

M A Salam

AGRICULTURAL
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AGRICULTURAL
TRANSFORMATION
IN
NORTH-EAST
INDIA

—With Special Reference to Arunachal Pradesh

M.A. SALAM



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INTRODUCTION

Theoretical Issues on Agrarian Transition

In a predominantly agrarian society, peasant family farms are prominent where size of production is small because it: (i) produces mainly for self-consumption; (ii) practises the mixed cropping pattern to meet variety of family requirements. In mixed cropping pattern size of production of each crop is limited. Further the production is carried out by family labour by using traditional method of production. Hence it is argued that agrarian societies must be transformed. Harriss (1982) considered three main ways whereby these societies can be transformed: (1) development of capitalist farming, (2) large scale co-operative or collective state farms, and (3) capital-intensive small scale farming similar to Japan and Taiwan models. Which of these ways will be the actual process of transformation in a country is a debatable issue. In the present study we are concerned with the first one *i.e.* development of a capitalist farming, which is experienced in general by all agrarian societies in varying degree.

Theoretically the issue of agrarian transformation has been approached from three different epistemic paradigms: atomistic approach or decision—making model, substantive approach or system approach, dialectical—materialist approach or historical/structural views [see for details Harriss (1982)].

The Atomistic Approach is concerned with the allocation of resources on the farm with the farmers' response to markets and innovations. Here system is left out in analysis and it explains the success or failure of an individual within the system. It focuses upon the emergence of entrepreneurial activities.

The System Approach seeks to explain the inter relationships of (i) technological factors, (ii) demographic factors, and (iii) environmental factors. This is more or less a functionalist approach where *all regular patterns of social behaviors are perceived as having some function*

to perform in relation to the creation and maintenance of order in societies. (Harriss 1982). Therefore the approach is to understand the feature of peasant society and culture as a 'mechanism' which functions in such a way that homogeneity in terms of resource share is maintained and development of gross inequalities is prevented in order to maintain the state of equilibrium within community as a whole. With a little variation in functional side, Substantive Approach (Karl Polanyi 1957) addresses the same problem in similar manner.

In both (System Approach and Substantive Approach) main problem is that they take the change coming from externally induced forces. They therefore neglect the internal process of change.

The Structural/Historical view or Dialectical-Materialistic Approach grasps the relationship between 'parts' and 'whole'. Here the social character of individual is emphasized. This approach is concerned with the relationship between expanding capitalism and various forms of production of pre-capitalist societies. It is an 'articulation' of capitalism with other modes of production *i.e.* it explains that the relationships between capitalist and pre-capitalist societies are more than 'linkage'.

Lessons from Various Paths

The issue of agrarian transition¹ can be taken for study for two purposes:

1. to understand the problems, processes and implications of such transition within the peasant economy; and
2. to relate the transition with macro-economic processes of the economy.

Both issues are important. We consider both of them in our study. However, our focus will be on the first one, which in itself explains the second issue. It precisely deals with peasant question² on the basis of a sample survey of 277 peasant households covering five tribes of Arunachal Pradesh.

In fact the peasant question has been the central concern of almost all developed nations when these nations were transforming their agriculture. Therefore we have some experiences and paths for such transformation like Roman experience, German experience,³ English path, Prussian path, American path⁴ etc. From their experiences two things are clear :

- (i) At bottom, there are individual households who constitute the entire peasant economy. They produce mainly for self-

consumption through using family labour force. Simple reproduction system operates.

(ii) On the top there are the households of their lords or patricians.

They are the rentier class. Evidences⁵ reveal that they differed in their role. But they were the appropriators of surplus.

It, therefore, becomes obvious that the peasantry has never been found as a mass of homogenous group of households. There exists cleavage between the peasant households in their settlement.

Further we receive the following lessons :

- (i) The role of state is crucial. Hence state initiatives are important.
- (ii) There can not be one path or just few paths. The history of successful transition does not exhaust the possibilities in contemporary circumstances. This brings us closer to Lenin's Law⁶ of uneven development of capitalism where capitalism struggles hard to gain its supremacy on pre-capitalist production relations.
- (iii) We are to recognize that the transition is the outcome of complex historical process. It suggests the compelling need of careful and concrete analysis of specific situation which is under study. The study of agrarian transition is valid for the region which is yet to industrialize. Further there are compelling factors such as progressive use of industrial inputs in the form of HYV seeds, fertilizers, pesticides etc. which accelerates the transition process.

Agrarian transition is required precisely because agricultural sector has its role in economic development. But agrarian transition is context-specific, because it is surmised that in rural sector economic variables are less autonomous than they are in urban sector. Further the non-economic variables are more cohesive in tribal rural belt than in an ordinary rural area because of its tribal factor *i.e.* clan, kinship and cultural adherences etc. It is still more cohesive in Arunachal Pradesh where their autonomy is recognized and detribalization on the event of modernization has been resisted through the deliberate policy emphasized in the Philosophy for NEFA.⁷ In such situation economic forces are made sub-servient to non-economic forces. But our study shows that despite all these factors differentiation is taking place in Arunachal Pradesh. The relevance of our study lies in investigating that in a tribal society of Arunachal Pradesh where non-economic factors are so operative, how such transition takes place?

Contextual Significance of the Study

The study of peasant differentiation in Arunachal Pradesh is unique because :

- (i) it has weak or almost absence of land lord section;
- (ii) each tribe lives within a boundary where no one either from other tribe or from non-tribe can purchase land and settle permanently;
- (iii) in most of cases, the village is inhabited by a single tribe;
- (iv) all lands within the village jurisdiction belong to the community. A household occupies a piece of land which its members with the help of Blanpa⁸ (reciprocal work force) develop. Village council⁹ acknowledges the household right over land. Household can sell the land to other members of the same tribe. On the village common land they have usufruct right. But no formal record is available therefore data on land holdings are not available;
- (v) the tribal legitimacy of a family is maintained because the family occupies land in the village which village council recognizes;
- (vi) the land goes back to the community when household is abandoned or if household does not till land for some specified years;
- (vii) each tribe enjoys full autonomy in its area. Members of the tribe resist collectively if intervention from outside (either by other tribe or by any agency of non-tribe) occurs. This autonomy was recognized by the British government in 1873 through an act on Inner Line Pass which is still in operation. Hence any tribe in Arunachal Pradesh has never been subjugated. They have enjoyed full freedom in their area. They have emotional attachment with the specified area. In the post independence phase, the Government of India has also recognized their status;
- (viii) the behaviour of household is shaped by the village council on the basis of age old evolved customary laws. Each household takes the pattern of relationship as pre condition.¹⁰ Hence the village council elaborates the structure of relationship pattern. The social relations of production¹¹ are therefore governed by the village council;
- (ix) non-economic relationships like kinship, marriage, festivals, rituals etc. have a close tie with economic behaviour of

household. Hence economic and non-economic relationships are harmonized through village council;

- (x) the topography poses constraints for large scale mechanization. It, therefore, precludes the differentiation processes;
- (xi) in recent past 'scale of liquidity'¹² was in existent *i.e.* for clearing the large transactions, Mithuns¹³ were used; for clearing the medium transactions or obligations, Tibetan metallic items were used; and to defray day-to-day transactions grains (corn) were used. This systems is still in practice in certain cases in remote villages. They have evolved an elaborate system of conversion: Mithun to metallic items to corn and corn is converted into labour days @ 1 labour day = 4 Brey¹⁴ of corn which is almost equivalent to 10 kgs.

Background

Invariably all communities of Arunachal Pradesh are socially structured on the basis of clan hierarchy and almost all villages are predominantly inhabited by a single community.¹⁵ The whole socio-economic processes are governed by the historically evolved social institutions.¹⁶ Households take these pattern of social relations as pre-condition. The movement of factors (mainly labour) towards their use are effected on the basis of socially determined principles under specific social arrangements *e.g.* reciprocity (Blanpa) within the group, the prestation¹⁷ in the form of labour services across the groups. The movements of factors are compensated by the counter movement of goods in form of barter trade, economic loan and social loan.¹⁸ The tying up arrangement of commodity flow and factor flow forms the objective condition¹⁹ where family labour finds their works and expends their labour force with two sets of intentions: (i) for self-consumption, and (ii) for economic and social loans.

Peasantry is the relationships of peasant households through which surplus production of rich peasant households is redistributed among the poor peasant households and labour services of poor peasant households can be utilized for agricultural works of rich peasants. This is because of two factors: (i) hardly we find desired coalescence between the family labour force and land requirements, (ii) agricultural works require the labour services unevenly over the seasons.

Arunachal Pradesh has a unique experience where process of social change did not begin from the internal dynamics of society *per se*. It has been engineered by the state. Following the politico-

administrative integration, economic integration has been attempted through allowing the market forces to penetrate, albeit, in a controlled manner so as to graduate the local socio-economic institutions in favour of market economy.²⁰ The state of affairs in the village in the form of four constraints namely the indigenously evolved stagnant technical coalescence, the designed material flow shaped by interlocking social behavior, inadequate liquidity, and fragmented local markets could have been broken only by a determined effort of government agency to accelerate the development process in the region.

During the post independence phase, commodification of agricultural produce has emerged because of the following reasons:

- (1) Sufficient amount of money have been poured in through various development schemes.²¹
- (2) Increase in tertiary sector like development of administrative networks and other associated establishments, construction of roads, expansion of educational institutions and health services generated income of a section of population. This has generated demand while adequate production from the region has not come up to meet the local requirements. As a result merchants from outside have been fascinated to infiltrate. But there has been a check on such inflow from government. This has caused the supply to remain insensitive to the demand.
- (3) Price-cliff²² exists *i.e.* minimum price of vegetables on up hills remains as high as maximum price of these vegetables on foot hills particularly from where wholesale business is carried out (like Rangapada in case of West Kameng District). There are three factors responsible for this: (i) prices are regulated by the administration, (ii) because of topographical advantage, Arunachal Pradesh produces vegetables in off season, (iii) the retailers who pay the rent to the permit holders enjoy the monopoly power. They are capable to enjoy the monopoly power because: (a) they form cartel in the form of 'bazaar committee', and (b) free entry is blockaded because of permit.
- (4) Government has tried to boost up the local production through developing the local farming entrepreneurship. Various incentive packages²³ have been advanced in the form of: (a) encouraging to develop the land for permanent cultivation from jhum cultivation (b) encouraging to change the cropping pattern from 'traditional multi crop pattern' to 'single commercial crop pattern', (c) providing the seeds, saplings, pesticides, and

fertilizers at subsidized rate, (d) giving training and guidelines to the peasants.

- (5) The role of APMC (Agricultural Product Marketing Committee) is significant. It provides a link between capitalist farmers and traders and it ensures that farming entrepreneurship is not cheated on account of monopsony power of traders. Since Mandis (Sabzi mandi and Galla mandi) are absent, APMC purchases surplus produce from capitalist farm household and sells them in the market of other districts. The capitalist farm households who have accessibility to APMC receive three types of benefits from APMC: (a) They do not face monopsony power of the cartel traders. (b) They do not bear the transportation cost. It is born by APMC. (c) They do not suffer from price fluctuations of agricultural output.

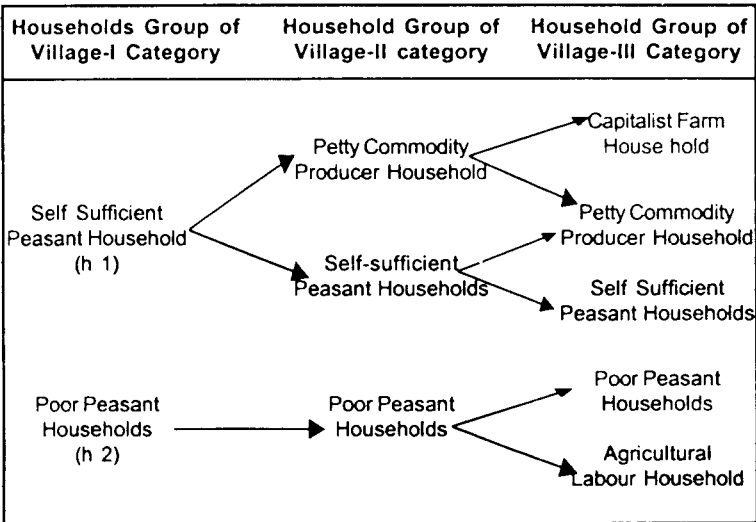
Because of the above mentioned factors (infusion of liquidity, development of tertiary sector, price-cliff, backing of government to boost agricultural produce, and the role of APMC) the working of constraints such as stagnant technical coalescence, designed material flow, inadequate liquidity and fragmented local markets to an extent has been minimized. Commodification process becomes obvious first on distribution aspect of agricultural produce and later on the production level through developing the labour market. It is therefore postulated that market surplus of agricultural produce causes peasant differentiation. That is to say the level of market surplus of agricultural produce leads to the dissolution of peasant relationships among the peasant households. The present research work specifically investigates the behaviour of peasant under changing environment.

Peasant differentiation means dissolution of existing peasant behavioral relationship among the peasant households. The differentiation takes place at two levels: (a) at the attitudinal level, and (b) at the social level. At the attitudinal level of differentiation, peasant family farm gets differentiated. It either becomes the capitalist farm household which produces the output mainly for the market, or it converts into agricultural labour household who hires out the labour services on wage payment. At the social level, differentiation takes place when system altogether changes. Hiring in labour and hiring out labour become the main mode of labour movement. Previous social bindings (interlocking relationship with social loan and prestation) recede and autonomy to labour is conferred. Some peasant households may exist amidst the situation of peasant

differentiation. But socially they are marginalized for their system becomes obsolete. But still there exists some households which are neither differentiated nor they are in true sense peasant. These households are the households of petty commodity producer²⁴ and poor peasant. Petty commodity producer households sell a portion of their produce but they do not mainly hire in labour services while poor peasants earn livelihood on wage payment in lean period but simultaneously they remain busy in tilling their operational holdings in agricultural season because they eke out a significant portion of their livelihood from land. Therefore, from two groups of peasant households in category-I village there develops about five groups of households in category-III village. In between these two categories of villages there are villages where three groups of households exist. Hence to know the nature, extent and causation of peasant differentiation we have classified whole villages into three categories. In the first category, we include villages where all households are peasants. The second category comprises of those villages where petty commodity producer households emerge along with peasant households. The third category of villages is the villages where all five groups of households exist.

The economic differentiation process is shown through the following chart.

Graduation of village from one homogenous group of households with some cleavage within to these distinct five categories of



households basically is differentiation. The differentiation takes place because the tillers find the market for their produce. Hitherto the surplus production of the household used to get distributed among the poor households who in turn rendered their services in the field of surplus producing households. In this way the institutions of redistribution (in the form of social loan), prestation (in the form of labour services), reciprocity, and barter exchange etc. effectuated the goods flow and factor flow within village. But when commodification of agricultural produce occurs a portion of surplus is diverted towards market places. Therefore, the social loans from patron households get reduced. Cliental households try to compensate this reduction from the market purchase. For such purchase cliental households require purchasing power, which they can earn if job opportunity is available. Due to reduction in social loan, the labour turnout in the field of patron diminishes which patron household tries to compensate from hiring the labour force. In this way hiring in and hiring out tendencies emerge simultaneously. The whole social configuration of the households changes and the two distinct sections of the households develop: one hires-in labour force; and another hires-out labour services.

Some Emerging Issues

The present study addresses the issues pertaining to the implications of the value adding tendency of the surplus of agricultural produce. Before the proliferation of market places in Arunachal Pradesh the surplus was produced which was used to buttress the their on going system. But when the surplus began to be valued in market places, it started eating up the prevailing socio-economic processes and replacing these by an alternative system through monetizing the obligations. The new system therefore has brought concomitant change of events such as:

- The multi crop pattern of production is changing into the single and commercial crop pattern of production;
- The jhum cultivation is getting replaced by the permanent cultivation;
- Social loan (which causes interlocking of behaviours) is declining;
- Prestation on the basis of clan hierarchy is also decreasing;
- Property right on land is getting formalized and concretized;
- Leasing out land on moral ground is diminishing;
- Work sharing on reciprocity is receding;

- Market for local agricultural product is increasing and local supply is competing the supply from outside of state;
- Traditional agricultural items are also getting marketed like *jabrang, phapher, mayo, buck wheat, kodo, lham etc. chhurpee* a soyabean product has entered into the market significantly;
- The interlocking economic behaviour on clan basis is changing into the interlinkages of markets.

Objectives

In the light of the above background the specific objectives of the present study are:

- (1) Whether differentiation in peasant relations takes place in the event of market surplus of agricultural produce in the sampled villages;
- (2) What is the nature of differentiation;
- (3) What is its extent; and
- (4) How far changing situation due to commodification process brings a change in social configuration of peasant household in the sampled villages.

Hypotheses

In consonance with the above objectives we have proposed the following hypotheses for testing;

H₁ : "Hire-in labour and increase in marketed surplus are positively correlated."

The alternative hypothesis is:

H₂ : "Increase in marketed surplus does not bring any increase in hired-in labour force during agricultural operation."

Variables and Data

- *Variables*: We have two variables in our hypothesis :
 1. Flow of agricultural surplus.
 2. Flow of work force (labour flow)
- *Data Requirements*: Under flow of agricultural surplus, we require data about:
 1. surplus for market sale.
 2. surplus for social loan.
- Under labour flow in operational holding we require data about:
 - (a) own family labour force,

- (b) hired-in labour force,
- (c) hired-out labour force,
- (d) labour rent on leased-out land,
- (e) labour rent on leased-in land,
- (f) Blanpa (reciprocity),
- (g) clearing other obligation (prestasi).

Since our study is a cross sectional study, to understand the process of differentiation we have to select villages of at least three categories. This categorization we have done on the basis of observation and pilot survey. These categories are:

1. Category-I : where cleavage exists but differentiation has not taken place;
2. Category-II : where differentiation has just taken place;
3. Category-III : where differentiation has taken place sufficiently.

In West Kameng district we have five major tribes namely the Akas, the Buguns, the Mijis the Monpa and the Sherdukpens. We have selected the villages of each category from each tribe so that we can generalize our findings for all tribes of Arunachal Pradesh. Tribe-wise distribution of 21 selected villages and 277 households and category-wise distribution of the same villages and households are given in the tables (1) and (2).

The size of sample is 277 because in 8 villages of category I we have taken all h_1 households (i.e. 34) and all h_2 households (i.e. 79);

Table 1: Tribe Wise Village Distribution

Tribe	Villages	Name of villages	Number of Households
Aka	3	Jamiri, Hussigaon and Maraka	15
Buguns	3	Wanghoo, New Kaspi and Namfri	68
Miji	3	Ditchik, Khellong, Nizung	30
Monpa	6	Namshu, Jerigaon, Gonthung Thembang, Pangma, Semnak	64
Sherdukpens	4	Rupa, Jigaon, Thongree, Lumbaktang	80
Mixed tribal villages	2	Pedung and Salari	20
Total	21		277

Source: Our field survey.

Table 2: Category Wise Village Distribution

Category	Villages	Name of villages	Number of Households
i. h_1 households	8	Gonthung, Hussigaon, Lumbaktung, Maraka, Namfri,	34
h_2 households		Nizung, Pangma and Semnak	79
ii. Petty commodity farm household	6	Jamiri, Khellong, New Kaspi Pedung, Thembang, Thongree	36
iii. Capitalist farm household	7	Ditchik, Jerigaon, Jigaon, Namshu Rupa, Salari, Wanghoo	48
Agricultural labour households			80
Total	21		277

Source: Our field survey

in 6 villages of category II we have taken all 36 petty commodity producer households; and in 7 villages of category III, we have taken all 48 capitalist farm households and 80 agricultural labour households.

We have taken 21 villages because : (i) villages of all five tribes must be taken and (ii) observation in each type of household must be atleast greater than 30.

Our sample is purposive stratified sample.

Methodology

Most of literature on conception of peasant agree on two essential character of peasant household that peasant is a tiller who:

1. produces for self-consumption;
2. uses the family labour force in production.

There is no disagreement on this conception. The disagreement starts on the question whether peasant gets differentiated. Two schools have advanced:

1. One is led by Chayanov,
2. Another is led by Lenin—Kautsky.

The Chayanovians stick on the undifferentiated character of peasantry while Marxists argue on its differentiated possibility.

The pertinent question is what differentiates in peasantry? The answer is that it is the social relations of production which differentiate. Within social relations of production we have:

1. land relations in production;
2. capital relations in production;
3. labour relations in production.

To identify the class status of differentiated peasantry, various criteria have developed: Lenin's Criteria, Kritsman Criteria, Roemer's Criteria, E-Criterion of Utsa Patnaik etc. These Criteria are using some components of social relations of production for instance Lenin uses land and horses; Kritsman uses labour and resources; Roemer uses all three; Patnaik uses labour exploitation (called E-criterion).

In case of Arunachal Pradesh peasantry, land-centric approach does not fit because : (i) land records and their measurements are not prepared; (ii) keeping land is a tribal legitimacy; (iii) land sale and purchase are strictly restricted to own tribe only. These are in addition to the common argument that lands are not homogenous and so they are non comparable.

Capital component can also not be taken because : (i) mechanization is not possible due to topographical constraint, (ii) irrigation facility makes no significant difference to the highlanders where climate is inclement, (iii) HYV seeds, pesticides, fertilizers etc. are supplied by government and supposed to be equally accessible to all, (iv) further prestige factor is overwhelming.

Therefore only one factor is left *i.e.* labour which is the numerior of all economic calculations. Hence we find that E-criterion as methodology to measure the extent of differentiation is most suitable, because E-criterion takes labour only in its index.

We have defined peasant as when tiller produces mainly for self-consumption, and carries production mainly upon the family work force. Logically a peasant gets differentiated if : (i) he produces for market, (ii) he carries agricultural works on paying wages for labour. Payment in money wage can be given only if money is earned from the sale of agricultural surplus.

E-criterion²⁵ addresses the methodological issue to identify the class status of household and it is postulated that peasant household assumes its value ranging ± 1 . Further the household with value within 0 to +1 is relatively rich peasant and the household with value within 0 to -1 is relatively poor peasant. Algebraically E-criterion can be explained as:

$$E = x/y$$

where

$$x = (a_1 - a_2) + (b_1 - b_2)$$

x = net total use of outside labour

y = family labour days expended in own operational holding.

a_1 = hired in labour days

a_2 = hired out labour days

b_1 = labour rent on leased out land

b_2 = labour rent on leased in land

E-criterion is the ratio between the net inflow of labour days to the total labour days which family expends on its operational holdings. In tribal societies of Arunachal Pradesh, we have certain situations where net inflow of labour days occurs without wage payment. It is prestation in the form of labour services by the poor peasant households to the rich peasant households who usually oblige them through providing corn as social loan. Hence there is goods flow from rich peasant to poor peasant and there is labour flow from poor peasant to rich peasant. This is a type of patron-client relationship. This relationship exists because there exists cleavage between the households. This is not the case of differentiation because this does not lead to the capitalist relations. This cleavage causes the two flows to operate and hence the system reproduces itself ad infinitum. However, E is computed and E-value for this category of household measures the cleavage. In the tables 3 and 4 they are shown under h_1 and h_2 households of 8 villages of category I.

Category of Households	Average of E-value	E-value	
		Max.	Min
Rich peasant household (h_1)	+ 0.56	0.86	0.04
Poor peasant household (h_2)	-0.5	-0.96	-0.1
Petty commodity producer household (p.c.f)	+0.51	0.85	0.3
Capitalist farm household (c.f))	+ 12.22	28.9	3.09
Agricultural labour household (al.h.)	-11.47	-19.58	-5.25

Source: Our field survey

Differentiation in the meaningful sense takes place when we study the petty commodity producer and capitalist farm households. It is

because capitalist relation starts taking places. Table 3 computes average E-value and also shows the maximum and minimum E-values computed in the group of households while table 1.4 shows the composition of labour forces. It is clear that when surplus gets marketed, there is change in the composition of workforce. Labour on wage increases while other sources decline.

Category of Households	Surplus	Family Labour	Labour on wage	Labour on rent	Blanpa	Prestation
Rich peasant household (h_1)	184.95 (quintal of com)	54.59%	—	—	13.23%	32.16%
Poor peasant household (h_2)	—	77.41%	—	—	22.5%	—
Petty commodity producer household (p.c.f)	Rs. 4.625 Lakh	61.26%	26.62%	5.23%	6.88%	—
Capitalist farm household (c.f)	Rs. 63.57 Lakh	7.76%	89.87%	2.3%	—	—
Agricultural labour household (al.h.)	—	49.9%	—	—	50.1%	—
		(7.59%)	82.6%	2.17%	7.62%)	

Source: Our field survey.

Results

The result of E-value of 34 self-sufficient peasant households (h_1) covering 8 villages shows that the value of E-ratio is positive lying between 0 to 1.

The result of E-value of 79 poor peasant households (h_2) covering 8 villages shows that the E-value is negative lying in between 0 to -1.

The result of E-value of 36 petty commodity producer households covering 6 villages shows its E-value is positive lying in between 0 to +1.

The result of E-value of 48 capitalist farm households covering 7 villages shows that its E-value is positive and greater than unity. x is positive and y is small.

The result of E-value of 80 agricultural labour households covering 7 villages shows that its E-value is negative and it is greater than unity. x is negative and y is small. Further the study shows:

1. That the poor peasant households (h_2) meet their 22% of the requirements of labour services through *Blanpa* (an institution of reciprocity);
2. That the self-sufficient peasant households (h_1) meet their 46% of requirements of labour services through *Blanpa* and *prestation*. It is because h_2 households receive a considerable amount of corn from h_1 households as social loan and render their services on *prestation*. In such village patron-client relationship prevails;
3. That the petty commodity producer households meet their 38% of requirement through : (i) *Blanpa*, (ii) labour rent, (iii) wage payment. Here we note a change that *prestation* converts into either wage payment or labour rent. The reason is that these households change the pattern of production. They are producing for market. For example previously they were producing corn and now they are producing vegetables (peas, beans, *laipatta*, chillies etc). So, they do not have sufficient surplus to give social loan. Consequently the labour turnup in their field has gone down which they meet either through labour rent or through wage payment;
4. That labour rent emerges in category II types of villages. In category I type of villages lands are leased out on moral ground. There is no such compulsion of labour services in these villages because : (i) they are producing traditional crops, and (ii) they are adopting traditional method of production. The *Blanpa* and *prestation* are the two institutions which provide the required labour services. The additional land of an individual household belongs to the community, for individual household enjoys only usufructuary right, which can easily be transferred to the households runnings short of land. But in category II villages, compulsion of labour services emerges because of withdrawal of labour services from *prestation*. There is no significant change in the method of production but there is change in the pattern of production. Labour requirement increases and family labour sources as well as *Blanpa* are exhausted. To get labour services two sources develop namely labour rent and wage payment. This is a situation when usufructuary right gets formalized into property right and hence petty commodity producer leases out the land to ensure the labour during agricultural operations. Hiring in labour force for all purposes of cultivation becomes a costly affair because the market of agricultural produce has just developed and it is at nascent stage;

5. This phenomenon of labour rent decreases in category III types of villages because land becomes more scarce and labour can be made available on hire. Market becomes 'matured' and 'reliable'. It has expanded from few local shops of category II type to APMC, Assam market and regular local market.

To study the relationship between h_1 and h_2 households of category I villages, we calculated the correlation coefficient (r) between social loan and prestation which is 0.95. And their coefficient of determination (r^2) is 0.91. This explains that how closely these two types of households are symbiotically connected through the material flow in the form of social loan which is reciprocated by labour services.

For petty commodity producer households we worked correlation between market sale of agricultural produce and hired-in labour force and estimated the regression equation of market sale on hired-in labour. This shows that work on wage payment is available and it is connected positively with the valuation of market surplus. The equation is estimated on the data collected through survey. The equation is

$$\hat{Y} = 11.639 + 3.42X$$

(2.96) (0.216)

This category shows the differentiation at attitudinal level.

For category III villages where differentiation has become social phenomenon. Main intention of cultivation is to meet the market demand. So, as per market requirement, crops are raised. Agricultural works are carried out mainly by labour services. Labour services are made available because poor peasants prefer to earn money over to work on tiny piece of land and so they are agricultural labour. Here too we worked correlation between the market sale and hired-in labour, and we estimated the regression equation of market sale on hired-in labour. The relationship between the hired-in labour and volume of sale is shown through the equation:

$$\hat{Y} = 54.58 + 153.85X$$

(25.01) (17.75)

- In regard to hypothesis our result is:

Increase in marketed surplus leads to increase in the hired in labour force in agriculture operations. The estimated regression equations are:

1. $\hat{Y} = 11.639 + 3.42X$ For 2nd category of villages
(2.96) (0.216)

$$2. \hat{Y} = 54.58 + 153.85X \text{ For 3rd category of villages}$$

$$(25.01) \quad (17.75)$$

- In regard to the queries posed in our objectives we have following responses from our study.
 1. Causes: Whether differentiation takes place due to market surplus? Answer is in affirmative that it takes place.
 2. Nature: Differentiation takes place in social relations of production, more specifically labour relations in production.
 3. Extent: of the total 277 households maximum E-value is 28.9 and minimum E-value is -19.58.

128 households are clearly differentiated.	46.2%
36 households are just getting differentiated	12.99%
113 households have cleavage	40.79%
 4. Social configuration: In response to the query on social configuration we find that the tribal construct remains intact but institutions of Blanpa and prestation are receding and becoming redundant.

Significance

The significance of our work lies in its contribution to the existing stock of knowledge on peasant differentiation in the following ways:

Chayanov²⁶ opined that persistent character of peasant family farm is strong enough to counter the capitalist mode of production in differentiating it. When a family matures and it splits. It causes demographic differentiation. Lenin²⁷ on the other hand argued that intrusion of capital into peasant family farm causes social differentiation. The final outcome of this differentiation is the emergence of two classes: the hacienda (big capitalist farm) and the proletariat (landless agricultural labour). Kautsky²⁸ advocated that due to land factor peasant family farm is marginalized. He attributed differentiation to the mechanisation (technology factor). Our work shows that even without mechanisation, differentiation takes place. It takes place mainly due to commodification of agricultural produce.

Further our work shows that differentiation takes place even without landlessness. That is to say if capitalist farm household carries various agricultural operations through employing the labour force from outside of his family labour; and if agricultural labour household provides such services on wage payment. The differentiation occurs but it does not ensure that agricultural labour household must be landless.

Amit Bhaduri²⁹ highlights that there is interlocking of relationship pattern among peasant households due to asymmetrical distribution of land and capital. In such situation differentiation is not an easy task. Our study shows that differentiation is possible in tribal peasant household where: (i) clan based interlocking pattern exists and; (ii) reciprocity is phenomenon.

Thomer³⁰ sees no inducement of internal investment in agriculture for modernization because returns from rent and usury are sufficiently high while our study shows that modernization (if not mechanization) occurs as commodification of agricultural produce takes place.

Our work studies the variable (peasant household) on its attitudinal essence. Differentiation is due to change in attitude. Attitude shapes the thinking process in decision-making, which is manifested in behavior.

Our study simultaneously explains that differentiation basically ensures the freedom of economic variable. That is commodification of agricultural produce confers autonomy of agricultural labour in the form of dissolution of social bindings.

The work is unique because it establishes the relationship between epistemology and methodology. It explains that without adequate understanding of their relationships, and thereby indiscriminate use of paraphernalia associated with concepts to generate data makes the study meaningless and irrelevant for abstracting the reality.

Last but not the least, it is often postulated in anthropological literature that socio-economic transformation of rural tribal societies is determined and guided by non-economic forces. But our study demonstrates that economic forces are equally operative. Despite strong hold of non-economic factors on peasant family farm, differentiation is taking place.

Limitations

1. Our study is limited to the agricultural part of household economy. Schedules are orientated to extract the information about agricultural activities *i.e.* farm operation in which all crops are raised.
2. Our survey was based on recall method where data are subject to the memory slips of respondents. But full care was taken to collect reliable information and accurate data.

Chapterisation

In brief we have outlined the boundary of our research work. Our study therefore follows a sequential pattern which is given below.

Chapter I: Conceptualization of a Peasant Household

The chapter reviews the important literature on the conception of peasant and peasant differentiation. This chapter concludes the agreed points among the authors on the conception of peasant households that a peasant family farm is one which produces mainly for family-consumption and employs the family work force in cultivation; and it differentiates when it starts producing for market and largely its production is carried out by the work force on wage payment.

Since the route of differentiation is context specific, so the study of peasant differentiation in Arunachal Pradesh assumes its significance, for Arunachal Pradesh is predominantly a tribal state.

Chapter II: Specification of Peasant Economy of Arunachal Pradesh

This chapter is divided into four parts. First part explains the specific character of Arunachal Peasantry. The second part sums up the process of political integration of the state of Arunachal Pradesh. The third part delineates the role of state as an agency of getting peasant differentiated. The last part synthesizes the emerging picture. This chapter therefore focuses on the specificities of Arunachal Peasantry and its course in transition.

Chapter III: Data Sources and Methodology

This chapter is organized under six sections. First section sums up some available criteria to measure the differentiation and it analyses E-criterion. Second section explains the peculiarities of peasant relations in Arunachal Pradesh and it selects the criterion which suites to the ground reality of peasant relations in Arunachal Pradesh. The third section elaborates the sources of data, sample size, sample design and statistical tools used in analysis. The fourth section elaborates problems arising due to the indiscriminate use of paraphernalia and concepts and cites some examples. The fifth section analyses the three approaches of epistemology quite often used in economics and other disciplines of social sciences in order to solve such epistemic problems of using paraphernalia. The last section sums up the reasons for selecting the suitable epistemic approach to the situation of Arunachal Pradesh. This chapter is significant because it tugs together the ground reality, epistemic enquiry and methodology and therefore it provides the philosophical base of our study.

Chapter IV: Discussion and Results

This has four parts. First part classifies the households within each

category of villages on the basis of the conception of peasant and peasant differentiation. The second part analyses the result of first category of villages containing 8 villages and 113 households. The third part analyses the result of second category of villages containing 36 households from 6 villages. And the last part analyses the result of 128 households and analyses the components giving rise such value of E for various groups of households.

Chapter V: Summary and Conclusions

This is small chapter but it draws the main threads of arguments of all previous chapters. It integrates all these arguments and answers the basic questions: whether differentiation is taking place? What is the main factor causing differentiation? what is the nature of differentiation because Arunachal tribal society is cohesive and is considered to be more homogeneous in behavior and therefore social relations of production are supposed to be more organized and coherent. What is the extent of differentiation. Finally, it sums up how our study has philosophical mooring.

NOTES AND REFERENCES

1. T.J. Byres, (1991) defines agrarian transition in the following words "... those changes in the countryside of a poor country necessary to the over all development of capitalism and the ultimate dominance of that mode of production in a particular national social formation". (pp. 3-4).
2. Peasant question addresses the basic issues about the class status of peasant when they are differentiated in the process of agrarian transition.
3. Roman and German experiences are noted by Marx in elaborating the pre-capitalist social formation (Marx 1964).
4. English path, Prussian Path and American Path are discussed by Byres (1991).
5. T.J. Byres, (1991).
6. Ranjit Sau (1976) explains very clearly Lenin's Law of uneven development of capitalism and he quoted Lenin from 'The Agrarian Question in Russia towards the close of the Nineteenth Century' (Collected Works), EPW, P:A 127, Vol. XI, No. 52, Dec. 25, 1976.
7. Verrier Elwin (1964).
8. Blanpa is a popular term among the Monpa community. It explains that work sharing attitude on reciprocity is one of the integrating force of the community. Hence the household must take part actively in Blanpa in time. The concept is present in all communities with different name.
9. Village council is the local mode of governance. In all villages of Arunachal Pradesh we have the role of village council, Verrier Elwin (1965).
10. Marx, (1964) uses the term pre condition to explain that we inherit

the pattern of relationship from our birth in the household and we do not have choice.

11. It is posited that forces of production (all factors) are allocated through the social relations of production among the owners of these factors. Therefore the social relations of production include institutional factors and other considerations which form the context under which factors of production are organized. David Seddon (1978).
12. Keynes 1936, (1954) differentiates the monetary and non-monetary economic systems on the basis of liquidity and scale of liquidity.
13. Mithun is a wild animal. It is owned by a household. Mithun till recent past was a measure of prestige of a household in Arunachal Pradesh.
14. Brey among the Monpa is a type of corn container where in one Brey approximately 2½ Kgs. of corn are contained.
15. K.S. Singh, (1995).
16. In Arunachal Pradesh we have institutions like Blanpa, prestation, social loan, barter exchange etc.
17. Prestation is a form of surplus appropriation in pre-capitalist society where the client households offer to the patron gift of their produce or rendering the services. It is a way to acknowledge the hegemony of the patron.
18. Social loan is the help from patron to client when client household runs in deficit. Through social loan patron household establishes the hegemony.
19. Objective condition is a situation where workers find their works and expend their labour force (Marx 1964).
20. Grudas Das, (1995).
21. Verrier Elwin, (1964).
22. Price difference particularly on agricultural output is very conspicuous between the two markets: market of Assam and market of Arunachal Pradesh. Minimum prices of these items in the markets of Arunachal Pradesh remain as high as maximum prices of the items in the markets of Assam.
23. Department of agriculture from time to time announces such packages through AOPs (Annual operating Plan).
24. Friedmann H., (1978) uses the term 'petty commodity producer' to distinguish it from the peasant family farm on the ground (i) a portion of surplus is marketed, (ii) there is regularity in such surplus. While both types of farms (peasant family farm and petty commodity producer) have small holdings and where labour and ownership are combined. In both farms simple reproduction system operates. Banaji, J. (1977) also highlighted that the petty commodity producers are pre capitalist in form but capitalist in content.
25. Utsa Patnaik, (1976).
26. A.V. Chayanov, (1987).
27. V.I. Lenin, (1956).
28. Karl Kautsky., (1988).
29. Amit Bhaduri, (1973).
30. D. Thomer in 'Agrarian Structure' coined the term 'the built-in-depressor' which shows that inducement of internal investment in agriculture is low.