

Can Agrarian Reform Lead to a Pro-poor Growth? Implications for Bangladesh

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Abstract: In recent times, though the growth has increased by quite a rapid rate the situation of poverty is worsening. The growth cannot resolve the problems of poverty and inequality; thus, new thinking about Pro-Poor Growth rises. It is found that agrarian reform in many countries like South Korea or Taiwan paved a way towards sustainable development while reduced inequality in Cuba. This paper studies the feasibility of agrarian reform and the advantages that can be gained by Bangladesh from the evidences of successful agrarian reform. A simple representation is built up here which shows the gradual advancement towards Pro-poor Growth led by agrarian reform through faster agricultural growth. Some suggestions are put forward in the end

1.0 Introduction:

Agrarian reform is again back in the agenda of developing countries. In one hand to many academicians, it is merely a popular slogan of 'Land Reform'; on the other, to some people, the term 'Agrarian Reform' is invented to counter the revolutionary 'Land Reform'. However, after decades of debate now it is established that agrarian reform deserves more than academic attention. Now one type of agrarian reform is being advocated by the World Bank and categorically other type of reform is being backed by radical think tanks. The primary objective of both types of reforms is unique: to increase growth and simultaneously to reduce poverty and inequality.

This paper studies that whether there is any correlation between agrarian reform for access to the factors of agricultural production and Pro-poor growth. To analyze this issue the study will try to answer these interrelated questions: What is the contribution of agrarian reform in achieving Pro-poor growth? What is the role of agrarian reform to boost up agricultural growth? Does agricultural growth benefits the poor more than the non poor? Is there any direct relation between agrarian reform and Pro-poor growth? Along with these

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questions, this study also tried to find out what the content of, and context for, land reforms in Bangladesh? What could be a politically feasible and economically desirable agrarian reform process for Bangladesh?

This paper consists of five major sections. The next section deals with the process of the study. In the third section, a brief description of the existing work in the relevant field is given. The fourth section, discusses various theoretical aspects of the subject and finally the fifth section is about the context of these issues in Bangladesh.

2.0 Methodology

This study has used both quantitative and qualitative techniques to achieve the objectives of the study. These methods involve reviewing previous studies, land survey, agricultural census report, analyzing relevant policies, interviewing three researchers' and one government official.¹ Secondary data is used from Ministry of land, Bangladesh Bureau of Statistics, the World Bank, FAO, Association for Land Reform and Development (ALRD), Bangladesh Economic Association and several case studies. Statistical methods include Trend analysis, Correlation Analysis, Land inequality (Gini Coefficient) and Calculation of Poverty Equivalent Growth Rate.'

3.0 Review of Literature

As far as the theoretical aspects of agrarian reform is concerned, there are rich amount of work available. As "Pro-Poor Growth" has become a buzzword recently so works regarding this topic is of recent time as well.

An excellent work about agrarian reform is done by Sobhan, R. (1993). Nobel Laureate Amartya Sen said about this book: "Rehman Sobhan's cogent analysis of the possibility and centrality of agrarian reform is a significant contribution to the literature on economic development." Sobhan presents a hypothesis in his book about the distinctness between failure of conception of agrarian reform agendas

¹ Full detail about them is given in Annex I

² Kakwani, Khandker and Son (2004)

and the real potentiality of these agendas for development, especially for poor in rural areas. He presented a comparative analysis of agrarian reform experiences of 36 countries to test his hypothesis. He concludes by assessing the feasibility of agrarian reform today and building a prevailing rationale for it to bring it once again to the top of the development agenda.

Another early comprehensive study of the historical development of land and agrarian reform in Bangladesh is done by Siddiqui, 1980. In this book, Siddiqui presented analysis of various stages of land reform initiative taken by various governments and the political economy of those initiatives.

The need for agrarian reform and the consequences suffered by the rural poor, especially the women, minority groups and indigenous people in Bangladesh could not be more vividly presented than what is presented by a series of writings of Barkat, A (2001)". His major contribution is the comprehensive study of declared and disputed Khash lands and the remarkable possibility of the redistribution of these lands.

A very well written article about the theoretical aspects of Land reform in the context of Bangladesh as well as a comparative analysis of land and agrarian reform initiative in Bangladesh and West Bengal province is done by Shaha (1410 Bangla).

In the first working paper (2004) of International Poverty Centre Kakwani, Khandker and Son (KKS) provides the definition of Pro-Poor Growth (PPG). In this paper a model named Poverty Equivalent Growth Rate (PEGR) and its calculation process is presented. A weaker definition of PPG could be found by (Ravallion, 2004) which is supported by the World Bank. ?

The value addition of this paper is to analyze whether there exists any relationship between agrarian reforms and pro-poor growth. In addition to that, this paper would also try to answer how this agrarian reform led PPG would affect the hardcore poverty .scenario of

³ Co-authored with Zarnan, S. and Raihan, S.

Bangladesh. So far no work has been done in this field according to the author's best knowledge.

4.0 The Theoretical Issues

After the World War II Agrarian Reform had been an important agenda in the political and academic arena of most of the new born countries. Though all the leaders whether leftist or rightists of almost all countries admit the necessity of agrarian reform but they did not concur about the methodology (Sobhan, 1993). Along with these issues this section also discusses the issues of pro-poor growth.

4.1 Agrarian Reform: Conceptualization and Classification

In broad sense agrarian reform is often perceived as land reform. But agrarian reform includes many other reforms along with land reform. So land reform is actually a subset of agrarian reform. Here is a chart which shows the classification of agrarian reform in detail.

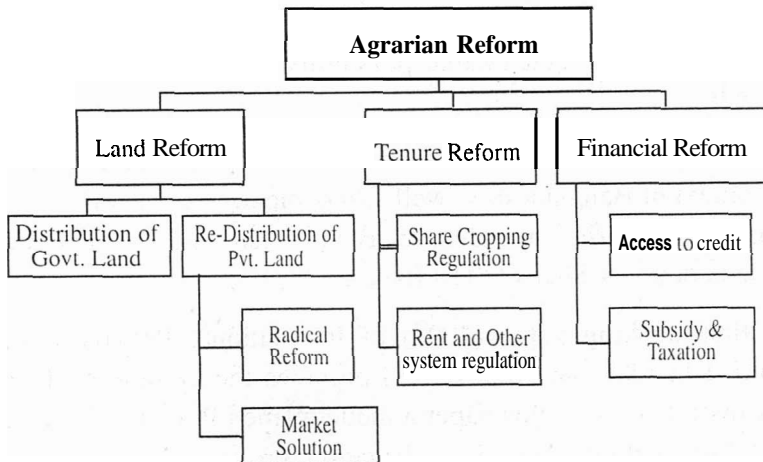


Figure-1: Classification of Agrarian Reform

4.1.1 Land Reform

Land ownership, utilization of land or harvest collection all these constitutes various relationships related to land which is hierarchically interrelated. When these relationships become hindrance to growth, then these relationships needs to be changing (Shaha, 2003). The

fundamental basis of land reform is to change this existing relationship for faster and sustainable growth. Land reform includes redistribution of government owned lands and private land. In Bangladesh most of the government owned lands is 'Khash Land'.

Box 1: Khash Land in Bangladesh

The study regarding Khash Land is quite important. Total Khash land in Bangladesh is 5 million acre (approx.). Among these lands agricultural land is 1.2 million acre and non agricultural Khash land is 2.6 million acre. Khash water bodies sums up to 1.2 million acres (Barkat, 2001).

The most debatable issue of land reform is the re-distribution of private land. Now it is proved to be a scientific fact that the yield rate is inversely related with the farm size (Rosset 1999: 1).

Evidently

$$f(\text{Yield Rate}) = \frac{1}{\text{Farm size}} \quad [\text{Domain, farm size} > 1.5 \text{ acre}]$$

The domain size is variable depending on the additional conditions e.g. access to factor market, financial inclusion, arability, availability of rain and irrigation etc. From the small size of domain it can be inferred that whatever might the immediate welfare gain for the land reform recipient, it will have to be set against the opportunity costs of severing the tenant's relationship with the landowner in related factor markets. If all or part of these factors is provided by the landowner then in the context of Bangladesh the small peasant having land less than 1.5 acres will have to simply leave the market unless these services are found in lower opportunity cost, either by the market or by the state (Azad, 2005). The gains of economies of scale in agriculture did not work sustainably because they are a consequence of market and policy distortions that favor large farms (van Zyl *et.al.* 1996:4). A higher degree of equal opportunity is favorable for economic growth and for the specific groups that get access to land (Rosset 1999; FAO 2004).

Tenure reforms are done to monitor the share cropping system where yield is supposed to be remunerated to the factors of production i.e. land, labor and capital. Financial reforms are done aiming at providing easy loans to peasant due to the fact that they cannot take risk of taking loan against mortgage for landlords land and cannot take the 'NGO⁴ Micro Credit' which needs repayment from the second week.

4.1.2 Market or Government?

Now the question arises how this reform should be operated? The market led reforms are advocated by the World Bank (Deininger and Binswanger 2001; World Bank 2005). The aim of the market based land reform is to reorganize land, but through the market with willing sellers and buyers, not by forced acquirement (Borras 2003: 370). However the critics of the market based approach argues the land market failures, distorted prices and lack of available land and political will as impediments towards success (Ziegler 2002:8).

Another one is the state-led reform followed with some success in Taiwan and South Korea (Ziegler 2002). In this type of reform the land ceilings are set, and the remaining land is confiscated and redistributed. A drawback of the state led reform is that it often leads land owning elites to try to block the distribution process or slow it down. This is often done by corruption, violence or by dividing up the land within the family so that each member gets a plot that is below the land ceiling.

Box 2: Land Ceiling in Bangladesh and its Malpractice

By the presidential ordinance of 1972:98 the ceiling was fixed up to 100 Bigha (1 acre=3 Bigha) for every household or family. But as the definition of family was vague and hazy many large landowner manipulated this gap of legislation. For example a land owner might have had 7 sons, so he could have argue that 7 son have their own 7 family and thus they have the right to hold $(7+1)*100= 800$ Bighas' of land.

⁴ Non Governmental Organization

However the ceiling scenario could be an optimistic one for Bangladesh, but till today it did not work. Why this is so that is discussed in 5.1 sections. A clear idea about the probable effects of ceiling can be found in the following table.

Table-1: Distribution of Surplus land, absentee owners land and khash land.

House Hold/ Land	1983-84	1996
Surplus land in acre (based on 7.5 acre ceiling)	1851000	109200
Surplus land as % of total land	8.20	5.37
% of HH affected by ceiling	3.59	1.67
Landless and marginal farms (up to 1.5 acres) benefitted by the ceiling	9167000	13580000
% of HH benefitted from ceiling	66.35	76.17
Average Land per benefitted household in acre (own land+ ceiling surplus+ absentee owners land+ khash Land)	1.2	0.94

Source: BBS, Barkat *et. al.* (2001); Assuming 50% of the rented land owner as absentee.

4.2 Pro-poor Growth Revisited

Pro-Poor growth has become a buzzword within the academia and among the practitioners recently. However the extent of "Pro-Poorness" of growth is still being debated. We can categorize the definitions of Pro-Poor Growth (PPG) in two classes i.e. weak and strong (KKS, 2004).

The weak definition is backed by World Bank. It assumes growth as pro-poor if it reduces poverty (howsoever small) (Ravallion 2004). Under this definition, the poor may obtain only a small fraction of total remuneration of growth, still the growth progression will be called pro-poor.

The strong definition is posed by Kakwani (2000). He calls a growth Pro-Poor which benefits poor more than non poor. Literally the word "pro-poor" means that the poor should get more but not less benefits than the non-poor. The World Bank's definition is too weak and will categorize most growth as pro-poor.

However, in this paper we will use the strong definition posed by Kakwani(2000). As argued by Osmani (2005) that just reducing poverty cannot, be a sufficient condition for 'pro-poorness'. There has to be something more; the growth process must show a bias in favor of the poor. In that sense, Kakwani's definition is better for poor.

4.2.1 How Agrarian Reform could be correlated with Pro-poor Growth?

As we have mentioned earlier (in section 3) that as Pro-Poor Growth (PPG) is not a very old issue, still many fields are untilled concerning PPG. As far as my review of literature is concerned there is no work available about the correlation between PPG and agrarian reform. This might be because of the fact that available research methodology to analyze the impact of a reform makes obvious evaluation difficult, and screening out all other variable influencing household income to isolate the specific contribution of the reform has never been satisfactorily accomplished (Sobhan, 1993) .

However we will show that it is evident that, given some conditions and favorable political climate, comprehensive agrarian reforms have always been able to boost up the agricultural growth. Here we are presenting a case study of four countries where this type of land reform was executed.

⁵ which includes repeated search in the internet

Table 2: Egalitarian Reform Countries

Country	Index of Food Production (per capita) 1982-84 (Base 1974=100)	Cereal Imports (in million metric tons)		
		1974	1984	% change
China	128	9.8	15.2	155.1%
South Korea	169	2.7	6.35	235.1%
Cuba	129	1.6	2.1	131.2%
Ethiopia	100	9.1	0.5	5.4%

Sources: Compiled from Sobhan 1993, World Bank 1986.

In all the above countries comprehensive or in the terms of Sobhan, R. 'egalitarian' agrarian reforms were initiated. Though their food production index was invariably raised but still these all countries have had to increase their cereal import within this period. This was partially because of the contraction in the marketable surplus of food production. So the higher production was in part absorbed by the households, leaving imports to meet the needs of urban sector. So the implication of this statistics is that the poor peasant got the ownership of the harvest he produced. So he could utilize his marketable surplus. While the government had to import food grains but the poor peasants did not have to bother about the price hike due to import. We can use another five countries for comparison.

Though in some countries where no reform was undertaken or the nature of reform was not egalitarian the Index of Food Production (per capita) has increased but the import was secular increased as well. Whereas the top three countries' index has significantly declined, but in those countries where egalitarian reform was executed including Vietnam, North Korea and Taiwan nowhere the Index is found to decrease. Moreover without agrarian reform there is very meager possibility that the peasant or tenant could obtain some surplus for crisis period (Azad, 2005). So either the government has had to hugely subsidize the food grains for these vulnerable groups which are very costly or it would had introduce supplementary income programs which has adverse inflationary effects.

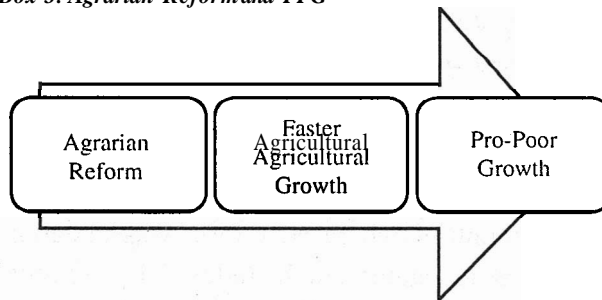
Table 3: Inegalitarian Countysies or Countries without reform

Country	Index of Food Production (per capita) 1982-84 (Base 1974=100)	Cereal Imports (in million metric tons)		
		1974	1984	% change
Tunisia	84	0.3	1.1	366.6%
Venezuela	88	1.3	2.7	207.6%
Algeria	79	1.8	4.2	233.3%
Peru	102	0.6	1.2	200%
Syria	123	0.3	1.9	633.3%

Sources: Compiled from Sobhan 1993, World Bank 1986, Brudenius 1984.

The worst case would be if the government could not do any of these two things properly. In that case if the growth increased yet it would not benefit poor because the poor have to pay the increased cost of food. So by this indirect method we can prove that agrarian reform helps to achieve PPG. We can use a model which splits the two steps of achieving PPG by agrarian reform through agricultural growth.

Box-3: Agrarian Reform and PPG



In this representation we are showing that agrarian reform helps to achieve faster agricultural growth and faster agricultural growth subsequently lead to PPG. It is supported by the statistics that for every 1% of growth in agricultural GDP the positive impact on the poorest was greater than that from similar growth in manufacturing or services (Gallup *et. al.*, 1997).

To support our hypothesis here we are presenting a case study of the post reform era correlation between land inequality and poverty of nine counties:

Table-4: Cowelation between Land Distribution and Rural Poverty

Country	Post Reform Land Distribution (Land Gini Coefficient)	Rural Poverty (1=100%)
Guatemala	0.85	0.84
Honduras	0.78	0.8
El Salvador	0.61	0.76
S. Korea	0.3	0.11
Thailand	0.46	0.34
Panama	0.73	0.67
Ethiopia	0.48	0.65
Indonesia	0.52	0.47
Chile	0.33	0.25

Sources: For S. Korea, Guatemala, Honduras, El Salvador, S. Korea, Panama, Ethiopia and Chile: (World Bank, 1975). Thailand (Huizer, 1972). Indonesia (Peek, 1986); For Rural Poverty: Guatemala, Honduras, El Salvador, Panama (Peek, 1986), Chile (de Janvry *et. al.*, 1986). All other countries (FAO, 1387).

To test that whether there exists any coi-relation or not and what is the nature of that correlation we would use Karl Pearson's coefficient of correlation⁷:

$$r = \frac{N \sum dx dy - \sum dx \sum dy}{\sqrt{N \sum dx^2 - (\sum dx)^2} \sqrt{N \sum dy^2 - (\sum dy)^2}}$$

$$r = 0.78$$

We observe a very strong positive correlation between the land Gini and rural poverty. As we know that the Gini value 1 implies perfect inequality and 0 implies perfect equality so, here we found that as the Gini is increasing the rural poverty is increasing as well. In those countries where the land Gini is closer to 0 the rate of rural poverty is less. Though there are some exceptions but most of the data that are found to be in support of our hypothesis that equality in land resources achieved by land reform reduces poverty. According to the weaker definition of Pro-poor Growth which is discussed in 4.2 obviously this poverty reducing growth is PPG (Ravalion, 2004).

⁶ Detailed Calculation is given in Annex 2

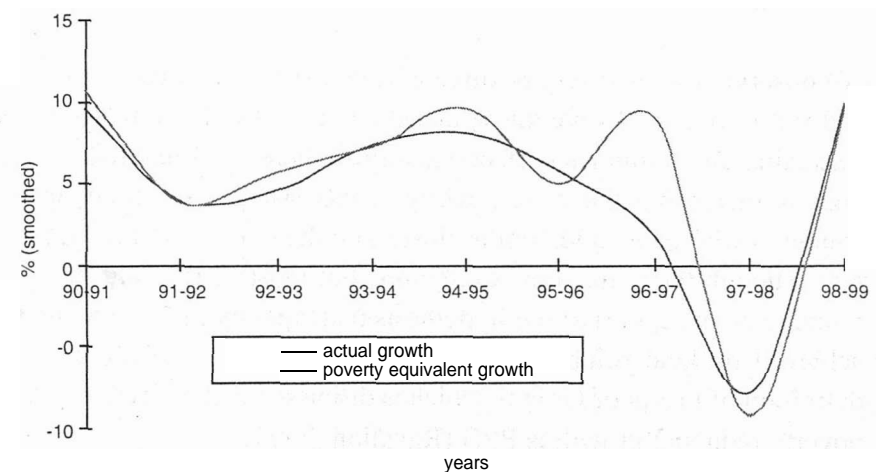
The KKS methodology implies estimating a growth rate that gives more weight to the incomes of the poor; the weights depend on the poverty measure being used. This hypothetical rate is called the "poverty equivalent growth rate (PEGR)". If PEGR is larger than the actual growth rate, which happens when the incomes of the poor grow more than the average income, then growth is pro-poor; if PEGR is equal or less than the actual growth rate, growth is said to be not pro-poor.

Above we have shown that the weaker definition is tested by con-elation analysis. Now we will present a graph to satisfy the strong definition of Pro-poor Growth.

From the Graph below which is calculated by KKS it is obvious that PEGR was most of the times greater than the actual growth rate in the case of South Korea in early post-reform era.

Though no empirical data is available about the PPG of Bangladesh and as no comprehensive agrarian reform is ever done still we can predict the impact of agrarian reform from the model of Poverty Equivalent Growth Rate (KKS, 2004).

Graph 1: Growth and Poverty Equivalent Growth rates: South Korea



Source: Calculated by Kakwani, Khandker and Son (2004)

5. PPG-Agrarian Reform Nexus: Bangladesh Perspective; Oasis or Mirage?

Due to high dispersion in the land property all most everyone admits the necessity of land reform in Bangladesh. The Agriculture census sample survey 2005 shows that 38.63 percent of farm had less than 0.5 acres of land, 88.49 percent of farm households had less than 2.5 acres of land, 10 percent had been 2.5 acres to less than 7.5 and the remaining (1.17 percent) was above 7.5 acres of land (BBS, 2005). So obviously land reform is needed if equality or even equity is to be achieved.

5.1 Politically Feasible and Economically desirable Agrarian Reform

In Bangladesh less than 2% people holds land more than 7.5 acres (Table-1) so to get the surplus land redistributed is a political battle of 98% and 2% people. Moreover, when the Land Reform Committee (1982) surveyed people for their opinion about land reform, 91% opined in favor of land reform i.e. to set ceiling; and to redistribute. But still it is not operating, why? This might be due to the political power of this 2% people. These are the village elite who influence the politics.

Now a politically feasible reform could be the market solution which is advocated by World Bank. Obviously there is no political problem in doing the financial reform which is included in agrarian reform.

Table-5: Land Ownership Pattern

Landowner	1997 (in percent)	2007 (in percent)
Large Landowners	60	30
Absentee Landowners	10	40
Other Professions	30	30

Source: Field Study in Rangpur by Raihan, Fatehin, Haque (June, 2009)

This study shows the high increase of absentee landowners, referring to the lack of interest of landlords in agriculture due to urbanization. This paves the way for the market solution.

5.2 Conditions for Successful Reform

From our comparative study of about 20 countries brief profile of agrarian reform we found that if these conditions are fulfilled agrarian reform always helped to achieve faster agricultural growth:

- A. The ownership of land must be transferred to a more productive class.
- B. Other factors of production must be available to peasants.
- C. A minimum level of education is a necessary condition.
- D. Labor intensive rural industry should flourish as a complementary condition.
- E. Land should be given to those who can afford to keep that land as his own i.e. totally landless

(Less or equal to 1.5 acres for Bangladesh) people should not be given land; rather they might be the labor force of newly flourished industry.

If these conditions are fulfilled the growth of agriculture will get a high jump. Similar types of findings were found by (Shaha, 2003).

5.3 Suggestions

Land Bank: Government itself or any alliance of industrialists approved by government can form a 'Land Bank' where lands from the absentee owners will be bought and amalgamated. The sellers of land could not be paid with the full price due to the high value and simultaneously it is risky too. So they will be given 'Land Bonds'. As they traditionally share the profit in share cropping or get the rent from the tenants similarly, they will get the return from the bond.

Landless or with Some Land: If government buys these lands then government might redistribute these lands to those landowners who

have some land of his own. This is because if landless are given this lands the farm size will be less than 1.5 acres which is beyond the domain of our function (Section 4.1.1). Government would gradually get back the returns from the yield of the land by installments from the new owners.

New Industry: If businessmen buy these lands then they can invest for rural industry. If rural labor intensive industry could be flourished simultaneously with agrarian reform and universal education could be provided up to a minimum level, Bangladesh will become an industrialized country like the 'Asian Tigers' (e.g. South Korea & Taiwan). As the production in the agricultural sector will be increased because of reform so the CPI will be low. The demand of rural people will be increased due to the increase in real income as well. So it will be cost effective to invest for industry in rural areas. The landless people could be the labor forces in new born industry.

Khash & Ceiling: Along with these measures if Khash lands are distributed from being free of corruption the agricultural growth will get a big boom (Barkat, 2001). Along with the existing ceiling of highest land holding another ceiling of highest time period might be legislated for which the cultivable **land may be left as** fallow. For instance, if a productive land is left unproductive for consecutive three years then the land should be acquired by government. This will create favorable situation for selling lands by absentee owners and will certainly increase production.

6. Conclusion

Many academicians argue that economic developments like industrial revolution in Asian countries or transition to capitalism from feudalism could not be done without agrarian reform. While Bangladesh has much potential for a successful industrial revolution it is also true that in Bangladesh income inequality and asset inequality (access to land) is much prevalent. Along with this the worst condition of tenants and the lack of interest of absentee owners in agriculture is continuously urging towards a comprehensive agrarian reform for

Bangladesh. Thus, agrarian reform can pave a way out where Bangladesh will be able to achieve a growth which benefits the poor more than the non-poor. The political economy of Bangladesh is favorable for the market-based reform. This solution can 'Doubly Free' the labor for industrial revolution and by increasing the partnership of poor peasants in agricultural production, Bangladesh will move forward towards a sound and sustainable egalitarian growth.

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Annex 1

Persons Interviewed

1. Dr. Abul Barkat, Chairman Dept of Economics University of Dahaka & Chairman Janata Bank. He authored more than 25 books and articles covering various aspects related to land and agrarian reform.
2. Professor Mahabubul Mokaddem, Dept of Economics. He is a specialist in this field. He takes a course which includes the topics of land & agrarian reform.
3. Muhammad Abdul Quader, Deputy Secretary, Ministry of Establishment, Government of The Peoples Republic of Bangladesh. He is an ex-secretary of Land Appeal Board, Additional District Collector (Revenue), Assistant Commissioner (Land).

They provided valuable information about the socio-political-economic impacts of different issues related to land in Bangladesh.

Annex 2

Land Gini Coefficient X	(X-0.61) dx	dx ²	Rural Poverty Y	(Y-0.47) dy	dy ²	dx dy
0.85	0.24	0.0576	0.84	0.37	0.1369	0.088
0.78	0.17	0.0289	0.8	0.33	0.1089	0.0561
0.61	0.0	0.0	0.76	0.29	0.0841	0
0.3	-0.31	0.0961	0.11	-0.36	0.1269	0.11
0.46	-0.15	0.0225	0.34	-0.13	0.0169	0.02
0.73	0.12	0.0144	0.67	-0.20	0.04	-0.02
0.48	-0.13	0.0169	0.65	-0.18	0.0324	0.02
0.52	-0.09	0.0081	0.47	0	0	0
0.33	-0.28	0.0784	0.25	-0.22	0.0484	0.06
	$\sum dx = -0.43$	$\sum dx^2 = 0.32$		$\sum dy = -0.1$	$\sum dy^2 = 0.59$	$\sum dx dy = 0.337$

$$r = \frac{N \sum dx dy - \sum dx \sum dy}{\sqrt{N \sum dx^2 - (\sum dx)^2} \sqrt{N \sum dy^2 - (\sum dy)^2}}$$

$$r = \frac{9 * 0.334 - (-0.43) * (-0.1)}{\sqrt{9 * 0.32 - (-.43)^2} - \sqrt{9 * 0.59 - (0.1)^2}}$$

$$r = 0.78$$