The development of peasant agriculture so that it can make a positive contribution to ventures, designed to improve agricultural production, depends crucially on how one views the nature of peasantry and its enterprises. This paper will discuss the conceptualisations of peasant economic orientation and activity of some important schools of thought. It will then examine the implications of these approaches for the design of projects aimed at modernising peasant agriculture and bringing about increased agricultural productivity.

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Introduction

Since the inauguration of the First Development Decade by the United Nations in 1960, governments in many of the Third World nations have focused on a broad-fronted approach to development programming. The centrepiece of these efforts has been the integrated rural development schemes attempting to overcome all constraints to socio-economic development. The major thrust in all these programmes has been to modernise peasant agriculture. They have, consequently, focused on development projects geared to bring about improved farming, livestock production and management techniques, not only to help peasants increase production of legumes, cereals, poultry, milk and meat but also to help them earn cash incomes which could usefully be reinvested in increasingly self-sufficient enterprises. These goals, however, are proving frustratingly illusive and the plight of rural peasants in the Third World has become, if anything, worse than it was in the 1960's (Seers, 1977; Weaver and Jameson, 1978). A significant reason for this sad state of affairs has been the influence of Western conservative theories (Lerner, 1958; Rostow, 1960; Hoselitz, 1960) on development planning. These theories hold the stereotypical view that the peasantry, as a socio-economic class, constitutes the traditional sector which is necessarily in conflict with innovation and modernisation. Therefore, institutions and structures, innovations, etc., need to flow from outside to these traditional enclaves and somehow 'modernize' them. The policy makers, planners, administrators as well as the diffusion of innovations researchers have been the victims of this kind of reasoning for far too long now.

The development of peasant agriculture so that it can make a positive contribution to ventures, designed to improve agricultural production, depends
crucially on how one views the nature of peasantry and its enterprises. The view of the conservative, bourgeois theories on the nature of peasant enterprise seems overly abstract and unreal (Gusfield, 1971). There is a great need to understand the nature of the peasant household resource allocation. What is their attitude to adoption of productivity-increasing innovations? Why are they risk-averse? Are they traditionalists unwilling to change, or is there something more than that?

At the outset, this paper will discuss briefly the conceptualisations of peasant economic orientation and activity of some important schools of thought. Later, it will examine the implications of some of these approaches for the design of projects aimed at modernising peasant agriculture and bringing about increased agricultural productivity.

Classical Economics Approach

Much of the work on peasant economic orientation and behaviour has been done by Western researchers trained in the discipline of classical and neoclassical economics. The underlying assumptions of this approach were not only that the Western-type economic and industrial development were the best choice for societies all over the world, but also that their economic theories and analytical tools had universal application. Consequently, these economic anthropologists set out to study peasant cultures very different from Western societies using the tools, concepts and abstractions with which they used to work. Some notable examples of this can be seen in the works of Raymond Firth: (1964; 1965) where he attempted to use the concepts of neoclassical economics to explain the behaviour of 'primitive' and peasant peoples. Analyzing peasant society in Polynesia, Firth (1965) explains that they lack a money economy, markets, prices and other concomitant Western economic factors. He labels them as primitive for lacking all these factors and then goes ahead and analyses their economic behaviour as though they were Western-type entrepreneurs functioning in a cash economy. Daniel Thorner (1968) summarises how this approach equates the peasant household with a capitalistic enterprise:

When the "farm business" method is applied to analysis of peasant agriculture, the peasant's land and livestock, equipment, and other goods are equated with those of a small firm. The peasant's behaviour is then treated in terms of the theory of the firm as developed for business enterprises. It is taken for granted that the peasant's aim is to rationalise his operations so as to obtain the maximum profit (Thorner, 1968:507).

In this approach, therefore, the expenses of the peasant family for such things as equipment and wages, were deducted from the gross income to obtain the net profit. When the expenses exceeded the total income, the farm was said to be operating at a loss. This approach, then, failed to explain some obvious realities in the developing nations. For example, as Thorner (1968)
posits, how was one to explain how peasants in many developing nations survive in spite of engaging in "uneconomic farming" decade after decade? Many of these observed anomalies, however, were explained by a group of economists working with Russian peasants, which can be called the 'Production and Consumption' school of thought.

Production and Consumption Approach

The classical economics approach to peasant agriculture was challenged by a group of Russian scholars: Kablukov, Kosinskii, Chelintsev, Makarov, Studenskii and Chayanov. They based their arguments on the data they had collected and analysed from Russian peasants in the decades from 1880 and onward. They argued that the economic orientation of the peasant enterprise could not be treated as if it were a business firm. The primary motive of the peasant family was to eat, make the required payments such as to the landlord and the state, and somehow survive. It was not possible to impute money value to the labour performed by the peasant family. The sheer pressure exerted on the family made the members behave in a way which could be considered 'irrational' according to capitalistic business standards. If the consumption needs of the family demanded extra labour, the members would expend that labour even if the additional product that was obtained was very small. Since labour was in abundance, the peasant family would rent or buy extra land regardless of its price. Chayanov argued that since hired hands were not employed, the concepts of classical and neoclassical economics could not be applied to peasant farm families (Thorner, 1966).

One of the notable contributions of Chayanov to a clearer understanding of the peasant household economy is the labour-consumer balance. As he puts it: "We can state positively that the degree of self-exploitation of labour is
established by some relationship between the measure of demand satisfaction and the measure of the burden of labour" (Chayanov, 1966a :81). According to this approach, the production and consumption decisions in the household economy are interrelated. Each household works to the point where the household's subjective evaluation of the marginal disutility of work equals its estimate of the marginal utility of the output gained (Chayanov, 1966b). This statement can be represented graphically as shown in Figure 1 (Source: Chayanov, 1966a):

In the figure, AB indicates the degree of drudgery of work, CD represents marginal utility of output (rubles). The curve CD cuts AB at the point 'X' which corresponds to a sum of 67 rubles received per year. At this output level, the subjective evaluation of output obtained equals the subjective evaluation of the drudgery involved in the agricultural work. From this point onwards, as the curves indicate, each succeeding ruble will be evaluated lower than the drudgery of winning it.

Chayanov drew similar curves and showed how, for different families, the balance between demand satisfaction and irksomeness of work is influenced by the size of the family and the ratio of working members to non-working members. Thus, Chayanov and his colleagues proved that the peasant exhibited a totally different rationality when it came to questions such as adoption of innovations, subsistence farming and risk-aversion. Kerblay (1971) notes that though Chayanov's thesis works better for thinly populated countries, nevertheless, it is still relevant to peasant populations in other Third World nations:

The problems raised over forty years ago by the leader of the Russian organisational school, and the basic approach focusing analysis of peasant economies on the dynamics and structures of family farms, are just as pertinent today for developing countries where peasant economies still predominate (Kerblay, 1971:159).

Marxist Approach

The Marxists were of the opinion that peasant agriculture was inefficient because of the small size of the units, and it was destined to be replaced by large-scale cultivation. The Marxists, therefore, were in favour of a dynamic process of agricultural proletarisation and horizontal concentration of production leading to large scale agricultural production. This seemed to be in direct contradiction to the views of the Production School which believed in the value of vertical integration. The Production School felt that small farms were more efficient and could also benefit from all the advantages of scale by using the formula of cooperatives (Kerblay, 1971:158). However, the Marxists were sure of the demise of the peasant agriculturist who would, in due course of time, either become a capitalist employer or be reduced to a wage labourer.
Many of the Marxists' views were a critique of the concept of 'peasant economy' of Chayanov and others of the Production School. Harrison (1979) summarises some of the main criticisms. The Marxists felt that the family was not the basic unit of production and consumption. This was true in Russia or elsewhere. There was internal differentiation in family units by age and sex, whereas, rent and wage relations resulted in an external differentiation. Data indicated that peasant households participated widely in labour-rent, crop-sharing, and local and migrant wage labour.

The Marxists took Chayanov to task for his failure to identify crucial distinctions between the economic conditions faced by poor and rich peasant households (Hunt, 1979:256). They argued that he failed "to take account of the fact that rich households face more favourable prices for inputs and outputs than poor households and determine the prices that poor households face." Again, there were internal contradictions, or unexplained gaps, in Chayanov's arguments. Marxists questioned, for example, his assumptions that (Hunt, 1979:256):

1. Poor households can through the family life cycle, using rented land and borrowed capital where necessary, become richer, and
2. Rich households themselves do not seek to expand their own capital and incomes through hiring labour.

Much of the Marxist critique, therefore, is upon Chayanov's theory of demographic differentiation and his argument that the peasantry constitute not a transitory class but a permanent one (Hunt, 1979).

**Increased Agricultural Productivity**

The problem facing Third World governments, in quest of the speedy development of their economies, has been the question of modernising subsistence peasant agriculture. The present state of peasant agriculture in the developing nations is considered as technologically backward and resource-poor. Perhaps, if there was an agricultural revolution in the countryside using innovative strategies and an input intensification, it would be possible to 'modernise' the peasant farms and thus increase their productivity. Thus, in the 1960's and early 1970's many Third World countries in Asia and Central America set about experimenting with new development strategies for agriculture, popularly called the 'Green Revolution' (Griffin, 1974). However, it was realised very soon that the Green Revolution exacerbated the already bad situation in the rural areas of these nations. The benefits of this experiment accrued largely to the more prosperous regions and well-off land owners. In other words, the Green Revolution suggested that technical change in agriculture resulted in greater income inequality, greater proleterisation of peasants and a general polarisation of the social classes (Griffin, 1974: Shingi and Mody, 1976). The other lessons from this experiment were that technically improved seeds were not an unmixed blessing. They were delicate, susceptible to local diseases and required a number of
inputs such as water and fertilisers. The inputs required for a good harvest were many and expensive. Moreover, once a basic method of cultivation was selected, the possibility of varying factor proportions was severely restricted (Griffin, 1974). In other words, once the farmer adopted one innovation, he had to adopt many more innovations.

Harrison (1979) notes that contradictions such as the Green Revolution were behind the revival of the Chayanov tradition in the sixties. Since the major thrust in the Third World was towards agricultural development on the existing peasant bases, the Chayanov tradition provided a historical alternative, a peasant path of development suited to the needs of developing nations. However, the application of Chayanov’s ideas to the Green Revolution and other programmes, aimed at increasing peasant productivity, were misplaced. Countries such as India and other monsoon Asian nations, where the Green Revolution was vigorously carried out, were not suitable for testing Chayanov’s analysis. As Thorner comments:

Chayanov himself conceded that his theory worked better for thinly populated countries than for densely populated ones. It also worked better in countries where the agrarian structure had been shaken up (as in Russia after the emancipation of the serfs in 1861) than in countries with a more rigid agrarian structure. Where the peasants could not readily buy or take in more land, his theory would have to be seriously modified (Thorner, 1966:xxi).

Moreover, the Green Revolution concentrated on the well-off farmers and considered agriculture not as subsistence but as a capitalistic enterprise. Chayanov, on the other hand, spoke mostly about subsistence peasant economy and the reluctance of peasants to take risks, particularly productivity-increasing innovations. It is certainly a paradox that while Chayanov believed in the tenacity of the peasantry to survive as a class, his writings were revived by economists whose ideas were used in programmes such as the Green Revolution which destroyed much of this peasant sector.

Some of the strong criticisms of the Marxist perspective on Chayanov could be used to criticise many of the premises of the Green Revolution. The Marxists argued that Chayanov wrongly held that all peasant households could engage in capital accumulation once the demographic situation of the family was favourable. The Marxists contended that this was not possible for poor peasants since they (Hunt, 1979:256):

1. Face diminishing short-run returns to labour;
2. Face higher rents and lower yields on rented land than rich peasants;
3. May obtain lower returns to non-farm work than middle and rich peasants;
4. Face relatively high prices for inputs and relatively low prices for the labour intensive products they produce.
The harsh critical constraints, therefore, preclude the poor peasants from participating in capital and input intensive cultivation. It is not surprising, therefore, that in some regions the Green Revolution was the beginning of communist insurrection. In Tanjore, the scene of the Green Revolution in South India, the poor peasants were worse-off in the seventies compared with the fifties. It is not a curious coincidence that Tanjore was also the scene of the 'Red Revolution' in the early seventies.

**Adoption of Agricultural Innovations**

The main way through which Third World nations have sought to improve levels of agricultural productivity among their peasant farmers has been by encouraging adoption of new agricultural ideas, skills and practices based on the scientific method of production (Schramm, 1964). The research in agricultural sciences has shown that innovations such as improved seeds, implements, techniques and processes of cultivation had the potential of increasing substantially the yield of the subsistence farmer. To protagonists of this view, it was considered essential to persuade the peasant farmer to use these agricultural innovations. A substantial body of work exemplified by the diffusion of innovations research grew out of this view. However, research studies indicate that agricultural innovations which promised to improve peasant productivity have not penetrated very deeply into the peasant sector (Asroft and Gleason, 1980). The reasons for the apathy of peasants to adopt productivity-increasing innovations, gave rise to theoretical generalisations on their social-psychological characteristics. The peasants were labelled with such characteristics, as lacking in achievement motivation, innovativeness, empathy, deference and gratification, and at the same time afflicted by traditional ills such as fatalism, familism, limited aspirations, and so on, all of which were synthesized into a "subculture of peasantry" (Rogers, 1969).

**Subsistence Ethic of Peasants**

The approach of increasing peasant productivity through adoption of innovations exhibits a total lack of knowledge of the peasant mode of production (Hyden, 1980), such as their economic orientation, and their attitude to risk-aversion, Scott (1976), Popkin (1979), Migdal (1974), Hyden (1980) are some scholars who have been increasingly concerned with the peasants. Their model is consistent with the findings of Chayanov, who did not explicitly discuss some of the issues they raise, but did imply them in his studies. These scholars agree on the precarious existence of peasants in the Third World today: living dangerously close to the subsistence level. Scott posits "If the Great Depression left an indelible mark on the fears, values, and habits of a whole generation of Americans, can we imagine the impact of periodic food crises on the fears, values and habits of rice farmers in monsoon Asia?" (Scott, 1976:2) He argues that the fear of food shortages in peasant societies has given rise to a "subsistence ethic." This ethic is the consequence of living so close to the
margin and can be compared to the ethic of peasants in nineteenth-century France, Russia, and Italy. Scott places the subsistence ethic at the centre of the analysis of peasant politics. The peasant family's major problem, to put it starkly, is to produce sufficient rice to feed the family, buy a few basic necessities such as salt and clothes, and meet the ever increasing claims of outsiders such as land rents and state taxes. Living dangerously close to the margin, where one bad crop means starvation or malnutrition, the peasant has perfected ways of staying afloat. For example, the local tradition of seed varieties, planting methods, and timing was designed over centuries of trial and error to produce the most stable and reasonable yield under the circumstances. These are the technical arrangements the peasant has evolved to iron out the "ripples that might drown a man" (Scott, 1976:3).

"Safety-First" Principle

Scott asserts that it is the "safety-first" principle which lies behind a great many technical, social, and moral arrangements of the peasant agrarian order. It is perfectly reasonable, he says, that the peasant, who each season courts hunger and all its consequences, should hold a somewhat different opinion of risk taking than the investor who is gambling "off the top." To quote Scott "the peasant household has little scope for the profit maximization calculus of traditional neoclassical economics" (Scott, 1976:4). In the choice of seeds and planting techniques, the peasant attempts to minimize the probability of a disaster rather than trying to maximize his return.

Through his subsistence ethic and safety-first principle, what the peasant is desperately trying to earn is a minimum income. In developed countries, it is very common for the state to assume the role of providing a minimum income to people through such measures as social security, unemployment compensation, social medicine, and negative income tax. As Scott argues, one effect of these measures has been to make it more rational for individuals to engage in profit maximizing behaviour. The Third World peasant does not obviously have this base in order to engage in innovative, achievement-oriented and profit-maximizing behaviour.

Conclusion

Given the problems peasants face one can understand why they are unenthusiastic to adopt innovations. Institutions such as the agricultural extension services which disseminate productivity-increasing innovations do not offer solutions to peasant problems. "They may offer only individual capitalist solutions to minority of farmers, to whom they effectively channel resources" (Harrison, 1979:91). Consequently, the diffusion processes have turned out to be imperfect equalizers of development benefits due to unequal distribution of resources (Rogers and Adhikarya, 1979). As Roling, Ascroft and Chege (1976) point out, on the basis of research in Africa, the role of diffusion practice has been to
widen the gap in socio economic benefits between the rich farmers and the poor peasants. Thus, productivity increasing ventures such as the Green Revolution, and processes such as the diffusion of innovations, have created greater inequality in the rural Third World. In most cases, it has been the poor peasants who have had to suffer the undesirable consequences.

Researchers and theoreticians cannot afford to further indulge in intellectual totalitarianism by denying the existence, or refusing to acknowledge, the political, social and economic structures and institutions of the peasantry. As Hunter (1969:52) warns: "Unless the village system as it stands is seen as rational and intelligent within its circumstances, there is the gravest danger of impatient action which will bring on this violence of despair. The peasant may be uneducated: but he is an adult, he is experienced, and he has a high degree of intelligence as any of us. . . . A policy of structural change has to deal with a total structure and gradually substitute a new one which will work in all its parts; and it is this requirement which has made it so hard to find." The time has arrived, therefore, for policy makers, administrators, and theoreticians to do some radical rethinking on the peasant economic orientation and activity before launching programmes designed to increase the productivity of the peasant sector.

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Agricultural economics plays a role in the economics of development, for a continuous level of farm surplus is one of the wellsprings of technological and commercial growth. In general, one can say that when a large fraction of a country’s population depends on agriculture for its livelihood, average incomes are low. That does not mean that a country is poor because most of its population is engaged in agriculture; it is closer to the truth to say that because a country is poor, most of its people must rely upon agriculture for a living. Agriculture and economic development. As a country develops The closest interaction is with agricultural research, the main source of messages recommended to, and adopted by, the farmer to increase his productivity and income. The unique method of feedback by the farmer to extension and research helps to reorient research towards solving actual production constraints on the farm. The results warrant continued support of T&V in the context of a strategy that assists in making improvements in the policy framework and specific investments for developing the agriculture sector. It is most gratifying to witness that the training and visit system of agricultural extension is not perceived as the subject of outside intervention but as a system that governments adapt and develop in a continuing exchange of experience among themselves.