some thanas, the chosen NGO will be given the full responsibility of project implementation, under contract with GOB; (b) in the other thanas, the NGO will provide key areas of support, viz., community mobilization, training and supervision and the logistics of preparation, packaging and delivery of supplementary food. In the former case, the CNPs and CNOs and other project personnel will belong to the NGO concerned; GOB health facilities will be used for referral of cases. The concerned NGO will submit project monitoring reports to GOB in respect of the given thanas.

43. A draft contract specifying clearly the terms and conditions for NGO participation (in each of the above models) has been prepared.

44. The budget will be the same for "NGO-run GOB-supported" thanas as for the "GOB-run NGO-supported" thanas.
Implementation: Program Supervision And Support

45. Experience in other countries has shown that community-based nutrition interventions are only effective if community workers and groups are supported by strong technical supervision and training. A second lesson from international experience has been that field-based training for community workers is more effective as well as cheaper than institution-based training. A third has been that one of the best forms of in-service training is supportive supervision, and vice versa. Therefore, under the project it is proposed to combine technical supervision and training, both at the Union and at the Thana level.

(a) The Union Level

(i) International experience with community-based nutrition programs indicates that quality supervision and in-service training require at least one supervisor for every 10-12 workers. This would imply a need for two supervisory personnel at the Union level to support an average of 20 CNPs. Part of this supervisory role could be played by the two Family Welfare Visitors (FWVs) at the Union level, one of whom is already in place, the second being expected to be posted by MOHFW. However, the two FWVs could not take on the full load of nutrition supervision without adversely affecting the effectiveness of their other family planning and MCH responsibilities. It is therefore proposed to hire one additional female worker at the Union level dedicated to the nutrition program.

(ii) This full-time worker, who would be called the Community Nutrition Organizer (CNO) would have the following duties:

♦ at project initiation, to work with village communities to form women's groups and catalyze the process of assessment, analysis and action described a fore; and

♦ to work with VDCs, women's groups and Union Parishads to define which villages and families would benefit from targeted support from intersectoral programs affecting nutrition, and monitor their performance on a quarterly basis.

(iii) The CNO and FWVs would share the responsibility for day to day technical supervision. The CNO would take primary responsibility for the quality of the CNPs' community mobilization role; the FWVs, would supervise ten CNPs each, in an average Union, focusing on linkages with the health and FP service. Each of the three Union level supervisors would pay particular attention to the coverage of pregnant and lactating women and children by GMP; to the quality of weighing, charting and health and nutrition education; and to the targeting of
health services on needy clients, including the organization of referrals to the THC as appropriate.

(iv) The CNO and FWVs would provide on the job training to the CNPs during their supervisory rounds as required. Once a month, the CNO and the FWV would assemble the CNPs for a half day session with the objectives of performance review; problem-solving; and providing training on specific areas of deficiencies found during supervision visits.

(b) The Thana Level

(i) The program would require both administrative and technical support from the Thana level. The Thana Nirvahi Officer (TNO) would chair the Thana Nutrition Management Committee and take overall responsibility for the program, and for the coordination of intersectoral inputs from the various departments affecting nutrition as also liaison with NGOs; assuming current proposals for Local Government reform are realized, TNO would work with the Thana Development and Coordination Committee on this. The PIO would take responsibility for the distribution of food supplements, since (s)he is already responsible for food distribution programs. The MO (MCH) at the Thana Health Complex would handle project performance reporting in terms of nutrition outcomes, since it would be a part of the Thana’s MCH program performance.

(ii) To ensure adequate technical support for the program, it is proposed to appoint the Assistant Thana Family Planning Officer as the Thana Nutrition Coordinator (TNC). For ATFPOs to be effective as a TNC, they should be given full-time responsibility for CBNC activities and no other tasks (on FP/MCH) should be assigned to them. This officer would be responsible for a) supervision of CNOs; b) the quality of supervision of CNPs by CNOs and FWVs; and c) the pre-service and formal in-service training of the CNPs in her Thana. The TNC would spend ten days a month in field supervision of project work in the villages, which would allow her to visit each Union area once a fortnight. (S)he would provide on the job training to the CNOs and FWVs during her supervision visits. (S)he would assemble them for more formal in-service training whenever necessary to correct systemic problems found during supervision visits. (S)he would also arrange group in-service training for CNPs identified by CNOs/FWVs as experiencing difficulties with their tasks.

(iii) The TNC would also have primary responsibility for the pre-service training of the CNPs in her area. Such training would last three months at the respective Unions where the CNPs are to work; a task which would imply 30 person-months of effort.
for a typical Thana. Since TNCs would need also to supervise newly trained workers during the first project year, sufficient outside help will be given with pre-service training. TNCs would devote half their time to supervision, and have all CNPs in the Thana trained within 18 months. The exact modalities for the outside assistance to TNCs have yet to be determined; but this support could come from teams of additional TNCs, who could be moved from Thana to Thana to help with pre-service training as the program expands. Yet another possible source of assistance in this area would naturally be NGOs who have such a capacity.

(c) District and Central Levels

(i) Supervision of project activities would be concentrated at the Thana and Union levels, in line with the component’s decentralized approach. District level activities would be limited to performance reporting to MOHFW, and feedback of performance results to the Thana and Union levels compare performance with each other. This information and monitoring role at the district level would be handled by existing MOHFW staff and will not warrant any new post creation.

(ii) After Local Government reforms, Union Parishads and Thana Development Coordination Committees, advised by local MPs, would have a more important role than districts in allocating and coordinating intersectoral inputs, except in the case of major infrastructure works. Union Parishads would negotiate directly with Central Government departments on the amount of resources to which their area was entitled. To encourage the allocation of resources as far as possible according to nutritional need, MOHFW would supply the Ministry of Local Government with nutritional status figures by Union Parishad on a quarterly basis. The Prime Minister’s Office which would have a cell responsible for the Nutrition Project, would carry out periodic reviews of the relationship between departmental resource allocation and nutritional need.
BANGLADESH

INTEGRATED NUTRITION PROJECT

Training Needs of the Project and Related Issues

Activities Prior to Initiation of the Project

Task-Oriented Curriculum Package Development

1. Prior to commencement of the project, task-oriented curriculum packages must be developed for cadre-specific training-of-trainers (TOTs). Task-oriented curriculum packages should be developed for each of the following cadres of personnel who will be involved in the project:

   (a) Nutrition Project staff, i.e., TNC, CNO, CNP, and volunteers
   (b) MOHPFW staff at all levels that articulate with the project, especially CRNC, eg., FWAs and Has at the village level, FWVs and Mas at the Union level, etc.
   (c) Staff from other sectors whose activities articulate with the project’s at all levels. These include the District Commissioner and representatives of Ministries at District level; Thana Nirbahi Officer and other Thana level staff from other Ministries; school teachers, agricultural extension workers, etc., at Thana level and below.
   (d) NGO staff working in projects that would articulate with the project at all levels.

2. As used here, each task-oriented cadre-specific curriculum package includes:

   (a) Measurable behavioral outcome objectives based on each cadre’s specific job/task responsibilities.
   (b) Essential nutrition, communication, IEC, management, supervision, financial, etc., content.
   (c) Appropriate participatory training methods that focus on learning by doing with feedback, especially for counselling skills which are generally very weak here.
   (d) Appropriate training materials--protocols for all tasks such as Growth Monitoring Promotion, supplementary/complementary feeding, women and child screening, counseling, etc. Training materials cannot be electricity-dependent and should either be ready-made such as IEC materials, or use local materials such as black painted boards, chalk, etc.
   (e) Orientation to and effective use of existing and the project-specific IEC materials
   (f) Recording and reporting forms
   (g) Tools for objective evaluation of trainees’ pre-and posttest knowledge and skill performance, for evaluation of trainees’ post course performance of their actual tasks in the field, and for gathering and analyzing clients’ feedback on trainees’ actual knowledge, attitudes, and skill performance with them in the field.

3. Participants in the UNICEF Working Group, the IEC and Field Level Linkages Working Groups, and other groups involved in pre-project activities should coordinate their efforts in the following activities because of the impact these activities have on cadre-specific task-oriented curriculum package development and subsequently on training and supervision.

   (a) Initial needs assessment/baseline study in two Thanas selected for the first year of the project. This baseline study should provide data
from the two Thanas which have direct bearing on curriculum package development and training: actual nutritional status and needs of the target groups, i.e., children under 24 months of age, newly married women; women who are in their second and third trimesters of pregnancy; and women during the first five months of lactation; belief systems about nutrition and nutrition practices for the target groups; and current nutrition IEC materials being used by MOHFW staff, staff from other sectors, and NGOs.

(b) Development and field testing of additional appropriate targeted IEC materials.

(c) Development of job descriptions and specific task protocols for all cadres of the project staff at all levels. These job descriptions and protocols are a major basis for curriculum package development for each of the cadres of personnel to be trained.

(d) Develop task protocols for other GOB and NGO personnel at Thana level and below to be used in intra- and intersectoral training and supervision. In some instances the job descriptions for cadres of personnel from other Ministries may have to be amended in terms of their intersectoral participation in the project.

(e) Provide technical assistance and critical technical review of all task-oriented curriculum packages developed.

4. These Working Groups may wish to obtain technical assistance in designing and conducting the baseline studies, developing and field testing targeted IEC materials, and development and initial testing of these cadre-specific curriculum packages from the Institute of Nutrition, Mahidol University (INMU) and the Tamil Nadu Project.

Selection of Core Trainers

5. The project will need at least two Bangladeshis as full-time core trainers for the first year in two Thanas. The project core trainers should have had theoretical training and field experience in nutrition as well as experience in training. They must be willing to remain in the field at Thana level and below for weeks at a time since this is where their training and evaluation activities will take place. Salaries for these core trainers must be well above Government scale to attract and retain appropriately qualified trainers. Ideally, core trainers should be involved in curriculum package and IEC materials' development before the project actually commences.

6. The project core trainers should be sent to the Institute of Nutrition, Mahidol University, Bangkok, for training, field visits to successful community nutrition projects in Thailand, discussion with field level trainers, and serial consultation on the cadre-specific curriculum packages. They should also have a structured study tour to the Tamil Nadu Project where they can talk with trainers involved in that project.

Training Activities During the First Year of the project

7. The project core trainers will have the following functions during the first year:

(a) Field test task-oriented curricula packages for training TNCs as trainers (TOT). This field test will involve core trainers in conducting the actual TOT for the TNCs, as well as facilitating focus group discussions (FGDs) with the TNCs about the TOT and their recommendations for necessary revisions. Core trainers should continue FGDs every four-to-six weeks during at least the first six months of the TNCs' actual work in the two Thanas and bimonthly thereafter for the first year.
(b) Revise the task-oriented TOT curriculum package based on FGDs with TNCs. Feedback should also be sought from other Thana level personnel i.e., MOHFW, other sectors, and NGOs, as appropriate.

(c) Assist TNCs to conduct training in two thanas at Thana, Union, and village levels for CNOs, CNPs, and CBNC volunteers using task-oriented curricula packages.

(d) Revise task-oriented curricula based on trainees' posttest performance and actual performance in the field and on clients' feedback in FGDs following initial implementation of training by all cadres trained.

(e) Field test task-oriented curricula packages for training trainers of MOHFW, other sector, and NGO personnel who will, in turn, train their own sector or NGO staff. (TOT) This field test will involve core trainers in conducting the actual TOT for trainers from MOHFW, other sectors, and NGOs, as well as facilitating focus group discussions (FGDs) with the trainers about the TOT and their recommendations for necessary revisions. Core trainers should continue FGDs every four-to-six weeks during at least the first six months of the other sectors' trainers' actual work in the two Thanas and bimonthly thereafter for the first year.

(f) Revise the task-oriented TOT curriculum package based on FGDs with other sectors' trainers. Feedback should also be sought from other Thana level personnel i.e., MOHFW, other sectors, and NGOs, as appropriate.

(g) Assist MOHFW, other sectors', and NGOs' trainers to conduct training in two thanas at Thana, Union, and village levels for MOHFW, other sectors' staff, and NGO staff at as a field test of the task-oriented curricula packages.

(h) Revise task-oriented curricula based on MOHFW, other sectors, and NGO staffs' trainees' posttest performance and actual performance in the field and on clients' feedback in FGDs following initial implementation of training by all cadres trained.

(i) Assist TNCs and other supervisors in their on-going on-the-job training and supervision of CNOs, CNPs, volunteers, linked MOHFW, other-sectoral staff, and NGO personnel in the field. Through this activity, the core trainers will learn first hand about the actual problems encountered in implementing CBNC in the field. This experience will lead to further refinements of task-oriented curricula packages and IEC materials during the first year and to development of effective task-oriented in-service curriculum packages for each cadre of CBNC or linked staff.

(j) Continue to assist the TNCs in their initial training of field level staff, implementing the first year of the project and with supervision of the CNPs, CNOs, and volunteers, as well as the project-linked staff from MOHFW, other sectors, and NGOs. The reasons for core trainers' involvement in the field implementation of the project's first year are so that the core trainers can experience, along with the trainers and field staff--TNCs, CNPs, and CNOs, volunteers, and linked MOHFW, other-sectoral staff, and NGO personnel--the real field situation and its problems. This experience will enable the core trainers to be more effective trainers of trainers as well as enable them to revise curricula, training methods, and training materials to make them more task-specific and effective. After this experience, core trainers will also be more effective in drafting cadre-specific task-oriented in-service training curriculum packages for field testing.

(k) Hold FGDs with CBNC and other sectors' trainers and with selected field level personnel from CBNC and other sectors and NGOs to what content and skills are common to whom and thus to identify which cadres of personnel at what levels of service delivery can be effectively trained together for all or part of their training during subsequent phases of the project.
Training of Staff of the project and other Sector and NGOs at Thana level and Below

8. The following principles should be followed in all TOTs and training of all field levels the project and staff from linked GOB and NGO programs.

(a) All training will take place as close to the real field situation in which the trainees will actually work as possible.
(b) Training should take place in existing community/village facilities using locally available materials, eg., black painted boards with chalk, etc.
(c) All trainers must have received appropriate TOT before they conduct training for other the project or the project-linked personnel or volunteers.
(d) All training must be task-oriented, i.e., focused on what trainees will actually do in their jobs. Knowledge, attitude, and skill training should all be based on actual job expectations for each cadre of trainee.
(e) All training methods should be active. "Learn by doing" with supervision and feedback is the goal. All skills, especially counseling skills, must be practiced repeatedly with supervision and feedback, until trainees can do them effectively according to protocols for their cadre. Actual performance should be observed for assessment. This is also a basis for field supervision.
(f) Training materials should be actual IEC materials or locally made materials such as black painted boards, chalk, etc., that are effective and portable.

Training Activities in Subsequent Years of the project

9. The project core trainers will conduct TOTs to train additional trainers from the project staff as well as from MOHFW, other sectors, and NGOs, who will work as trainers in the Thanas added to the project. Core trainers will provide these trainers with supportive supervision and in-service training. They will also seek feedback from them for necessary revisions in task-oriented cadre-specific basic and in-service curriculum packages.
BANGLADESH
INTEGRATED NUTRITION PROJECT

Selection Criteria - Community Nutrition Promoters

1. The key persons for project implementation at the village level would be the female Community Nutrition Promoters (CNPs). CNPs would have a first-line responsibility for nutrition monitoring and promotion, including daily supplementation of eligible women and children and follow-up with defaulters.

2. Successful implementation of the project would depend on CNPs' conscientious performance of their duties and on their close rapport with their target population. CNPs would therefore not be presented as an additional cadre of salaried government employees, but rather as village women with special competencies who would be accountable to the village population whom they serve.

3. CNPs would receive about 100 taka per week in the case of the vulnerable group strategy, and about 75 taka per week in the case of the newly married strategy. Payment of a honorarium is considered necessary to compensate CNPs for their time, sustain continuity of service, and to achieve the increased discipline and accountability that result from the payment.

4. CNPs should preferably be women from the poorer section of the community who have well nourished children; such women, even before training, would possess some maternal and child care skills which they could pass on to others in the community. To ensure easy access and social acceptability to their clients they would have to be resident in the village where they serve. CNPs would have a minimum education of 8th class or equivalent. To ensure sufficient skills for growth monitoring and reporting and interpersonal communications candidates would, in addition, need to pass a simple competency and aptitude test. Willingness to serve the whole village, including the poorer and more remote neighborhoods, would be an important additional selection criterion.

5. Accountability to the village community would be established by inviting nominations for the initial selection of CNPs from the community, by providing feedback information on the community-based interventions to the village community, and by requiring periodic reconfirmations of CNPs by the communities that they are serving.

6. Initial nominations of CNPs would be invited from within each of the village neighborhoods (paras), from any existing organized village development groups, and, once formed, from Village Development Committees. Village communities would be kept informed of the coverage and performance of the
community-based interventions through visual displays of key performance data and through periodic meetings with the village leadership by CNPs and CNOs, in which the strengths and weaknesses of local nutrition monitoring and promotion efforts would be reviewed. Groups involved in the initial nominations would also be consulted on the periodic reconfirmations of CNPs, which would be a means of replacing CNPs who no longer have the trust of the community that they serve.
BANGLADESH

INTEGRATED NUTRITION PROJECT

Selection Criteria - Sub-projects Financed from the Inter-Sectoral Fund

1. The following questions should be analyzed and answered in the affirmative for a sub-project proposal to be cleared for financing from the proposed inter-sectoral nutrition fund:

(a) Does the proposed sub-project have the potential to make a significant impact on malnutrition in Bangladesh by addressing a major known mechanism for improving nutrition that falls outside the normal range of "nutrition programs" such as women's education or youth programs, or provision of information on nutrition through programs outside the health sector?

(b) Will it address problems faced by poorer segments of the population?

(c) Is it technically sound? Is it adequately staffed? Does it include adequate measurements by which progress can be gauged? Is it consistent with state-of-the-art understanding of nutrition?

(d) Does the proposal have the full support of senior staff in the concerned ministry or department?

(e) Is there assurance that beyond the seed money provided by the Fund, adequate project support will be provided by the concerned ministry or department?

(f) Where re-orientation of an existing activity is considered, is there assurance that this activity itself is viable and assured of adequate continuing funding?

(g) Has the ministry or department made adequate provision for monitoring and evaluation of the new or re-oriented project as a whole?
### Bangladesh Integrated Nutrition Project

#### Project Components by Financiers (US$ '000)

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#### Project Components by Year (US$ '000)

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## Bangladesh Integrated Nutrition Project

### Expenditure Accounts by Years (US$ '000)

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Thu Apr 06 11:49:26 1995
## BANGLADESH INTEGRATED NUTRITION PROJECT
### Expenditure Accounts by Components - Base Costs

**US$ '000**

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<td>Existing Monitoring and Evaluation</td>
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### Investment Costs

#### Goods

- **Vehicles**
  - Equipment and Supplies: 220.4
  - Training Materials: 33.6
  - Books and Journals: 50.0
  - IEC Materials: 942.4

- **Therapeutic Nutrients**
  - Subtotal Goods: 2,213.1

- **Therapeutic Food Supplements**
  - Subtotal Consultants, services, studies and training: 1,296.3

### Consultants’ services, studies and training

- **Technical Assistance**
  - Subtotal Consultants, services, studies and training: 1,296.3

- **Travel**
  - Subtotal Consultants, services, studies and training: 1,296.3

- **Fellowships**
  - Subtotal Consultants, services, studies and training: 1,296.3

- **Workshops/Seminars**
  - Subtotal Consultants, services, studies and training: 1,296.3

- **Other Studies**
  - Subtotal Consultants, services, studies and training: 1,296.3

- **Surveys and Evaluative Studies**
  - Subtotal Consultants, services, studies and training: 1,296.3

- **IEC Activities**
  - Subtotal Consultants, services, studies and training: 1,296.3

### Total Investment Costs

2,750.0

### Recurrent Costs

- **Salaries and Allowances**
  - Subtotal Consultants, services, studies and training: 1,296.3

- **Operating Costs**
  - Subtotal Consultants, services, studies and training: 1,296.3

- **Honoraria for Volunteers**
  - Subtotal Consultants, services, studies and training: 1,296.3

### Total Recurrent Costs

2,750.0

### Physical Contingencies

- **Inflation**
  - Local: 1,028.3
  - Foreign: 456.4

- **Devaluation**
  - 1,312.7

### Total Project Costs

2,950.4

### Taxes

- **Foreign Exchange**
  - 854.5

### Total Costs

6,620.9

### Physical Contingencies

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Thu Apr 06 11:45:10 1995
## Table 1.1. National Level Nutrition Activities: Program Development and Institution Building

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**Note:** Amounts are in US$ '000.
### Table 1.3. National Level Nutrition Activities: Strengthening Existing Nutrition Activities

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#### Investment Costs

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<td>49.0</td>
<td>49.0</td>
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<td>49.0</td>
<td>49.0</td>
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</table>
| Total                    | 391.5| 601.0| 1,190.4| 1,353.0| 1,379.0| 1,379.0| 6,007.2| 104.5| 6,020.8| 7,125.3| 318.1| 7,254.3
## Integrated Nutrition Project

### Table 1.4: National Level Nutrition Activities: Project Management and Monitoring and Evaluation

<table>
<thead>
<tr>
<th>Year</th>
<th>Base Cost</th>
<th>Totals Including Contingencies</th>
<th>Breakdown of Totals I</th>
</tr>
</thead>
</table>

**Investment Costs**

- **Vehicles**
  - 1996: 100.0
  - 1997: 55.5
  - 1998: 32.9
  - 1999: 220.0
  - 2000: 50.0
  - 2001: 18.0
  - Total: 660.1

- **Equipment**
  - 1996: -
  - 1997: -
  - 1998: -
  - 1999: -
  - 2000: -
  - 2001: -
  - Total: -

- **Supplies and Furniture**
  - 1996: 32.9
  - 1997: 7.7
  - 1998: 7.7
  - 1999: 7.7
  - 2000: 7.7
  - 2001: 7.7
  - Total: 46.6

- **Surveys and Reviews a**
  - 1996: 32.9
  - 1997: 32.9
  - 1998: 32.9
  - 1999: 32.9
  - 2000: 32.9
  - 2001: 32.9
  - Total: 197.7

- **Monitoring and review activities**
  - 1996: 32.9
  - 1997: 32.9
  - 1998: 32.9
  - 1999: 32.9
  - 2000: 32.9
  - 2001: 32.9
  - Total: 197.7

- **National Advisor**
  - 1996: 18.0
  - 1997: 18.0
  - 1998: 18.0
  - 1999: 18.0
  - 2000: 18.0
  - 2001: 18.0
  - Total: 108.0

- **Management & Technical Support Team**
  - 1996: 150.0
  - 1997: 60.0
  - 1998: 60.0
  - 1999: 60.0
  - 2000: 60.0
  - 2001: 60.0
  - Total: 900.0

**Total Investment Costs**

- 1996: 586.3
- 1997: 385.7
- 1998: 635.7
- 1999: 1,490.9
- 2000: 335.7
- 2001: 1,490.9
- Total: 4,920.1

**Recurrence Costs**

- **Salaries /b**
  - 1996: 34.1
  - 1997: 34.1
  - 1998: 34.1
  - 1999: 34.1
  - 2000: 34.1
  - 2001: 34.1
  - Total: 204.6

- **Other Incremental Operating Costs**
  - 1996: 55.7
  - 1997: 55.7
  - 1998: 55.7
  - 1999: 55.7
  - 2000: 55.7
  - 2001: 55.7
  - Total: 337.9

**Total Recurrence Costs**

- 1996: 34.1
- 1997: 34.1
- 1998: 34.1
- 1999: 34.1
- 2000: 34.1
- 2001: 34.1
- Total: 204.6

**Total**

- 1996: 34.1
- 1997: 34.1
- 1998: 34.1
- 1999: 34.1
- 2000: 34.1
- 2001: 34.1
- Total: 204.6

---

\(\text{a} \) Includes Baseline Surveys, and Mid-Term and Final Evaluations.

\(\text{b} \) Includes proposed costs for Project Directorate, and Intersectoral Nutrition Cell.

Thu Apr 06 11:31:06 1995
### Table 2. Community Based Nutrition Component

#### Detailed Costs

<table>
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<tr>
<th>Year</th>
<th>Base Cost</th>
<th>Totals Including Contingencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
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<td>4,046.8</td>
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<tr>
<td>1997</td>
<td>8,077.7</td>
<td>9,279.8</td>
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<tr>
<td>1998</td>
<td>3,639.7</td>
<td>9,944.7</td>
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<td>1999</td>
<td>12,299.4</td>
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<td>38,967.2</td>
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<table>
<thead>
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<th>Year</th>
<th>Local Excl. (Excl. Taxes)</th>
<th>Total</th>
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<tbody>
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<td>1996</td>
<td>1,086.0</td>
<td>4,046.8</td>
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<tr>
<td>1997</td>
<td>8,077.7</td>
<td>9,279.8</td>
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<td>1998</td>
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<tr>
<td>2000</td>
<td>39,060.8</td>
<td>38,967.2</td>
</tr>
</tbody>
</table>

#### Breakdown of Total Costs

**Investment Costs**

- **Therapeutic Food Supplements**
  - 1996: 271.8
  - 1997: 543.7
  - 1998: 1,888.7
  - 1999: 4,570.3
  - 2000: 5,841.4
  - 2001: 16,839.5
- **Vehicles**
  - 1996: 15.9
  - 1997: 129.0
  - 1998: 2,293.0
  - 1999: 5,676.1
  - 2000: 7,407.4
  - 2001: 7,416.3
- **Equipment and Supplies**
  - 1996: 74.2
  - 1997: 60.5
  - 1998: 443.6
  - 1999: 607.4
  - 2000: 1,121.8
  - 2001: 1,212.8
- **Training Activities**
  - 1996: 17.0
  - 1997: 25.5
  - 1998: 313.1
  - 1999: 414.4
  - 2000: 461.1
  - 2001: 2,293.0
- **Training Materials**
  - 1996: 37.5
  - 1997: 27.5
  - 1998: 313.1
  - 1999: 414.4
  - 2000: 461.1
  - 2001: 477.3

**Operating Costs**

- **Meeting Costs**
  - 1996: 103.5
  - 1997: 103.5
  - 1998: 395.8
  - 1999: 690.0
  - 2000: 690.0
  - 2001: 690.0
- **Other Operating Costs**
  - 1996: 96.8
  - 1997: 96.8
  - 1998: 244.4
  - 1999: 674.9
  - 2000: 756.2
  - 2001: 838.0

**Total Operating Costs**

- 1996: 200.3
- 1997: 200.3
- 1998: 799.7
- 1999: 1,462.2
- 2000: 1,526.0
- 2001: 1,648.0

**Total Costs**

- 1996: 393.8
- 1997: 393.8
- 1998: 1,561.1
- 1999: 2,673.8
- 2000: 2,673.8
- 2001: 2,673.8

**Honoraria for Volunteers**

- 1996: 200.3
- 1997: 200.3
- 1998: 799.7
- 1999: 1,462.2
- 2000: 1,526.0
- 2001: 1,648.0

**Total**

- 1996: 903.0
- 1997: 1,086.0
- 1998: 4,046.8
- 1999: 9,279.8
- 2000: 9,279.8
- 2001: 9,279.8

**Total Including Contingencies**

- 1996: 903.0
- 1997: 1,086.0
- 1998: 4,046.8
- 1999: 9,279.8
- 2000: 9,279.8
- 2001: 9,279.8
### Table 3. Inter-sectoral Nutrition Program Development

#### Detailed Costs (US$ '000)

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<td>90.0</td>
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<td>100.2</td>
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<td>6,563.6</td>
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</table>

| **Recruitment Costs** |      |      |      |      |      |      |       |                    |       |
| Salaries             | 8.9  | 8.9  | 8.9  | 8.9  | 8.9  | 8.9  | 53.4  | 91.2            | 48.6  |
| Incremental Operating Costs | 110.4 | 105.7 | 139.1 | 139.1 | 80.0 | 80.0 | 564.3 | 112.6 | 676.9 |
| Credit               | 245.7 | 636.2 | 686.2 | -    |      |      | 1,631.1| 250.6 | 1,881.7 |
| **Total Recurrent Costs** | 365.0 | 114.6 | 844.2 | 844.2 | 88.4 | 88.4 | 2,145.8 | 372.3 | 2,518.1 |
| **Total**            | 1,380.0 | 1,255.1 | 2,405.4 | 2,282.4 | 338.9 | 338.9 | 6,717.7 | 1,463.0 | 8,180.7 |
**BANGLADESH**
**INTEGRATED NUTRITION PROJECT**

**IDA Disbursement Schedule**

<table>
<thead>
<tr>
<th>IDA Fiscal Year and Semester</th>
<th>Projected Disbursements (US$ millions)</th>
<th>Cumulative</th>
<th>Disbursement Percentage</th>
<th>Comparable Disbursement Profile</th>
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<td>Cumulative</td>
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<td>1999</td>
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<td>2001</td>
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<tr>
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<td>2002</td>
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<td>1st (Jul 2001-Dec 2001)</td>
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Closing Date: December 31, 2001

* Includes retroactive financing of 0.5 million.

**Note:** The disbursement percentages projected for this project broadly match the disbursement profile for Bank-financed social sector projects except for the initial three years when the project is expected to disburse smaller amounts due to the gradual phasing of its core component.
BANGLADESH
INTEGRATED NUTRITION PROJECT

Organizational Chart for Project Implementation

- BINP National Steering Committee
- National Nutrition Management Committee
- BINP Administrative Cell at MOHFW
- BINP Project Office
  - District Nutrition Management Committee
  - Thana Nutrition Management Committee
  - BINP Thana Office
  - Union Nutrition Management Committee
  - BINP Union Office/Training Centre
  - Village Nutrition Management Committee
  - Community Nutrition Centre (at Village)
PROPOSED ORGANOGRAM OF THE PROJECT OFFICE

Project Director
- 1 x P.D.
- 1 x Stenographer
- 1 x M.L.S.

Dy. Project Director
- 1 x Dy. P.D.
- 1 x Stenographer
- 1 x M.L.S.

Dy. Project Director
- Program, Monitoring & Evaluation
  - 1 x Dy. P.D.
  - 2 x Computer Programmer
  - 1 x Asst. Computer Programmer
  - 1 x Stenographer
  - 2 x L.D.O. Typist
  - 1 x M.L.S.

Dy. Project Director
- Admin. & Financing
  - 1 x Dy. P.D.
  - 1 x Stenographer
  - 1 x M.L.S.

Dy. Proj. Director
- Information, Education & Communication
  - 1 x Dy. P.D.
  - 1 x Stenotypist
  - 1 x M.L.S.S.
  - 1 x Audio-visual Operator
  - 1 x L.D.A. Typist

Administration
- 1 x Admin. Officer
- 1 x Storekeeper
- 2 x Upper Div. Asst.
- 1 x Transport Asst.
- 1 x Driver
- 1 x L.D.A. Typist
- 1 x Cycle Messenger

Finance
- 1 x Accounts Officer
- 1 x Audit Officer
- 1 x Accountant
- 1 x Auditor
- 1 x Cashier
- 1 x L.D.A. Typist
- 1 x M.L.S.S.
A Technical Committee consisted of HA/FWA, Block Supervisor, CNP and headed by Head Master of local Primary School will be formed for selection of beneficiaries. The Technical Committee will recommend the names of beneficiaries on the basis of some prefixed criteria and the VNMC will finalized the selection.
CONCEPTUAL FRAMEWORK OF BINP ACTIVITIES
AT UNION LEVEL

BINP ACTIVITIES

Advocacy
Resp: UNMC

Major Activities
1. Meeting
2. IEC
3. Social Mobilization

Training
Resp: CNO

Major Activities
1. CMP Basic Trang.
2. Refresher Training
3. Training Management

Food Management
Resp: CNO/UNMC

Major Activities
1. Food Preparation
2. Food Supply
3. Quality Control
4. Book Keeping

Coordination
Resp: CNO

Major Activities
1. Reporting
2. Correspondence
3. Record Keeping
# PROPOSED ORGANIZATIONAL STRUCTURE OF BINP

## VILLAGE LEVEL

### VNMC

**Members of the Committee**

- Female VDP Leader
- FWAs/HA
- NGO's Field Staff
- Member Union Parishad (MUP) (Concern Village)
- Block Supervisor (Agriculture)
- Headmaster of Local Primary School

**Head of the Committee:** MUP

**Members Secretary:** FVDPL (CNA)

### VNMC

**Members of the Committee**

- Female VDP Leader (CNO)
- Chairman Union Parishad
- Family Welfare Visitor
- Members of Union Parishad
- Assistant Health Inspector
- Family Planning Inspector

**Head of the Committee:** Chairman Union Parishad

**Members Secretary:** Female UVDP Leader (CNO)

## UNION LEVEL

### UNMC

**Members of the Committee**

- Thana VDP Officer
- ATFPO
- Medical Officer (MCH)
- NGO Representatives
- Thana Agriculture Officer
- Thana Livestock Officer
- Thana Fisheries Officer
- Thana Women Affairs Officer
- Thana Social Welfare Officer

**Head of the Committee:** Thana Nirbahi Officer

**Members Secretary:** ATFPO
## Proposed Organizational Structure of BINP

### District DNMC

<table>
<thead>
<tr>
<th>Level</th>
<th>Members of the Committee</th>
</tr>
</thead>
</table>
| Major Responsibilities | * Deputy Commissioner  
| | * Civil Surgeon  
| | * District Agriculture Officer/DD Agriculture  
| | * District Livestock & Fisheries Officer  
| | * DD, Family Planning  
| | * Assistant Director Local Govt.  
| | * District Adjutant, Ansar & VDP (DAVDP)  
| | * IEC |

**Head of the Committee:** DC  
**Members Secretary:** DAVDP

### Ministry NNMC

<table>
<thead>
<tr>
<th>Level</th>
<th>Members of the Committee</th>
</tr>
</thead>
</table>
| Major Responsibilities | * Joint Secretary, MOHFW (CHAIRPERSON)  
| | * DS (BINP)  
| | * A/C-1 (Health)  
| | * Chief, Health Education Bureau  
| | * Director IEM  
| | * Director Programme, BTV  
| | * Director Prog. Radio Bangladesh (Population Prog.)  
| | * Focal Point Officers of:  
| | * Ministry of Agriculture  
| | * Ministry of Fisheries & Livestock  
| | * DS (Border) Ministry of Home Affairs  
| | * DS Local Govt.  
| | * Representative  

*Meeting District Livestock & Fisheries Officer*  
*Coordination*  
*Advisory Service*  
*Advocacy*  
*IEC*
# PROPOSED ORGANIZATIONAL STRUCTURE OF BINP

## Members of the Committee

<table>
<thead>
<tr>
<th>NATIONAL LEVEL</th>
<th>BINP NSC</th>
<th><strong>Members of the Committee</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Major Responsibilities</strong></td>
<td></td>
<td>* Secretary, MOHFW</td>
</tr>
<tr>
<td>a. Policy Decision</td>
<td></td>
<td>* Addl. Secretary, MOHFW</td>
</tr>
<tr>
<td>b. Planning</td>
<td></td>
<td>* Addl. Secretary, Agril/Or JS.</td>
</tr>
<tr>
<td>c. Evaluation</td>
<td></td>
<td>* JS (Home)-Border (Ansar &amp; VDP)</td>
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<tr>
<td></td>
<td></td>
<td>* JS/DY Chief (Livestock + Fisheries)</td>
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<tr>
<td></td>
<td></td>
<td>* JS (Local Govt.)</td>
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<tr>
<td></td>
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<td>* DG Health</td>
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<td>* DG (FP)</td>
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<td>* DG NGO Bureau</td>
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<tr>
<td></td>
<td></td>
<td>* Director (Adm.) VDP + Ansars</td>
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<td></td>
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<td>* Rep. of WB</td>
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<td>* Rep. of UNICEF</td>
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<tr>
<td></td>
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<td>* Rep. of BRAC</td>
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<tr>
<td></td>
<td></td>
<td>* Secretary, BNNC</td>
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<tr>
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<td>* Director, IPHN</td>
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<td></td>
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<td>* Director (Programme), BTV</td>
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<td></td>
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<td>* Director (Popn. Programme), Radio Bangladesh</td>
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<td></td>
<td></td>
<td>* Chief Health Education Bureau</td>
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<td></td>
<td>* PD BINP</td>
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<td></td>
<td></td>
<td>* Rep. of Planning Commission</td>
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<td></td>
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<td>* Rep. of IMED</td>
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<td></td>
<td></td>
<td>* Rep. of ERD</td>
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<tr>
<td></td>
<td></td>
<td>* Joint Secretary, MOHFW (Member Secretary)</td>
</tr>
</tbody>
</table>
PROPOSED PERSONNEL FOR BINP AT MINISTRY LEVEL

* Joint Secretary -1
* Dy. Chief -1
* Assistant Chief -1
* Research Officer -1
* Planning Officer -1
* System Analyst/Program -1
* PA -1
* STO -1
* Stenographer -1
* MLSS -1
Abbreviation of terms used in this annex:

**Village Level**
- CNP - Community Nutrition Promoter
- VNMC - Village Nutrition Management Committee
- VDP - Village Defence Party
- FWA - Family Welfare Assistant
- MUP - member Union Parishad

**Union Level**
- CNO - Community Nutrition Organiser
- UNMC - Union Nutrition Management Committee
- UVDP - Union Village Defense Party (Female Organiser)
- FWV - Family Welfare Visitor
- MA - Medical Assistant
- AHI - Assistant Health Inspector
- FPI - Family Planning Inspector
- CUP - Chairman Union Parishad

**Thana Level**
- TNO - Thana Nirbahi Officer
- TNMC - Thana Nutrition Management Committee
- TVDO - Thana Village Defense Officer
- ATFPO - Assistant Thana Family Planning Officer
- MO - Medical Officer
- MCH - Maternity Child Health
- EPI - Expanded Program of Immunization
- TAO - Thana Agriculture Officer
- TLS&FO - Thana Livestock and Fisheries Officer

**District Level**
- DNMC - District Nutrition Management Committee
- DC - Deputy Commissioner
- CS - Civil Surgeon
- DL&FO - District Livestock and Fisheries Officer
- DDFP - Deputy Director Family Planning
- ADLG - Assistant Director Local Govt.
- DAVDO - District Ansar & Village Defence Officer

**Project Office Level**
- PD - Project Director
- DD - Deputy Director
- APD - Assistant Project Director
- PO - Planning Officer
- RO - Research Officer
- STO - Statistical Officer

**National Level**
- JS - Joint Secretary
- MOHFW - Ministry of Health and Family Welfare
- DS - Deputy Secretary
- FPO - Focal Point Officer
- NNMC - National Nutrition Management Committee
- NSC - National Steering Committee
<table>
<thead>
<tr>
<th>Activity</th>
<th>Pre-project</th>
<th>1st year</th>
<th>2nd year</th>
<th>3rd year</th>
<th>4th year</th>
<th>5th year</th>
<th>6th year</th>
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<tbody>
<tr>
<td>Create Project Directorate (including recruitment)</td>
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<tr>
<td>Create Inter-Sectoral Nut. Cell &amp; recruit staff</td>
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<tr>
<td>TOR for NGO involvement</td>
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<td>Finalize MOU between GOB &amp; INMU</td>
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<td></td>
<td></td>
<td>x</td>
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<tr>
<td>Sign contract with selected NGO for 1st year of CBNC</td>
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<tr>
<td>Sign contract with INMU for technical cooperation</td>
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<td>Formative research for IEC message and material development</td>
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<tr>
<td>Process bids for IEC message &amp; material development</td>
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<td>IEC message &amp; material development</td>
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<td>Training curricula development</td>
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<td>Training material production</td>
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<td>Recruitment of trainers</td>
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<td>Procurement of equipment, furniture &amp; vehicles for the project directorate</td>
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<td>Baseline Surveys in 1st year thanas</td>
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<tr>
<td>Social mobilization in 1st yr thanas</td>
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<tr>
<td>Activity</td>
<td>Year</td>
<td>Fin. Year 1</td>
<td>Fin. Year 2</td>
<td>Fin. Year 3</td>
<td>Fin. Year 4</td>
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<tr>
<td>Recruit CNPs, CNOs in 1st yr thanas.</td>
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<tr>
<td>Train TNCs, CNPs, CNOs in 1st yr thanas</td>
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<tr>
<td>Establish small-scale industry/women's groups and train to prepare &amp; package suppl. foods in 1st yr thanas</td>
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<tr>
<td>CBNC activities in 1st yr thanas</td>
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<tr>
<td>Select 17 more thanas</td>
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<tr>
<td>Procure equipment and supplies for field operation in 3rd yr thanas</td>
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<tr>
<td>Baseline Surveys in 3rd year thanas</td>
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<tr>
<td>Social mobilization in 3rd yr thanas</td>
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<td>Recruit CNPs, CNOs in 3rd yr thanas</td>
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<tr>
<td>Train TNCs, CNPs, CNOs in 3rd yr thanas</td>
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<tr>
<td>Establish small-scale industry/women's groups and train to prepare &amp; package suppl. foods in 3rd yr thanas</td>
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<tr>
<td>CBNC activities in 3rd yr thanas</td>
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<tr>
<td>Select 18 more thanas</td>
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<tr>
<td>Procure equipment and supplies for field operation in 4th yr thanas</td>
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<tr>
<td>Baseline Surveys in 4th year thanas</td>
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<td>Social mobilization in 4th yr thanas</td>
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<tr>
<td>Recruit CNPs, CNOs in 4th yr thanas</td>
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<tr>
<td>Train TNCs, CNPs, CNOs in 4th yr thanas</td>
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</tbody>
</table>
Establish small-scale industry/women’s groups and train to prepare & package supplementary foods in 4th yr. thanas

CBNC activities in 4th yr. thanas

Finalize inter-sectoral sub-project proposals

Implement pre-determined inter-sectoral subprojects

Invite new proposals for inter-sectoral sub-projects, screen proposals and fund for implementation

Develop monitoring instruments for all project components

Establish information systems to collect data

Monitoring activities

Review of national level institutions engaged in nutrition work

Policy decision on roles of various institutions based on review

Fellowships, study tours, exchange programs

Mid-term evaluation

Final evaluation
# BANGLADESH INTEGRATED NUTRITION PROJECT

## Supervision Mission Schedule

<table>
<thead>
<tr>
<th>Mission</th>
<th>Month and Year</th>
</tr>
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<tbody>
<tr>
<td>Project Launch</td>
<td>July, 1995</td>
</tr>
<tr>
<td>1st Supervision Mission</td>
<td>September, 1995</td>
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<td>2nd Supervision Mission</td>
<td>March, 1996</td>
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<td>3rd Supervision Mission</td>
<td>September, 1996</td>
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<td>4th Supervision Mission</td>
<td>March, 1997</td>
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<tr>
<td>5th Supervision Mission</td>
<td>September, 1997</td>
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<tr>
<td>6th Supervision Mission</td>
<td>March, 1998</td>
</tr>
<tr>
<td>7th Supervision Mission</td>
<td>September, 1998</td>
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<tr>
<td>8th Supervision Mission</td>
<td>March, 1999</td>
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<td>9th Supervision Mission</td>
<td>September, 1999</td>
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<tr>
<td>10th Supervision Mission</td>
<td>March, 2000</td>
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<tr>
<td>11th Supervision Mission</td>
<td>September, 2000</td>
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<tr>
<td>12th Supervision Mission</td>
<td>March, 2001</td>
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<td>----------------</td>
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</tr>
<tr>
<td>New Thanas introduced</td>
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</tr>
<tr>
<td>PER THANA</td>
<td>Preg. Wom. Main. (60%) Coverage</td>
</tr>
<tr>
<td>Year 1</td>
<td>8000 4800 1920 5,760 0 36,480 34,560 0 0</td>
</tr>
<tr>
<td>Year 2</td>
<td>8000 4800 3840 11,520 0 72,960 69,120 0 0</td>
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<tr>
<td>Year 3</td>
<td>8000 4800 3840 11,520 0 72,960 69,120 0 0</td>
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<td>Year 4</td>
<td>8000 4800 3840 11,520 0 72,960 69,120 0 0</td>
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<tr>
<td>Year 5</td>
<td>8000 4800 3840 11,520 0 72,960 69,120 0 0</td>
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<tr>
<td>Year 6</td>
<td>8000 4800 3840 11,520 0 72,960 69,120 0 0</td>
</tr>
<tr>
<td>Total</td>
<td>5,760 11,520 48,000 119,040 153,600 153,600 491,520</td>
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<tbody>
<tr>
<td>New Thanas introduced</td>
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<td>19</td>
<td>18</td>
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<tr>
<td>PER THANA</td>
<td>Lact. wom. Main. (60%) Coverage</td>
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<td>Year 1</td>
<td>7000 4200 1680 5,040 0 31,920 30,240 0 0</td>
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<tr>
<td>Year 2</td>
<td>7000 4200 3360 10,080 0 63,840 60,480 0 0</td>
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<td>Year 3</td>
<td>7000 4200 3360 10,080 0 63,840 60,480 0 0</td>
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<td>7000 4200 3360 10,080 0 63,840 60,480 0 0</td>
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<td>Year 5</td>
<td>7000 4200 3360 10,080 0 63,840 60,480 0 0</td>
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<td>Year 6</td>
<td>7000 4200 3360 10,080 0 63,840 60,480 0 0</td>
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<tr>
<td>Total</td>
<td>5,040 10,080 42,000 104,160 134,400 134,400 430,080</td>
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<td>Out of total screened: 716,800</td>
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It is difficult to determine the number of indirect beneficiaries due to changes in household behaviors - the central strategy of the project - and other project inputs. Supplementary feeding is mainly a demonstrative tool for IEC and incentive for mothers and children to come to the Community Nutrition Center.
BANGLADESH
INTEGRATED NUTRITION PROJECT

ESTIMATED NUMBERS OF DIRECT BENEFICIARIES OF SUPPLEMENTARY FEEDING

### Severely malnourished children Under 2 yrs.

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<td>Children (12000)</td>
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<tr>
<td>Maln. (25%) Coverage</td>
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<td>Year 1</td>
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<tr>
<td>12000</td>
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<td>20400</td>
<td>21600</td>
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<td>Year 2</td>
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**Total** 6000 12000 30000 69600 81840 65040 264480

Out of total screened: 1,057,920

### Mod. main. & Growth faltering children under 2 yrs.

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**Total** 14400 28800 77760 178560 230400 230400 760320

Out of total screened: 1,267,200

It is difficult to determine the number of indirect beneficiaries due to changes in household behaviors - the central strategy of the project - and other project inputs. Supplementary feeding is mainly a demonstrative tool for IEC and incentive for mothers and children to come to the Community Nutrition Center.
BANGLADESH
INTEGRATED NUTRITION PROJECT
LIST OF DOCUMENTS IN PROJECT FILES

1. The Project Implementation Volume (PIV), including detailed implementation and monitoring plans.

2. Project Concept Paper (PCP) and Project Proforma (PP) [yet to be prepared].

3. Detailed Analysis of nutrition situation in Bangladesh

4. Review of Food Security in Bangladesh and Related Programs and Issues

5. Health and Family Planning (FP) Program in Bangladesh

6. Linkages Between the Bangladesh Integrated Nutrition Project and Existing Health and FP Program

7. Growth Monitoring and Promotion - The Concepts

8. Issues Concerning Supplementary Feeding

9. Strengthening Existing Nutrition Activities

10. Summary of Study Reports on Bangladesh Integrated Nutrition Project (and the individual detailed reports) - commissioned by UNICEF, Dhaka in preparation for the project.


12. Reports of various studies by International Food Policy Research Institute, Dhaka on targeted food interventions and agricultural policy in Bangladesh.
