

Role of Non-Farm Activities on Poverty Alleviation in Rural Area of Bangladesh: A Case Study of Baneshwar Union

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Abstract

Poverty, especially rural poverty is one of the most renounced words in developing, under developed countries and even in developed countries. Rural poverty refers to poverty found in rural areas, including factors of rural society, rural economy, and rural political systems that give rise to the poverty found there. Eradicating rural poverty through effective change in rural economic activities has become a major challenge for the international community. This report gives a detail description about role of non-farm activity in poverty reduction in rural area of Bangladesh. The study aims to identify the factors for shifting to rural non-farm activity and to establish a linkage between non-farm activities and farm activities. It also aims to determine the ways through which non-farm activity can contribute to poverty alleviation. The research design adopted in this study was cross-sectional field survey in which both probability and non-probability sampling methods had been employed. Questioner survey was conducted in Baneshwar union of Puthia upazilla, Rajshahi and thus the opinions of people about shifting from farm to non-farm activity and its effect on their income had been collected. Opinions of key informants and group discussion were conducted for further justification of the information. Frequency distribution, standard deviation and multiple response analysis had been conducted to analyze the data. The result indicates a number of findings: first, the factors affecting the performance of non-farm activities include inadequate capital, poor utility facility and inefficient transport to and from markets. Second, rural farm and non-farm activities are interlinked as the former in most cases provide capital for starting and running non-farm activities and the later provide source of capital for purchasing farm inputs. Third, rural non-farm activities contribute in alleviating poverty of rural people by contributing a significant share to the income earned by them. Depending on the findings some recommendations had been provided and finally poverty alleviation logic model was developed. The logic model shows how the implementation of the recommendation may contribute in reducing poverty in rural area. At last, the study concludes that rural non-farm activities play an important role in poverty alleviation. Therefore, efforts should be made to promote this sector so as to realize its full potential towards rural poverty alleviation.

Key words: Farm Activity, Non-farm Activity, Rural Poverty, Poverty Alleviation.

1. Introduction

Bangladesh is developing country of south- East Asia. It is one of the world's most densely populated countries with 150 million people, 26% of whom live below the national poverty level (Wikipedia). Almost 67 % of the total population live in rural areas and of them 36% are below poverty line. A limited employment opportunity in farming and urban manufacturing sector is one of the major reasons behind this rural poverty. Eradication of poverty has become one of the major challenges for the government of Bangladesh.

Non-farm activities create new sectors for employment and helps in diversification of rural livelihood. Non-farm activities help to raise income level which in turn helps to farm sector development. A structural shift from farming to non-farm activities (NFA) can be encouraged to develop rural economy. This may contribute in eradicating poverty of rural people. This study has been done on non-farm activities in Baneshwar union of Rajshahi district focusing

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on the types of non-farm activities. In Baneshwar, non-farm economic activities are of great importance to rural households in both economic and social terms. Income from non-farm activities is used to finance in agricultural sectors and in developing the quality of life.

In developing countries, income from rural non-farm activities enables poor households to overcome credit and risk constraints on agricultural innovation (Janvry et al., 2005). Despite of the importance of non-farm economic activities to rural households in both social and economic terms, it lacks policy, financial and promotional support from the government. The situation observed above has led to a tendency of most decision makers and development practitioners interested in rural development neglecting the rural nonfarm sector. As a result, rural non-farm economic activities are not releasing their full potential benefits to the well-being of participating households. This study aims at documenting the importance of rural non-farm economic activities in the development process of rural areas by testing empirically the contribution of these activities to poverty alleviation of participating households so that decision makers and development practitioners can take necessary steps towards supporting and promoting these activities.

The study goal was to examine the role of rural non-farm activities on rural poverty alleviation. To achieve the goal, the following objectives were selected:

- Identifying factors for shifting to rural non-farm activity.
- Identifying linkage between non-farm activities and farm activities.
- Determining the ways through which non-farm activity can contribute to poverty alleviation.

2. Literature Review and Methodology

Non-farm activities (NFA) are the major economic activity of the households of the study area. The NFA can be categorized in mainly in three categories namely; industry or manufacturing sector, services and small trade & business.

In our study area farming is dominated by crops like paddy, potato, maize, pulses etc. Cultivation of jute and other vegetables are also very popular in the study area. Mango orchards are also present here. These crops also act as inputs of non-farm activities like small and seasonal business. Livestock keeping is also one major economic activity of the households. This is mainly practiced by the women of the households. Type of livestock kept includes cattle, goats, poultry etc. They act as sources of income, security and insurance of the households.

The research design adopted in this study was cross-sectional field survey in which both probability and non-probability sampling methods had been employed. Questioner survey was conducted in Baneshwar union of Puthia upazilla, Rajshahi and thus the opinions of people about shifting from farm to non-farm activity and its effect on their income had been collected. Opinions of key informants and group discussion were conducted for further justification of the information. Frequency distribution, standard deviation and multiple response analysis had been conducted to analyse the data. At the end some recommendations were provided to eradicate rural poverty on the basis of major findings.

3. Analysis and Findings

The data analysis part involved the compilation and processing of the data collected from the field survey and questionnaire survey. All the qualitative and quantitative data were generated and presented by frequency distribution table, standard deviation and multiple response analysis.

3.1. Socio-Economic Characteristics of the Study Area

3.1.1. Level of Education

From questionnaire survey, information about the education level of the farm activities holders and non-farm activities holders was collected. Following figure shows their comparison. From the figure 1, it is seen that only 5.3% NFA holders are illiterate where as the percentage in FA holders is 24.4%. 36.6% have completed primary education among the FA holders but this is 26.5% among the NFA holders. But a reverse situation is observed in junior secondary, secondary and higher secondary level. About 30%, 17.7%, 20.1% of the NFA holders have crossed the junior secondary, secondary and higher secondary level respectively. Whereas respectively the rate is only 20.3%, 10% and 8.8% among the FA holders.

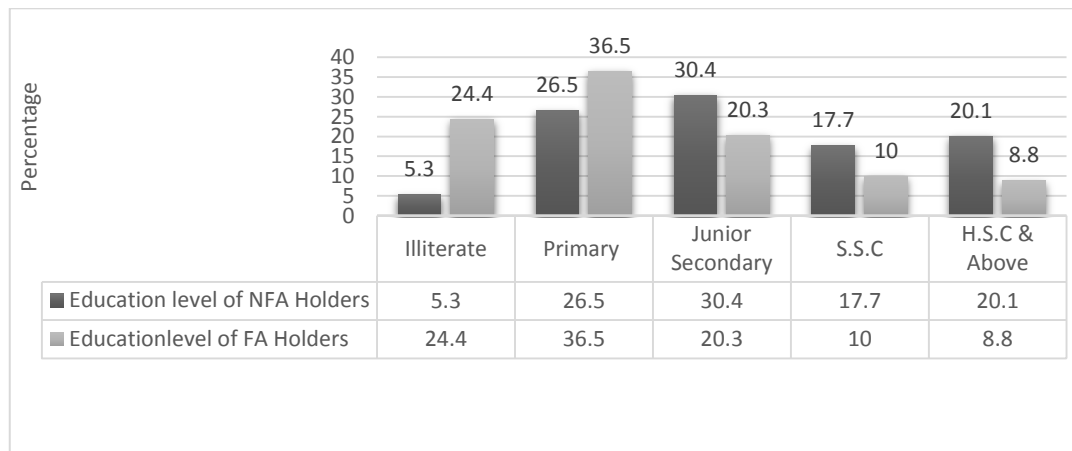


Figure 1: Comparison of level of education Between FA and NFA holders.
Source: Questionnaire Survey, 2015.

From the above data it is clearly understood that the literacy rate is higher among the non-farm activity holders. Education is a must for doing well in the non-farm sectors

3.1.2. Land Ownership

In the study area the major means of land acquisition and ownership is renting land from others. Table 1 shows, only 14.9% of lands have been purchased by the owners. Rests of land owners have got the lands through inheritance. The following table shows the ownership pattern of the lands.

Table 1: Land Ownership pattern.

	Responses		Percent of Cases
	Number	Percent	
Renting	39	73.6%	83.0%
Inheritance	7	13.2%	14.9%
Purchasing	7	13.2%	14.9%
Total	53	100.0%	112.8%

Source: Questionnaire Survey, 2015.

3.1.3. Quantity of Land

The major asset of households in the study village is land. From the land occupancy data, (Table 2) it is found that about 48.1% people in this area are either landless or have land less than 1 Katha. Most the people of this class have no cultivable land also. About 29% people have about 1 acre of land.

Table 1: Quantity of land

Land (Katha)	Percentage
1-20	3.4%
21-50	5.1%
51-80	28.4%
81-110	5.0%
111-150	6.7%
151-200	3.3%

Source: Questionnaire Survey, 2015.

3.1.4. Economic Activities of the Survey Population

Major economic activity of the study area includes various economic activities like crop farming, livestock keeping, various non-farm activities etc. from the following table it is found that the majority of households are engaged in non-farm activities (71.7%). It also shows that farm activities are practiced by 60% households. Only 40% of responses indicated that households practice livestock keeping.

Table 2: Economic Activities

Major Economic Activity	Responses		Percent of Cases
	Number	Percent	
Farm Activity	36	35.0%	60.0%
Non-Farm Activity	43	41.7%	71.7%
Livestock Keeping	24	23.3%	40.0%
Total	103	100.0%	171.7%

Source: Questionnaire Survey, 2015.

It is quite tough to study on various economic activities performed by the households in study of non-farm activities. This is because various economic activities performed by rural households interact and support each other in terms of inputs or source of capital. (Haggblade et al., 2009)

3.2. Characteristics of Non-Farm Economic Activities

3.2.1. Types of Non-Farm Activities

The table 4 shows that 50% responds are engaged on various types of trade. This is because of the geographic location and the presence of Baneshwar growth centre in the study area. Trade includes wholesale business of rice, pulses and other crops. Seasonal business of mango is very popular in this region.

Table 4: Type of non-farm activity

	Frequency	Percent	Valid Percent
Industry/manufacturing	4	6.7	8.7
Services e.g. hotel, saloon, etc.	11	18.3	23.9
Trade	23	38.3	50.0
Others	8	13.3	17.4

Source: Questionnaire Survey, 2015.

About 24% people are engaged in different services. Among non-farm activities van pooling, day labourer, small stationary and grocers shop, rickshaw or motor vehicle repairing garage etc. are notable. The major centre for NFA is the growth centre. Due to the growth centre, business has become popular in this area. This shows that rural infrastructure influences non-farm activity.

3.2.2. Reason behind Participating in Non-Farm Activity

The discussion with respondents revealed (table 5) that the main factor behind the decision to be engaged in a particular non-farm activity include inadequacy of cultivable lands (43.6%) and low return from agricultural activities (48.7%). Mainly these two factors influence the villagers to shift from farm to non-farm activity. Availability of customers and poor agricultural performance slightly influences to shift from farm to NFA.

Table 5: Reason behind participating in non-farm activity

	Responses		Percent of Cases
	Number	Percent	
Land inadequacy	17	40.5%	43.6%
Poor agricultural performance	1	2.4%	2.6%
Low income from agricultural activities	19	45.2%	48.7%
Increased customers	5	11.9%	12.8%
Total	42	100.0%	107.7%

Source: Questionnaire Survey, 2015.

3.2.3. Duration of Existence of Non-Farm Activities

From the study we see that majority of the non-farm activities in the study area have been in existence for a period of less than four years. From figure 2 it is found that 44.6% of the non-farm activities have existence of less than 4 years, 35.4% have existence between 5 to 8 years. Only 3.3% have more than 16 years of existence. That is the trend of participating in non-farm activities got acceleration about ten years ago.

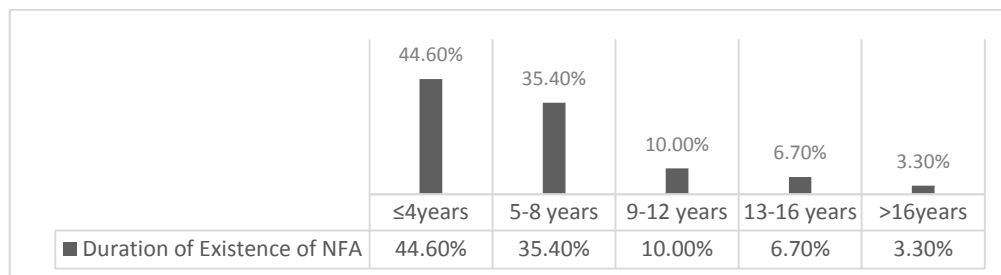


Figure 2: Comparison of level of education Between FA and NFA holders.

Source: Questionnaire Survey, 2015.

The discussion with the respondents revealed several factors contributing for expansion of non-farm activities. These factors include establishment of educational institutions and gradual improvement of communication system. Educated residents are generally unwilling to participate in farm activities and they get involved in different non-farm activities.

3.2.4. Sources of Capital for Non-Farm Activity

This study found that sources of capital for starting a non-farm activity in the study area to be heterogeneous. The following table 6 shows that most households (68.9%) got start-up capital from their own savings. From table 6, about 29% borrowed loan from different financial institutions. 15.6% borrowed from relatives and only 4.4% borrowed from money lenders. Respondents remarked that after establishing the non-farm activity, the funds for running the business came from various economic activities the owner engaged in at that material time.

Table 6: Source of capital for non-farm activities

Source	Responses		Percent of Cases
	Number	Percent	
Own saving	31	58.5%	68.9%
Borrowed from relatives/friends	7	13.2%	15.6%
Borrowed (credit/loaned) from financial institution	13	24.5%	28.9%
Loan from local money lenders	2	3.8%	4.4%
Total	53	100.0%	117.8%

Source: Questionnaire Survey, 2015.

3.2.5. Reason for Participating in Non-Farm Activities

A variety of factors affect operations and growth of rural non-farm activities. The analysis shows that maximum (48.7%) people want to shift from farm to non-farm activity because of low rate of return from agriculture (Table 7). 43.6% wants to work in non-farm sectors because they have inadequate cultivable land. Rural people can earn and save very little amount of money by working on others land. Due to less cultivable land, they can't produce enough crops to support their family.

Table 7: Reason for shifting to non-farm activities

Factors for Participation in Non-farm Activities	Percent of Cases
Land inadequacy	43.6%
Poor agricultural performance	2.6%
Low income from agricultural activities	48.7%
Increased customers	12.8%

Source: Questionnaire Survey, 2015.

3.2.6. Factors Limiting Non-Farm Activities

A discussion with the participating households presented in table 8 revealed that main factors which limit households not to participate in non-farm activities include lack of initial capital (84.1%), lack of education and skill (22.7%) and poor roads and transportation services (27.3%) in table 8. Age of the household members and their health slightly influence the performance of NFA.

Table 8: Factors limiting non-farm activities

Factors	Responses		Percent of Cases
	Number	Percent	
Lack of finance	37	57.8%	84.1%
Education and skills required	10	15.6%	22.7%
Health	2	3.1%	4.5%
Age of household members	3	4.7%	6.8%
Roads and transportation services	12	18.8%	27.3%
Total	64	100.0%	145.5%

Source: Questionnaire Survey, 2015.

Moreover, the discussion with key informants revealed that some non-farm activities such as tailoring, masonry work require requisite skills. Some local NGO and co-operatives are working in the study area to train the residents and they also provide credit for starting NFA.

3.2.7. Constraints to Performance of Non-Farm Activities

A variety of factors affect operations and growth of rural non-farm activities. According to the (world_bank, 2008) the most important factors that constrain rural entrepreneurs are capital and basic infrastructure. It has been found that in the study area inadequate capital for running non-farm activities is the most constraining factor affecting the performance of these activities. Poor transportation services also hinder in marketing the local production. Lack of utility facilities is also a barrier for expanding the non-farm activities.

Table 9: Constraints to performance of non-farm activities

Facing any limitations to expand	Responses		Percent of Cases
	Number	Percentage	
Limited funds	38	82.6%	95.0%
Lack of utility facility	3	6.5%	7.5%
Poor transportation services to and from markets	5	10.9%	12.5%

Source: Questionnaire Survey, 2015.

This situation is exacerbated by the fact that households have limited chances of accessing credit from financial institutions. Currently two co-operatives and micro financial institutions, some NGO are working in the study area. Among them ASHA, Grameen Bank, UDYAN, Islami banks etc. are notable. The rate of interest of the NGO or the private banks is very high. Loan becomes an extra burden for the rural people. That's why the rural people are not much interested to take loan from any financial institutions. The banks are unwilling to provide credit to the new and young applicants. These prevents from expanding non-farm activities.

Our key informant Md. Kamrul Islam, UP member of ward no.08 stated that *“Our people do not have enough assets to show while getting loan from banks. The bank officials have better relation with the elite people. In most of the cases the elite take advantages of this relation and it becomes difficult for the poor to get loan.”*

3.3. Contribution of Non-Farm Activities to Poverty Alleviation

3.3.1. Income from Rural Non-Farm Activities

Figure 3 shows the monthly earning of the respondents. 28.2% of people earn tk. 7 thousand to tk. 10 thousand. Tk. 10 thousands to 15 thousand is earned by 27.8% NFA holders. Only

17.4% earn below tk. 7 thousand. This data shows that the monthly income from non-farm activity is quite good in most of the cases.

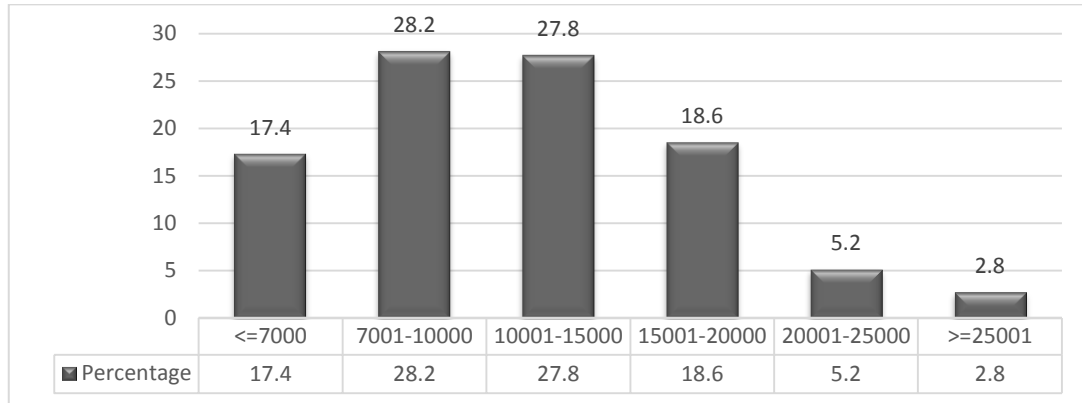


Figure 3: Income from farm and non-farm activity
Source: Questionnaire Survey, 2015.

3.3.2. Relation between Farm Activities and Socio-Economic Parameters

Income from non-farm activity is influenced by a number of factors. Linear regression analysis (Table 10) was applying to test household socio-economic characteristics that influence earnings from non-farm activities in the study area. Following table shows that three variables, farm activities, size of land owned and duration (years) non-farm activity has existed are strongly positively associated with levels of income from non-farm activity at one percent level of significance. Other variables that have positive relationship with non-farm activity income but with no significant effect include sex of household head, household size and education level of household head.

Table 10: Linear regression analysis for factors influencing the income from non-farm activities

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t-Value	Significance Level
	B	Std. Error	Beta		
(Constant)	2662.296	6838.692		.389	.704
Amount of cultivate Land in Acres	608.200	904.249	.267	.673	.515
Duration of NFA	-20.129	150.244	-.046	-.134	.896
Education Level	1122.690	1000.510	.497	1.122	.286
Monthly Earning from FA	.266	.671	.184	.396	.699
Dependent variable: Total earnings per month for NFA					

Source: Questionnaire Survey, 2015.

3.3.3. Level of Income

This study attempted to find a relation between income earned from non-farm activities and farm activities. As we have seen it earlier that the rate of participating in NFA has increased in many folds by recent years. The data in table 11 shows that the income earned from non-farm activities has been increased in most households. The average household income from farm and non-farm activity is tk. 2885 and tk. 6200 respectively. Income from NFA shows a large standard deviation.

Table 11: Level of income

Income Statistics	Monthly Earning from NFA	Monthly Earning from FA
Mean	6200.00	2885.00
Std. Deviation	5138.093	2511.453
Minimum	0	0
Maximum	25000	7500

Source: Questionnaire Survey, 2015.

4. Recommendation

From the above analysis a clear picture of the rural poverty and the causes behind it is found. The study shows that rural people are interested to shift in non-farm activities and they think that non-farm activities may help to improve their economic condition. The following recommendations are provided to promote non-farm activities:

- Providing education and training aimed at building confidence, specific skills such as technical and business skills needed to be promoted in particular non-farm activities. As the literacy rate of farm activity holders are less compared to that of the NFA holders, introducing adult education, night school etc. will help to educate this people. This will also help to build up confidence among them.
- At present government banks do not to provide loan at low rate of interest to the rural non-farm activity holders. Provision of micro credit schemes by the government banks will help non-farm holders. Government banks should start their programs to provide start-up capital at low rate of interest to the villagers.
- The rate of interest of the NGO and the private banks are very high. This becomes an eventual burden rather than improving the economic condition. Government should take proper initiative to reduce and control the rate of interest.
- Build up consciousness and emphasize on promotion of savings and credit schemes so that most of participants in nonfarm activities obtain their start-up capital from their own savings.
- Rural people should be aware of the fact that; it is easier to solve problem together. To establish this idea among rural people, local co-operatives and proper platform for sharing experiences through active participation in discussions on non-farm activities will be handy. In this way rural people can work together to improve their economic condition.
- To accelerate rural non-farm activities, it's a must to strengthen local government.

- Increase investment on rural infrastructure e.g. growth centers, roads, electricity, water supply etc., establish information centers, and provide better access to farm & non-farm inputs.
- Improvement of the rural land tenure system is necessary so that households get legal rights of tenure which they can use to access financial credit from financial institutions.
- Promote farm and non-farm activities inter-linkages, as farm activities acts as the main base for source of capital for starting and running non-farm activities.

Poverty Alleviation Logic:

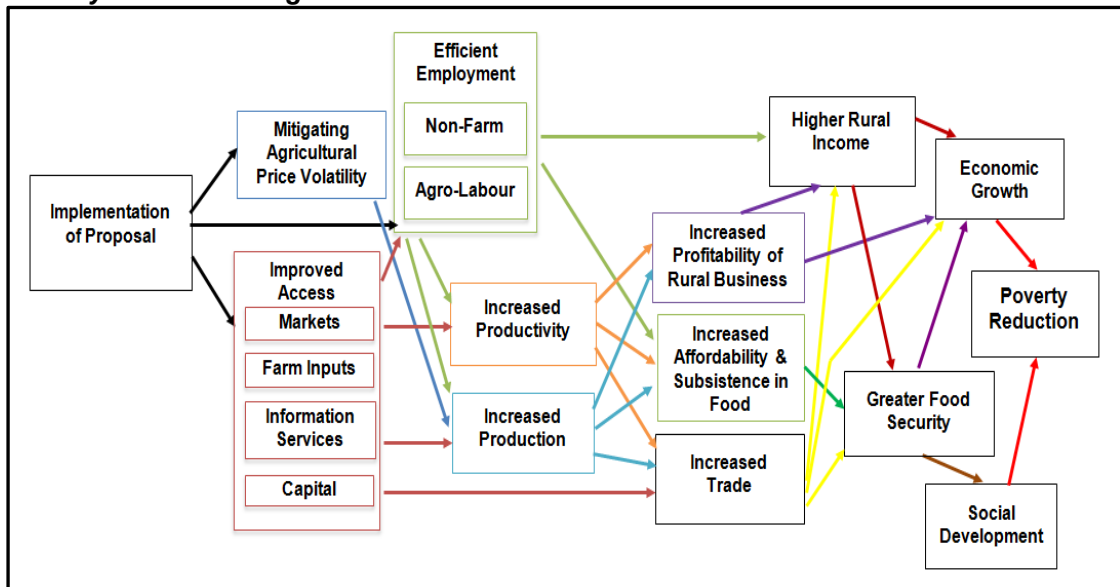


Figure 4: Poverty alleviation logic

Source: Author, 2015

If the proposals for the enhancement of non-farm activities can be implemented, volatile price condition for agricultural product will be reduce. The farmers will be able to earn and save more money and investment in all sectors will be increased. Thus mitigating agricultural price volatility can be an important approach to increase production and poverty reduction. Not only mitigating agricultural price volatility but suggested proposals implementation can also pave the way of improved access to markets, farm inputs, information services, capital etc. Both increase in productivity & increase in production take part due to improved access to markets & information services etc. may put a great effort to make three issues happen such as:

- ✓ Rural business profitability can be increased.
- ✓ Increase rural trade
- ✓ Affordability of & subsistence in food is ensured.

No doubts, increasing rate for both productivity & production have a direct impact on increasing trade & commerce. Implementation of the proposals will lead to efficient on agro-labour & non-farm employment as well. Thus productivity rate will grow higher. Efficiency in

employment will lead to higher income. It will also increase affordability of & subsistence of food and ensure greater food security.

Rural business has a direct impact on rural income & economic growth which are interlinked. When income increases, it automatically develops the economic condition of the area which finally put an attempt which can make a huge difference to reduce poverty. Increased trade & commerce are already playing a significant role in the context of Bangladesh which can easily make the route for higher rural income. Provision of trade & commerce can lead the way to economic growth which increases food security. Food security will increase social development.

After the above discussion it is explicit that implementation of the proposals gradually tends to poverty reduction by rural economic & social development.

5. Conclusions

The main objective of this study was to examine the role of rural non-farm activities in poverty alleviation. The study has established that different factors lead households to participate in non-farm activities. These include low income from farming activities, land inadequacy, increased opportunities and other factors such as lack of land and other reliable means of survival. The study also found that number of factors affects the performance of non-farm activities including inadequate capital, lack of business education, poor business premises, inefficient transport to and from markets, inadequate labor etc. These observations have confirmed the first hypothesis for this study which presupposed that there is a relationship between socio-economic characteristics of participating households and the performance of non-farm activities.

The study has also established that rural non-farm and farm activities are interlinked. First, most participating households obtain capital for starting and running non-farm activities from their own saving, selling crops, and livestock. Second, most households invest income obtained from non-farm activities in farm activities including crop farming and livestock keeping. The linear regression analysis test showed that there is a significant positive relationship between the performance of non-farm activities in terms of income earned from these activities and that earned from farm activities. The analysis confirmed the second hypothesis which stated that there is a positive relationship between the performance of non-farm and farm activities.

Moreover, the study has established that rural non-farm activities contribute in alleviating poverty in two ways. Firstly, by contributing a significant share to the income earned by participating households, and secondly, the income earned from non-farm activities is used in a variety of ways, including purchasing inputs to agricultural activities such crop farming and livestock keeping, investing in non-farm activities and accessing to other services. The analysis confirmed the third hypothesis for this study which stated that non-farm activities contribute in reducing poverty of participating households.

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