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Women in infrastructure - Bangladesh experience

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1. INTRODUCTION

With an agrarian economy and low industrial base, very few mineral resources, Bangladesh is one of the poorest countries of the world with a large population having uneven distribution of available wealth. The high population growth rate leads to lower income, high unemployment and underemployment rate. About 80 percent of the total population live in rural areas and more than 56 percent of the population have no land or have less than one half acre of land including homestead. The existing state of physical infrastructure is not conducive to facilitate required level of industrial and social development.

Women constitute about fifty percent of the country's total population and are one of the most affected section of the society. They have to work from dawn to dusk whereas their work is not valued economically. The life expectancy of women is lower than that of men and at least one woman dies per two hundred live births. Average age at marriage was 17.9 years for women in 1987 compared to 25 years for men. Female literacy rate was only 16% compared to 31% for males in 1981 Census.

The Bangladesh Labour Force Census of 1985-86 found that about 34.2 m women were in the working age group of which only 3.2 m were in the civilian labour force and 24.9 were in household works. According to an estimate of UNDP in 1989, 60% of women were working in agriculture off farm employment and 25% households were headed by women. During the decade ending in 1985, women participation in the labour force increased by 10% as compared to 2% for men. It was also noted that 14% of men earned Tk 75 or less but 75% of women fall under this category. Also they are to compete hard to find a place in the work force and are restricted to low paid, casual and stereotyped occupations.

Involvement of women in infrastructure development activities could offer women a wider role in the economy though their involvement in such activities is very rarely thought of in the existing social context.

2. RURAL DEVELOPMENT STRATEGY

Government of Bangladesh has declared its strategy for rural development as a means of national development based on the perception that the economy is mostly rural through a Sector Policy Paper in 1984. The three major components of the strategy are:

- Development of physical infrastructure including roads, storage and markets.
- Irrigated agriculture, minor drainage and flood control works.
- Production and employment programmes for the rural poor.

All these three components are complementary to each other. Infrastructure development is one of the preconditions for socio-economic development. Physical infrastructure is particularly required to facilitate availability of all the development inputs.

The involvement of women in all these three components is aimed at bringing them into the mainstream of the economy, and, therefore, has been taken up by the government as its strategy. The Fourth Five Year Plan (1990-95) of government of Bangladesh has highlighted the issue of effective participation of women in development both for increased welfare of women and development of the country.

3. EMPLOYMENT

Every year about eight million new job seekers enter the labour market. High rate of inflation along with natural disasters during the post liberation period reduced the purchasing power of the middle and lower class families. Many women have become widows, which compelled them to come out of their homes and join the labour force. A large number of these women have turned out to be the principal breadwinner for their families. The entry of women into the labour wage market is primarily induced by poverty.

Employment opportunities in the agriculture and industrial sector are too meagre to meet the needs. The formal sector is too narrow and opportunities for creating new job avenues are limited. Therefore, there

remains the need for creation of employment opportunities in the rural areas.

The Planning Commission estimated unemployment on a person year basis at 37.9% in FY 1984-85. The 1984-85 LFS estimated that about 90% and 60% of the rural and urban paid workers and day labourers, respectively are below the poverty line income (defined as Tk 249.44 and Tk 232.51 per month per person in the urban and rural areas, respectively). Low wages and poverty also have a strong seasonal dimension in Bangladesh. Wages vary with seasons partly because of changes in the number of hours worked and also the availability of water employment (particularly in agriculture) during the year. Most economic activities still take place at subsistence level. In many places in rural Bangladesh the daily value added by female members for a whole day's work at home is as low as US \$0.30 per day.

Agencies endeavouring towards creating employment opportunities have involved women in infrastructure building and maintenance activities. Since most of them reside in the rural areas, their involvement in rural development activities gives them employment as well as a sense of participation in national development. This has given women a wider role and shown good response, thus neglecting gender considerations contributed towards nation building. Women have been involved in infrastructure building and maintenance activities on seasonal and regular basis requiring arduous physical labour under different agencies.

3.1 Women in Infrastructure Building

During the post liberation period mainly the destitute women came forward to participate in the infrastructure building activities under Food for Works Programme (FFW). The incidence of increasing female headed households during the post liberation period due to widowhood and desertion contributed towards female participation in infrastructure development activities. These activities included construction of rural earth roads, embankments, excavation and re-excavation of canals, drainage post monsoon rehabilitation works etc. Labourers are given wheat as their wage. Locally initiated schemes are given priority under this programme. At the initial stage women were given wheat at a special rate. Considering the physical weakness of women they were given higher amount of wheat for equal work if the scheme was implemented completely by women. Women working for the schemes which were not implemented by women

were given wheat at the same rate as men. This system is continuing until now.

World Food Programme (WFP) initiated a Post Monsoon Rehabilitation (PMR) programme during the 1984 post-monsoon season. The programme was intended to reconstruct the damaged roads in usable condition using women labourers for a few days paying their wage in food. This project has been expanded in 2300 unions by the year 1988. Women work in a group of five members for rehabilitation and receive daily wage in wheat on the basis of the quantity of their work. During the year 1989-90 about 1,879 such schemes were implemented in 237 upazilas of 42 districts. During the year 1988-89, more than 150 million mandays of lean season employment was generated through FFW and a substantial part of this was for women.

WFP also supports destitute women in the rural areas through its Vulnerable Group Development (VGD) programme. Selected women are given wheat for two years as supplementary feeding of nutritionally vulnerable mothers and their children with the intention to rehabilitate them. In recent years, emphasis has been given on the rehabilitation and development aspects which include health training, functional education and income generation. A compulsory saving component has been included for generation of seed capital for self-employment. In FY 1988 the programme reached about 1.5 m beneficiaries.

Most of the badly affected roads which need major repair are brought under rehabilitation programme and other roads requiring minor repair are brought under maintenance programme.

Local Government Engineering Bureau (LGEB) under Ministry of Local Government, Rural Development and Co-operatives is primarily involved in building rural infrastructure through local bodies. The Infrastructure Development Project (IDP) of LGEB has involved women mainly in construction of earth roads, embankments, excavation of canals etc. Under Rural Employment Sector Programme (RESP) this project aims at building, maintaining and rehabilitating rural infrastructure to increase production and improve communication raising direct and indirect employment of men and women. Different other government and non-government agencies are also involving women in infrastructure building activities.

The LCS Concept The usual modes of construction of infrastructure development schemes under the Local Government System

are "Contractor" and "Project Committee (PC)". A new and innovative mode of construction in the name of Labour Contracting Society (LCS) was introduced on experimental basis from 1983-84 under the Intensive Rural Works Programme (IRWP) funded by SIDA, NORAD and DANIDA. This mode has continued under Infrastructure Development Project (IDP) of the Rural Employment Sector Programme (RESP) financed by SIDA and NORAD. Under this system, formal or informal groups of landless labourers are given contract directly for construction of small infrastructure development schemes and other earth work schemes under IDP.

The objectives are to:

- i) Directly involve the landless groups in infrastructure development work.
- ii) Eliminate intermediaries.
- iii) Provide employment opportunity and additional income to the landless groups.
- iv) Ensure fair wage.

The LCS have been involved in various types of infrastructure development activities under IDP. Examples are indicated below:

- a) Locally initiated earth work schemes.
- b) Schemes undertaken by women (Earth work)
- c) Re-excavation of Government ponds and ponds belonging to Local Bodies and other Institutions.
- d) Earthwork for construction of embankment.
- e) Excavation/re-excavation of canals.
- f) Earth Work for construction of road sections of feeder roads (Type B Crest with 7.31 m with 3.65 m pavement).
- g) Development of Growth Centre and Related Infrastructure.

Composition and Formation of LCS An LCS is defined as a group of landless men or women labourers, organized by Government or non-government organization (NGO) or IDP directly to implement small earth work or other types of schemes under IDP on contract. The members of LCS represent households of landless labourers who depend on manual labour as their main source of income and who do not own or operate more than 0.5 acres of land. The number of members of one LCS is around 30. The members of the LCS select, from among themselves, one Chairman and one Secretary.

The total cost of one contract with the LCS does not normally exceed Tk 75,000. If a larger scheme is identified for implementation of LCS, it can be divided into several portions, but one LCS does not get more than one contract at a time.

Identification, Preparation and Approval of Scheme LCS schemes are normally identified by formal and informal groups on the basis of discussion with the Upazila Engineer (UE) and the District Engineering Advisor (DEA) of RESP. Such schemes are implemented by the Upazila Parishad.

Training to LCS Members The LCS members are imparted training by IDP preferably prior to commencement of work. In exceptional circumstances, such training is imparted shortly after commencement of work. The training covers social, motivational, technical and management aspects on the basis of a Training Module prepared for the purpose.

The LCS activities have been gradually increasing under IDP. Significant increase has been recorded during 1987/88 and 1988/89. The LCS system has appeared as a viable alternative to traditional ways of organizing labour. In the northern part of Bangladesh during 1989-90 rehabilitation work of a large cross dam and embankment which was damaged by 1988 devastating flood was completed employing 67 LCS of which 7 were women LCS groups.

In these groups, the labourers have gained at least some influence over the working conditions. They have also proved their capability to cope with local problems, such as, access to soil during scheme construction, modest increase of bargaining power at the local level etc. In addition to some direct benefits to the landless groups in the form of direct employment opportunity, fair water and additional income, experience shows that the technical quality of LCS schemes has been achieved at a higher level compared to schemes constructed through the Project Committee and the contractors.

From the positive experience gained during the past few years, there are valid grounds for extending LCS involvement into a great variety of different more qualified activities under IDP. It is a success story which other infrastructure development projects are considering to adopt. During 1988-1989 a total of 11,377 labourers worked generating employment for 661,732 labourdays through LCS. Among these more than 100 were women LCS employing around 3,400 labourers. Under women schemes all construction work was done by LCS. Besides, women were involved in different other components for short term employment.

It has been observed that the quality of construction works done by women was comparable to and even in some cases

better than the works done by contractors. Considering the price hike and inflation the cost limit of an LCS contract has been raised to Tk 100,000 for LCS in 1990-91.

Recently efforts are being made to develop the LCS as prequalified groups to shoulder bigger responsibilities. The cost of the scheme in these cases would be upto Tk 200,000/- and contract would be given to selected groups based on their past performance.

3.2 Women in Maintenance

Maintenance of earth road in rural areas has been found to be a successful area of employing women. Women have proved their worth in rehabilitation and maintenance of quality earth roads. Maintenance programme is a very recent effort in Bangladesh. In January 1983, a model was taken for earth road maintenance under IRWP and subsequently it was expanded to all upazilas of Faridpur district within 1985-86. Presently the activity named Routine Maintenance (RM) is being implemented in all upazilas of Faridpur, and Madaripur district and three upazilas of Kurigram district under RESP. Presently more than 1600 women are involved in RM activity on wage basis and maintaining about 1300 km of earth road in three districts.

There are two other models of earth road maintenance being followed in Bangladesh ie CARE and DANIDA Model.

All the three models work by employing physically fit destitute women within the union. Women who come from the lowest economic strata, who have to sell physical labour and mainly those who do not have a male earning member in the family are selected as maintenance labourers. RESP takes into account the distance of worksite from their home.

Training is provided under the three models on technical and social aspects.

Earth road maintenance by employing women does not require high technology and mainly require the following activities:

1. Filling of rain cuts, pot holes, ruts and depressions.
2. Repair of collapsed sections and bridge approaches.
3. Cambering and maintenance of shoulder and side slopes.

The activity is related with the judgement of using appropriate soil, control of soil moisture and compacting loose surface,

stockpiling of suitable earth during dry season.

The maintenance programme under the three models though implemented by women, show some distinct difference in the mode of implementation.

All these models show a good response from the women of the lowest economic strata. Studies have found that though the work demands hard physical work yet the women are ready to continue with these jobs since they found it more rewarding than other available jobs.

RESP and Sanida programmes are closely supervised by full-time supervisors. The agencies give importance to the total maintenance rather than patch repair. The roads maintained by women could be retained in trafficable condition throughout the year.

Besides, road side tree plantation and maintenance, growth centre cleaning and maintenance, etc have been taken up as women activities under different development programmes. Particularly tree plantation and maintenance is aimed at:

- creating long-term employment for women
- protection of earth road from erosion
- environment protection

Some NGOs are also working to involve women in similar types of infrastructure building and maintenance activities. Most of these are through FFW and with donor's assistance. Besides, many women are working as labourers for breaking bricks, carrying water, mixing cement and other activities under contractors. No statistics are available on this type of participation by women.

4. CONCLUSION

Within Bangladesh society the work that women performed in infrastructure construction and maintenance had for ages been reserved for men. Women were considered incapable of engaging in such out of home manual work. Since women's sphere of activity is considered to be the home till now most of the development projects envisage activities by women in production process within the courtyard of their homes. The infrastructure workers have overcome this barrier and come out of their homes breaking through the conventions.

The regular employment under maintenance programmes could assure regular meals to the families. Somewhat better standard of living has been gained. The positive social

impact is that these women could gain some position in the male dominated community. They are now the decision makers of their families and in some cases they are consulted about matters relating to the neighbourhood. The women feel confident in their new role since it does provide them with food, though it increases their workload. The traditional outlook of the community is also changing and opposition and hesitation is over. More and more physically capable destitute women are eager to work in these types of activities.

The women have experienced social changes and even shop owners do not hesitate to sell food stuff and clothing on credit which was almost impossible before. At the same time the rural roads are remaining in usable condition, which reduces miseries of common people.

Destitute women being involved in the maintenance activities could improve their socio-economic status. Many of them had to depend on begging for their livelihood before joining as maintenance labourers. A study has found that many of them now could create their own savings and assets. The assets include, livestock, poultry, rickshaw/van, sewing machine, tin roof, small plot of land etc. This change in their economic position has further resulted in increased self confidence. Some of them invested their savings for further income generation, improved housing structure and sent their children to school. Perhaps these women are practically the only rural inhabitants with a regular job and cash income outside of government functionaries.

The short-term employment under Food For Works could assure employment for women for about two months a year and then they are to survive for the rest of the period on their own. Involvement of women in LCS activities, though, provides them with job for about two months a year and they try to save something out of their contract money which they use for self employment for the rest of the year. The new role of contractor under LCS has given the women a sense of responsibility. The training imparted to them and the work itself helps building group cohesion, self reliance and sense of participation and even they can bargain on their rights together.

All these programmes gave access to commercial banks to the poorest section of the society. Operation of bank account, contact with bank and other officials, help them in thinking of a better future. The training helps them to boost up self consciousness.

Women can be given long term employment in the infrastructure sector only if there is a need for asset maintenance during and after completion of the work. Maintenance of earth roads, HBB roads and structure, casting of pipes and slabs etc could easily be done by women through providing some skill training.

In order to minimize the need of direct competition with men, new areas of activities are to be identified to provide short-term employment opportunities through LCS, like rehabilitation and construction of roads, tree plantation, low cost sanitation and irrigation schemes etc. Proper planning would provide steady income to the poorest segment of the society. The activities may include:

- o laying of HBB in market/road
- o production of pit latrine materials
- o raising of land in different public institutions
- o re-excavation and cultivation of private ponds (on lease/share)
- o utilization of Borrow pit (fish cultivation, farming, afforestation)
- o Khoa consolidation pavement (mixing)
- o creet way
- o tubewell maintenance
- o irrigation drainage/buried pipe
- o embankment maintenance
- o HBB/structure maintenance

One important thing is that all these activities demand hard physical labour which women may not be able to continue for long. Also women having small children find it difficult to work in such activities. It is required to make arrangement for alternative employment opportunities for these women. And the maintenance workers work on no work no pay basis. And they also require to be motivated for self-employment.

The socio-economic benefits reaped by the women under different programmes are apparent. Their outlook and attitude has been changed and aspirations are also visible. This in itself speaks for the successful efforts of the initiators of different projects.

More and more light jobs in infrastructure development activities require to be identified for greater involvement of women in nation building activities. This in the long run would improve the status of women and help them achieve equal rights and same treatment as men.

Withdrawal of project assistance in construction, maintenance of infrastructure and physical incapability should not put these women in unemployment. Since the

construction labourers remain unemployed for a substantial part of the year, they require alternative employment opportunities. Necessary planning and steps should be taken in this respect. Creation of self-employment opportunities through skill development and capital formation could be an alternative. On the other hand, the women need to be aware about their own situation in the society as well as social, health and other facilities are other important dimensions. They are to be provided knowledge about basic health care, education, immunization etc, for improving their social condition.

Involvement of women in infrastructure development activities for an alleviation of poverty and employment generation in Bangladesh has now been proved to be fruitful. It is felt that a national strategy be formulated to involve women in the light activities of infrastructure development projects under different development agencies. Women participation could be increased through establishing linkage with the VGD beneficiaries and involving them gradually in infrastructure building and maintenance activities.

Women have been found to be capable of doing earthwork efficiently and almost all infrastructure development projects contain some earthwork. A strategy should be developed to ensure women participation in at least 50% of the earthwork schemes constructed by different agencies. Particularly WFP could contribute substantially in this respect.

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