

RESEARCH PAPER

Historical Evolution of Land Administration in Bangladesh

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ABSTRACT

Land is the main historical basis of Bangladesh. Bangladesh has been attracted lots of races and nations from various continents at different times because of its resourceful land and administered by them one by one. The land system (administration, revenue, ownership, survey etc.) has also been changed with the change of such administration. This study aims to analyze the chronological changes of land administrative management systems in Bangladesh. All the historical records were considered as the study materials and different dynastical periods since 1500 BC to present independent Bangladesh as the study area. Relevant information has been sought extensively from different historical books, thesis, journals, articles, reports and newspapers. After analyzing historical records eight major administrative regimes were found i.e. before the Aryans, the Aryans, the Hindu, the Muslim, the East India Company, the British, the Pakistan and the Bangladesh. There was no scarcity of land before the Aryans period but later it became limited due to high population growth and required administrative management. Land administration basically started at the time of Aryans in terms of Hindu period and turned into a quite matured condition during Muslim period. In addition, private ownership of land was aroused in British Colonial period. Although the ownership, revenue systems, power of transfer and rules on land had been travelled a long journey since Aryans to independent Bangladesh. But, for the first time the Bengalee nation had gained their administrative power on their own land in 1971, after the independence.

Key words: Land administration, revenue, land transfer, ownership, survey

Introduction

Land is the greatest gift of nature. It is originated in the mid-Paleozoic era, between 480 and 360 million years ago (Kenrick *et al.* 1997). Land is called as a physical entity because of its topography and spatial nature. It may comprise the soils, minerals, water and biota. It is a finite resource that supports human for expanding and economic activities for taking place. It also creates conflicts, litigations, wars and movements (GED 2015).

Since creation of humankind, they lived on land. The Bengalee is basically a land based nation (Azad and Uddin 2012). Land of Bangladesh is so fertile, full of natural resources and store house of minerals (Rahman 2008, Arif *et al.* 2016). Because of its plentiful resources, Dravidian, Mongolian, Austric, Aryan, Moghol, Pathan, British etc. nations came here for living

their livelihoods and trading in the early days (Heitzman and Worden 1988, Miah 2006). But after realizing the worth of this land finally they tried to grab it and establish their rule forever. Hence, throughout the ages, the land has been the centered of all kinds of disputes, riots, litigations, wars, struggles and movements in this area (Azad and Uddin 2012). With the evolution of time human rights have evolved over land and rules of rights have also been changed in Bangladesh since ancient period (before 1500 BC) to till now (Heitzman and Worden 1988).

Land administration deals with the creation, transfer, extinguishment of land rights (Islam 2013). Administration on lands of Bangladesh was basically started at the Aryans period (600 BC-700 AD). Many administrators from different countries and nations

(except Bengalee) ruled over the land of Bangladesh since Aryans period to 1971. It is found that there was no traditional state at the time of Aryans period while traditional land administration was aroused during the Hindu period (320 BC-1202 AD). In the evolution of time, all administrative power of land was transferred to the Muslim administrators after consecutive wars for supremacy on this land (1202 AD-1858 AD). The administrative power on land of Bangladesh then granted to the East India Company (1757-1858 AD) by Mughal Empire *Shah Alam II* in 1765 AD. The Indian Rebellion 1857 forced the company to withdraw the land administration power and hence the British government (1858-1947 AD) got the chance to establish their administration on this land. After roughly a century later, a discomfort aroused and a horrible war provided independence to India and Pakistan. But land of Bangladesh was still gripped by Pakistan (1947-1971 AD). Basically Bengalee nation has started to enjoy their land only after a dreadful nine months long war in 1971 (Heitzman and Worden 1988, Miah 2006, Haque 2000, Akand 2013). The battle established an independent Bangladesh for the first time where administrations on this land lead by the Bengalee nation.

In present Bangladesh, land administration basically includes the revenue administration, survey administration, administration on land ownership and land transfer etc. It is the lowest land-man ration country in the world because of its small area but rapid population growth. The estimated land-man ratio is 0.06 hectares (ha) per person (FAO 2013). Moreover, growing demand for non-agricultural land is a great threat as well as concern. In Bangladesh, land transfer and land conversion rate is also very high. Bangladesh comprises 147570 sq. km area of which only about 84 percent is agricultural land. It was estimated that depleting rate of the agricultural land to be 0.27 percent (BBS 2011). Therefore, it is necessary to establish an organized, effective and efficient land market for achieving the development goals of Bangladesh (Hossain 2015).

The present land administrative management of Bangladesh is directed by two ministries such as the Ministry of Land (MoL) and the Ministry of Law, Justice and Parliamentary Affairs (MLJP). There are three core functions of land management in Bangladesh i.e. record keeping, registration, and settlement. Systematic land administrative management is crucial for overall development of Bangladesh (GED 2015). Chronological evolution is needed to be considered for establishing systematic land administrative management. The main purpose of this study is to analyze the chronological changes of land administrative management system in Bangladesh.

Materials and Methods

This study considers all the historical records as the study materials and different dynastical periods since 1500 BC to present independent Bangladesh as the study area. Relevant information has been sought extensively from different historical books, theses,

journals, articles, reports and newspapers. Historical records about land administration systems of earlier than 1500 BC are not available. Qualitative data are arranged in figure and tables for demonstrating the findings of distinctive land administration changes. In this study, the changing trends in land administration and management systems from ancient to present time were broadly categorized into - trends in dynasties, revenue system, revenue collector, revenue percentage, land ownership, land transfer power, land surveying, survey related records keeping, livelihoods or occupation on land and land valuation.

Results and Discussion

Land Administrator/Dynasty

Land of Bangladesh has been ruled and administered by different dynasties at different times. After analyzing historical records of land administrative management system, eight major regimes are found i.e. before the Aryans administration, the Aryans administration, the Hindu administration, the Muslim administration, the East India Company administration, the British administration, the Pakistan administration, and the Bangladesh administration (Figure 1).

Before the Aryans there was no sovereign or traditional rules for administration. People were led by *Kouma* and all members of a particular community or *Kouma* was controlled by the rules of that *Kouma*. During **The Aryans period** there was no kingdom or state. People lived in a village within clan system where families having blood relationship formed clan or cluster. All members of the clan had equal right on lands of that particular village. Other people of another clan had no right to live in that village (Haque 2000). There were a numbers of different dynasties in **Hindu period** named as, the *Mourya* dynasty, the *Gupta* dynasty, the *Gauda* dynasty, the *Pala* dynasty, the *Deva* dynasty, the *Chandela* dynasty and the *Sena* dynasty (Heitzman and Worden 1988).

The land of Bengal province was administered by different reigns during the **Muslim period** known as, the Delhi sultanate, the independent Bengal sultanate, and the Mughal. In fact, the actual land administration system aroused during Muslim period at the time of *Sher Shah Suri's* dynasty and then continued far along (Miah 2006). The Bengal was ruled by **East India Company** during the company period. After the Indian Rebellion 1857 against the East India Company, British Government acquired the administration from the company and initiated **British Colonial Period** (Haque 2000, Ganguli 2001, Richards 2006). After the independence from British administration Bangladesh was ruled by the government of **Pakistan** as named East Pakistan since 1947. Another rebel named Bangladesh Liberation War-1971 revealed Bangladesh as an independent country and remained till now sovereign (Heitzman and Worden, 1988; Ganguli, 2001).

Revenue System

Before the Aryans there was no traditional revenue system. But if needed the *Panchayat* could collect a part of the produced crops from the farmers. In the **Aryans**

period so called at the beginning of the **Hindu administration** (321 BC) the land revenue system was introduced and imposed depending on availability of irrigation facilities (Haque 2000). In the **Muslim administration**, revenue was imposed as grain on total produced crops at first (1204-1206) and money later on (1229-1230). In the **East India Company**, revenue was collected as money per unit area of land (Haque 2000, Islam 2018). With the permanent settlement (1793) the land tax was fixed persistently in return for property rights for *Zamindars* on their lands (Husain and Sarwar 2012, Islam 2018).

In the **British Colonial period**, there was no fixed revenue rate for the tenants. The *Zamindars* collected taxes as much as they could. After passing the Bengal Land Revenue Sales Act 1859, the government stopped the continuous uplifting of taxes (Haque 2000). In the **Pakistan period**, according to section No. 100 of the State Acquisition and Tenancy Act 1950, rent of any private land would impose based on crop production capability of the land. On the other hand, the rent of *Khas* land was imposed rationally according to Section No. 23, 24, 25, 25A, 26, 27 and 28 of the State Acquisition and Tenancy Act 1950 (Miah 2006).

Administrators/ Dynasties	Periods							
	1500BC- 600BC	600BC- 700AD	320BC- 1202AD	1202AD- 1858AD	1757AD- 1858AD	1858AD- 1947AD	1947AD- 1971AD	1971AD- At present
Before Aryans	Kouma System							
The Aryans		Clan System						
The Hindu			Mourya, Gupta, Gauda, Pala, Deva, Chandela, Sera					
The Muslim				Delhi Sultanate, Independent Bengal Sultanate, Mughal				
The East India Company					East India Company			
The British Colonial						British Govt.		
The Pakistan							Pakistan Govt.	
The Bangladesh								Govt of Bangladesh

Figure 1: Evolution of Administrators and dynasties, compiled by author(s)

In the **independent Bangladesh**, Land Development Tax (LDT) was fixed by LDT Ordinance 1976. Since then for providing maximum support to the farmers LDT has gone through a number of amendments in 1982, 1987, 1995 and 2015. Presently, no LDT imposed up to 8.25 acres of agricultural land. For more than 8.25 acres of agricultural land and any volume of land that used for industry, business, homestead or any other non-agriculture purposes, LDT will be collected for per decimal area (MoL 2003, Chowdhury 2017). Table 1 shows the chronological evolution of revenue system.

Revenue Collector

Before the Aryans period, there was no revenue collector. Only if necessary for the community purpose, the *Panchayat* collected a part of the produced crops from the farmers. In the **Aryans period**, a part of produced grains was paid by the farmers as revenue to the head of the clan. During the **Hindu administration**, the head of the village (*Gram-pradhan*) collected revenue from the villagers on behalf of the government (Haque 2000). In the **Muslim administration**, *Gram pradhans* turned into *Talukdars* and *Talukdars* who assigned for revenue collection were known as *Zamindars* (Miah 2006).

In **East India Company** period, *Zamindars* collected revenue on behalf of the company. In 1772 AD, revenue collectors were appointed in different areas of Bengal and Quin Quennial Settlement was initiated (Kabir 1961). These areas were declared as districts later on. Under the settlement, the right to collection of revenue was given to the highest bidders for five years who might be *Zamindars* or *Talukdars* or any other opulent persons (Miah 2006). In 1790 AD, experimental Decennial settlement was established for revenue collection where *Zamindars*, *Talukdars* or *Chowdhury* were the revenue collector under the supervision of district collector (Haque 2000, Richards 2006, Islam 2018). In 1793 AD the Decennial settlement declared as Permanent settlement (Miah 2006).

In the **British Colonial period**, the *Zamindars*, local intermediaries of the British government collected revenues for the *Nawabs* of Bengal (Swamy 2010). In **Pakistan period**, the land owners or users were responsible to pay their revenue by themselves at *Tahsil* office or any other convenient places suggested by collector; or paid by money order (Miah 2006). In the **independent Bangladesh**, the land owners or users are responsible to pay their revenues by themselves to the

revenue officer at Union Land Office (MoL 2003). Mouza head or headman collects revenue of lands in Chittagong Hill Tracts (CHTs). Table 1 shows the chronological evolution of revenue collector.

Revenue Percentage

Before the Aryans periods, no revenue was imposed on the land cultivators. But if needed for community purpose then a part of the produced crops was fixed and collected by the *Panchayat*. In the **Aryans period**, revenue collection was started and a part of the produced crops was imposed by administrative head (Haque 2000). In **Hindu administration**, the revenue percentage was fixed at 1/3rd or 1/4th or 1/6th of produced crops on the basis of irrigation facilities (Islam 2018). In the **Muslim administration**, revenue was imposed at 1/6th to 1/4th of the total produced crops in *Bakhtiar Khilji's* dynasty (1204-1206) and increased at ½ in *Alauddin Khilji's* dynasty (1229-1230) and demanded in money rather than crops.

The **East India Company** started its *Diwani* or revenue collection in Bengal since 1757. But it came to this sub-continent during 1600 and started business in *Subah*

Bengal during 1690. In 1698, with permission of *Azimusshan, Subahdar* of Bengal, the company bought the *Zamindari* of Calcutta, Govindapur and Sultanti by Tk. 1500/- from the local *Zamindars*. In 1707, a member of the Governor Council of the company was appointed as an administrator of that *Zamindari*. In his administration he imposed revenue Tk. 3 Tk. per Bigha of land. Total revenue imposed for the *Subah* Bengal was Tk. 14,245,561/- in 1728 and Tk. 25,62,423/- in 1763. In East India Company administration, revenue percentage was fixed in Bengal through the declaration of Permanent Settlement. Lord Cornwallis, the Governor General of the Company declared the Decennial Settlement as Permanent Settlement in 1793. Though a rate of Tk. 17,338,000 was fixed for each *Zamindari* but they collected revenue as high as they could (Miah 2006). In the **British Colonial period**, there was no fixed revenue rate for the tenants. There were no proper evidences found about fixed revenue percentage for **Pakistan period**. But it is said that revenue was collected on the basis of productivity capacity of a particular land (Miah 2006).

Table 1: Evolution of Revenue System, collector and revenue percentage, compiled by author(s)

Administration System	Revenue System	Revenue Collector	Revenue percentage
Before Aryans	No	None	Fixed by <i>Panchayat</i> (if needed)
The Aryans	A part of the produced crops was given to the administrative head as rent	Head of clan	Fixed by Administrative head
The Hindu	Irrigation and production based	<i>Gram Prodhan</i>	1/3rd or 1/4th or 1/6th of produced crops
The Muslim	Production based	<i>Zamindars</i>	1/2nd or 1/4th or 1/6th of produced crops
The East India Company	Firstly area (<i>Bigha</i>) based and then Permanent settlement	Firstly District collector and then Landlords/ <i>Zamindars</i>	Firstly 3 Tk./ <i>Bigha</i> of land and then 17,338,000 Tk./ <i>Zamindari</i> (but <i>Zamindars</i> collected 84,000,000 Tk./ <i>Zamindari</i>)
The British Colonial	<i>Zamindars</i> collected as much as could	<i>Zamindars</i>	Fixed by <i>Zamindars</i>
The Pakistan	Production based	District Collector	Depends on production
The Bangladesh	<u>Agri land</u> No tax up to 8.25 acres and Tax/decimal if >8.25 acres <u>Non-agri land</u> Collected on the basis of area and use of land	Revenue Officer	<u>After amendment in 1995,</u> <u>Agri-land</u> No tax up to 8.25 acres, Tk. 0.5/Decimal for 8.25-10 acres, Tk.1/Decimal for >10 acres <u>Non-Agri-land</u> <u>For first five out of eight categories:</u> Tk.125/Decimal for industry and business Tk. 22/Decimal for homestead <u>After amendment in 2015,</u> <u>Agri-land</u> No tax up to 8.25 acres, Tk. 2.00/Decimal for more than 8.25 acres <u>Non-agri land</u> Total lands of Bangladesh is classified into six broad classes – A, B, C, D, E and F. For business purpose –Tk. 300, 250, 200, 100, 60, 40; for industry use – Tk. 150, 150, 125, 75, 40, 30; and, for homesteads and others – Tk. 60, 50, 40, 20, 15, 10 respectively collected.

In the **independent Bangladesh**, total land is divided into two categories i.e. agricultural and non-agricultural land for collecting revenue. Revenue for land or Land Development Tax (LDT) was firstly fixed in 1976 by LDT Ordinance and amended in 1982, 1987, 1995 and 2015. In present administration, LDT is exempted up to 8.25 acres of agricultural land and Tk. 2/- fixed for all volume of land if more than 8.25 acres. In case of non-agricultural land, LDT is collected on the basis of category of area and use of land. There are six different orders of LDT for land used for industry purpose, five orders for land used for business, and six orders for homestead or any other non-agriculture purposes in six broadly categorized areas. In non-agri land, LDT also collected per decimal area (MoL 2003, Chowdhury 2017). Table 1 shows the chronological evolution of revenue system.

Land Ownership

Table 2 shows the chronological evolution of land ownership. There was no private ownership found in **pre-Aryans period** (Islam *et al.* 2015). Land was considered as a common property and ownership belonged to a community named *Kouma* or clan (Hoebel 2009), later named as *Panchayat* (Haque 2000). In the **Aryans period**, people lived in a village as a group of families having blood relation. Land of a particular village was not a common property. Instead, all lands were divided among the families with justice where each family enjoyed a certain amount of land plots. Ownership of particular land plots belonged to a particular family. From the allotted plots they could use one plot for their homestead and others for cultivation. But, the grazing land, water bodies etc. were used as common properties (Haque 2000). In **Hindu period** (321 BC), anyone who clears the jungles and make it fit for cultivation, he acquires the ownership and subjects to payment of revenue (Doniger 1991). Gradually, this traditional ownership system was turned into different manners. All lands were owned by the king in 700 AD whereas farmers became the owner of land during **Muslim period**. According to John Shore, the manager of East India Company, the lands were belonged to the *Zamindars* in Mughal dynasty and the emperor possessed only the ownership of revenue (Haque 2000). In **East India Company period**, *Shah Alam II*, the emperor of Delhi was the owner of lands of Bengal. In 1965, the company was granted *diwan* or collector of the revenue. The company appointed *Reza Khan* as *Nayebe Dewan* at first, but he was terminated due to his dishonesty and embezzlement of fund. Then the company selected *Zamindars* as the first tier in the agrarian hierarchy who acted as intermediaries of revenue collection and supervised by the appointed district revenue collector (Swamy 2010, Miah 2006). In **British Colonial period**, ownership on land depended on a continuous use of a particular land. From the historical evidences, it is found that the person who clears the jungles and cultivate there for continuous 12 years, he would acquire the ownership on the land. If he paid taxes or revenues properly, then the ownership naturally was transferred to his successor after him (Haque 2000, Miah 2006). With the initiation of

Pakistan administration, the ownership pattern improved where government was not the owner of land but had the right of revenue. According to the State Acquisition and Tenancy Act 1950, the government did not acquire the lands actually, rather than acquired the ownership of impose and collection of revenue. Most of the land of Bengal went under private ownership, but limitation of land tenure per owner was also aroused namely 'land ceiling'. Since 1961 to 1972, one could hold a maximum of 375 *Bigha* of land and from 1972 to 1984, anyone had right to hold property up to 100 *Bigha*. Since 1984, no one has right to hold more than 60 *Bigha* of land. Moreover, the private ownership on a land confined only the surface resources, not included the subterranean products. Subterranean products were belonged to the government only (Barkat and Zaman 2002, Miah 2006). In present **independent Bangladesh**, there are mainly three types of ownership such as (a) state ownership: ownership by state on behalf of the people; (b) co-operative ownership: ownership by co-operatives on behalf of their members; and (c) private ownership: ownership by individuals (Islam 2018).

Land Transfer Power

During **pre-Aryans period** there was no land ownership, hence, there was no land transfer power, but, if necessary one could cultivate another's unused, uncultivated land (Haque 2000). In the **Aryans period**, no one could transfer his allocated land to another without the consent of the other permanent settlers of the village (Phillips 1876, Haque 2000). At the time of 700 AD in **Hindu period**, all lands were owned by the king and people could not purchase land for their own purpose. Persons only had right to purchase land from the king for worship as donation (Haque 2000). In **Muslim period**, the farmers who had land, they lawfully could transfer their ownership to others in *Khilji* dynasty. In Mughal dynasty, though the *raiyyats* or *maliks* means all types of farmers, but there were different categorizations among them. Amongst all the farmers, the notable ones were *khud kasta raiyyats*, who were the permanent settlers of the particular village and cultivated their lands by themselves with their own plough and bulls. These types of farmers had right to transfer their ownership to others. During the **East India Company period**, *Zamindars* could sale or transfer their rights of revenue collection to anyone. Their right of transfer was made both heritable and transferable (Islam 2018). In the **British Colonial period**, the tenants had right to transfer their own land. If revenue taxes were paid properly, the land would be transferred inheritably. In the period of **Pakistan administration**, the owners of the land had power to transfer their land by sale, will, lease etc. But in this management system, land transfer was proceeded with deed and proper documentation (Miah 2006). After independence of **Bangladesh**, according to the Transfer of Property Act 1882, land could be transferred through five modes i.e. sale, mortgage, lease, gift, and exchange (Huq 2014). In addition, there are also other five modes of transfer i.e. will, *waqf*, trust, partition, *benami* transaction (Islam 2018). Table 2 shows the chronological evolution of land transfer power.

Land Surveying

Table 3 shows the chronological evolution of land surveying. Proper evidences were not found regarding surveying and survey related record keeping at the time of **pre-Aryans** and **Aryans period**. In 500 BC of **Hindu period**, land was surveyed and categorized on the basis of produced crops (Majumdar 1983). During 400-600 AD, land was measured with three distinctive graduated measurement units. The highest unit of the measurement was *Kullobap* followed by sequential lower order *Dronbap* and then *Aarabap*. *Kul*, *dron*, *Aar* all were the measurement units of crops and the land

was measured on the basis of crop measurement (Roy 1980). At the time of **Muslim administration**, *Sher Shah Suri*, the *Suri* Empire who defeated Mughals and became the ruler of Delhi in 1540 started land revenue surveying. Agricultural mapping plots design and record preparation was started in Bengal *Subah* during the Mughal *Subahdars* (Miah 2006). In **East India Company period**, the land survey that conducted by the government was basically for assigning taxes. Taxes were assigned on the basis of land units and in such case, unit of land was assumed the field area that could be cultivated by a pair of bullocks only in a single row without any turning (Swamy 2010).

Table 2: Evolution of Land ownership and transfer power, compiled by author(s)

Administration System	Ownership	Transfer power
Before Aryans	Common property	No
The Aryans	Family based	Transfer with consent of permanent settlers
The Hindu	Clearing Jungle based (321 BC) Owned by the King (700 AD)	Can purchase only for worship purpose (700 AD)
The Muslim	Farmer <i>Zamindar</i> (Mughal period)	Can transfer- Higher level land owners (1200-1500 AD) Only rent collection right (Mughal period)
The East India Company	Emperor of Delhi	Can transfer only rent collection right
The British Colonial	Clearing jungle and cultivate for 12 years	Can transfer
The Pakistan	Private with land ceiling	Can transfer by sale, will, lease etc.
The Bangladesh	State Cooperative Private	Can transfer by sale, mortgage, lease, gift, exchange, will, <i>waqf</i> , Trust, partition, <i>benami</i> transaction.

Table 3: Evolution of Land Surveying and Record Keeping System, compiled by author(s)

Administration System	Surveying	Record keeping system
Before Aryans	No	No
The Aryans	No	No
The Hindu	Production based	Recorded on palm leaves
The Muslim	Agricultural plot design (Mughal Period) Revenue survey (<i>Sher Shah</i>)	<i>Patta</i> and <i>Kabuliat</i>
The East India Company	Revenue survey	District collector for Rural and revenue board for Urban areas <i>Touzi</i> register (1800 AD)
The British Colonial	Cadastral Survey	CS <i>Khatiyani</i>
The Pakistan	State Acquisition (SA) Survey Revisional Survey (RS) Pakistan Survey (PS)	SA, RS and PS <i>Khatiyani</i>
The Bangladesh	Revisional Survey (RS) Bangladesh Survey (BS) City Survey	RS, BS, City <i>Jareep Khatiyani</i> , Mutation

In **British Colonial period**, the survey act 1875 was passed in order to survey land and provide demarcation for resolving land related conflicts among *Zamindars*, fixing the boundary walls and preparing *mouza* maps (Miah 2006). The Cadastral Survey (CS) was started in 1888 and continued up to 1940. It started from Ramu

Thana of Cox’s Bazar District and ended at Dinajpur District. The survey was continued throughout the country except Sylhet and Chittagong Hill Tracts (CHTs). Detail *mouza* map was prepared through this survey. Moreover, a complete *khatiyani* along with the *khatiyani* number, *mouza* number i.e., Jurisdiction List

(JL) number, land type, area, extent, category, imposed revenue amount etc. for each landowner were also prepared after conducting the survey. In **Pakistan administration**, updating of *mouza* maps was continued through land surveying. There were three types of surveys in this period i.e. (a) State Acquisition (SA) Survey, started from 1956 and continued up to 1962. Land of *Zamindars* was acquired by the government by this survey; (b) Revisional Survey (RS), started after 50 years of CS survey since 1965. This survey initiated in order to amend the mistakes or errors occurred during CS survey; and (c) Pakistan Survey (PS), the another name of SA survey that continued from 1956 to 1962 (Islam 2018). In **independent Bangladesh**, three types of surveys were conducted namely (a) Revisional Survey (RS) since 1965 to 1997; (b) Bangladesh Survey (BS) started since 1985 and continued throughout the country under section 144, part V of the State Acquisition Act 1950; and (c) City Survey that survey continued during 1999-2000 in Dhaka city. This is the latest survey approved by the government of Bangladesh (Islam 2018).

Records Keeping

Survey related all records keeping started in **Hindu period**. No proper evidences of survey related records keeping had yet found at the time of **pre-Aryans** and at the beginning stage of **Aryans period**. During 181 BC, records keeping initiated where total land area, ownership, rights, category of land and survey related other records were registered, maintained, saved and preserved for further use. All information was recorded on palm leaves or such other materials (Haque 2000). A remarkable reformation and amendment in land management and administration was come around during *Sher Shah Suri* dynasty during **Muslim administration**. In order to lawful recognition of farmers, he was the first empire who started the *patta* and *kabuliat* systems. In *patta*, details information about the land such as boundary, area, category, revenue, rights of the owner etc. and conditions for rights on land were mentioned. Even so, after accepting all conditions mentioned in *patta* that proposed by *Zamindars* to the farmers, they should have provided an acceptance letter called *kabuliat*. With these *patta* and *kabuliat*, the farmers had acquired the opportunities to prove their ownership on land and tenure in the court. In this period, *amins* or land surveyors were appointed for surveying agricultural lands, and *kanungos* were appointed for land surveying and revenue management. Besides these, agricultural plots were designed and record preparation about the plots were started sporadically (Miah 2006).

For administrative purpose, Bengal was divided into 24 *sarkar* (division) and 787 *parganas* and *mahals* in 1582 AD at the time of Akbar's dynasty. For proper administrative management, *dewan* was appointed for revenue assessment at each Province (highest level of administrative division). The second administrative level was *sarkar* and assessed by collector. The third level was *porgona* and a *shikdar* was appointed as revenue assessor. Moreover, *kanungo*, *patwari* and *amin*

were appointed for the purpose of performing duties regarding land survey, record keeping and administrative management (Miah 2006).

In the course of **East India Company period**, *kanungos* were assigned in 1777 for record keeping both in urban and rural areas. In 1781, Registrars were appointed by the company for supervision of *kanungo*'s works. After abolition of position of *kanungo* in 1793, records of rural *kanungos* were kept and maintained by *District Collector*. On the other hand, records of urban *kanungos* were kept and maintained by Revenue Board (Haque 2000). Moreover, according to No. 8 regulation 1800, a *Touzi* register was opened at collectorate office for each *Zamindari* in which details of land cadastre, imposed taxes for a particular land and collection of revenues were included in a register *khata* (Miah 2006).

At the beginning of **British Colonial administration**, the *zmaindars* had to provide *Patta* to the tenants with due respect to the regulation No. 10 of the Bengal Land Revenue Sales Act 1859. This was the first step to reduce the adversity of poor tenants. *Mouza* maps and Record-of-Rights or *khatiyans* was prepared on the basis of the Land Survey Act 1875 and the Bengal Tenancy Act 1885 respectively in British period. The Cadastral Survey (CS) Record-of-Rights was also prepared under this colonial management. These Record-of-Rights contain *khatiyans* number, area, *mouza* name, *mouza* number, plot number, names and shares of the owners, description of their rights and interests etc. (Haque 2000, Islam 2018).

In **Pakistan period**, updating of land records and maps was continued with due respect to the section No. 143 of the State Acquisition and Tenancy Act 1950. Moreover, Revisional Survey (RS) and Pakistan Survey (PS) Record-of-Rights or *khatiyans* (1965-1997) were initiated and completed in this tenure. After the independence of **Bangladesh**, three types of Record-of-Rights taken places i.e. (a) Revisional Survey (RS) Record-of-Rights (1965-1997), (b) Bangladesh Survey (BS) Record-of-Rights (since 1985), and (c) City Survey Record-of-Rights (1999-2000) for Dhaka city only (Islam, 2018). Table 3 shows the chronological evolution of record keeping system.

Livelihood or Occupation on Land

Primitive people in the **pre-Aryans period** first realized the necessity of land. Before this era, they were nomad and lived on collecting and haunting. People started *jhum* cultivation in this period (Table 4). Land was available and sufficient for the people and they could use the land as per their necessity. As production from *jhum* was enough for them, so they did not need plain lands for agriculture at permanent basis. That is why it was not necessary for them to know how to cultivate on plain lands and instead of agriculture, *jhum* cultivation on hills was much more preferable to them. No one needed too much land, but if essential, anyone could clean up the forest land and cultivate there.

At the starting stage of **Aryans period**, people primarily lived on rearing of cattle and handicrafts. Later on, they started agriculture on the plain land fulfilling the demands of growing population (Haque 2000). With the initiation of agriculture, people became dependent on it. There were many changes of eras, cultivation techniques, administrations, dynasties from Aryans period to till Bangladesh period, however, agriculture is the main livelihood or occupation yet. Table 4 shows the chronological evolution of livelihood or occupation on land.

Land Valuation

Table 4 shows the chronological evolution of land valuation system. Land valuation has been started since Hindu period. It has been changed over time with the changes of valuation units. **Before the Aryans period** as there was no private ownership, hence there was no purchase or sale or exchange system. Land was not valued for sale on the basis of price rather than valued on the basis of uses and categories. Some lands had value for *jhum* cultivation and some for living purpose

Table 4: Evolution of Livelihood/Occupation on land and land valuation, compiled by author(s)

Administration System	Livelihood/ Occupation on land	Valuation
Before Aryans	<i>Jhum</i> cultivation	No
The Aryans	Cattle and handicraft, then agriculture	No
The Hindu	Agriculture	Production based
The Muslim	Agriculture	Production based
The East India Company	Agriculture	Based on amount of land types of soil, depth and imposed tax.
The British Colonial	Agriculture	Land classification based
The Pakistan	Agriculture	Rs. 47,600/acre (1948)
The Bangladesh	Agriculture	Based on land classification and location

to the users. No proper evidences were found regarding sale or exchange of land during **Aryans period**. But, it is found that people also valued and categorized their lands depending on priority basis. The most suitable land for agriculture was categorized as high value land as the land provides grains to the users/owner and other land was valued for homestead, grazing etc. Evidences of 'land value and valuation' were found in **Hindu period**. In 700 AD, valuation started based on production capability of a land and amount of produced crops (Haque 2000). In Faridpur, value of the land per *kullobap* was four *diners* and each *diner* contains 16 *roupyok* (Roy 1980). In **Muslim administration** land valuation was done based on produced crops (Haque 2000). During the **East India Company**, valuation of land was done based on volume and extent of land, types of soil, depth, imposed tax etc. (Swamy 2010). In **British Colonial period**, lands were valued according to land classification and land classification was done based on grain production and wet or dry condition (Baden-Powell 1892). At the beginning of **Pakistan administration** in 1948, average value per acre of land was Rs. 47,600.00/- (MoL 2003). In present **independent Bangladesh**, land value varies depending on topographic condition, climatic condition, location, situation etc. So, it is very difficult to represent land value of each and every areas of Bangladesh in a single paper. As Dhaka is the capital of Bangladesh and land conflict is maximum here, so land price in Dhaka city is exemplified here on behalf of whole Bangladesh. An in-depth research was done by Islam *et al.* (2007) on land prices in Dhaka city during 2004-2005 where three major categories of lands and land prices were found: a) High (24% land) – 0.0299 million Tk./sq. meter and above, b) Medium (37% land) – 0.015 million to below

0.0299 million Tk./sq. meter, and c) Low (39% land) – below 0.015 million Tk./sq. meter.

Conclusion

The land of Bangladesh has travelled a number of administrative management systems since 1500 BC to till now. The revenue systems, ownership, power of transfer and rules on land have travelled a long journey. Revenue system started since the Aryans period. At first revenue imposed on produced crops and collected a fixed percentage of crops as revenue. Gradually, tax was imposed as money rather than crops since East India company administration. During the Aryans period and British colonial period, revenue was fixed by administrative head and *Zamindars* respectively, and collected by them. A maximum of 1/3rd and 1/2nd of produced crops was collected by *Gram pradhan* and *Zamindars* during Hindu and Muslim periods correspondingly. District collector with the help of *Zamindars* collected revenue on behalf of East India Company. During Pakistan and independent Bangladesh period district collector and revenue officer was the revenue collector on behalf of government and collected revenue as produced crops and BDT respectively.

Before the Aryans period, land was a common property of a clan. During Aryans period only grazing land and water courses were common property and agricultural lands and homesteads belonged to a particular family of a particular village. During Hindu period, anyone could possess a land by clearing jungles in 321 BC. But in 700 AD, no one had right on lands and purchase power except the King. In Muslim administration, though farmers were the land owners at first and some of them could transfer their lands. By and by ownership was transferred to the *Zamindars* and they had right to

transfer their rent collection power. During East India Company, emperor was the landlord and *Zamindars* only could transfer their rent collection right. Basically, since British colonial period people achieved their private ownership on land and transfer power too.

Evidences of land surveying and land related record keeping only found from the age of Hindu administration when land survey was produced crops based and information were recorded on palm leaves. During Muslim period, agricultural plot design and revenue survey were initiated, records were maintained with *patta* and *kabuliat*. In East India Company, revenue survey continued and all records were kept by district collectors and revenue boards. By British colonial administration, CS and CS *khatiyans* were completed. SA survey and SA *khatiyans*, RS and RS *khatiyans*, PS and PS *khatiyans* were completed during Pakistan period. RS and RS *khatiyans*, BS and BS *khatiyans*, City Survey and City Survey *khatiyans* were accomplished in independent Bangladesh period.

In ancient period, there was no scarcity of land. People in pre-Aryans period and at the first stage of Aryans period lived on *jhum* cultivation and cattle or handicrafts respectively. There was no traditional valuation of land in this era. The growth of population augmented gradually and demand of land aroused for agricultural practices since Hindu period, thus value of land was also initiated at a time. From the Hindu period to till now, agriculture is the main livelihood option. In Hindu and Muslim administrative period, land was valued based on produced crops, while in East India Company period valuation depended on amount of land, types of soil, depth and imposed tax. In British Colonial period, valuation depended on land classification and at the initial period of Pakistan administration land was valued as Rs. 47,600/acre. In present independent Bangladesh land is valued on the basis of land classification and location.

With growth of population lands became limited, conflicts aroused and thus needed to administrative management. The revenue systems, ownership, and power of land transfer have travelled a long journey with different rules. Land is now the most valuable and limited non-renewable resource of Bangladesh. That's why land administration requires much more concentration from the Government.

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