Peasant Agriculture in Assam : A Structural Analysis

Manamohan Das

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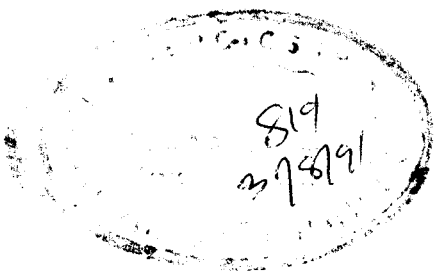

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Introduction to the Work

THE PROBLEM

AGRICULTURE is the principal source of livelihood for a majority of the people in the largely rural state of Assam. The agricultural sector is so important to the state's economy that it alone contributed 56 per cent to the state's total income at current prices in 1975-76 as compared with 45 per cent for India as a whole[1]. It plays the most important role as the main absorber of working population by engaging as high as 77 per cent of the total workers in the state[2]. Two types of agricultural farming prevail in Assam, viz., peasant agriculture and capitalist (tea plantation) agriculture. Between the two types, the peasant agriculture is more important in the sense that it contributed 47 per cent of the state's total income, and engaged 56 per cent of the state's total workers, while the tea plantation's respective shares were only 7 per cent and 10 per cent. Besides, the peasant agriculture is more problem-stricken and enigmatic than the tea plantation.

The manifold problems of peasant agriculture may be summarised as follows : The cultivable land is highly limited by the peculiar physiographic conditions of the states, the intensity of cropping as also the yield per hectare is very low, and agricultural production is affected not only by the monsoon and other natural calamities like flood, drought, etc., but also by the technological and socio-economic factors. As a result, the growth rate of peasant agriculture has been very low and erratic. The Green Revolution as ushered in some states of India like Punjab and Haryana has so far had little impact on peasant agriculture in Assam. The peasants of this state are victims of variegated ills like poverty, illiteracy, indebtedness, speculative markets, rack-renting and so on.

It is observed that in spite of various efforts undertaken by the government during the Five Year Plan periods after Independence, agricultural production has not been able to keep pace with the increasing demand of the market and raise the living standard of the peasants. This is presumed to be mainly because of the peasant mode of production.

Thus the peasant agriculture in Assam is handicapped by all types of constraints—natural, technological and socio-economic. In order to remove all types of constraints for the full realisation of the technologically possible maximum growth rate of production, there must be structural change of the peasant mode of agriculture according to which 'agriculture is a livelihood and a way of life, not a business for profit'[3].

Various problems crop up in agricultural sector as a result of the non-recognition of the peasant's attitude towards economy in general and agriculture in particular. The peasants' operation of agriculture is the subject of social constraints and taboos. Their decision to raise a particular crop is not determined by the demand in the market. With a sense of family obligation, a peasant produces food mainly to satisfy the family's immediate needs. Generically, peasant farming is a subsistence one. 'Although the extended family provides a form of social insurance for its members, its obligations minimize the inducement for economic improvement and discourage innovation'[4]. This situation is associated with primitive technology and outdated social values. The innovation suggested and superficially executed to some extent so far has failed to bring about any positive change and instead, created many kinds of complications. The basic problem of peasant agriculture in Assam is, therefore, the structural inertia of the peasant mode of production with a strong pulling-back effect of its socio-economic base.

It is, therefore, considered that an analysis of the structural basis of the peasant agriculture in Assam is imperative before embarking on any kind of innovation scheme. If it is sincerely desired to have optimum growth-rate of production with a full utilisation of human and other resources relating to agriculture, then a crucial controversy must be resolved. The controversy is : whether agriculture should remain in the hands of the individual small peasants, or be organised as a socialist farming, or as a capitalist farming, in order to make it more efficient as a business proposition. Another point that needs consideration is whether it is possible to modernize peasant agriculture by modernizing the peasantry[5]. Such problems can be solved only by actual research works based on complete system analysis including both endogenous and exogenous variables.

The author, therefore, thinks it pertinent to attempt an analytical study of the structure of peasant agriculture in Assam from the socio-economic-geographical points of view. It is with this intention that the present topic has been selected.

OBJECTIVE AND HYPOTHESIS OF THE STUDY

The following are the principal objectives of this study :

1. Analysis of the socio-economic structure of peasantry and spatial pattern of peasant agriculture in Assam.

2. Finding out of the basic causes for the continuation of the peasant mode of production.
3. Analysis of the various organic problems of peasantry.
4. Analysis of the innovatory measures so far taken and the problems that have arisen and are likely to arise in the course of innovation.
5. Synthesis of the problems and prospects of peasant agriculture.
6. Suggesting measures for a rational transition of the peasant agriculture in Assam.

In order to achieve the above objectives, the following hypotheses are proposed and an attempt will be made to test these hypotheses in the course of this research work.

1. The basic elements of physical environment have been continuing to exercise controlling influence on the general pattern of agricultural land use of the peasants.
2. Agricultural land of the peasant has been increasingly used for foodgrains to cater to the demand of the rapidly increasing population.
3. There is a positive correlation between the number of crops in a crop-combination and the intensity of cropping in peasant agriculture.
4. There is a positive correlation between population pressure and intensity of cropping in peasant agriculture of Assam.
5. Improvement in agricultural efficiency has been insignificant in Assam during the past several years.
6. Because of non-use of modern technology and lack of scientific knowledge of farming, the peasants of Assam have been adversely affected by natural calamities.
7. The concentration of the peasant is higher in those areas where tea plantation is not extensive, industrialisation is negligible, and where there is a concentration of the immigrant peasants.
8. The traditional socio-cultural institutional complex in the rural society acts as the main deterrent to the modernization of the peasant mode of agricultural production.
9. The legacy of the colonial type of class structure created by the British rulers still persists in Assam, relegating the peasantry into the bottom stratum of the society.
10. Assam is a land of small peasants mostly with small uneconomic holdings and with little capacity for extension of their operational holdings.

11. The *raiyatwari* system of land tenure in Assam has facilitated the creation of economically antagonistic classes within the peasant society.
12. There is a significant concentration of operational landholdings in the hands of a minority of landowners and the concentration is higher in those areas where the average size of holding is also higher.
13. The farm size acts as a critical limiting factor for agricultural growth in Assam.
14. There is a great surplus of farm workers in Assam creating problems of agricultural unemployment and underemployment.
15. There is a positive correlation between the rural density and over-population in agriculture.
16. Farms of small size are responsible for a serious underutilization of family workers.
17. The peasant mode of production as such is anti-progressive and agricultural innovation cannot materialise without any change in the traditional agrarian structure built up essentially by the true peasants having a tendency to cling to the soil at a very low level of living.
18. As the small peasantry with the traditional socio-cultural structure are incapable of any kind of farm organisation and management, capital investment is very meagre in peasant agriculture.
19. In spite of a gigantic organizational set-up of the government machinery and a huge amount of money spent during the Five Year Plans, very little development of peasant agriculture has taken place so far.
20. Development of irrigation is extremely low in Assam and whatever little is there, helps neither the intensity of cropping nor the increase of agricultural productivity.
21. As the agricultural credit offered by the government agencies is too meagre, poor peasants have to lean heavily on the private money-lenders.
22. There being an overall deficiency of cereals in Assam with little marketable surplus, a substantial proportion of the marketed cereals comprises only the 'distress sale' of a major section of the peasantry.
23. The response of the small and big peasants to the varying market prices differs in respect of allocation of hectareage to food crops and cash crops.
24. Farm size is the determining factor for differentiating agriculture as subsistence or commercial.

REVIEW OF RELEVANT WORKS

Methodical and scientific study of Agricultural Geography is of recent origin. Real work in this branch of Geography started only in the beginning of the second-half of this century. During the inter-war period, pioneer works in this field had been done by such eminent geographers as O.E. Baker, Olaf Jonasson, Clarence F. Jones, Samuel Van Valkenburg and Griffith Taylor[6]. Their contributions in the reputed journal, 'Economic Geography' have been considered as significant in the field of Agricultural Geography. Most of these pioneer works were devoted mainly to agricultural regionalisation in order to establish the broad spatial pattern of this activity. Besides, similar works of Derwent Whittlesey, and Hartshorne and Dicken are worth mentioning in this respect[7].

These works were followed by numerous empirical papers with ideographic approach to the study of the causes of patterns within a specific area. There was little advance in Agricultural Geography so far as application of scientific and systematic methods and in-depth study were concerned during the period of forty years since Baker's paper of 1926. In 1964, Reeds[8] commented 'Agricultural Geography has not yet advanced beyond a primitive stage of development simply because many studies have been superficial investigation of extensive areas'. All of these works were not based on any conceptual or structured models and theories and none of them dealt with the intrinsic problems of the peasant type of agriculture. Their works were also limited by a shortage of published data.

In recent years, works in theoretical Agricultural Geography by W. Bunge, Buchanan, Blaut, Brookfield, Franklin, Harvey, Helburn, Reeds and Redfield have influenced the conceptual approach to agricultural problems[9]. This new conceptual approach has three major aspects[10]: (1) Greater theoretical bias and less concern with the uniqueness of geographical distributions, (2) a retreat from the deterministic interpretation of phenomena to a probabilistic and behaviourist one, and (3) the micro-geographic study assuming a greater importance. The methods of Agricultural Geography have benefited from the 'quantitative revolution' of the fifties, and computerisation of large amount of data has opened up a new vista of research possibilities.

Another line of scientific approach of model building to the study of agricultural activity was initiated by Von Thunen[11] as early as in 1826. His model of agricultural location was based on the decline of economic rent or land rent with distance from the market. He applied marginal economics to the problem of cost substitution with increasing distance. Based on this theory, Von Thunen predicted a concentric series of agricultural zones around a central market. This classical model was originally descriptive. It was only from 1935 that the Thunen's model drew the attention of some scholars like Hoover, Losch and Dunn[12] who used the

framework of it as a basis for a normative model. Of the other outstanding models of agricultural geography, the important ones are : Firstly, the Weaver's[13] model which attempted first to set up a quantitative technique for the classification of agricultural regions. Secondly, the input-output model originally devised by Leontieff as a method of analysing national economics and later used for the analysis of agricultural activity by Peterson and Heady, and Carter and Heady[14]. Thirdly, the spatial equilibrium models originally outlined by Fox and Tauber as the operational technique for examining the spatial equilibrium of agricultural production patterns in linear programming, and later followed by many workers especially in the United States, the most notable work done in this line being that of Egbert and Heady[15] who made a study of interregional competition and the optimal spatial allocation of crop production in the United States. Fourthly, the diffusion model of Hagerstrand developed to describe the diffusion of an innovation over space[16]. Lastly, the game-theoretical model developed on the basis of the game-theory of Von Neumann and Morgenstern to deal with the problem of optimizing decisions in the face of imperfect knowledge[17].

Apart from the models, sophisticated techniques came to be used by the modern geographers. In the field of agricultural geography, M.G. Kendall used the technique of factor analysis[18] to derive a production index for crops in England. It was applied by M.J. Hagood for defining regions based on agriculture and population. Using this technique Henshall and King tried to classify peasant agriculture in Barbados[19].

Advanced techniques and conceptual models had further been developed for specialized studies in plantation and peasant agriculture. Being aware of the limitations of the traditional models of non-geographers, the modern geographers have defined new models on their own, in order to solve the contemporary agricultural problems. The work of H.F. Gregor on plantation agriculture and that of S.H. Franklin on peasant agriculture are noteworthy in this context[20]. Coming to the specialised studies in peasant agriculture, two distinct approaches are discernible : (1) 'The way of life' approach set up by the anthropologists, and (2) 'The way of earning a living' approach of the economists. Among the advocates of the first approach, the names of R. Firth, Robert Redfield, E.R. Wolf and Elena Padilla can be mentioned[21]. Wolf differentiates a peasant from a farmer who looks upon his land as initial capital, while Padilla points out that a peasant may raise small quantity of cash crop also in addition to subsistence crops. Economists like D. Edwards and Rees apart from defining peasant agriculture pointed out that the use of traditional techniques, a strongly conservative attitude towards innovation, and a significant concentration on production for home consumption were the important characteristics of peasant agriculture[22]. Among the geographers, S.H. Franklin for the first time points out that the commonly accepted view of

peasant life is full of paradoxes[23]. For example, it is the common idea that the peasant is a good and careful farmer, yet in reality it is found that as a result of low yields, his condition remains often poor, though peasant family life is extolled for its virtues, yet it is known that many peasants are ready to sacrifice their own lives to educate their children to leave the system. Opposing the romantic view that peasants have in general a conservative and stable existence. Franklin observes that it is only 'the archaic elements that are more likely to survive within a peasant group and remain integral parts of its culture'. He further observes that during the last 150 years many peasant societies have experienced important and perhaps significant changes. Therefore, the study of a peasant society of today must include the study of its contemporary changes. The process responsible for much of this change is called 'agriculturization' made by the partial incorporation of market economy within the peasantry. He uses labour as the basic differentiator in building up a model of the peasant system as against capitalist and socialist systems. Regional variations and mixtures of these systems can be studied on the basis of labour commitment in the various sectors of economy. A model for the geographical study of peasant agriculture is provided by the concept of the peasant production system of Franklin. His model shows that in enterprise the institutional basis is family in case of the peasantry, while in case of the other two systems it is not entirely so. In the means of distribution while barter-market prevails in peasantry, it is sophisticated market in case of capitalist system, and prescription market in case of socialist system. In case of ownership, the head of the family plays the role of *chef d' enterprise* in peasantry as opposed to the managerial management in the other two systems. The ownership is rigid in peasantry and alienation is hereditary, while in the capitalist system alienation is permitted and in the socialist system it is constitutionally prohibited. The fourth dimension of Franklin's model is the regulatory agency. It is labour supply in case of peasantry, market in case of capitalist system, and the state in case of socialist system.

Another line of approach to the study of Agricultural Geography by the most recent geographers is to search for the most logical and meaningful structure which helps categorize and represent variations of agricultural practice on a global scale. Gregor has reviewed and commented on a large number of important contributions to this general theme and Grigg has reviewed many of the concepts dealing with agricultural regionalization[24]. The International Geographical Union suggested uniform and acceptable bases for spatial comparison of various attributes of agriculture on a global scale. Commissions, established to map world agriculture according to a standard legend, to standardize agricultural nomenclature and to construct a typology for world agriculture, are working towards common objectives[25]. Spencer and Stewart have attempted to recognise generic forms

and kinds of agriculture and their potential value as a basis for differentiation of world agricultural systems[26]. They have listed 13 agricultural systems in the world in a hierarchical order.

Coming to a review of works in agricultural geography done in India, it may be mentioned that work based on models and theories has so far not been intensively done in spite of its crying necessity. It is discouraging to observe that serious attempt has not been made by the Indian geographers to distinguish peasant agriculture and to deal with its intrinsic problems.

M. Shafi has divided the works of the Indian geographers in the field of agriculture under the following heads[27]: (1) Regional Agriculture, (2) Food and Commercial crops, (3) Agricultural Problems and Planning, and (4) Food Supply and Population.

In the above classification there is no mention of any work on either peasant and plantation agriculture or socialist and capitalist agriculture. However, prior to Independence, the journal of Madras Geographical Association took a pioneering lead in encouraging at least some writers in the field of agricultural geography[28] who worked on the distribution of the principal crops and their correlation with the physical conditions and agricultural practices.

Works on the agricultural regionalisation were done by B.N. Mukherjee and P. Dayal[29], A.B. Mukherjee, however, undertook a micro-level study selecting four villages of the Meerut district and assessed carefully the importance of food crops, commercial crops and land tenure system[30]. Methodical work of P.S. Sharma on agricultural regionalisation of India with the help of selected indicators is also an interesting study[31]. B.K. Roy attempted to find out crop-complex regions with the application of Kendall's factorial coefficient analysis[32]. With this quantitative technique he was first able to differentiate peasant agriculture from plantation farming in India. Recently, he attempted to test the proposals of the recommendations of Agricultural Typology Commission of International Geographical Union in the context of Indian agriculture[33].

Chaturvedi and Reddi attempted to show the influence of an urban centre on the decision and motivation of peasants for the change of agricultural land use in Hyderabad district[34].

Some interesting papers on agricultural problems and planning were brought out by S.P. Chatterjee, M. Shafi, S.S. Bhatia and B. Banerjee[35]. Chatterjee suggested measures to plan agriculture in North-Eastern India mainly on geographical basis. Shafi and Bhatia attempted to study agriculture from the view point of agricultural efficiency. The former correlated agricultural production in Uttar Pradesh at district level in different years with the level of agricultural efficiency. Bhatia worked out an index of agricultural efficiency, showed spatial variation, changes

and trends of it in Uttar Pradesh. Banerjee made an assessment of the gains of the Green Revolution in India.

Books and monographs written by the Indian geographers on agriculture are only a few in number. S.N. Mukherjee's 'Agricultural 'Geography of West Bengal', Venkateswara's 'Agriculture in South India', Randhawa's 'Farmers of India' and Jasbir Singh's 'An Agricultural Atlas of India' and 'An Agricultural Geography of Haryana', are some of the important books and monographs that throw light on various aspects of agriculture in the country[36]. Randhawa's treatment of the farming villages and communities in each of the states of India gives a valuable insight into the problems of Indian peasants. Mamoria's doctoral thesis entitled 'Agricultural Problems of India' with a comprehensive study of agricultural problems and suggestions for development of peasant agriculture is a work of merit[37].

The above survey shows that the study of agricultural geography in India is still in its formative stage. Very little has been done so far in Assam on agricultural geography. P.C. Goswami in his published doctoral thesis, 'The Economic Development of Assam' discussed the agrarian structure, development of agriculture and land systems in Assam in detail[38]. K.C. Mahanta and A.K. Neog have incorporated much information on agriculture and animal husbandry in Assam in a single volume and discussed various problems of the peasants in Assam[39]. H.P. Das, in his book 'Geography of Assam', provides a generalised account of agriculture of the state[40]. The author of the present study attempted to build a normative model for reorganisation of peasant agriculture in Assam on the basis of a micro-study of a peasant village in the state[41]. M.K. Sharma tried to find out agricultural regions of Assam[42]. M. Taher established the physical basis for agricultural planning in the Brahmaputra valley[43].

Not a single book or monograph nor a thesis on Agricultural Geography of Assam has so far been published. Research work on the topics relevant to that of the author of this thesis has not been done by any geographer. On the basis of a few works done so far, and in the absence of reliable micro-level data, it is really an arduous task to embark on a research work in the field of Agricultural Geography in Assam. The work has been rendered more difficult by the absence of any scientific methodology and model of peasant agriculture in the Indian context. Therefore, either one must follow the method and model built up for other countries or evolve one's own method and model in the context of Assam's or India's peasant agriculture.

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