

Evolution of Land Ownership and its Market in Rural Bangladesh - case study of a selected clan in Krishnapur village, Sherpur district

M. Aminul Islam Akanda ¹ and Shoichi Ito ²

¹Assistant Professor, Faculty of Arts and Social Sciences, American International University-Bangladesh, 58/ B, Road 21, Kemal Ataturk Avenue, Banani, Dhaka and ²Professor, Faculty of Agriculture, Kyushu University, Japan. Corresponding author: akanda_ai@hotmail.com

Abstract

This research analyzed the changing pattern of land market under a land decreasing condition. The data was collected from a village-level agricultural officer and all households of a sample clan originated from one very large farmer in 1900. The changes in land ownership and land market during 1900 and 2004 were divided into three phases based on the changes in landholdings, land transactions and land-related policies. Land ownership inequality was created not only for sub-divisions among inheriting heirs but also for variations in land transactions through purchases, sales and giving to female sharers. Farmers were found to engage in reckless land selling under land-available condition. However, land markets gradually became thin with increasing consciousness of farmers against selling land under scarce condition. This study has not suggested any re-distributive land reform because even the landless was lately found to purchase land using their non-farm incomes and loans from NGOs.

Introduction

Unequal distribution of privately owned land is one of the critical agrarian problems in rural Bangladesh (US country studies, 2005). This inequality is a typical situation created through a common process. During landlord tenure until 1950, a few elite households used to own much of the land in most of the villages. There were also a large percentage of households with a small amount of land or without any land. This land ownership evolved for land transactions through purchases, sales and sub-divisions among uneven number of heirs of deceased households.

Several re-distributive Land Reforms were undertaken to balance landholdings in favor of the land-poor under 'landlord biased' agricultural policies in Bangladesh (Griffin, *et al*, 2002). Those reforms were ineffective, not only because of problems in implementation but also decreases in owned land per household after sub-divisions among heirs (Rahman, 1998). Meanwhile, the 'landlord biased' policies were run out from a cut of subsidy-oriented programs and expansion of NGO (Non-government Organizations) programs. This transformation under a land decreasing

condition has even caused some adjustments in land markets.

Some previous research focused on the changes in land ownership using macro-level data. Hossain (1989) identified the inequality of land ownership as a key factor for farm income inequality. Islam and Omori (2004) also identified this inequality as a major factor for income inequality. In land market analysis, Hossain, *et al.* (2003) observed a decreasing trend of land transactions through purchases and sales during 1987 and 2000. This was because many farmers facing a hazard, tried to overcome it by engaging in non-farm activities rather than selling land. However, land purchase was found negative for land-poor farmers. Griffin (1974) stated that land-rich farmers could buy-out lands from land-poor farmers using their surplus production. However, Griffin, *et. al* (2002) reported that the inequalities of land ownership were not changed at all in rural Bangladesh during 1991 and 1995.

There are many newspaper articles suggesting re-distributive land reform to reduce the inequality of land ownership. However, there was no field-level study found to explore the sequential creating this inequality and the effectiveness of earlier reforms. This research attempted to analyze the changes of both land ownership and its market in sequence to evaluate the necessity of any re-distributive Land Reform under a situation of increasing land scarcity in Bangladesh. The specific objectives of this research were (1) to explore the process of creating inequality in land ownership and corresponding development in land market, and (2) to identify the factors influencing land transactions among unequal landowner groups of farmers and non-farm households.

Methodology

This study explored a development model for land market under increasing land scarcity in rural Bangladesh. The process of development was divided into sequential phases to distinguish the levels of development. The phase analysis was adopted from Zhang, *et al.* (2004), who studied national-level development of Chinese vegetable supply chain over three decades dividing that into three phases. The phases in this research were identified using historical data collected through a

field survey. The field-level changes were then made consistent with land-related policies in Bangladesh.

The inequality of land ownership was measured from a level of equality existing in its origin. The coefficient of variation and Gini coefficient were used to compare land distribution among farmers and non-farm households. Farmers were categorized as; small farmer owning land up to 1.0 ha, medium from 1.0 to 3.0 ha and large above 3.0 ha. Households owning less than 0.02 ha cultivable land, not dependent on farming, were categorized as non-farm households.

This is a case study conducted in February 2005 on the Akanda clan in Krishnapur village under Sherpur district. The district has a history of four landlords with their palaces and offices during British period (Pandit, 1990). The selected village was located 200 km north from capital city Dhaka and five km south of Sherpur town. There were relatively more large farmers in the Krishnapur village in 100 years past. The Akanda clan was one of the largest clan among 14 clans in the village. There were two households in the Akanda clan in the late 19th century and all inheritances of those two households each was considered as one clan-wing. The clan-wing with more educated-aged farmers was taken as sample sub-clan for easy collection of historical data. This research analyzed about 100 years' data during 1900 and 2004 on owned land and land transactions of each household in the sample sub-clan.

Socio-economic history of study village and sample clan

The study village was said to be named as Krishnapur in the name of landlord Shree Krishna Nandi during his tenure in the late 18th century. It was relatively densely populated since the early 20th century because of its soil suitable for traditional farming. The medium-high and medium-low types land had low risk of crop damage from floods. Crop farming was started to develop with adoption of high yielding variety (HYV) Boro rice in 1985. However, high-value crop like vegetable farming was not developed because of the non-suitability of medium-low farmlands located a little far from farmers' homesteads.

Some large farmers in Krishnapur village were employed as land tax collectors by the landlords who were exempted from their own tax. Almost in each village, a few elite farmers were employed to collect tax because the landlords used to exercise the right of collecting tax of a big territory under the landlord system (Banglapedia, 2004). It was notable that sometime landlords sub-let and even

sold their tax collection authority (Pandit, 1990). A trader-cum-farmer in the study village became a sub-landlord (locally called *Talukder*), purchasing that authority for 100 ha land. However, all tax collection authorities of landlords and other intermediaries were seized by enacting the State Acquisition and Tenancy Act in 1950 after the ending of British regime.

Unlike other villages, there were a few local moneylenders (locally called *Mohazon*) in Krishnapur village. They even seized farmers' lands in case of failure of repayment of high interest loans. The open activities of money-lending were squeezed after establishment of the Debt Settlement Board (*Rin Shalishi Board* in bengali) in 1937 that legally restricted seizing of land and other properties of farmers. The village-level courts worked for settlement of debts in favor of the farmers (Banglapedia, 2004). However, money-lending was continued to a limited scale in the study village, which was almost disappeared since the early 1990s after starting the NGOs' micro-credit program.

There were many land-rich farmers in the study village even in 100 years past. The number of large farmers was decreased from 30 to 5 during 1950 and 2004, whereas increased gradually the number of small farmers. Number of medium farmers was also found to decreasing during 1983/4 and 2004. Agricultural laborer was the major activity of non-farm income in the village, number of which was fewer until the 1970s. The demand for labor was fulfilled with seasonal migratory labors coming from distant places even until early 1980s. However, agricultural laborers were increased to 38% of households in 1996 that decreased to 22% in 2004 (BBS 1988, BBS 2002 and Field survey 2004).

People of the study village were found to be more concentrated in non-farm activities than adjacent villages might be because of having many educated people, who were engaged in professional services. The rate of education was even higher since past because of having a primary school established in 1914. Some large farmers paid attention in sending their children to school even in 40 years past. Many less-educated and illiterate households were influenced to be engaged even in low-earning service and business activities. Interior road communication in the village was not good but linked communication to Sherpur town was well by bus, locally made taxi, rickshaw, etc.

The sample sub-clan was originated in the early 20th century. Original household was a large farmer belonging to Muslim family with a huge amount of land, who had good link with one

Landlord because of working as a tax collector. The household was divided into three separate households nearly in 1900 because of having 3 sons in his 1st generation. Accordingly, all inheriting sons were divided into more households in subsequent generations. The 1st generation was ended around 1925 and then was divided into eight households. The 2nd generation was ended during 1946 and 1964, and subsequently divided into 16 households in their 3rd generation among whom 5 were disappeared because of migration and early death. Remaining 11 households of the 3rd generation were divided into 28 households in 4th generation and one of them was migrated to nearby village. There were 27 households in 2004 inheriting the original household in the sub-clan.

Lands in the sample sub-clan were distributed among all heirs as per the Muslim laws. The major heirs are divided into sharers (daughters, wives, mother, and father in case) and residuary (sons, grandsons, and father and brothers in some cases). Surviving sharers get a particular share from land left by the deceased. The residuary receive entire residues after satisfying all claims of sharers. Wife (or wives together) of a deceased gets one-eighth if there is any child, and one-fourth if there is no child of her husband. Mother gets one-sixth when there is any child or grandchild or brother or sister of her deceased son, and one-third when there is no child or grandchild or not more than one brother or sister of her deceased son. On the other hand, father gets one-sixth if there is a child of his deceased son but gets entire residues after satisfying all claims of other sharers in the absence of any grandchild. Major distribution takes place between a son and a daughter where each daughter gets half of each son (Muslim Personal Law, 1937).

There were 18 small, four medium and one large farmer and four non-farm households in the sub-clan in 2004. Almost all the farmers were found to be engaged in non-farm activities and their non-farm income was even higher than farm income in many cases. Crop was the main source of income contributed 45% of farmers' income. The share of non-farm income was the highest for medium farmers (56%) followed by large (51%) and small (42%) farmers. Medium and large farmers were engaged in school teaching and business activities. Small farmers were engaged as deed writer for land registration, locally-made taxi drivers, mechanics in repairing centers, bus-fare collectors, petty shop keepers, etc. The non-farm households had negligible incomes from farming and their non-farm incomes were even very low because of engaging in low-earning activities.

The non-farm income was found to vary with land ownership and was positively related to education levels of household heads that differed from 16 years schooling to illiterate. It was notable that some households even after being solvent, did not show interests in sending their children to school in the past. However, all households were lately found to send their children to schools because, children of poor families get stipend from the government.

Evolution of land ownership and land market in the sample clan

Total land owned by the sample sub-clan was decreased from 40.0 ha to 17.5 ha during 1900 and 2004. This change in sequence was observed using data on some interval years because the data over generations were unable to explain the situation of specific year for variations in respective ending year. Interval years were selected maintaining almost 20 years gap until 1985 that touched at least one year in each generation. Last 20 years after 1985 were divided into two intervals to observe the contemporary changes more intensively.

Gradual decrease in own-land was taken place for land losses from negative gap of purchases and sales, and giving more land to female sharers. The changes in land transactions through purchases, sales and giving shares in the sample sub-clan are presented in Table 1. The amount of land purchases were found lower than the sales in all the intervals except during 1996 and 2004. Land sales and losses were increased gradually until 1965 and decreased thereafter. Land sales during 1970s and 1980s were mainly taken place due to some natural disasters such as draughts in 1972, devastating flood in 1974, draughts in 1979 and flood in 1988.

The amount of land transactions did not reflect the weight of changes over intervals because of the variations in owned land in each interval. The extent of change was calculated as percentage of land transactions during interval to owned land in the beginning of respective interval. The shares of land purchases to owned land were found nearly 5% in all intervals except 12% during 1926 and 1945. The share of land sales to owned land was gradually increased until 1965 and reached at 25% during 1946 and 1965. Land sales were taken place due to careless migrations as some households moved to distant places based on the information about some free lands there after the 1950 Land Reform. Land sales was then decreased to 16% of owned land during 1966 and 1985 and reached to 2% during 1996 and 2004. Giving lands to female sharers was started in the late 1940s because of appearing the Muslim

Personal (Shariah) Application Act in 1937. The gross land loses was found the highest at 34% of owned land during 1946 and 1965, that gradually decreased and reached to 5% during 1986 and

1995. There were even land gaining situation during 1996 and 2004 because of more amount of purchases than sales.

Table 1: Changes in land purchases, sales and giving shares in the sub-clan during 1900 and 2004

No.	Land transactions (in ha) during the interval	Durations					
		1900-1925	1926-1945	1946-1965	1966-1985	1986-1995	1996-2004
A	Owned land at starting years	40.00	37.25	33.60	22.27	17.85	16.94
B	Purchase during intervals	2.43	4.45	1.21	0.81	0.93	0.81
C	Sales during intervals	5.26	8.10	8.30	3.56	1.84	0.26
D	Gap of land share given & taken during intervals	0.00	0.00	(-) 4.25	(-) 1.66	0.00	0.00
E	Land loss (-) or gain (+) (B-C-D)	(-) 2.83	(-) 3.64	(-) 11.34	(-) 4.41	(-) 0.91	(+) 0.55
F	Share (%) of land purchases to owned land (B x 100/A)	6%	12%	4%	4%	5%	5%
G	Share (%) of land sales to owned land (C x 100/A)	13%	22%	25%	16%	10%	2%
H	Share (%) of giving land shares to owned land (D x 100/A)	0	0	(-) 13%	(-) 8%	0	0
I	Share (%) of land loss or gain to the owned land (E x 100/A)	(-) 7%	(-) 10%	(-) 34%	(-) 20%	(-) 5%	(+) 3%

Source: Field survey, 2004

Sub-division of land among inheriting male counterparts created landowner groups in the sample sub-clan. The changes of land ownership during 1900 and 2004 are presented in Table 2. There were three large farmers with huge amount of owned land in the 1st generation. Their average owned land was decreased to 4.66 ha in 1925 after sub-divisions among eight households in the 2nd generation. Medium farmers were found to

exist in 1945 and small farmers came to exist in 1965. The non-farm household was created during 1966 and 1985 and reached to 15% of total households in 2004. There was no large farmer in the sub-clan during 1985 and 1995. However, one medium farmer became a large farmer and one non-farm household to a small farmer purchasing land during 1996 and 2004.

Table 2: Creation of landowner groups in the sample sub-clan during 1900 and 2004

Landowner groups	Years						
	1900	1925	1945	1965	1985	1995	2004
Large farmer	3 (13.36)	8 (4.66)	4 (5.76)	1 (7.28)	0 (NA)	0 (NA)	1 (3.30)
Medium farmer	0 (NA)	0 (NA)	4 (2.63)	8 (1.72)	8 (1.54)	5 (2.02)	4 (1.85)
Small farmer	0 (NA)	0 (NA)	0 (NA)	2 (0.71)	16 (0.35)	17 (0.39)	18 (0.37)
Non-farm households	0 (NA)	0 (NA)	0 (NA)	0 (NA)	1 (0.02)	5 (0.04)	4 (0.04)
Total households	3 (13.36)	8 (4.66)	8 (4.20)	11 (2.04)	25 (0.72)	27 (0.63)	27 (0.65)

Note: Figures in the parentheses indicates the average own land (in ha) of respective group.

Source: Field survey, 2004

The creation process of inequality in land ownership through purchases and sales was observed more clearly from generation-wise variations in owned land of same households from starting to ending of each generation. The

landowner groups in all generations from starting to ending years are presented in Table 3. It was found that there were eight households in the 2nd generation started as large farmers. However, four medium farmers were appeared at the end of

2nd generation. Subsequently, small farmers and even non-farm household groups were created at

the end of 3rd generation and their numbers increased much in the 4th generation.

Table 3: Generation-wise creation of landowner groups in the sample sub-clan during 1900 and 2004

Landowner groups	1 st generation		2 nd generation		3 rd generation		4 th generation	
	Start	Last	Start	Last	Start	Last	Start	Last
	1900	1925	1925	1946 -1964	1946 -1964	1974 - 1990	1974- 1990	2004
Farmers								
Large	3 (13.36)	3 (12.41)	8 (4.65)	4 (6.07)	3 (4.72)	1 (7.28)	0 (NA)	1 (3.30)
Medium	0 (NA)	0 (NA)	0 (NA)	4 (2.63)	13 (1.29)	6 (1.48)	8 (1.49)	4 (1.85)
Small	0 (NA)	0 (NA)	0 (NA)	0 (NA)	0 (NA)	3 (0.77)	16 (0.34)	18 (0.37)
Non-farm households	0 (NA)	0 (NA)	0 (NA)	0 (NA)	0 (NA)	1 (0.02)	4 (0.01)	4 (0.04)
All	3 (13.36)	3 (12.41)	8 (4.65)	8 (4.35)	16 (1.93)	11 * (1.68)	28 (0.62)	27 * (0.65)

Note (*): There were five households disappeared in the end of 3rd generation because of migration and early death. One household was disappeared in the beginning of 4th generation because of migration, too.

Source: Field survey, 2004

In this research, inequalities were measured using minimum and maximum values, coefficient of variation (CV) and Gini coefficient (G). The inequalities of land ownership among all households in the sub-clan during 1900 and 2004 are presented in Table 4. The values of CV and G were found to increase gradually during 1900 and 2004. All types of farmer groups were created and G value reached to 0.40 in 1965. The inequality

reached nearly to a typical distribution with about 20% non-farm households and the G value increased to 0.55 in 1995. It was notable that G value increased from 0.55 to 0.57 during 1995 and 2004. These changing values of G in the sub-clan were found consistent with unchanged G value at 0.65 during 1990 and 1995 and 0.68 in 2003 identified in other researches (Griffin, *et al.* 2002 and Islam and Omori 2004).

Table 4: Inequality state of land ownership in the sample sub-clan during 1900 and 2004

Inequality indicators for owned land	Years						
	1900	1925	1945	1965	1985	1995	2004
Maximum (ha)	13.36	5.26	8.91	7.29	2.02	2.83	3.30
Minimum for farmers (ha)	13.36	4.05	2.43	0.61	0.14	0.10	0.06
Minimum for non-farm households (ha)	NA	NA	NA	NA	0.02	0.02	0.02
Average (ha)	13.36	4.65	4.20	2.01	0.71	0.63	0.65
Coefficient of variation (%)	0	12	54	95	94	119	125
Gini coefficient	0	0.05	0.26	0.40	0.47	0.55	0.57
Gini coefficient in other studies						0.65 during 1990-1995 (Griffin)	0.68 in 2003 (Islam)

Source: Field survey 2004, Griffin, *et al.* 2002, and Islam and Omori 2004

Within this inequality state in the sample sub-clan, the re-distributive Land Reforms in 1950, in 1972 and in 1984 did not contribute anything to release land from large farmers to distribute among land-poor households because everyone owned land less than the ceiling of 13.5 ha. Moreover, Land

Reforms after the independence of Bangladesh, in 1972 and in 1984 were kept just as paper works and were not largely implemented in field-level (Sikder, 2004). The land reform acts were not found effective to create claims of land-poor households like the Muslim Personal Law. There

were two land-poor households reported that they did not have any specific right on access land owned by others. However, the claim of female on the land of respective ancestor was a different situation where a daughter or a wife was a member of that family.

Phases in the evolution of land ownership and land market

The evolution of land ownership and land market could be divided into three phases based on the differences in land transactions and creation of landowner groups in the sub-clan. The characteristics of the phases are described below.

- **Reckless creation of inequality under deceptive land market (1900 to mid 1960s)**

The inequality of land ownership was increased in the sample clan during 1900 and 1965 with creation of all types of farmers from large farmers with equal owned land. Land market was called deceptive because, farmers were engaged in reckless land selling and had not much intention of holding land. The share of land sales to owned land was gradually increased. Households were found to engage in land selling even for migration to land-available distant places after the 1950 Land Reform. There came to enact a new law for distribution of land share that legally permitted the female to get land shares from respective ancestor.

- **Reaching to average distribution under distressed land market (mid 1960s to 1980s)**

Land ownership inequality was reached nearly to an average national level of land distribution in the sample clan with creation of non-farm households during mid 1960s and 1980s. Land market was considered as distressed because, sales were taken place mostly in distressed conditions. The land losing rate was low that gradually decreased. Households were found to have high intention to hold their land. Giving land to female sharers became lower than before under land-scarce

condition. There were two re-distributive land reforms enacted in 1972 and in 1984 but was found almost ineffective to re-distribute any land in the sub-clan.

- **Improving ownership under discreet land market (1990s and thereafter)**

Land ownership inequality was not changed much during 1990s and thereafter. The inequality state in the sub-clan was found consistent with the changing situations identified in some other studies. Land market was called discreet because, land purchases and sales were very low under scarce condition. The continuous land-losing was changed to a situation of land gaining. There was no new law enacted for land distribution during 1990s and thereafter.

Factors influencing the changes in land market in the sample clan

Muslim law of inheritance calls for distribution of land among all sons and other surviving heirs of a deceased person as described earlier. Sub-division among sons was naturally a factor of creating inequality because of the variations in the number of heirs from household to household. However, giving land to female heirs differs among households. Moreover, land transactions through purchases, sales and giving shares were identified as the causes of generating inequalities. The extents of land transactions by landowner groups are presented Table 5.

Factors influencing land purchases

In the 'reckless creation of inequality under deceptive land market' phase, land purchases were influenced by some special factors. In early of this phase, one large farmer accumulated land during the Cadastral Survey (CS) nearly in 1920 getting recorded two ha fallow land in his name using his power of local tax collector. The CS was conducted in undivided Bengal during 1988 and 1940 that created original land rights among landowners. A moneylender cum large farmer purchased a huge amount of land using his earning from high interest. However, small amount of land was purchased by a large farmer using agricultural surplus that was a common factor of land purchase.

Table 5: Changes in land transactions through purchases, sales and giving shares by landowner groups in the sample sub-clan during 1900 and 2004

Land transactions during intervals	Durations					
	1900	1926- -1925	1946- 1945	1966- 1965	1986 -1995	1996 - 2004

Share of purchases to own land (%)						
Large farmer	6.1	12.0	5.5	0.0	NA	NA
Medium farmer	NA	NA	0.0	5.9	7.2	6.2
Small farmer	NA	NA	NA	0.0	0.0	2.1
Non-farm household	NA	NA	NA	NA	200.0	22.2
Share of sales to own land (%)						
Large farmer	13.1	21.7	22.8	0.0	NA	NA
Medium farmer	NA	NA	28.8	20.9	6.6	0.0
Small farmer	NA	NA	NA	48.6	18.8	3.9
Non-farm household	NA	NA	NA	NA	0.0	0.0
Share of land given away to own land (%)						
Large farmer	0.0	0.0	11.4	16.7	NA	NA
Medium farmer	NA	NA	15.4	3.2	0.0	0.0
Small farmer	NA	NA	NA	0.0	0.0	0.0
Non-farm household	NA	NA	NA	NA	0.0	0.0
Share of gain (+) / loss (-) to own land (%)						
Large farmer	(-) 7.0	(-) 9.7	(+) 28.7	(-) 16.7	NA	NA
Medium farmer	NA	NA	(-) 44.2	(-) 18.2	0.0	(+) 6.2
Small farmer	NA	NA	NA	(-) 48.6	(-) 18.8	(-) 1.8
Non-farm household	NA	NA	NA	NA	(+) 200.0	(+) 22.2

Source: Field survey, 2004

In the 'reaching to average distribution under distressed land market' phase, large and small farmers were not found to purchase any land in the sub-clan. There were two medium farmers purchased land using their agricultural surplus and service income. There was one medium farmer, who arranged marriage of his son to a daughter of a household without any son, with a hope to get more land share.

In the 'improving ownership under discreet land market' phase, some small farmers and non-farm households were found to purchase land using their non-farm incomes. Non-farm households were even purchased homestead land using a part of NGO loans amounting to Tk 2,500 (about 55 USD) each. One non-farm household became a small farmer purchasing 0.04 ha land using his non-farm income from motor mechanics. The other two small farmers purchased land using non-farm incomes from small-scale business and taxi driving. There were two medium farmers purchased land using their incomes from farming and service.

Factors influencing land sales

In the 'reckless creation of inequality under deceptive land market' phase, large and medium farmers were found to sell land even after operating with large farms. Land sales in this

phase were also influenced by some special factors. Misappropriation of collected land tax was even a cause for land losing, found in case of a large farmer, who was accused for. All his lands were supposed to be sold in auction, but he with mutual understanding mitigated the dues by selling about four ha land. Other illiterate large farmer sold land for paying high-interest loan taken from a moneylender. Many medium farmers and even a large farmer sold land because of their improvement eating habits and addictions to local folks, dramas, horse racing, bullock racing, etc. Illiterate farmers could not hold their lands because of lack of forward-looking capacities. Moreover, a few medium farmers sold land to bear huge expenses to maintain a few wives. There were four medium farmers disappeared in 1965 due to selling land for careless migrations.

In the 'reaching to average distribution under distressed land market' phase, many medium farmers became small farmers; three small farmers became non-farm households because of higher land selling by small farmers. This phase was full of natural calamities and many small farmers sold land for food-expenses during 1974 famine and 1988 devastating flood. Moreover, many farmers sold land to meet up their inheriting extravagant eating habits during any food shortage. There was a bad custom came out of paying dowry in daughter's marriage. Two medium farmers sold land for payment of dowry

and education expenses for their children. Other two medium farmers sold land to pay for court cases to recover owned land from others' possessions.

Farmers were found to mortgage-out their available land and any of them was not found to cultivate rented-in land until the 1970s. Giving mortgage was said as the first step of selling land because, a farmer used to receive a handsome amount of money against mortgage. It was difficult for a farmer to pay back the money from his farm income from less operated area after sacrificing the use-right of mortgaged land. However, land transaction as mortgage-in or mortgage-out was gradually decreased over time.

In the 'improving ownership under discreet land market' phase, land sales by small farmers were found decreasing. Small farmers even hardly sold land to bear expenses during severe sickness of family members and daughters' marriage. There were two small farmers sold a part of their land for investment in non-farm activities. Land selling was gradually decreased because of increasing its value and scarcity. The real value per ha land at base year 1985/6 (using price index as per BBS, 2005) was increased from Tk 86,500 in 1985 to Tk 100,300 in 2004. In equivalent to paddy value, it was also increased from 21 MT/ha in 1985 to 35 MT/ha in 2004 might be because of increasing productivity due to expansion of HYV rice farming since late 1980s. One small farmer was found to engage even in agricultural laborer in the early 1990s to get relief of selling land.

Factors influencing giving land shares to females

No land was transacted as share given to females in the sub-clan in the earlier years of the 'reckless creation of inequality under deceptive land market' phase because of having no institutional law. Subsequently, medium and large farmers were found to give land to female sharers since the late 1940s and it was higher during 1945 and 1965 because of having many wives and daughters. This might be because that the Muslim law allowed multiple marriages with keeping four wives at a time. However, the number of marriage decreased after enacting the Muslim Family Law in 1961 (WRC, 2000). The land shares of wives were not shown as it was ultimately gone to sons after their death. However, there were two wives of a deceased household took land away for having no child. Households also received land shares from outside as shares of their wives. It was noted that they could not receive enough land as wives' share because of marriages in distant places.

In the 'reaching to average distribution under distressed land market' phase, land shares of females was given by the large and medium farmers. The female sharers belonging to large farmers used to get large amount of land and they were unwilling to waive their claim. Some small farmers mitigated land share by cash and using the receipt from wife's shares. However, female sharers of small farmers did not claim strongly because they might loss their access to fathers' houses after taking a small amount of land. Moreover, it was not easy to get land through court cases if the sons were not willing to give. As per the opinion of a lower court judge, land ownership was depended on deed, tax payment certificate and possession. Taking possession was found difficult even after getting the court order. There was no land share given in the 'improving ownership under discreet land market' phase as the 4th generation was continuing with no household deceased.

Conclusions

This research analyzed the changes in both land ownership and land market in a clan of Muslim society under a land decreasing situation. Total owned land of a sample sub-clan was come down to less than a half of original during 1900 and 2004. Negative gaps of purchases and sales and the giving land shares to daughters from fathers' land were the major causes of land losses. Sub-division of different amount of land among uneven numbers of heirs in each generation created various groups of farmers and non-farm households in subsequent generations. The Muslim Personal Law of 1937 was effective to establish land claim of female sharers. However, the re-distributive Land Reforms were not found effective to distribute any land among land-poor households in the sub-clan because of higher ceiling that could not release any land from farmers. Moreover, the land reform act was not sufficient to create claim by a land-poor household on others land.

The changes in land ownership and land market during 1900 and 2004 were divided into three phases. The 'reckless creation of inequality under deceptive land market (1900-1965)' phase was characterized by an increasing inequality with creation of all types of farmers. Large and medium farmers even sold due to improved eating habit, multiple marriages, reckless migration, addicting to folks, etc. The 'reaching to average distribution under distressed land market (1966-1990)' phase was characterized by reaching to a level of inequality with non-farm households. Many medium and small farmers were found to selling land irrationally for inheriting extravagant eating

habits, facing natural hazards and badly in-needed conditions. The last phase, 'improving ownership under discreet land market (1990s and thereafter)', was characterized by almost an unchanged level of inequality with rational land transactions where, households had a very high tendency of holding land.

Non-farm activities besides farming became dominant in the contemporary land market. Some educated small farmers were engaged in innovative high-earning non-farm activities, who invested money from selling land a part of land. Both the farmers and non-farm households were purchased land using non-farm incomes. It was notable that farmers in earlier years sold out land for repayment of high interest loans received from moneylenders. However, the landless were lately found to purchase land using NGOs' loans, which reflected a positive influence of NGOs on credit market. Therefore, education and other supporting programs for non-farm income generation would be more effective to provide the landless an access to land rather than any re-distributive Land Reform.

REFERENCES

Banglapedia. 2004. National Encyclopedia of Bangladesh. Dhaka: Asiatic Society of Bangladesh.

BBS. (2005). Statistical Pocketbook of Bangladesh 2003. Dhaka: Bangladesh Bureau of Statistics (BBS).

BBS. (2002). Census of Agriculture 1996: District Series Sherpur. Dhaka: Bangladesh Bureau of Statistics (BBS).

BBS. 1988. Census of Agriculture and Livestock 1983-84: District Series Sherpur. Dhaka: Bangladesh Bureau of Statistics (BBS).

Muslim Personal Law. (1937). Muslim Personal Law (Shariah) Application Act. Enacted by the Government of India in 1937 and subsequently applied in Bangladesh.

Griffin, K., Khan, A. R. & Ickowitz, A. (2002). Poverty and Distribution of Land. *Journal of Agrarian Change*, Vol. 2 (3): 279-330.

Griffin, K. (1974). The Political Economy of Agrarian Change: An essay on the green revolution. London: Macmillan Publishing Company.

Hossain, M., Bose, M. L., Chowdhury, A. & Dick, R. M. (2003). Changes in Agrarian Relations and Livelihoods in Rural Bangladesh. In *Agrarian Studies*, Ramachandran, V. K. and Swaminathan M. (eds.), London: Zed Books, pp. 369-391.

Hossain, M. (1989). Green Revolution in Bangladesh: Impact on growth and distribution of income. Dhaka: University Press Limited.

Islam, M. T. & Omori, K. (2004). Inequality, Poverty and Agriculture in Rural Bangladesh: Perspective from a village study. *Japanese J. of Farm Management*, Vol. 42 (3): 24-36.

Pandit, F. R. (1990). Past and Present of Sherpur District (Sherpur Zelar Atit O Bartaman). Sherpur (a district in Bangladesh): Yunus Press.

Rahman, H Z. (1998). Rethinking Land Reform. In *Bangladesh Agriculture in the 21st Century*, Faruqee Rashid (ed). Dhaka: The World Bank and University Press Limited. pp. 67-80.

Sikder, M. Z. I. (2004). Land Reform and Land Tenure. In *Agricultural Economics* (Krishi Arthaniti in bengali). Dhaka: Confidence Prokashani. pp. 321-363.

US country studies. (2005). website: <http://countrystudies.us/bangladesh/>, visited in 10 June 2005. USA: US Library of Congress.

WRC. (2000). Women's Rights in Muslim Family Law in Pakistan. Special Bulletin of Women's Resource Center (WRC). Lahore: Arqam Printers.

Zhang, X., Fu, X. & Yang, J. (2004). Evolution of Chinese Vegetable Supply Chain. Paper presented in 2004 IAMA World Food and Agribusiness Symposium, June 12-5, 2004, Montreux.