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A Study of Agricultural Land Tenancy Contract in Barak Valley of Assam

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Abstract

In Agriculture, sharecropping and fixed rent tenancy are the two forms of tenurial contract. Sharecropping is the oldest form as recorded by the history. The economy of Barak Valley region of Assam in predominantly of agricultural, small farms growing mainly rice. Tenancy has been fairly extensive in the region. Tenancy is north necessary unless there is some other market imperfection in addition to a missing or poorly functioning sales market. Bliss and Stern (1982) by means of theoretical modal and empirical testing argued that leasing decisions are closely related to the family resources, availability of bullock, family workers and land endowment of the rural households. In the present study some more variables have been incorporated in frame work of Bliss and Stren. These variables are the extent of low land, irrigation infrastructure and the value of farm assets and machineries (including cattle, tractor, and power tiller). One Agricultural Development Officer (ADO) circle has been selected for the field study out of the six agricultural sub-divisions in the three Districts of Barak Valley. From the ADO circle five villages have been chosen at random. A total number of two hundred farm households thus selected in this manner consists the sample size for the study. The study identified besides the family recourses particularly number of workers, level of education, the owned land, irrigation infrastructure as crucial determinant factors in leasing decision farm household.

Keywords: Barak Valley, Land lease market, informal contract, unrecorded tenants, Bhagi Chas.

Introduction:

The efficiency of land lease markets is a critical issue in many developing countries, where land sales markets are often then and inhabited by problems of asymmetric information and limited development of credit markets. State intervention in the land lease market becomes a compelling necessity when the agrarian system is beset with certain defects. These may appear in three forms, first there may prevail dissociation from land - ownership of the vast mass of peasants who are the actual tillers of land. Tenants may constitute too large a proportion among cultivators to disregard their problems. They enjoy, if at all, limited security of tenure and this is at the root of all the tribulations that tenants may have to endure. Second, there may be no incentive for tenants to undertake investment

up to a socially desirable level to their leased plots. And, to the extent that investment is sub optimal, it may have the effect of impeding the productive efficiency of tenants. Third, contractual terms of tenancy may be exploitative and exploitation may encompass inter-linked markets of the rural economy. The first of the above three aspects relates to the significance of the lease market (or extent of Tenancy); the second has to do with the efficiency of tenant participants of the lease market (or efficiency of tenants); and the third of course is concerned with the exploitative practices in the lease market (or, simply exploitation of tenants) (Murty, 1998).

In India at the time of independence the agrarian scene was characterized by extreme concentration of land ownership and exploitative production relations which were inimical to agricultural growth (Joshi, 1974; Appu, 1996). Considering social justice and increased productivity, the government sought intervention among others in the land leased market, setting aside the operation. The intervention, to be specific, was necessitated by the presence of rack-rented tenants, who could be evicted at the whim of landlord and who faced many difficulty in leasing operation. Based on the guidelines, provided by the Centre, the state Government passed laws imposing ceiling on rent and incorporated security on land use rights in the statutes. However, only one rare occasion the tenants were conferred a 'bundle of rights', including the ownership rights by the law (Herring, 1983).

Theoretical Frame Work on Land Tenancy Contract:

Several kinds of market imperfections have been considered in the literature on land tenure contracts in developing countries about the existence and type of tenure contracts that arise. Among these are missing insurance markets, unobservable or costly monitoring of labour effort, asymmetrical information about labour quality, transaction costs of monitoring treatment of leased land or other capital goods, indivisibilities and non-tradability of other productive inputs and capital market imperfections (Johnson, 1950; Cheung, 1969; Stiglitz, 1974). In the presence of production risk households can use share contracts to achieve perfect risk pooling and productive efficiency, provided that the intensity of labour effort can be costlessly monitored and enforced (Johnson, 1950; Cheung, 1969). Cheung thus takes risk pooling as an argument for the existence of share cropping. Share cropping. One of the most commonly cited argument for share cropping to exist is the difficulty of monitoring labour effort. If labour is unobservable or costly to monitor, share cropping may dominate labour hiring because of its incentive advantages and dominate fixed rental because of its risk pooling advantage (Stiglitz, 1974). Classical economists compared share cropping with fixed rental or owner's cultivation system and came to the conclusion that share cropping is an inefficient system of production. Probably they were right in arriving at such a conclusion because if a farmer had a choice, he will prefer owner cultivation and not share his produce with landlord. Due to absence of this choice share cropping provides less incentives for optimum use inputs. However no conclusive evidence has been provided by the empirical research to prove inefficiency or efficiency of tenants farming findings are mixed (Appu, 1975; Rudra, 1982; Bhalla,1977; Murty, 1987; Srivastava, 1983; Dutta,2003). Difference in factor endowments adoption levels of new

technology, geographical location and many more factors have led to believe that it is not necessary to believe in Marshallian inefficiency of share cropping as a proper result.

An alternative explanation of tenancy has been provided by the theory of agricultural ladder, also known as the screening model of tenancy (Spillman, 1919). This theory suggests the importance of human capital formation as a determinant of ones lifetime earnings profile. Some studies have pointed out technical know-how (Reid, 1976), managerial ability (Bell and Zusman, 1976, 1977 and 1978), bullocks (Bliss and Stern, 1982), Credit (Jayne, 1982) and family labour (Pant, 1983), Education of farmers (Kuri, 2003), as examples of factors for which markets are highly imperfect. Bliss and Stern (1982), using an econometric model and testing this with Indian data have argued that leasing decisions are closely related to the existence of owned bullock power, family workers and land endowment of the rural households. He opined that tenancy is an adjustment between desired cultivated area and owned land through available bullock capacity and family labour.

The Empirical Study on land tenancy contract:-

This paper presents some finding from an empirical study in the Barak Valley region of Assam. In Assam tenancy reform legislation envisaged and fixing the minimum rate of rent. The first halting step towards tenancy reforms in Assam can be traced back to 1929 during the colonial rule. This was the Goalpara tenancy Act. 1929, an act extended to the Goalpara district alone but which marked an important milestone in the history land reforms in Assam. Latter on, the Assam Temporarily Settled District Tenancy Act was enacted in 1935 to protect the tenants under the land holders of the Brahmaputra Valley and Cachar and the Syllhet Tenancy Act in 1936 to protect those in the permanently settled areas of Sellhet including Karimganj. These Acts aimed to improve the conditions of the tenants class by conferring upon the occupancy raiyats permanent, heritable transferable rights. Further, it conferred the rights of use and occupancy on the sub-tenants and under tenants. Under this Act protection was accorded to the tenants against illegal ejectment and enhancement of the land rent. This act was in force even after the abolition of the Zamindari system in 1956-57 and amended in 1970 to include provisions of Adhiar Tenants Protection Act 1948. As a matter of fact the Act of 1948 failed to prove securities to the sharecroppers. The new Tenancy law, The Assam (temporarily Settled Areas) Tenancy Act 1971 came into force with effect from 10th December, 1971 initially in all the temporarily settled areas of the plains districts by repealing the Tenancy act of 1935 and the Adhiar protection Act of 1948. Latter, the land holding Act of 1974 repealed the Goalpara tenancy act 1929 and Sylhet Tenancy Act 1936 and enforced the Tenancy Act of 1971 in former permanently settled areas of Goalpara and Karimganj Districts. Now the Tenancy Act of 1971 is applicable in the entire Assam except two hill districts north Cachar and Karbi-Anglong (Goswami, 1986).

The state of Assam is comprised of three physical divisions namely, the Brahmaputra Valley, the Barak Valley and the Hill range. The Brahmaputra Valley, which forms northern part, is the largest in size comprising 71.7 percent of total geographical area of the state. On

the other hand the Barak Valley region, which forms the southern part, is comparatively smaller in size. The two valleys derived their names from the respective main rivers, the Brahmaputra and the Barak flowing through East to West in the Valleys. The hill regions formed by the Karbi-Anglong and the North Cachar hills stand as separated the two valleys from the middle. The Barak Valley region is situated between longitude 92^0 15' and 93^0 15' East and Latitude $24^0$8' and $25^0$8' North covering an area of 6922 sq. km. The valley constitutes 8.9 percent of the geographical area of the state but it contains 11.59 percent of the population as per 2010-11 censuses.

The economy of the region is predominantly agricultural with 70 percent of the work force being engaged in agriculture and other primary activities as per 2010-11 census. Though the region is not devoid of manufacturing units, its relative geographical isolation handicaps it for a programme of large-scale industrialization. The prospect of economic development of the region therefore depends critically on the growth of agriculture and allied activities. Agriculture in Barak Valley, as it stands today, is predominated by small farms growing mainly rice. As per Agricultural Census of 2010-11, there were 234374 number of agricultural holdings in the Barak Valley, 53,09 percent of which was in the size class of below one hectare. The average size of operational holding works out to be 1.62 hectors, which contains some amount of upward bias due to the large holdings of the tea estates. In 1998-99 rice crops constituted 92.5 percent of the gross cropped area (excluding the area under plantation and tree crops) of the region. The agriculture is almost entirely weather dependent, the irrigation cover being limited to only 2.43 percent of the gross cropped area till 1996-97. Not surprisingly therefore, the region today stands far behind the all India standard in terms of use of improved agricultural practices -and also in agricultural productivity (Roy and Bezbaruah, 2000). Despite the provision of different tenancy reforms in the state share cropping is practiced largely informally in Barak Valley. On the other hand tenancy has been fairly extensive in the region, nearly a half of sample farmers had leased in land as part of their operational holdings (Roy and Bezbaruah, 2003).

Objectives of the study:

The objective of the study is to make an assessment of the agricultural land tenancy contract in the Barak Valley region of Assam and to identify of the factors associated with land tenancy contract.

Hypotheses:-

The hypothesis taken up for the study are;

1) The market institution for tenancy contract are underdeveloped in Barak Valley region of Assam.
2) There are imperfections in factor markets.
3) There is no perfect adjustment between the desired cultivated area and owned cultivable area through the incidence of tenancy.

The Sampling Design and the Analytical Framework:

One Agriculture Extension Officer (AEO) Circle of the region was selected as the board location for the field study. From this AEO circle the sample of farm household was selected according to a two stage random sampling design. In the first stage, five villages were selected subject to the condition that the villages must have certain irrigation infrastructure for adoption of new agricultural technology, in the second stage 20 percent of farm households in in each village were selected at random. A total of 200 farm households thus selected constituted the sample for the study.

Bliss and Stern (1982) by means of a theoretical model and empirical testing argued that leasing decisions are closely related to the availability of bullock, family workers and land endowment of the rural households. Kuri (2003) has incorporated a new variable level of education in the framework of Bliss and Stern. In the present study some more variables are incorporated in the framework of Bliss and Stern.

The model considered is:

$LL_1 = a_1+a_2FL+a_3EDL+a_4LO+a_5LL+a_6Irr+a_7MP+U$……..(I)

Where aj's (j = 1,2……6) are the unknown parameters to be estimated and U is random disturbance term.

LL_1=> Land leased in the farming households

FL => is an index of family labour engaged in agricultural. It is estimated by the number of available agricultural workers in family (male or female). The part time family workers are assigned a fraction of one according to their time of involvement in agricultural work.

EDL => is the index of the level of education of the family workers in agriculture. It is measured by the average years of schooling. It is expected that higher the level of education of the farmer, the lower will be the intensity of self cultivation.

LO=> indicates owned land of the farming household. The higher the proportion of owned land lower will be the tenancy contract.

LL=> is the extent of low land. In the Barak Valley, as in the entire state of Assam, low lying plots prone to frequent flooding and prolonged water logging is fairly common. In the sample villages about 43.5 percent of cultivable lands are low lands. Therefore the variable LL defined as the proportion of low lands in operational holding, has also been included as one of the possible explanatory factor for analyzing land tenancy contract.

IR=> is the proportion of net irrigated area in the operational holding of the farm. The higher the proportion of irrigated area the desired area of cultivation may also be higher. The difference between desired and owned cultivated area may be met by tenancy contract.

MP=> indicates extent of mechanization of ploughing in the farm household. It is measured by number/hours of machine owned and used by the farm. Higher the mechanization of ploughing higher will be desired cultivated area.

The sum of owned land and net land rented in is the actual cultivated area. Thus desired farm area is equal to the actual cultivated area. For testing the hypothesis of perfect adjustment between the desired cultivated area and owned cultivable area through the incidence of tenancy the following complete adjustment model is estimated:

$CULT=b_1+b_2FL+b_3EDL+b_4LL+b_5Irr+b_6MP+U$……..(II)

Where bj's (j=1,2…6) are the parameters to be estimated and U is random disturbance term.

CULT => Actual cultivated area of the farming households

All the other variables have already been explained.

Tenancy Characteristics of Sample Farms:

The AEO circle selected was from Ramkrishnanagar agricultural sub-division of Karimganj district. The villagers have been selected subject to the initial condition of possessing some amount irrigation infrastructure. The selected villages are Kalachup, Chankani, Sonawala, Balirbond and Dolibil. The household of the selected villages were chosen randomly. The sample household can be categorized as: 1) pure tenant 2) owner-cum tenant and 3) owner operators. It is evident that owner cum tenant households play a dominant role in the land lease market of the study area. About 80.0 percent of the total surveyed households belonged to this category (refer Table -1). The pure tenant and owner operator formed 7.0 and 13.0 percent respectively.

Table-1

Tenurial Categories of Sample Farms

Villages/ Tenurial status	Kalachup	Chankani	Sonawala	Balirbond	Dolibil	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Pure Tenant	8	5	-	-	1	14(7.0)
Owner cum Tenant	30	28	34	30	38	160(80.0)
Owner operator	4	7	6	8	1	26(13.0)
Total	42	40	40	38	40	200 (100.0)

Figures in parentheses indicate percentage of total sample.

Sharecropping is the principle form of tenancy in the study villages. almost all the area under lease is share cropped and most share cropping contract are on 50:50 crop sharing basis in locally call *Bhagi chas.* In 91 percent of the cases landlord did not share any cost (refer Table-2). In 4 percent of cases landlord shared cost of cultivation. All the cases of tenancy contract are informal and unrecorded. The tenancy contracts are generally verbal and in 40 percent of cases it is valid for more than one year but less than five year. Thus there are no predetermined rules or regulations in tenancy contracts governed in the study area. The factor market is underdeveloped. Family labour is the main source of agricultural labour. Wage labour market does exist but there are limited opportunities for wage employment. There is organized credit market but informal credit operation mainly dominates. The educated people in the farm households generally preferred employment outside agriculture.

Table-2
Terms and Period of Tenancy Contracts in Sample Farms

Terms of tenancy/ Villages	Kalachup	Chankani	Sonawala	Balirbond	Dolibil	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Cropshare 50:50 without cost share	35	31	28	30	35	159
Cropshare 50:50 with equal share of cost	3	1	2		1	07
Fixed amount of rent (cash/crop)		1	4		3	08
Total	38	33	34	30	39	174
Period of tenancy						
Seasonal (less than one year)			1			01
One year	12	17	18	6	16	69
More than one year but less than five year	17	11	11	19	18	76
More than five years	9	5	4	5	5	28
Total	38	33	34	30	39	174

Result and Discussion:-

The estimated regression results correspond to equation (I) is reported in Table -3 and Table-4. From Table-3 it appears that the high values of R^2 and F-statistic indicate good description of the partial adjustment model for explaining tenancy market in the sample villages. The sign of the coefficients of all the variable FL, EDL, L, LL, Irr and MP are in accordance with the expectation but the variables EDL, LL, and Irr are not significant. The positive and significant co-efficient of FL indicate that more working hands in the farm family generally opt for more leasing contract of land. The negative and significant co-

efficient of LO means that more proportion of owned land discourage leasing in contract for cultivation. The positive and significant co-efficient of the variable MP indicates mechanized farms desire for more land leasing contract. The negative sign of the variable EDL indicate farm family's reluctance for leasing of contract in case of higher level of education but this variable is not significant. Similarly the variables LL and Irr are also not significant.

Table-3
Result of Regression analysis on
Land Leased in of Sample Farms

Variables (1)	Estimated Coefficient/values(2)	Standard Error (3)	t-values (d.f=193) (3)
Constant	0.560	0.132	4.226
FL0.08183	0.012	6.816***	
EDL	-0.00521	0.019	-0.278
LO-0.421	0.036	-11.802***	
LL-0.00122	0.001	-1.055	
Irr-0.145	0.122	-1.184	
MP	0.176	0.056	3.122***
R^2 F(6,193)	0.495 27.990***		

** and *** indicates significant at 0.05 and 0.01 level respectively

Table-4
Results of Regression Analysis on Land Leased –in of Sample Farms

Variable/ villages (1)	Kalachup (2)	Chankani (3)	Sonawala (4)	Balirbond (5)	Dolibil (6)
Constant	0.839 (3.428)***	(2.416)** 0.329	0.396 (1.247)	(1.409) 0.763	0.977 (2.569)***
FL	0.07844 (3.199)***	(2.516)*** 0.102	0.07458 (3.261)***	(3.250)*** 0.02883	0.08412 (1.031)
EDL	0.9773 (-2.049)**	(1.498) 0.01255	0.05970 (.0354)	(1.306) -0.0621	-0.0641 (-1.402)
LO	-0.372 (-6.658)***	(-4.269)*** -0.368	-0.582 (-5.241)***	(-6.234)*** -0.226	-0.500 (-3.188)***
LL	-0.00599 (0.246)	(-1.646)** -0.000662	0.000493 (-0.250)	(0.183) -0.00226	0.000439 (-0.865)
IR	-0.510 (-1.568)	(-1.661)** -0.261	0.286 (-0.938)	(0.870) -0.218	-0.323 (-0.679)
MP	0.221 (-0.104)	(1.403) 0.05879	0.156 (0.623)	(0.948) 0.318	-0.0102 (2.007)**
R^2	0.558	0.579	0.713	0.535	0.393

F	7.372***	7.574 ***	13.689***	5.947***	3.556**

** and *** indicate significant at 0.05 and 0.01 level respectively

The village wise performance of regression equation (I) is reported in Table-4. In all the villages the value of R^2 and F-statistic indicates the general applicability of the model in the study area. The signs and significance of the co-efficientss of the variables are all most in accordance with the aggregative performance as in Table-3.

The estimated results in of complete adjustment model (II) are reported Table-5 and Table-6.

Table-5

Results of Regression Analysis on Cultivated Area of Sample Farms

Variables (1)	Estimated/values(2) coefficients	Standard Error (3)	t-values (d.f=193) (4)
Constant	0.488	0.203	2.400***
FL	0.134	0.018	7.533***
EDL	0.04984	0.028	1.763**
LL	0.000467	0.002	0.263
Irr	-0.414	0.186	-2.224**
MP	0.380	0.084	4.513***
R^2 F(5,194)	0.393 28.121***		

** and *** indicates significant at 0.05 and 0.01 level respectively.

The positive and significant co-efficient of the variables FL, Irr and MP importance of these variables in explaining this model. However, sign of the variables EDL is opposite to of the expected result. The negative sign of the variable Irr indicate economics of scale of the farm. The co-efficient of the variables LL in not found Significant.

The village wise performance as reported in Table-6 is more or less same as in Table-5. The co-coefficient of the variable FL in negative and not significant in case of village Dolibil. The variable Irr is not significant in case of three villages Kalachup, Chankani and Sonawala. Again the variable MP is also not significant in case villages Chankhani, Sonawala and Dolibil.

A comparison of both the models indicates that the R^2 value falls in case of villages in the complete adjustment model. Comparing R^2, F-statistic and standard errors of the two models, it is evident that the perfect adjustment model performs well in the study area and as such it is best suited to explain tenancy in the sample farms.

Table-6

Results of Regression Analysis on Total Cultivated Area of Sample Farm in Difference Villages

Variables/villages	Kalachup	Chankani	Sonawala	Balirbond	Dolibil
Constant	1.033 (1.918)**	0.382 (1.088)	0.788 (2.809)***	-0.209 (-0.901)	0.393 (2.260)***

FL	0.09606 (1.988)**	0.118 (4.536)***	0.01609 (0.779)***	0.02126 (1.117)***	-0.00664 (-0.545)
EDL	0.02176 (0.216)	0.118 (2.148)**	-0.0779 (-1.571)	0.06501 (1.470)	-0.0110 (-0.361)
LL	0.000183 (0.003)	-0.000649 (-0.193)	0.132 (1.488)	0.183 (2.519)***	0.103 (2.225)**
IR	-0.762 (-1.607)	0.202 (0.493)	-0.00268 (-0.022)	0.349 (3.433)***	0.199 (1.763)**
MP	0.560 (2.391)**	0.127 (0.616)	0.0008001 (0.330)	0.00439 (1.757)**	-0.000565 (-0.291)
R^2 F	0.366 4.159**	0.542 8.043***	0.178 1.473	0.582 8.919***	0.344 3.561**

and* indicate significant at 0.05 and 0.01 level respectively.

Conclusion:

The study identified family resources particularly the number of agriculture worker, level of education, the owned land and irrigation infrastructure as determinant factors in leasing decisions of the farm household. While landed family higher level of education intends to lease out land, the poor less educated farmers intend to lease in more land. Thus human capital formation in the farming households should be given emphasis with a view to develop modern agriculture.

The factor market is imperfect is nature in the study area. All the tenancy contracts are informal and unrecorded. On the other hand, there is no security of tenants and also no incentive for higher productivity. The landlord did not share any cost of cultivation. Under the circumstances, the landless, small and marginal farmers are incapable of taking any risk of agricultural modernization. As a result the agriculture scenario in the region is still underdeveloped and inhabited by primitive method of cultivation. The backward nature of agriculture in the region calls for extensive tenancy reforms. At the same time efforts should be made for the development of agriculture-specific human capital through training and short-term orientation programme technological development in agriculture. Emphasis should also be made for the development of credit institution for supply of soft loans for agriculture development.

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