UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID) DHAKA

EMPLOYMENT AND DEMAND CREATION

FINAL REPORT

DPC DEVELOPMENT PLANNERS & CONSULTANTS
333/1, SEGUNBAGICHA, DHAKA
BANGLADESH

JULY, 1986

DPC DEVELOPMENT PLANNERS & CONSULTANTS
consultants in development and planning

DPC/USAID-Econ:05/86
28 July, 1986

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Contract No. : 388-0249-C-00-6025
dated 4.05.1986

Dear Dr. Van der Veen,

Final Report on "Employment and Demand Creation"

We refer to the contract no. mentioned above signed between the USAID/ Dhaka and our organisation. We are submitting herewith our Final Report on the above study in 20 (twenty) copies.

This is to mention in this regard that we were given a very short and rigid time to submit our draft report. Within this short time, despite our intention, we could not make it sufficiently data base and have given maximum emphasis on indications on issues and programs.

In our present report, we have tried to incorporate the comments earlier given by you on our draft report.

We believe that our Final Report would be to your satisfaction.

Thanking you very much and we are in the meantime,

Very truely yours
for DEVELOPMENT PLANNERS & CONSULTANTS

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1.0 INTRODUCTION

1.01 Development Planners and Consultants (DPC), Dhaka, Bangladesh have been entrusted by the United States Agency for International Development (USAID), Dhaka office to undertake a study title "Employment and Demand Creation" under PL-480 Title III. This study has been carried out on the basis of an agreement between USAID and DPC on 04 May, 1986.

1.02 The purpose of this study is to develop a concrete program addressing the effective demand constraint to increasing food production through the new Title III multi-year agreement now being designed by USAID, Dhaka. Additionally, the study would define a concrete program that would permit USAID to make significant contribution to employment generation through the multi-year agreement, and suggest suitable institutional mechanisms to implement that concrete program.

1.03 Given the brevity of the timeframe and the contents of the Terms of Reference, it is unlikely that the Consultants would be able to produce a detailed and analytical exercise, rather it has prepared a general framework through which the PL-480 Title III Agreement can decide its policy issues and evolve a guideline for the effective utilization of the Titel III resources.

1.04 This report is based on review of a large volume of published documents; interviews and meetings with national and international understandings and the TOR.

1.05 We also acknowledge and would like to express our gratitude for the excellent support and co-operation of the USAID/Dhaka; to officers in various departments of the Government, representatives of the donor agencies; non-governmental organizations etc. and does not in any way reflect the position of the various organization with whom we have had decisions.

2.0 BACKGROUND

2.01 General: It has been widely recognised that insufficient effective demand is a major constraint in the expansion of foodgrain production in Bangladesh. Supply of adequate foodgrains in the market does not imply intake of sufficient nutritional requirements. About 33 percent of the population does not have the purchasing power to buy foodgrains to the amount required to maintain a balanced nutritional requirements. The reasons for this imbalance hinges on two important broad parameters : the limitations of the land resource base (accounting for 50.8 percent of the GDP and providing direct and indirect employment to about 66 percent of the labour force) and the low-level investment in other productive sectors. Want of these forces the populations to live to the near-subsistence level, and dependent on informal employment. The wage in informal employment is even less than the unskilled agricultural wage.[1/] Low non-agricultural wage depresses agricultural wage thereby affecting the effective demand for foodgrain. The depressed agricultural wage structures retards the application of seed - fertilizer - water technology for increased agricultural output.

2.02 In order to reverse the retrograde labour-wage structure and to bolster agricultural output to maintain adequate nutritional standard, positive shift in informal wage structure should be made. Therefore, poverty of people is a function of low level income flows from low level of investment and low level of technology which characterise insufficient effective demand of foodgrain.

2.03 To increase the purchasing power of the population, sources of informal employment should be strengthened and made broad based. Public sector endeavours in the creation of employment and demand may for the

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1/ The Third Five Year Plan, 1985-1990 - Para 2, Chapter V, Page 101

time being seem to be the answers, but given the wellknown government sector spending distortions it is worthwhile to associate private sector in these programs However, it should be borne in mind that socio-political environment of the recipient countries restricts the full scale involvement of a buyont private sector. Rather, private sector in complimentarity with the public sector resource transfer should be nursed to attain maturation progressively.

2.04 PL 480 is a vehicle that can be tailored to address the twin problems of employment and demand. The United States Government (USG) under Title II Programs has been actively working to attain this goal. With the completion of the existing Title II Program the USG is soon going to embark on a new Title III Program. The USAID, the executing agency for PL 480 programs, initiated several studies to inform the design of this new Title III multi-year agreement. This study is one of such six.

PL 480

2.05 The PL 480 preamble enjoins the USG to use its agricultural output to combat the twin scourge of hunger and malnutrition and to support economic development in recipient countries. The commodity aid generates local currency by the sale of these commodities which are used by the recipient countries to increase their own agricultural output by emphasizing on development of small holder agriculture, and improve production, storage, and handling of cereals.

2.06 The current agreement (8 March, 1986) between the USG and the BDG has been guided by the Title III mandate. The objective of the Title III Agreement is to assist the BDG in its efforts "to increase the availability of fund to the poor and to improve in other ways the quality of their lives". This would include not only the oft repeated programs of infrastructure development but also other spheres of income generating activities (on-farm and off-farm). The proceeds from the sale of the commodities are to be used

to finance "self-help measures and for development in the agricultural sector, in a manner designed to increase the access of the poor to an adequate, nutritions, and stable food supply".

Employment and Demand Creation

2.07 The size of population, growth rate, and the structure of the position have led to a widespread and increasing rural unemployment and under-employment in the country. The first five year plan (1972/73-1977/78) could not achieve its target of expanding employment due to low level of investment over the planned outlay; the achievement was about 3.0 million man-years against the planned target of about 5.4 million man-years, thus deteriorating further the crux of the problem. The Two Year Plan (TYP) could not make much impact due to its adhocism in nature. The unemployment situation worsened in 1979/80 than what was in 1972/73.

2.08 The Second Five Year Plan (1980/81 - 1985/86) could generate employment to about 3.2 million man-years against the target estimates of 3.7 million man-years. At the begining of the third five year plan (1986/87 - 1991/92) the problem of unemployment further deteriorated.

2.09 The total labour force in the age group of over 10 years has been estimated to be 31.0 million in mid-1985 and will be 35.0 million in mid-1990, an increase of about 4 million. The total number of unemployed work force would be around 11 million in mid-1990. The availability and flow of resources for investment (keeping in view the past performances) would not be adequate to absorb such a large number of work force.

2.10 Since the country is largely rural—90 percent of the people lives in rural areas crowding in 54,100 sq.miles of land area - unemployment situation has become more accentuated in the rural areas with hardly any sign of respite from the stark realities of malnutrition and hunger. The increasing

rural unemployment leads to the awareness that agriculture (though the main occupation of rural people) cannot absorb the growing labour through the existing technology.

2.11 The cornerstone of BDG's objective is to alleviate poverty; the number of people below the poverty line has increased from 66 percent to about 80 percent. The prescribed minimum calorie intake of 2273 k cals is available to only 24 percent of the the population. This decline in calorie intake has been suffered in spite of an increase in food output and supply. This awareness has led to the reality that parallal to the expansion of food output both employment and income generations are required to provide an access to the common man the basic requirements.

2.12 The employment avenues for the rural work force are limited and predominantly include : labour absorption in crop production, non-farm employment (agriculture related and off-farm activities); and infrastructure development.

3.0 OVERVIEW OF PAST PERFORMANCE

Agriculture Sector

3.01 Introduction : Agriculture sector consists of four major subsectors, namely, (i) Crops, (ii) Forestry, (iii) Livestock, and (iv) Fisheries. The development of this sector was given highest priority in the development plans since 1960. However, as is seen from Table 3.1. The share of these sub-sections in the total ADP allocations were not commensurate with their contribution to GDP at constant prices during 1978/79 and 1983/84.

Table 3.1 : Share of Investment in ADP (%)

Year	Crops	Non-Crops	Total	Contribution to GDP	
				Crops	Non-Crops
1978/79	12.8	3.7	16.5	39.5	10.0
1980/81	11.3	2.9	14.2	38.6	10.2
1983/84	9.8	3.5	13.3	38.4	10.9

3.02 The annual growth of value added at constant prices from these sectors during the same period was 2.67 percent which was almost similar to the population growth rate. The sub-sector growth rate during the same period are shown below :

Growth Rates, 1977/78 - 1983/84

1.	Crops	0.0228
2.	Forestry	0.0538
3.	Livestock	0.0420
4.	Fisheries	0.0300

3.03 The annual growth rate in the crops sub-sector was the lowest and less than population growth rate, although investment allocation to it was 3 to 4 times larger than that in the non-crop sub-sector. The crops, livestock, and fisheries sub-sectors essentially interconnected. The relative importance of the crops sub-sector call for relatively larger investment in the sector.

3.04 The Crops Sub-Sector : The results of development efforts, as is seen from Table 3.2 do not appear to be very satisfactory. Except in the case of boro and tea crops, the second plan output targets were not fulfilled. In the case of foodgrains,only 62.5 percent of the target was realized. And this was mainly due to relatively better performance in the cases of boro and wheat which together accounted for only 14.7 percent of the total cropped acreage in 1982/83.

Table 3.2 : Crops-Second Plan output Targets and Achievement

Crops		Target Annual Growth Rate %	Actual Growth Rate %	Share of Cropped Acreage - 1982/83 %
Foodgrains :				
1.	Aus	6.7	0.0	23.7
2.	Aman	2.7	1.3	45.0
3,	Boro	6.9	9.6	10.8
4.	Wheat	18.1	12.2	3.9
Total :		5.6	3.5	83.4
Others :				
5.	Jute	4.5	5.1	4.5
6.	Sugarcane	3.4	1.3	1.3
7.	Cotton	56.3	14.9	0.1
8.	Tea	3.2	3.6	0.3
9.	Potato	8.5	7.6	0.8
10.	All others	-	-	9.6

Source : The Planning Commission of Bangladesh

3.05 More than 50 percent of the total cropped land in Bangladesh is under Kharif Crops. Output growth rate of these crops over the past decades have been very low. Output loss due to flood and draught is significant in Kharif seasons. Only 3 percent of land under Kharif crops have irrigation facilities and only one-fifth of the later have flood control and drainage facilities.

3.06 Weather dependance of Kharif crops together with hydrological conditions has retarded the spread of HYV-technology among these crops. As a result, both application rate and growth rate of fertilizer use in these crops remained very sluggish. This has kept the average fertilizer application rate to half of the recommended dose.

3.07 Past experience indicates that without more investment on flood protection and drainage, acceleration of Kharif crops production at the required rate is not possible.

3.08 Hence, since the early 80s emphasis has been shifted to small scheme projects for flood control, drainage and irrigation in the flood-affected water logged areas. Available feasibility studies indicate that cropping pattern in the project areas will change; local aman, aus and boro will be substituted by HYV transplanted aman, aus and boro. In many projects, HYV wheat can also be grown. In such schemes again the greater emphasis is on the production of major foodgrains.

3.09 The ultimate impacts of such schemes is yet to be seen, and much will depend upon (a) the motivation and participation of farmers (b) the adequate availability of critical inputs such as seeds, fertilizer, draft power and credit (c) the efficiency in their management, and (d) counteraction against negative effects on adjacent areas outside such schemes as well as on fisheries within the project areas.

3.10 The viability of the strategy for faster growth of boro crops will depend upon adequate availability of surface and ground water and in many areas over-exploitation of both surface and ground water has already been reported.

3.11 Constraints and Issues : The factors which have certainly affected the rate of agricultural development in Bangladesh operated both upon supply and demand - domestic and foreign. In the crops sector, effects of foreign demand upon the production of raw jute, the most important crop which has earned the major proportion of foreign exchange for Bangladesh in the past decades, has been very significant. Because of chronic food deficit in the country, the demand effects on food-crops have not been so visible, although in the ultimate analysis it will play an important role.

3.12 The prominently visible issues as the above analysis indicates, related to supply side. On the supply side, the major thrust was on the rapid introduction of seed-water-fertilizer technology, i.e. increasing the fertilizer and responsive varieties of rice and wheat. Less emphasis until recently has been given to HYV minor crops, such as oilseeds, pulses, potato, vegetables, spices.

3.13 As a result of this strategy, the proportion of HYV acreages in the total cropped land has grown from about 8.7 percent in 1972/73 to about 23.6 percent in 1983/84. The proportion of irrigated acreage during the same period increased from 10.0 to 16.9 percent. Modern irrigation accounted for about 68 percent of the total in which irrigation by different types of power pumps and deep tubewells accounted for over 60 percent. Inefficient management of irrigation has limited its capacity utilization to about 50 percent, and the supply of irrigation water can be increased by at least 30 to 40 percent without increasing investment if management is improved, users are better trained, and social-institutional problems are reduced. The constraint in this regard has already become visible. On the supply side, therefore, the problem of increasing Kharif crops by measures, such as, flood prevention and drainage

has assumed great significance. Efforts in the direction will also change the existing cropping patterns in Kharif seasons and speed up the diffusion rate of the HYV-technology.

3.14 More than 16 percent of cropped acreage in Bangladesh is under certain Kharif II and rabi crops such as potatoes, vegetables, onions, zinger, garlic, chillies, oil seeds and so on. Emphasis on HYV boro and other rabi food-crops has overlooked the importance of these crops where the possibility of output and employment expansion is quite significant. Water requirement for these crops are minimal and greater efforts in increasing their out-put is an issue which needs to be squarely faced in our strategy for the development of the agriculture sector.

3.15 Inter-connected with the issues discussed above, especially with the problems of output stability and inter-crop land allocation, are storage and marketing problems. We have very little empirical knowledge about the operation of market mechanism in the crop-subsector. Whatever knowledge we gather from observation indicates wide price fluctuations before and after harvesting of crops. Lack of adequate storage and preservation facilities do cause unexpected loss particularly to small farmers.

3.16 Storage problem at the level of individual farmers is of less importance than that at the marketing centres and it tends to increase with increased marketable surplus consequent upon increased production of farm outputs. Most micro-economic surveys indicate that even the marginal farmers tend to sell a large proportion of their output immediately after the harvest and buy a considerable amount during the lean season. The existing market structure, which is also governed by storage and transport facilities tend to create wide margin between the sale and purchase prices leading a loss of their real incomes. Increased storage and transport facilities will play a significant role in this respect. However, for the small farmers the most important measure would be to create and support marketing cooperatives at the producers level.

3.17 For the non-food crops, which are more perishable and seasonal in nature, storage and preservation facilities are extremely important in maintaining output stability, hence in increasing output. Potato, tomato and other vegetable growers are restrained from increasing output due to the inadequacy of such facilities. The imperfection of the market mechanism has to be removed by ensuring credit for enhancing the storage capacities of farmers. Given the demand, these issues restrain the production of many important non-crop output, such as those mentioned above, and increased yield and output of such crops is an essential condition for expediting the growth and diversifications of the agriculture sector. Given the adoption of right policies in this regard, the demand side may be taken care of by intra and inter-sectoral linkage effects.

3.18 Another important issue on the input side is the defficiency of draft power in Bangladesh. Available studies indicate that the draft power requirement in Bangladesh is about 0.151 Kw/acre while the available supply is only 0.096 Kw/acre. In other words, the defficiency of draft power amount to over 36 percent. Increased production in the crops sub-sector, therefore, necessitates increased production in the livestock sub-sector.

3.19 The livestock Sub-Sector : Livestock sub-sectors contribution to GDP at constant prices amounted to 5.23 percent in 1983/84. It is half of the contribution made by the industries sector. Judging from its contribution to GDP, this sub-sector ranks 8th among the different specified sectors. Further importance of this sector emanates from the fact that it supplies inputs to the crop sub-sector as well as to the leather industries. The later accounts for about 6 percent of our export earnings.

3.20 The Third plan gives the following estimates for the livestock population.

	(Millions)
1. Cattle and Buffalos	23.22
2. Poultry Birds	84.25
3. Draft Power	12.00

3.21 According to 1977 census, 85 percent households had owned cattle, 40.3 percent had owned goats, and 70.8 percent had owned poultry brids. Available micro-economic survey indicate that draft animals per fann household in different regions average between 0.41 to 0.56.

3.22 We do not have data on physical targets and achievement during the second plan. But available data on value added at current prices, as is seen in Table 3.3 indicate that the annual growth rate of value added at current prices between 1977/78 and 1982/83 was 13.69 percent, and the highest contribution to it came from meat since its growth rate was 18.56 percent.

Table 3.3 : Livestock: Value Added at Current Prices

(in million Taka)

Years	Meat	Milk and Products	Hides and skins	Eggs	Others	Total
1977/78	3440	2730	670	740	194	7774
1978/79	4805	3605	935	920	236	10501
1979/80	5869	4494	1203	1185	247	12998
1980/81	5621	4305	1152	1135	238	12451
1981/82	6681	3868	800	1088	276	12718
1982/83	8061	4242	968	1234	264	14769
Annual Growth Rates	18.56	9.21	7.64	10.77	5.27	13.69

Source : As in Table : 3.4

3.23 Second plan objective : The second plan objectives in this sub-sector were the following :

i) reduction of mortality ;

ii) improvement of breeds and biological products ; and

iii) increase of extension services.

3.24 The realization of these objectives was constrained by about 44 percent under utilization of allocated funds. The latter was mainly due to institutional and supply defficiencies. The Directorate of Livestock Services (DLS) has staff at the upazila level which are neither sufficient nor efficient to look after the preventive as well as curative aspects of animal health.

3.25 Inadequate supply of vaccine from the Central Vaccine Laboratory at Mohakhali and of Dera from the Comilla Laboratory could not reduce livestock mortality. Production of sera has stopped causing dislocation in preventive and curative measures. Also there is a drastic defficiency of medicine for treating parasitic diseases. Imported medicine for this purpose accounts for only 23 percent of the requirement. As a result, the estimated mortality rate amounts to 30 percent in the case of poultry birds and over 10 percent in the case of cattle.

3.26 Production is hampered by very slow improvement of genetic qualities and non-availability of biological products. This effort is undertaken through the Central Artificial Insemination centre at Savar, Dhaka, Artificial Insemination Centres and sub-centres exist at upazila and union levels. DLS has refrigerated vans and other facilities for semen preservation and distribution. But the effectiveness of such efforts are constrained by inadequate growth of infrastructural facilities, inadequate extension efforts mainly due

to the understanding of extension officials by about 62 percent. Consequently, awareness among farmers for improved production of breeds has lagged behind.

3.27 Not only production of livestock suffers from genetic and biological constraints, also inadequate availability of feed and fodder caused by continuous decline of pastures, as stated earlier, due to change in crop virieties, cropping intensitites, and other infrastructural development such as construction of embankments and roads. The change in food crop varieties affects supply of fodder in a special way since substitution of long stem by short stem rice crops reduces drastically the supply of straw. Increased use of fertilizer and pesticides has also produced certain adverse effects on feeds. All these factors have increased the cost of fodders and reduced the quantum of feed to a great extent.

3.28 Poor health condition affects the productivity of cattle. It retards products such as meat, milk and milk products. Defficiency in the supply of draft power leads to the use of cows for draft purpose. Some 3.5 million cows are used as draft power. This figure exceeds the estimated number of dairy cows. As a result milk shortage gets accentuated. For the use of milk cows as draft power, interfences with lactation and potency affecting their productivity.

3.29 Current daily milk output is about 0.65 Kg. per cow. The growth rate of milk in real terms is less than the population growth rate. The low growth rate is mainly due to poor local bread, qualitatively and quantitatively inadequate supply of feeds and green fodder as well as the high cost of fodder.

3.30 Constraints and Issues : The immediate constraints to the growth of livestock output centre around health care problems. Under the existing feed and fodder situation improved animal health care facilities can increase livestock output cansiderably. The production of vaccines should be increased rapidly. Sera production should be resumed, and adequate supply of drugs, such as (i) antibiotic and supplier, (ii) antiprotozoal, and (iii) anthalmentics should be ensured through increased import and establishment of domestic production plants.

3.31 Together with these efforts, livestock services infrastructure needs to be strengthened and widened. Its efficiency needs to be increased. Above all, the extension services must be expanded,officials must be well-trained and dessimination of the results to adaptive research must be quickly spread among farmers through more demonstration and other efforts at farm level. Education of farmer is by far the most important element in this regards.

3.32 The fisheries Sub-Sector : The contribution of this subsector to GDP at constant prices in 1983/84 was 3.13 percent. This sector provides employment to over a million people as professional-fulltime fishermen. Besides,most farm families do subsistance fishing in order to supplement their family diet. Subsistance fishing, therefore, is an important sources of employment and income for the farm families. The total output beween 1977/78 and 1983/84 increased at the average annual rate of 2.7 percent. The growth rate of inland water fish output was 1.8 percent and that of marine output was 6.4 percent. Since the domestic consumers prefer mainly inland water fish, it is possible that per capita fish consumption during this period did not increase. Fish is an exportable item, and its share in our total export was 2.4 percent during 1972-1982.

3.33 Past Development Efforts : There are three types of fisheries in Bangladesh, namely, (i) open inland water fisheries,(ii) closed inland water fisheries, and (iii) marine water fisheries. As is seen in Table 3.4, inland water fishery accounted in 1983/84 for about 73 percent of total fish production in Bangladesh.

3.34 Planning development effort in this sub-sector started from 1960. The emphasis was on pond fish culture, construction of fish multiplication farms in different parts of the country. A Fresh Water Fish Research Station was established at Chandpur in 1965 with a view to developing the technique of induced breeding of local carps.

3.35 After independence, development of culture based fisheries received higher priorities during the First and Second Plan periods. Two large fish hatcheries, one at Raipur, Noakhali and other at Kotchandpur, Jessore came into existance. Before independence, there existed some hatcheries in the private sector. In 1980, the estimated total hatchery production of carp fry was 22 million. This figure increased to 1.2 billion in 1985 of which 65 percent came from 40 private hatcheries.

3.36 There has recently been a significant upsurge in brackish water aquaculture of shrimp in the coastal districts of Satkhira and Cox's bazar.

3.37 Marine fishing by modern trawlers has been introduced after independence. Sail powered fishing boats have been replaced by mechanized crafts. Fish harbor and fish handling centres have been set up by Government in Chittagong, Cox's Bazar, Khulna, Patharghata and Khepupara.

Table 3.4 : Fisheries : Production and Value Added

Year	Production (In ooo metric tons)			Value Added (million Tk.)	
	Inland	Marine	Total	at current price	at constant price
1977/78	533	110	643	6916	2013
1978/79	527	118	645	6886	2103
1979/80	524	122	646	6998	2097
1980/81	525	125	650	7022	2101
1981/82	556	130	686	7654	2222
1982/83	583	141	724	8131	2373
1983/84	593	160	753	9202	2423
Annual Growth Rate %	1.8	6.4	2.7	4.8	3.1

Source : BBS, Statistical Year Book of Bangladesh 1981, 1982,1983/84, Dhaka

3.38 Constraints and Issues : Open inland water fishing is constrained mainly firstly, by its own nature and characteristics and secondly, by the lack of co-ordination of development strategies between the crop and the fisheries sub-sectors.

3.39 Open inland water is a national resource. Therefore, open water fishery resources are also common properties. Individuals are interested only in catching fish, but not in their protection, conservation and propagation. Increased demand for fish therefore leads to over-fishing. Revenue oriented management of fisheries also leads to indiscriminate and unregulated harvesting of fish in water bodies which are auctioned out to fish traders.

3.40 Inadequate knowledge about the dynamics of fish population hampers adoption of appropriate measures for open water fish population management. It is hardly appreciated that rivers, flood plains, beels and canals constitute a single biological production system in the flood season and the reproduction, growth, and prepetuation of all fish stocks are tightly hounds in single integrated system.

3.41 Water sector development strategy, especially that for the small water sector schemes for flood control drainage and irrigation is likely to produce serious adverse effects on fish habitats in open flood plains, beels, rivers and canals in the project areas. Revival of brackish water shrimp culture in Satkhira region, particularly within the BWDB's poldered areas, has become a cause of conflict between the shrimp famers and the rice famers. There is a lack of clear cut Government policy for consideration of fisheries water needs while planning water development projects.

3.42 Pond Fishery during the dry season is also adversely affected by ground water irrigation in the neighborhood of ponds due to increased seepage losses in ponds. Multiple ownership of ponds inhibits expansion of fish culture. Jute retting in ponds makes them unhealthy for fish life.

4.0 PROPOSED APPROACH

Rationale

4.01 The Government and non-government programs to create employment during the past decade have so far reached only a fraction of the population. The main sections where sizeable employment opportunities can be created include : agriculture, industries, public utilities, constructions, public services, trade and others.

4.02 The Third Five Year Plan (TFYP) document estimated that the planned investment program combined with plan strategies can generate employment to the tune of 24.38 million man-years.Table 4.1 presents the TFYP estimate for various sectors against the bench mark estimate (1984/85).

Table 4.1 : Employment Target [1/]

(in million man-years)

Sector	Benchmark (1984/85)	Target (1989/90)	Increase over bench mark	(%)
Agriculture	11.64	15.06	34.2	29.4%
Industries	1.90	2.43	5.3	27.9%
Public utilities	1.69	1.87	1.8	10.7%
Construction	0.59	0.73	1.4	23.7%
Public service	2.00	2.52	5.2	26.0%
Trade and others	1.47	1.72	3.0	17.0%
Total :	19.29	24.38	50.9	24.4%

4.03 About 67.2 percent of the additional employment will come from expanded agricultural activities (diversification and intensification through of seed-fertilizer-water technology). The estimates are ambitious and does not seem to be in line with past performances.

1/ Third Five Year Plan 1985-1990, page 114

The planned investment in the major productive sectors, given the internal resource mobilization constraints and the uncertain aid climate, can suffer with consequent economic disbenefits.

4.04 The estimated growth in agriculture is contingent upon : expanded use of seed-fertilizer-water technology; improved water control measures during flood season; and adequate delivery services systems. The performance of the last decade has shown that a combination of one or more of the above constraints brought negative or marginal growths. If critically examined the various factors it would seem that the planned targets would be difficult to achieve.

4.05 The growth in industries sector depends on a number of exogeneous factors consisting of : international economic situation, price of raw materials, internal production, demand and supply mechanism and increase in agricultural productivity.

4.06 Other sectors are very much dependent on the performance of agriculture and industries. Sluggishness in any of the sectors would create a chain of disbenefit fallouts with far reaching consequences on employment and demand creation.

4.07 The over-dependence on rice in the agricultural programming has had a situation where nutritional balance has been affected. Over the years the acreage and output of minor crops (oilseeds, pulses, vegetables, condiments.....) has been a steady decline with major implications on crop rotation, nutrient base of land resources and human nutritional standards, feed and fodder problems of livestock population and labour employment. The importance of rice on the cropping system is not without reasons; these are : a satisfaction-reflex, governmental efforts (extension, credit, seed-fertilizer-water technology), and market mechanism. Crop intensification (and diversification) during the dry season when considerable areas remain fallow due to : poor soil moisture regime for adequate

plant growth, inadequate irrigation facility; lack of awareness and perception on the part of the farmers; and indifferent downstream activities (extension, credit, appropriate technology.....).

4.08 Intensification of cropping in complimentarity with possible diversification and introduction of appropriate technology can generate substantial employment opportunities in the crop sector as well as in agricultural related activities. This would be in line in the GOB TFYP objectives and strategies.

4.09 The Government policy of promoting rural non-farm self-employment through the employment resource centre to be established at upazila level will lead to the creation of 5.1 million job opportunities during the period 1985/86 - 1989/90. The non-farm self-employment would be generated through a package of sub-programs consisting : selection and organization of the target population; equiping the target population with necessary skill and technology development; identification of activities/vocations; credit availability and proper guidance, and provision of appropriate downstream activities (training, technology and information on investment possibilities in different areas).

4.10 The increased investment in infrastructural development would have a number of well discernible impacts on the employment wage structure. Some of these includes : off-seasons employment (though short term); improvement in marketing (thereby facilitating higher market price with concomitent increase in output); and socio-cultural exposure.

Labour Intensive Agricultural Activities

4.11 For stimulation of employment in agricultural sector, several alternatives and possibilities do exist in the country. These have been tried all over Bangladesh and with mixed success. In some cases the initial enthusiasm and success gave way to passive sluggishness and decay, and in

other cases the initiation met with failure. The Consultants have studied in detail various activities that are being undertaken by various agencies. Indications (though not precise) are provided and these include : labour intensive irrigation practices through appropriate technology; and household storage facilities.

4.12 In many part of Bangladesh (Rangpur, Dinajpur, Tangail.....) dryseason irrigation through treadle pumps, rower pumps and a host of other small irrigation equipment (HIWs) are now being practised with considerable success. The technology is simple; the equipments can be produced locally; and the installations are inexpensive. The introduction of these manually operated irrigation installations will trigger of multi-faced opportunities for employment generation. These would include; employment of labour for lifting of water; manufacture (locally) of pump installations and installation of pumps.

4.13 These installations are normally used for dry season irrigation of low water demanding dry land crops (Wheat, Oilseeds, Pulses, Potato, Vegetables, Condiments.....) and to some extent HYV boro. The operation and the installation is labour intensive and requires substantial muscle power. Estimate for labour requirement for an acre of minor crops varies between 90-120 man days depending on the types of dryland crops, and HYV transplantation aus; for HYV boro it is in the range of 500-600 man days depending in the topo-hydrological situation.

4.14 Surveys and interviews have revealed that the marginal and small farmers with considerable unemployed labour force, other situations being favourable generally opt for these types of equipment The medium and large farmers who normally hire agricultural labour for agricultural operations generally stay out of this type of facilities after proper technical evaluations, these equipment if sited in suitable areas can generate a considerable volume of employment opportunities.

4.15 The manufacture of these low-level technological innovatories would form the basis of a creation of a cadre of semi-skilled and skilled man-power. The drilling crews for drilling holes and installations would also add a number of employment.

4.16 The installations would form, a 'contracting group' from among the marginal and small farmers with socio-economic homogenity and interest. These equipment can be sited in a plot either owned by one of the group members or can be leased or rented in. The group would operate the installations by putting in labour according to the availability from the group. The money generated by selling labour can then be shared by the group.

4.17 The group motivation, organisation, training and follow-up activities may rest with non-governmental organizations (BARC, Proshika, RDRS, MCC.....) experienced in such activities. This group should adhere to savings mobilization criteria forming a non-formal group gradually (if desired by the group) merging into the formal cooperative groups. To monitor and supervise the NGO activities, a supervision agency would be required. This agency can be a quasi-government organization (Upazila Parishad).

4.18 The financing part of the installations can be handled by nationalised commercial banks (NCBs) by opening a seperate window or through normal banking channel. The credit would provide funds for purchase of equipments and cost for drilling of holes and commissioning the installations. The group would not be eligible for any subsidy and would work in the free market mechanism.

4.19 The USAID should establish a revolving fund by allocating a part of the sale proceeds of the commodities under PL-480 entitlements in one of the NCBs by activating the existing lead bank system. The revolving fund would be replenished on the basis claim disbursement provided by the leading institutions (lead bank).

Infrastructural Development

4.20 Infrastructural development such as roads and civil structures (financed under PL 480 Title II Agreements) using labour intensive methods provided short-term employment (Ref. Table 4.1). The TFYP has estimated that about 8 to 10 million mandays of employment will be needed during each of the TFYP period. BDG has ambitious programs and investment to create the estimated short-term labour requirements.

4.21 In line with, and complimentary to BDG efforts, PL-480 provides substantial commodity assistance (through CARE) for construction and improvement of rural infrastructures including civil constructions (bridges and culverts). The Consultants feel that the normal program of the CARE for infrastructural development would remain unaffected, and with professed aid to broadbase the employment generation it should cover the important aspects of maintenance of infrastructure to keep it operational year round. It is common knowledge that lack of proper maintenance is one of the key elements in making these infrastructure inoperative within short time. Several organisations including CARE are allocating sufficient funds for proper maintenance of the infrastructures.

4.22 For maintenance of roads, flood embankments and drainage channels (constructed under FWP, bilateral and multi-lateral donor agencies), effective procedure should be formulated and executed by labour-intensive methods. A group of disadvantageous and vulnerable women or males should be organised and motivated to form a 'dedicated' workforce. A minimum of 10 women/men may form a group and assigned to look after the routine maintenance of certain part of roads, flood embankments or drainage channels. The group should also follow the savings mobilization criteria. The Title III commodities may directly be provided to the beneficiary groups by the Union Parishads; or, alternately sale proceeds of the commodities may be disbursed using any of the NGO's to act as the executing agency supervised by Upazila/Union Parishads. NGO should

be involved in motivation, group formation and follow-up activities in forming an informal grouping of participants having socio-economic homogenity.

Agricultural Diversification

4.23 Agricultural diversification offers considerable scope for employment generation. Agriculture in the country is heavily rice oriented with most of the year (about 9 months) devoted to one or the other rice with little time remaining for other crops. The dry season (between November to March) is the only period when there remains scope for planting a second or a third minor crops after rice. The introduction of seed-fertilizer-water technology for increased agricultural productivity has been the gradual conversion to HYV boro limiting further the prospect of diversification. The promotion of minor or dryland crops would centre round certain conditions; these are : availability of sufficient soil-moisture regimes(either natural or through irrigation); enough time for cultivation, growth and harvesting; availability of basic inputs (seeds, fertilizer, draft power, credit and extension services etc.) and government support for economic price to the outputs.

4.24 The proposed program for the provision of dry season irrigation (Ref. Labour Intensive Agricultural Activities) would act complimentary to the crop diversification. The basic requirements would be the introduction of a second or third crop after the main cropping sequence of rice/jute only or rice/jute-rice. Crop deversification is possible in highlands (non flooded), medium high lands (flooded to a depth from 1-2 m) and to some extent in medium lowlands (flooded to a depth from 1-2 m) characterised by topo-hydrological situations. The irrigation equipments supplied through the contract operation or equipment owned by individuals would play a vital role in crop diversification. It would also promote intensification of crops.

4.25 Crop intensification (and diversification) would only be successful with expanded use of seed-fertilizer-water technology. The small and marginal farmers, the target group under Title III entitlements, disadvantageous position due to : non-accessibility to production inputs; lack of technical know-how; and non-perception of the felt-needs. In order to attain a modest success, this sub-program would require : grouping of homogeneous beneficiaries under NGO supervision; provision of credit for purchasing critical farm inputs (seeds, draft and man labour, water, chemicals) and strengthened downstream activities specifically tailored for minor crops. The NGOs would form, motivate and extend follow-up actions for groups. The lead bank system would extend credit and the Department of Agricultural Extension would provide the technology for such changes.

4.26 The PL 480 Title III Entitlements would provide (i) funds for extending credit on a self sustaining and recycle basis; (ii) cost to the NGOs for their activities on a re-imbursible basis; and (iii) funds to the DAE for training, and other physical facilities to the extension staff. The formulation of this sub-program, an essential element of this whole exercise would require an in-depth study (Ref. Annex-I).

4.27 Crop diversification would have a series of beneficial impacts consisting of ; increased labour requirements (off-season); broad basing the crop production strategy; crop rotation; balanced use of soil nutrients; and improvement in the diet. The increased labour for agricultural operations would be required due to intensification of cropping and intensive cultural operations.

Household Based Storage Facilities

4.28 Marginal and small farmers always remain disadvantageous in marketing their output. These groups of farmers part with their output just after harvest to pay off their debt to money landers and/or banks and to make necessary purchases. Consequently, they sell their output for uneconomic price and buy these output at a much higher rate during the lean season.

4.29 The objective of this sub-program is to form a group of homogeneous farmers (not more than 10 to avoid unwieldiness in management) who will construct a simple storage facilities (with bamboo split and covered with earth) of not more than 2 tons capacity. The group members will store their output after harvest and will sell when the going would be economic.

4.30 A designated bank (lead bank) will advance credit to the group against hypothecation of the output and the money thus received will be shared by the group members according to the volume of stored commodities. The bank would also advance credit to construct the storage facilities. The output loan would be a term loan repayable at the normal interest rate within an year of receipt of the loan. The credit for construction of storage facilities would be a term loan payable within 5 years with normal interest rate. The USAID from the sale proceeds of PL 480 entitlements will create revolving fund with the lead bank.

4.31 The group would be motivated and organised by NGO under a co-ordination with the Upazila Parishad. The operations of the credit will have to be certified by the Union Parishad.

LIVESTOCK ACTIVITIES

4.32 Prospect of livestock development is limited in the country due to a number of wellknown reasons. The most commonly cited reasons are poor output due to poor animal health conditions, inadequacy of the support services, nonavailability of feed and fodder and genetic constraints.

4.33 Absence of pasture and large scale fodder cultivation rules out commercially viable dairy farming. Smallholder dairy farming (as practised in India, Indonesia, Thailand, and other South-Asian cuntries) has limited scope in Bangladesh. Several organisations - governmental and non-governmental - are promoting dairy farming and livestock rearing and fattening but with limited success.

4.34 Poor animal health with festering parasitic problem decreases the output (even if properly fed and nursed) making the enterprise unattractive and uneconomical. These enterprises can employ a considerable number of labour force if these problem can be mitigated.

4.35 Poultry and duck raising can also be an alternative but given the constraints (disease and genetic limitations) not much could be done. These activities would be an extension of subsistence effort of the household but nevertheless there remains scope for development of livestock activities, albeit on the basis of sound techno-economic assessment.

4.36 Even with these constraints related to health, feed and fodder and genetic limitations, Title III resources might be mobilized on an experimental basis to have a break through in livestock activities. Initially, for this purpose, small scale labour intensive fattening/ rearing/laying operations might be potential.

4.37 The PL-480 sale proceeds can be provided to Grameen Bank, BKB, NGOs involved in credit operations to support the small scale farms engaged in these activities or new entreprenuers/groups may be encouraged by providing direct cash credit.With such credit, the agencies will be involved for credit distribution, paralally should extend support services and health care facilities to the entreprenuers/groups. The motivation,skill development, marketing responsibilities shoulds be given to a specially designed NGO under a revolving fund created by PL-480 resources.

4.38 For poultry and duck raising, individual households or groups may be provided cash credit through NGOs on a recycle basis. The NGO should be vested the responsibilities of medicare and treatment facilities, motivation and group formation activities. They should also involved with the genetic improvement of the poultry and ducks through establishing modern but small laboratory facilities.

Replicable Small Employment Activities

4.39 Bangladesh has a number of traditional activities employing about 1.5 million persons or 7 percent of the total employed labour force. But in a changing economy, the present production pattern of the small employment activities neither can cater efficiently to urban demand nor the demand of the affluent rural population for production and consumption. They largely cater to largest number of rural households who are poor thereby creating a symbiotic relationship with the general poverty condition. The rural non-farm sector thus appears to be locked in vicious circle of low income depending on low level of investment and technology. In order to have a dynamic growth of the non-farm activities, a comprehensive rural development covering agriculture and non-farm activities will be necessary so that they reinforce each other by increased supply and demand of goods, increasing thereby employment opportunities. It is to be acknowledged that a stagnent non-farm sector such as replicable small enterprises can not be a drag on agricultural development with concomitant depressing effects on labour as well as commodity markets.

4.40 Relicable small employment activities are by nature labour intensive than others. The number of such activities their location (logical way of creating optimum possible employment opportunities close to the markets of the products and raw materials) and the productivity aspects should be taken into account to provide sufficient wage level to enable workers to have effective demand for their basic needs (foodgrains comes to the top of the list).

4.41 A great many numbers of replicable small employment activities are pursued in the country. To make the list short only important ones are being enumerated here. These are : cane and bamboo works, pottery, blacksmithy, net making, weaving and carpentary. There are other areas of specific activities also.

The self-employed services sector includes traditional professionals like barbers, washermen etc. and small tipe shopkeepers, rickshaw pullers, food processing and host of other self employed people.

4.42 The PL-480 sale proceeds can come forward to stabilise the non-farm employment sector by providing cash (in the form of credits) to an individual or a group to initiate the replicable activities. The country has seen a spurt in the promotion of this sector activities by a number of institutions and organisations. The most notable among these are : Grameen Bank ; NGOs, BSCIC, DANIDA etc.

4.43 The identification of potential activities, motivation, group formation, skill development and market intelligence should be vested with NGOs. The extension and developmental aspects can best be handled by Bangladesh Small and Cottage Industries Corporation (BSCIC).

DATA BASE DEVELOPMENT

4.44 The funding of such activities should be done through the normal banking procedure as provided for other recommended activities.

4.45 Statistical data base for furthering planning process in the country are very weak, and at times uncertain and based on rough guess works. This leads to wrong estimates in various crucial sectors undermining the very foundations of the assumptions and ultimately the targets. However, it should be noted that there exists large volume of data collected by various agencies of the same parameters but differing statistics. In order to close the gap between normative and effective demand several key indicators are to be stored, may be by collecting data from the primary or secondary sources.

4.46 The indicators that would be statistically meaningful and reliable, would essentially include but not limited to the following :

(i) demographic characteristics including literacy ;

(ii) labour-employment situation and wage rates ;

(iii) land tenure and tenurial system ;

(iv) land use, cropping systems and cropped areas ;

(v) input and output matrix ;

(vi) irrigation facilities ;

(vii) marketing and storage ;

(viii) support services (extension, credit, research etc.)

(ix) food habits and intake ; and

(x) income and expenditure.

4.47 Some of the above indicators are available with various agencies but with questionable reliability. Bangladesh Bureau of Statistics(BBS) is the governmental agency empowered with collection, collation and storage of the data. The Ministry of Agriculture regularly monitors agricultural activities including field level data collection with respect to various aspects of agriculture. Universities are regularly undertake research studies in various subjects of national importance. Many governmental organisation in course of project/program identification, preparation and implementation, collected data through private organization/institutes. Bangladesh Institute of Development Studies (BIDS) regularly undertakes research works in matters of economic interest.

4.48 To upgrade and improve the data base, USAID may engage consultants to collect, collate and store data (Ref : Section 4) for meaningful evaluation and projections. To arrive at an authentic data base USAID may also undertake intensive but small data collecting exercise, more so, in determining output (by crop cutting exercise), food habits, income and expenditure, nutritional level etc. For other data base like demographic structure ; labour employment situation; input etc. it can use published data from various sources (Ref : Section 4).

5.0 BENEFITS

General

5.01 The activities and sub-programs indicated in Section 4.0 would generate additional employment and would essentially improve the liquidity to allow cash purchase of foodgrains thereby creating effective demand for foodgrains. It is very difficult to forecast even an indicative number of the total potential employment in these activities. It has been mentioned in Section I that the Activities and Sub-Program are indicative in nature and for future processing it would require detailed studies and analyses.

Employment

5.02 The Activities and sub-programs that are most likely to generate considerable employment opportunities are rated and listed. These are :

- crop diversification ;
- replicable small employment activities ;
- irrigation contracting ;
- livestock activities ;
- maintenance of infrastructures; and
- household based storage facilities

5.03 Crop Diversification : Cropping intensity is about 153.16 percent, or in other words a plot of lands planted only 1.5 times though theoritically the potentiality exists for 3 plantings. On an average only about 30-40 percent of the land is cropped during the dry season with least natural calamities. This leaves room for intensification of agriculture. About 22 million acres of land is cultivable out of which only about 6 million acre is planted with dry season crops. Independent assessment estimates that another 6-8 million acres of land can be brought under cultivation by intensification and diversification. This alone can generate employment of about 180 million mandays of additional employment.

5.04 Crop diversification therefore offers an immense potentiality in employment and demand creation for the disadvantageous section of the rural population. The employment in this sub-program will increase the agricultural output thereby releasing a chain of linkage to income, consumption and investment.

5.05 Replicable Small Employment Activities : The TFYP document enumerates that non-farm employment and human resources development will generate 5.1 million job opportunities. The improvement in the quality of the output (again a function of skill development and market intelligence) and with proper marketing the wage-structure of these activities tend to increase - against existing moribound situation; and will effectively increase food consumption.

5.06 Irrigation Contracting : The activities - a labour intensive exercise - if introduced in suitable areas can employ considerable workers. In old Rangpur district alone there are about 30,000 treadle pumps are in operation employing about 3 million mandays of labour input. The potentials for other areas are encouraging and rough estimates put these figures to be around 30 million mandays.

5.07 Livestock Activities : It is very difficult to put any figure of employment opportunities under this sector.

6.0 ISSUES

6.01 General : Several key issues emanated from the discussions and inferences made in the report. This is unavoidable since the TOR for the study were not explicit, rather it was based on ideas which encompassed a broad spectrum of activities that can be utilized for employment and demand creation. The Consultants have suggested several appropriate and applicable activities based on available techno-economic resource base. But before going for such exercises, studies and investigations are required to prepare definitive and conceptualised project plans.

6.02 Labour Intensive Agricultural Activities : The treadle pumps or any other alternatives for dry season irrigation to less water demanding dry land crops (including wheat) and HYV transplanted aus (supplementary irrigation) would create opportunities on two counts : an increase in labour employment scenario and intensification (and diversification) of cropping. The area suitable for such activities should be selected on the basis of hydrogeological considerations and area-specific requirements. This requires studies involving a multi-disciplinary approach to select areas suitable for appropriate technology keeping in view the agronomic requirements. Master Plan Organization of the National Water Plan Project has adequate data base for the estimation of groundwater resources and modes of exploitation. A brief TOR for the Study is provided in Annex 3.

6.03 Crop Diversification : Crop diversification would require assessment of areas suitable for a wide range of dry land crops based on topo-hydrological situation, soils and land potentialities. Additionally, availability of physical inputs and adequate support services should also be investigated. An indicative TOR for the study is provided in Annex 3.

6.04 Replicable Small Employment Activities : The other issues which merit consideration include a study on replicable non-farm generating activities and household-based storage facilities. A wide range of activities are now commonly practised in Bangladesh. Scaling down the number of activities and their replicability depending on the availability of input and the marketing of output on the basis of free market mechanism should be examined. Unrestricted production without proper market intelligence and improvement in the quality of the output may create situations detrimental to increased employment generations.

6.05 Household Based Storage Facilities : Strictly the group of farmers (to be involved in this activities) should have to be homogeneous in nature otherwise the management of storage might be corrupted. The storage construction will be also difficult, if any standard design do not provided to the groups along with the materials specifications. The credit provided to the group should be only on the hypothecation basis avoiding any other collateral bondage. Care should be taken on the quality of stock management so that storage spoilage can be avoided.

ANNEX I

TERMS OF REFERENCE

A. IRRIGATION CONTRACTING GROUP

A.1 A consultancy firm/individual consultants will be required to undertake a study to delineate areas suitable for adoption of the recommended type of technology (treadle pumps or any other appropriate technology). Adequate reference should be made to the data base of the Master Plan Organization. More specifically, the consultants should pay adequate attention to :

- delineate the areas suitable for groundwater exploitation by appropriate technology ;
- determine the net areas to be irrigated ;
- determine the number of quipments and other parameters ;
- project a suitable cropping pattern of the area basing on topo-hydrological, land and soil potentialities ;
- estimate crop-water requirements and pumping hours per crop ; and
- estimate per acre labour requirement for pumping water for each recommended crops.

A.2 The consultant team should cosist of : a Hydrogeologist for 8 weeks; an Agriculturalist for 6 weeks ; an Agril. Economist for 4 weeks and adequate support staff and services.

B. CROP DIVERSIFICATION

B.1 A consultancy firm with adequate resources should be required to make a proper study and assessment of the possibilities of crop diversification in Bangladesh. The consultants should pay particular attention to :

- compile and assess the monor crops scenario ;
- review and assess the land potentialities for promoting minor crops ;
- forecast the areas suitable for minor crops taking into consideration the topo-hydrological and other parameters ;
- assess the downstream activities for minor crops ;
- develop a suitable cropping pattern under future scenario with better water control and downstream activities ;
- estimate existing input-output matrix and project under future situations ;
- estimate the labour requirements and its seasonality ; and
- forecast impact of labour utilisation from crop diversification to national economy.

B.2 The consultants team would consist of : an Agriculturalist for 12 weeks ; a hydrogeologist for 3 weeks; an agril. Economist for 3 weeks and adequate support staff and services.

ANNEX 2

REFERENCE MATERIALS COLLECTED AND REVIEWED

DESCTIPTION OF MATERIALS	SOURCE OF COLLECTION
Agricultural Policy Analysis Project	USAID
Small and Micro-Enterprise : Contributions to Development and Future Directions for AID's support	USAID
Memorandum for the Bangladesh Aid Group - 1986-87	USAID
Employment and Demand Creation	USAID
Agreement between the Government of the United States of America and the Government of the People's Republic of Bangladesh for sale of Agricultural Commodities, Public Law 480, Title III	USAID
The Food Sector Policy and it's Management	USAID
A Document on Food For Work - III	USAID
Operational Plan : Integrated Food for Work Program, CARE - Bangladesh	USAID
Success Stories : TELEGRAM	USAID
A Model of Endowment Constrained Demand for Food in an Agricultural Economy with Empirical Application to Bangladesh	USAID
A Paper on Groundnut Economy of Gujrat	USAID
A Memorandum on Subject : Draft Statement of Work for "Employment and Demand Creation" Study	USAID
A Memorandum on Subject : Contract Farming ("Core Satellite" Model)	USAID
A Telex Message on the Subject : PL 480 Title I - Programming Local Proceeds for Private Enterprise Development	USAID

DESCRIPTION OF MATERIALS	SOURCES OF COLLECTION
The Third Five Year Plan, 1985-90	Planning Commission, Ministry of Planning
Statistical Year Book of Bangladesh, 1984-85	Bangladesh Bureau of Statistics
Sectoral Policy Paper on Rural Development and Institution (Prepared by RD & I Divn. of Planning Commission)	Planning Commission
Perspective Development Plan, 1980-2000	GED (General Economic Division) of the Planning Commission
Rural Poverty and Unemployment Study by Dr. M.K. Alamgir	BIDS Journal, October, 1984
Appraisal Report for Rural Employment Support Programme	SIDA
Project Document for NRD-II Project	DANIDA
Report of the United Nations Fund for Population Activities - 1984	UNFPA
Population : The UNFPA Experience, Edited by Ms. Nafis Sadik	UNFPA
Co-operative Year - 1980	IRWP
Inventory for Women's Organizations in Bangladesh : Edited by , Salma Khan, Jowshan Ara Rahman, Shamima Islam, Mahrunnesa Islam	UNICEF
Strategy for Rural Development Projects (A Sectoral Policy Paper, bangladesh Planning Commission, January, 1984	Planning Commission
Development Agriculture of Bangladesh - Noazesh Ahmed	Bangladesh Books International Ltd.

DESCRIPTION OF MATERIALS	SOURCES OF COLLECTION
Survey Report on Small Industries in Bangladesh.	BSCIC
Appraisal Report on South-West Rural Development Project	IDA/IFAD
Rural Development - An Approach	Hasnat Abdul Hye
Annual Report - Country Document	The World Bank
Myth and Reality - Experience of Rural Development	Centre for Social Action (CSA), India.

ANNEX 3

PERSONS MET

Mr. Jan H. Van der Veen	Programe Economist, USAID/Dhaka
Mr. L. E. Lynch	Food for Peace Officer USAID/Dhaka
Mr. Robert D. Sears	Food for Peace Officer USAID/Dhaka
Mr. Nishkam S. Agarwal	Asstt. Program Economist, USAID/Dhaka
Mr. Erik Palstra	Programe Officer UNFPA, Dhaka
Mr. Tailor	Asia Foundation
Mr. E. S. Hansen	DANIDA
Mr. H. G. Madsen	DANIDA
Mr. B. Johannessen	Resident Representative NORAD
Ms. Alfhild Petren	First Secretary (Development Co-operation) SIDA
Ms. Nipa Banarjee	CIDA
Ms. Farida Islam	Development Officer CIDA

Mr. S. A. Chowdhury	Director Directorate of Fisheries
Mr. Nazir Ahmed	Director, Directorate of Livestock Services
Mr. Mushfiqur Rahman	Chairman, BSCIC
Mr. Maqbulur Rahman	Director (Planning), BSCIC
Mr. Shamsul Hoque	Joint Chief (Evaluation), General Economics Division, Planning Commission
Mr. Zillur Rahman	Joint Chief, Rural Development & Institution(RDI), Planning Commission
Mr. Manzur Ahmed Chowdhury	Chief Engineer, FFWP, BWDB
Mr. Mofizur Rahman	Director, Relief & Rehabilitation Department
Mr. M. F. Chowdhury	Director General, Labour and Manpower Directorate
Mr. S. K. Das	Consultant, Rural Employment & Training Project, Cabinet Division
Mr. S. R. Alam	Chief of Planning, Ministry of Food
Mr. Nurul Hoq Miah	Chief of Planning, Ministry of Agriculture
Mr. Q. I. Siddique	Dy. Chief Engineer, LGEB, Ministry of LGRD
Mr. Mahmudur Rahman	Director(Planning), BRDB
Mr. Sultan Ahmed Chowdhury	CARE, Bangladesh
Dr. K. N. Huda	ADAB, Bangladesh
Mr. Zafri	World Food Programme, Dhaka

Mr. Loganathon	Project Economist, World Bank Local Mission, Dhaka
Mr. Walter Kock	Advisor, World Bank Local Mission, Dhaka
Mr. Resto Hanna	Consultant, World Bank
Mr. Benteli	SWISS AID, Dhaka
Mr. Rahat Khan	Proshika, Bangladesh
Mr. Fazle Hossain Abed	BRAC, Bangladesh
Ms. Khushi Kabir	Nizera-Kori (an NGO)
Mr. Mozammel Hoque	Grameen Bank
Dr. Akhlaqur Rahman	Prof. of Economics, Jahangir Nagar University
Dr. Mahmud	Professor of Economics, Dhaka University
Dr. Abdullah Faruk	Professor of Marketing, Dhaka University

Statement of Work

PL-480 Title III MYA: EMPLOYMENT AND DEMAND CREATION

BACKGROUND

Insufficient effective demand 1/ is imposing increasingly tight constraints on the expansion of foodgrain production in Bangladesh. With a large fraction of the labor force effectively unemployed (the Planning Commission has estimated effective unemployment 2/ at about 40 percent), the price which would clear a market selling enough foodgrain to meet nutritional requirements would be so low that farmers could not afford to produce that grain. Bangladesh is in a low level equilibrium state. A crucial element in the emerging strategy to extricate itself from this low level equilibrium state is the rapid generation of massive numbers of productive job opportunities. 3/

The numbers involved are staggering. During the 1985-2000 year period, the population of Bangladesh likely will grow at an average annual growth rate of 2.3 percent (CEM, 1986, P. 149). During the same 15 year period, the labor force is expected to grow from 33.0 million to 54.2 million, an average annual growth rate of 3.4 percent. 4/ Bangladesh,

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1/ Effective demand, a market concept, should be distinguished from normative demand. Lacking adequate purchasing power, about one-third of the population is severely malnourished in Bangladesh. On "demand side" limits to the growth of agriculture (a broader concept), see CEM, 1986, p. 47.

2/ Effective unemployment is a measure of hours not working to hours available for work by the labor force as a whole.

3/ See, e.g., Khan, Q.A., "A Model of Endowment-Constrained Demand for Food," World Development, 13, 9, 1985, pp 1055-1066.

4/ Just over 60 percent of the net addition to the labor force during this period probably will be in rural areas; just under 40 percent in urban areas. But after the turn of the century, according to IBRD projections (IBRD, "Selected Issues in Rural Employment", 1983), labor force issues are overwhelmingly urban issues.

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already severely burdened with massive effective unemployment, will have to find productive jobs for well over a million additional persons each year for the forseeable future.

Macroeconomic constraints to increasing productive employment, in areas such as trade, tariff structure, and interest rate policies are addressed by aid and other donors, as are program level concerns involving, e.g., small enterprise development. However, the magnitude of the problem and the link to (through an aggregate effective demand constraint) limits on food production both suggest that initiatives taken under Title III are entirely appropriate.

There are a number of mechanisms available under Title III, and opportunities to increase demand for food through stimulating employment, that could be incorporated into the forthcoming multi-year agreement. The exercize described in the work statement below is designed to identify the most promising of those opportunities and are consistent with those mechanisms. Two broad principles will apply. They are:

- Efforts to engage the GOG in policy discussions will tend to be more effective in areas that are more directly affected by food transfers. Accordingly, the Ministries of Food, Agriculture, and Finance are likely to be most receptive to policy discussions linked to Title III.
- Efforts to work in areas in which USAID/Dhaka has relatively little experience and knowledge may be less productive than concentrating more familiar areas. Thus, inter alia, stimulating market systems, working to enlarge the scope of private businesses, dealing with financial issues, and investigating policies relating to food and agricultural are likely to be fruitful.

This study is one of six studies that will inform the process of designing the new Title III multiyear agreement. Of the other five studies, two in particular overlap with this one. They are (1) the study on crop diversification and (2) the study on local currency programming. Investigations involving the potential expansion of Food for Work activities also are particularly important for this study. Other relevant work being done by the BDG and other donors includes:

- Recent reports on rural and urban unemployment (e.g., IBRD publications including "Bangladesh, Selected Issues in Rural Employment", 1983 and the 1986 CEM; BDG publications including the 3FYP and the Aid Memorandum prepared for the Consortium Group meetings scheduled for April 1986; the North-South "Report on Rural Poverty; various studies prepared by BIDS staff; relevant TIP studies).
- Recent project evaluations, especially in credit (e.g., of the Grameen Bank) and of the cooperative system.
- Projects being developed (most particularly the UNDP/IBRD, USAID supported Employment Policy Planning Unit to be established in the Planning Commission).

OBJECTIVE

The objective of this scope of work is to develop a concrete program addressing the effective demand constraint to increasing food production through the new Title III multi-year agreement now being designed by USAID/Dhaka. The consultant will review briefly the relevant literature, engage in discussions with appropriate specialists in Bangladesh, devise and define a concrete program that will permit the USAID to make a

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significant contribution to employment generation through the multi-year agreement, and suggest suitable institutional mechanisms to implement that concrete program. The consultant will produce a report describing that program and its associated implementation mechanisms.

The consultant cannot perform adequately without a good understanding of the broad context into which his report must fit. That broad context is defined as having three objectives.

(1) To identify specific policies and programs, that, when changed or more effectively implemented, would result in:

- an improved investment climate, particularly in rural areas, that would stimulate increased activities in agriculture, agro-industries, agro-services, or other activities linked to agriculture;
- improved incentives in adopting labor intensive production techniques, or more labor intensive mix of activities (e.g., through agricultural diversification or provision of increased services).

(2) Similarly, to identify specific institutions and organizations that, when improved or upgraded, would stimulate employment (e.g., through exports).

(3) To determine suitable data, and to identify how best to institutionalize the analysis of those data, in order to strengthen AID's ability to stimulate productive employment through dialogue with the HDG on policy and institutional issues. Suitable data bases may include:

- Employment generation potential of alternative crop diversification and local currency programming programs being considered under Title III;

- Patterns of household expenditures for food by income class, type of work performed, gender of household head, etc.;
- Determinants of rural/urban, agriculture/industrial terms of trade;
- Labor intensity of production in various farm activities (by crop; by non-crop, e.g. fisheries, animal husbandry; by activity e.g., threshing, harvesting);
- Labor intensity of agro-processing and of providing agro-services;
- Linkages between medium and large businesses and labor intensive small activities.

The team charged with designing the full Title III Agreement will ensure that adequate resources are made available to identify and analyze specific policies and programs, institutions and organizations, and data sets during the life of that Agreement. In addition, the team will ensure that, where appropriate, mechanisms are created so that the results of these analyses inform the Title III policy dialogue process. The first specific set of programs, institutions and data sets is the subject of the scope of work.

SCOPE OF WORK

The specific topics to be addressed by the contracts include:

(1) How best to increase the flow of resources to support the creation and maintenance of labor-intensive rural infrastructure. Flood embankments and other surface water control activities should be examined. USAID/Dhaka's Title II program is exploring ways of expanding Food for Work activities. The consultant should design some concrete programs perhaps in

conjunction with these activities that can be implemented during the first year of the the new Title III Agreement.

(2) How best to stimulate the emergence of efficient, labor intensive "core-satellite" or contract farming systems in Bangladesh. The dairy industry appears to have considerable potential. Other industries may also. The consultant should design some concrete programs that can be implemented during the first year of the new Title III Agreement.

WORK SCHEDULE The final draft is due May 05 1986.

~~The contract period covers three weeks~~. The contractor will review documents, discuss the work scope with USAID staff, and arrange appointments within week one. The contractor will discuss issues with key people outside USAID and prepare an outline of the final report in week two. The contractor will draft the final report, in close consultation with AID/ECON, in week three.

REPORTS

The contractor will submit a final report to AID/ECON in 20 copies. The report will be a finished product with footnotes, bibliography and list of persons contacted.

The final report to be submitted by 25.5.86