1.0: The Problem:

The study of contracts and institutions has taken centre stage in one segment of Economic Theory, namely, New Institutional Economics. As Pranab Bardhan (1989) maintained, economic theory relegated institutional matters into a "Black box" which was seen to be vaguely important but did not receive "more then a nodding", and New Institutional Economics attempts to study these features. The old Institutional Economics is descriptive in method and analyze the affect/impact of institutions on the people. The New Institutional Economics school has the rational' individual as the basic unit of analysis and Coase theorem [Stiglitz(1989) calls it a conjecture] as its central tenet. The Coase theorem maintains that rational human beings would bargain among themselves and eliminate any inefficient recourse position. An extension of the above proposition was, "... (I)f one sees an institutional arrangement that looks inefficient, it looks so only because one has not fully understood the nature of economic problem that is faced."[Stiglitz(1989): P-20]. In other words the New Institutional Economics has shifted the emphasis to provide insights into what functions the institutions and contracts serve or have served at one time.

At a theoretical level New Institutional Economics analysis the 'individual rationality' of agents entering into contracts i.e., it maintains that the individuals chose the best form of contract given their constraint. New Institutional Economics analyses the 'rationality' of the existing contracts which look to be inefficient like share tenancy, bonded labor, existence of lease market, low turnover in land market etc. and in the process relax some of the assumptions of General equilibrium model like full information and well defined property rights on recourse. The important tenets of New
Institutional Economics are 'rationality' of the individual in the choice of contracts, asymmetric information between agents and that the forms of contracts evolve as a response to asymmetric information. Based on these, market as well as non-market exchanges are studied. As an extension of the above, Kirzner (1985) criticises the neo classical position for allowing no role for entrepreneur, and looks at the market as a creative process. He maintains that "... new products, new qualities of products, new methods of production and new forms of organisation that are endlessly generated in the course of entrepreneur process. "[Kirzner (1985), based on the reading from Buchanan, J. M and V.J. Vanberg (1994)].

It is in context nature that a study of rural land market was conducted to understand the nature and functioning of land market. Land market has an interesting feature in that there is low activity of permanent transfer market or sale and purchase market. A low turnover in the market would imply that the land transfers are few, further implying that there are constraints for transfer of land to efficient producers in the economy. In other words, an efficient farmer may not be able to buy land but would have to depend on temporary transfer market or lease. A lease arrangement has a temporary character with agents not interested to undertake capital investment on the land which may have an impact on efficiency. In sharp contrast to the low permanent transfer market, migration as an agency of change has generated a high turnover in permanent transfer market and this study would like to analyses land market in the presence of migration.

1.1 Land Market:

Land market is a different form of market as compared to markets, in general. Unlike normal markets, where different quantities can be assumed to be supplied and demanded at different prices, here, a specific quantity of land enters the market and is sold at different prices per acre. So here market exchanges in Land, are analysed to see if characteristics of agents are an explanation of the variability in price and land exchanged
The existence of "Many potential" buyers may lead to a situation where sellers can be responsive to price.

Land market transactions involve the transfer of property rights on land between two agents. The transfer could be a permanent transfer or a temporary transfer of land. If an agent transfers the right to use the recourse for a particular time period to another agent, the transfer is called a temporary transfer of land. A transfer is called a permanent transfer if the agent transfers the ownership right to another agent. An example of a temporary transfer is lease arrangement, while an example of a permanent transfer is the sale of land.

The institutions connected to land as a factor of production impinge on the proper development of an active land market. An active land market is a necessary condition for development, as substitutability between land and labour, land and capital are made possible, and with substitutability the allocation of resource, factor utilisation and productivity would improve.

A issue related to the land market is the process involved in land transfers. Rajasekhar’s(1988) is a historical study of land transfers in a village in Rayelseema region of A.P and the period of study is 1891-1984. Identifying the process of land transfers, he says that between 1891-1947 movement of land was from non-cultivating (Brahmin) families, who had out migrated, to large land owners. The second process was the transfers of land from small farmers to large farmers in lie of credit needs. On the eve of tenancy reforms, absentee landlords had sold off their land. With land ceiling legislation of 1961, rich farmers ceased to buy land and land transfers were from one segment of small farmers to another who had cash reserves. Reddy(1996) studies lease arrangement in Nellore district from 1985-1990 using written contracts from old records. Most of the lessor were absentee [Brahmin and Reddy by caste] landlords, while the lessee were actual cultivators [Reddy and Sudras by caste]. The absentee landlords used to migrate to urban areas and lease the land in the villages. The lease with its provision helped the tenant to meet their subsistence needs and the landlord to claim rental proceeds. Reddy(1996) identified a process of land transfer where the tenant provides credit to the landlord and credit is used as an instrument to get access to land. Starting from a share cropping contract

"(W)henever, the lessor asks for a loan or advance of rent, the tenant used the opportunity to get a medium-or-long term lease, generally for five years or so and get the input sharing provision canceled. The next stage was its conversion into a mortgage lease if the lessor failed to redeem the loan in the time and also when the lessor asked for another loan, and also when the interest on all them exceeds the usual rental amount. Not many mortgage were cleared in the stipulated time, and frequently the land involved passed on to its tenant cultivator through a sale deed, sometimes even without a registered sale deed". [Reddy(1996), p: 166-6]

Nancharaiah(1988) studies the changing land distribution, caste wise, in a village, "kanchakoduru" in Krishna district of Andhra Pradesh. The data was collected at four points of time. In the first period i.e., 1930 the Brahmins were the dominant land owners in the villages. They owned 76.99% of land, the non-Brahmins owned 20.53% and
scheduled caste 2.48%. By 1948, 42.7% was owned by Brahmins, 51.7% were owned by non-Brahmans and 5.59% by S.C. By the year 1965, 78.64% was owned by non-Brahmans, with S.C owning 14.68% and Brahmins 6.68%. While in 1982 the non-Brahmins increased their ownership to 82.54%, the SCs to 12.11% and the Brahmins to 3.38%. The factors influencing land transfers identified by Nancharaiah are, first, the Rent Reduction Act and the Estate Abolition Acts. Many of the land owners started to sell away the land due to irregularity of rent payment and low rates of rent fixed by the act. Secondly, employment options were increasing in government services and thirdly, due to conspicuous consumption of the Brahmans.

Broadly, the reason for sales as seen in the literature is debt compulsions [Bliss and Stern (1982), Guhan (1983), Athreya (1984), Guhan and Mencher (1984), Sarap (1996) etc.] While the second reason for sale is the transfer from non-cultivator owner to cultivators when the non-cultivators have migrated to non-agricultural sector [Rajasekhar (1986), A. Reddy (1987), Nancharaiah (1988)] etc. The second type of studies are historical in nature. These studies identify one important process of land transfers in which land is transferred from absentee landlord [Brahmin by caste] to cultivators castes in the village. In addition, the absentee landlord had employment in non-agricultural sector or urban areas. To this Reddy (1996) identified credit as an instrument of transfer of land by the tenant.

At a theoretical level there are broadly two explanations for the low turnover in the permanent transfer market. One of the explanations is by Bhaduri (1986 a,b). He maintains that in an agrarian economy, agents have a preference to hold on to land and any sale of land is a reflection of "distress" condition of seller. A "distress" sale represents a case of sale when agents participate in an exchange without "gaining from trade" while normal sales represents a case of Voluntary involvement in exchange with "gains from trade" motive". In a semi-feudal economy, Bhaduri maintains, "distress" sales dominate over "normal" sales. Bhaduri maintains that agents may not adjust price
quantity to excess demand-supply conditions. Basu(1986) provides another explanation for the low turnover in the land market. He also identifies two types of sales, one is "interim sales" and the second is "normal sales". A normal sale is one where agents sell land without wanting to buy land at a later date, while an interim sale is one where agents sell land with an intention to buy land at a later time. In an economy where sales are low, agents do not have the surety that they can buy back land at a later period and so they would not want to sell land and any sales would be in response to the cash need of agents. As the seller is in need of cash these agents would like to buy back land at a later date once the need is overcome. So these forms of sale are identified as interim sales. One sees that in both the models of economy, agents are not responsive to price but to cash need of the households. R. Vijay and R. Kavita Rao(1996), have attempted to show the conditions generating interim transaction. It was shown that interim transactions are generated as a result of a temporary shock facing a tenant. The result of the shock is affecting the expenditure stream of the peasant but not the income stream. To face the shock, the peasant may have to sell land but would like to buy back the land at a later time. An interim transaction would result if the expenditure is greater than the income and there do not exist any institution to internalise/smoothen the risk in the village. While a regular sale would result if there exists a permanent change such that the income from non-land is much larger than the income from land leading to sale of land. [A detailed description on the permanent transaction market is given in chapter-III]. At an empirical level, the permanent transfer market depicts a low turnover while the explanation at the theoretical level is in terms of presence of non-responsive agents in the economy.

The lease arrangement is known to depict heterogeneity in rent, land exchanged and forms of contracts. There are two explanations on the functioning of lease market both of which rest on the assumption of 'inactivity' of permanent transfer market or the assumption that the adjustment of resources at household level is done in the temporary transfer market. The first explanation is the Resource Adjustment Models given by Bliss and Stern(1984), Shaufier(1994) etc. These models maintain that functioning of lease
market has to be seen in terms of recourse adjustment of households in the presence of non-marketed resources. Agents with excess of non-marketed resources with respect to land lease out land to households with deficit of non-marketed recourse. While the second explanation of the functioning is to see lease market as a process of appropriation of rent by absentee landlord or non-agriculturist [see for a detailed description of temporary transfer market in chapter-IV].

Following is an attempt to classify the interaction between the two markets. A partial equilibrium analyses is attempted of the land market, where land is taken as a productive asset. Exchanges in the land market are seen as recourse adjustment process by households. Recourse adjustment could take place either in the permanent transfer market or in the temporary transfer market.

The first case is where the permanent transactions and the temporary transactions are low; in other words recourse adjustments are neither in the permanent transfer market nor in temporary transfer market. A low turnover in the market could be a result of either demand and/or supply constraint in the economy. A demand constraint could be due to lack of purchasing power with farmers. Then exchanges should be in the temporary transfer market. As exchanges are absent in the temporary transfer market also, this type of economy has a situation where demand as well as supply are constraints. This type of market is identified as traditional market.

The second case is one where the turnover in permanent transfer market is high while the turnover in temporary transfer market is low. This represents a case where adjustments are in the permanent transfer market and not in the temporary transfer market. This would imply that there exist buyers of land and there is a supply of land in the market. As farmers can buy and sell land in the market, lease market is not the instrument for recourse adjustment in the market. This market would have features of 'normal' sales, a la Basu(1986) or Bhaduri(1986).
The third case is one where the turnover in permanent transfer market is low while temporary transfer market is high or adjustments are in the temporary transfer market. In this form of market there exist constraints on the supply of land in the market. As the supply is not in the permanent transfer market, agents supply in the temporary transfer market. This is the form of land market studied by Bliss and Stern (1984), Shaufier (1994), Dreze (1997).

A high turnover in the permanent transfer market and temporary transfer market represents the fourth case. This represents a situation where agents can adjust resource either in permanent transfer market or temporary transfer market. This form of market is said to be a modern market.

Here an attempt is made to describe an active land market in terms of the nature of exchanges. The existence of a market for a resource implies that the resource can be obtained at a price. The exchanges of land could be a result of normal sales or distress sales. The inactivity or inertia of the market is expressed in the notion that supply is not responsive to price. Distress sales can be seen as a condition where land as a resource has a price but the agent who sells the land is not responding to price but sell as a result of non-economic stimuli.

In the above context an attempt was made to identify active and inactive land market by the response of agents to prices in the economy

Land market is said to be active if the agents are price responsive in the permanent and temporary markets

In sharp contrast to low turnover in the permanent transfer market, peasant migration as a process generates a high turnover in the permanent transfer market. The next section would describe peasant migration and their innovative role.
1.2 Peasant Migration:

In Andhra Pradesh, migration as a phenomenon has played a crucial role in increasing the turnover in the market and inducing changes and bringing in development. Migration is always considered in terms of labour migration, but Andhra Pradesh has seen another important form of migration, namely, land based peasant migrations. In the land based peasant migrations, the migrants leave their village of origin and migrate to another village and introduce new crop or methods of cultivation in the village they have migrated into. The importance of this form of migration can be seen from the spread of these migrants who originate from four districts of Andhra Pradesh namely, East and West Godavari districts, Guntur, Krishna districts.

These peasants, who had the skill/knowledge to cultivate using assured water supply, migrated to new command areas where the peasants were cultivating dry crops. These migrants utilized the skill/knowledge that they had gained in their village of origin and migrated to areas where, firstly, there was a potential for assured water supply for cultivation, secondly, the land was available at cheaper price and thirdly, the villagers did not produce the crop on which the migrant had skill/knowledge. This stream of migration is seen from the 1930's onwards. In the 1930's, peasants migrated to Nizam Sagar Dam command areas of Karimnagar, Nizamabad. The farmers introduced paddy, tobacco and sugarcane in these areas. These migrations which started in the year 1930's continued to all the command areas of newly constructed dams.

There are some instances of dynamic role played by migrants in other third world countries as well. Hill (1970) in a ethnographic study of Ghana, shows mat migrant farmers introduced cocoa and had transformed the areas. Mobagunje (1972) shows the innovative role played by migrants in Western Africa in terms of change in crops, techniques and institutions in bringing resource adjustment in the areas. Boyce (1978) shows that migrants introduced double cropping in place of single cropping system in Bangladesh.
Dams/canals like Cuddapah and Kurnool areas for cultivation under KC canal; Bargarh and Sambalpur areas of Orissa for cultivation under canals of Hirakud Dam, Bellary and Hospet areas for cultivation under Tungabhadra Dam, Nalgonda, and Prakasam areas to cultivate under Nagarjuna Sagar Dam.

The migrants are seen to migrate to dry backward areas in response to the release of waters in these backward areas. These backward areas can be described as traditional villages where the migrant can be seen as an entrepreneur and agency of change of traditional economies.

M.S.A Rao (1986) identifies three different trends in land-based peasant migration. The first is "State sponsored colonisation" where the State takes the initiative to settle people like nomads, tribals etc. as part of the rehabilitation programme.

The second type of migration are "Voluntary migration", where peasants migrate voluntarily, buy land and establish their camp. The third type of migrants voluntarily migrate to areas reserved to tribals and buy land and set their camp which is also illegal. He maintained that the voluntary migrants brought about significant development in the region.

Peterson (1970) distinguishes between two types of migration as "some persons migrate as a means of achieving the new. Let us term such migration innovative. Others migrate in response to changes in condition, in order to retain what they have they move geographically in order to remain where they are in all other respects. Let us term such migration as conservative" [Peterson (1970), p:53].

Nagaraju (1990) distinguishes two types of migration on the basis of their relationship with the process of economic development. One form of migration is termed as development-initiating migration and the second form is development fostering migration. To quote from Nagaraju (1990)
"The first type of migration is a case where migrants generally initiate development of unexploited resources at the destination or/and use their skill and techniques or information (generally not known to local population) to act as pioneers of development process. This sort of migration may also be called development leading migration. Generally, the direction of movement in this case will be from developed/advanced regions to less developed/backward region.

The second type of migration is a case where migrants get attracted towards an ongoing development process, usually to secure employment for themselves. The migrants would simply join the development process and thus they may foster the development process by participating in it. Here, unlike in the earlier case, migrants generally won't have anything to actively initiate, but their part is a much more passive one of simply adjusting themselves to the employment opportunities. Such migration may also be called development lead migration and commonly identified as labour migration. The direction of this type of migration will typically be opposite to that of the first type, i.e., from less developed/backward regions to developed/advanced region. [Nagaraju(1990), p: 4-5].

Nagaraju(1990) maintained that the existing literature is mostly concerned with conservative type of migration where labour migrate from rural to rural or rural to urban areas in search of employment opportunities. He says that, "... it is not surprising that much of the existing literature does not address itself to the question of the dynamic role and consequence of migration" [Nagaraju(1990), p: 5]. The phenomenon of development led migration would require a different framework to study the interaction and impact of migration on the village. Nagaraju[1990] defines peasant migration for land as development initiating migration or in the words of Petterson 'Innovative migration'.

The second set of migrants i.e., land based migrants are agents who migrate to lease or purchase land. These migrants want property rights on land so as to be able to cultivate a crop using the skill that they have acquired in the village of origin. These
peasants migrants in Andhra Pradesh are from developed to underdeveloped villages. The basic difference between land and labour migration is that in case of land based migration the migrant has some skill which they have acquired in the village of origin and they migrate to areas where they can cultivate using the skill that they have acquired. While in case of labour migration, the skill that the labour has may not be of use in the migrated place. If in two villages/regions the price vector and/or the skill on the production process is different, it may lead to migrations, provided agents have the data on the differences in information. The above migrations can be of two types, in one case the agents respond to the price signal only, while in the second case agents respond to signals of differences in skill in agriculture.

Land based migrations is a less researched area. There are only a few detailed studies on land based migration for Andhra Pradesh. In the study of Migration to Tungabhadra command area, Nagaraju (1990) attempts to analyse the role of peasant migration in activation of agrarian markets using induced innovation hypothesis. The peasant migrants considered are migrants from coastal Andhra who had migrated to Raichur district in Karnataka. This area was a traditional dry land area and had got irrigation facility with the construction of a canal from Tunghadhadra dam. The author selected a migrant camp for study. The peasants in the locality were differentiated into locals and migrants and fifty peasants in each group being interviewed. This study is more in the ethnographic tradition.

The Raichur district of Karnataka had a near stagnant agrarian economy with rainfed cultivation of dry crops like jowar, bajra, ragi etc. This region was characterized as a stagnant agrarian economy with extensive cultivation, low productivity of land and underdeveloped land and labour markets.[p-27] The farmers of Raichur "lacked enthusiasm for the wet cultivation."[p-29] It is this opportunity that was taken by the farmers of Coastal Andhra to migrate here. The author recognizes two dominant "pull factors" for the migration as small size of land holding as well as the high prices of land
at the village of origin. The dominant "pull factors" were the low prices of land and the availability of fertile land in the village of migration. The author maintained that the price of land was Rs. 100 per acre in the Tungabhadra region while it was Rs. 3,500 to Rs. 7,000 per acre in the coastal area in the 1950's.

The migrants faced some severe problems on migration - the local labour was in short supply as well as ill-equipped to carry operations of wet cultivation, bunds laid for demarcation, breached & control of water-inlets as well as drainage could not be maintained due to lack of familiarity with nature of soil, vagaries of nature, lack of fertilizers and the migrants had to use organic manure, lack of agents to advance credit, the physical, social and cultural isolation of the migrants, and other problems related to organization of production and society. So family labour became the constraining factor for expansion of operational area in early stage.

In an ethnographic study of Sriramnagar camp - a migrant village/camp, Nagaraju(1990) said that a first migrant, a small farmer in the village of origin, came to this village and leased-in land due to scarcity of capital. After a period of time, the surplus with the migrant increased leading to purchase of the land. This migrant was followed by a second migrant, who had come to this village with money he got from Rangoon and had a large capital and went straight to buy land. This second migrant came to know about the region from the first migrant. After a period of time the second migrant bifurcated from production to the provision of services for the migrant who came later, like, providing credit, acting as an intermediary for land exchanges, selling of bamboo for house building for migrants etc. This migrant also brought a washerman, barber, carpenter and priest-cum-teacher to the camp.

The inflow of the migrants activated the land market by generating alternate use for the land and the inflow of the migrants kept pushing up the land prices. The dominant purchases of land were by the middle level farmers excluding stray cases of
large farmers and landless labourers. The landless labourers were sponsored and induced to migrate along with the large landholders. The majority of the migrants sold their land at the village of origin.

In the first phase of migration, the native responded by selling land to the migrants. In the second phase, as the size of landholding decreased for the natives, the natives started to lease-out the land. The dominant sellers of the land were large landowners followed by a meagre sale by medium farmers and no sale by the small farmers. One form of exchange that culminated in the sale of land by the native was the outstanding advance of loans by migrants to the native. There was a steady increase in landholding by the migrants. The author maintained the migrants used shrewd ways to alienate the natives. The main reason for sale was distance of land as well as need of cash to meet the luxurious living standards of the natives.

The study shows that in the early stage of release of water in the canal, permanent transactions were dominant while after a period of time temporary transfers are dominant. Crops-wise one sees that the migrants grow sugarcane and paddy while the natives grow sugarcane and jowar.

The study, however, does not address the question of the nature of lease market contracts, i.e., the form of contracts, the resource position of agents, differences between migrant and natives. Lastly, the study does not define activity of markets.

In the study of peasant migration to Kurnool-Caddapah canal area, Maddulety(1989) study of Caddapah area focuses on rural-rural migration as a process initiating change in agrarian economies. The sample in the study is 130 migrant households. This study analyses migration to the KC canal area. These migrations started after 1960's when the KC canal system was renovated. Earlier, this area had traditional villages with subsistence crops and almost obscure land market activity.
The author recognizes three phases of in-migration. The first phase is from 1960-1966, the second from 1967-1974 and the last from 1975-1982. The first phase saw the in-migration of peasantry from assured water supply areas (referred to as developed areas) and the third phase saw the in-migration from rainfed areas (referred to as under-developed areas). The author maintained that migration from developed area was a result of "pull factor" with the peasantry attracted by the low land prices with the improved irrigation facility in the K-C canal area, while migration from under-developed pockets was a result of push factor where the village of origin was not able to sustain the peasants. The author maintained that migration is always in the form of bunch migration of friends and relatives.

In terms of land market activity, the majority of medium and small farmers lease-in land and after a period of time purchase same the same land. The medium and large farmers purchase the land as soon as they come. The author brings out two very interesting features of the migrants. One is that the small and marginal farmers have settled in the command area and have taken up cultivation of paddy, while the medium and rich farmers have settled in "isolated dry areas" and have attempted to cultivate different crops like tobacco, oranges, mulberry etc. Now these migrant farmers have settled for the cultivation of mulberry. The second feature is that dominantly the small and medium farmers are from underdeveloped pockets while large farmers are from the developed pockets. The small and medium farmers have sold their land in the village of origin, while the large land owners have leased-out the land in the village of origin. The study shows that a maximum number of farmers are from small and medium households followed by large land owning households.

The sellers who are large land owners bought "agraharam" lands from the Brahmins, while the other farmers bought land from marginal, small and large land holding households who were willing to part with the land partly or wholly because of either their inability to adopt to wet cultivation or and the attraction of the land prices.
In the study of Tripathy (1985) migration to command area of Hirakud dam were analysed, based on analyses of secondary sources to capture the transformation of Kumelsinga village with the intervention of the migrant. This village got water from the Hirakud Dam in the mid-1960’s. This village was a traditional rainfed village with absence of permanent transactions on land before the release of water in the land. It is a Goantia village where the Goantia - the revenue collector for the British State, has one-third of the land on rent free basis. The village got affected as a result of two interventions, first, land reform legislation which affected the role of the Goantia and secondly, as a result of release of assured water supply and in migration. However, since the study is based on secondary sources it lacks data on lease market. This village witnessed two streams of migrations one from Coastal Andhra and another from Coastal Orissa.

The village has witnessed a high turnover in permanent land exchange from the 1960’s. In the 1950’s the village witnessed many transactions but the quantum of land involved was small. In the period between 1964 to 1980, the village has witnessed significant internal transfers. The maximum sales are by the local residents and the minimum by Oriya immigrants. The main sellers of land have been the middle groups with low sales by low and top groups. The main purchasers of land are non-Oriya immigrants, which one of the main losers of land are the Goantia - a non-cultivator. The migrants to a large extent are placed in the medium and small landowners group with no one placed in the large group.

All the above studies attempt to capture migration-led agrarian transformation in a village or a region. All the above studies are based in areas that have got assured water or are new command areas. Two of the studies are based on region as a unit of analyses. If one takes a region as the unit of analyses, there could be processes, other then migration, that might be responsible for the change. In case of a village as a unit of analyses there is a possibility that one may be able to capture the different instruments of
change. **All** the above studies attempt to study migration as a process for generation of market activity, but have not defined activity of market or the reason for activation of the market. In one case of land market, there is a detailed description of permanent transaction market to the exclusion of description of temporary transfer market. In another case, the study does not explain if there exists any difference between migrants and natives in terms of resource position, forms of contract and terms of contracts. The nature of different markets are described without analyzing the nature of market behaviour in any market. Maddulety's study brings out the difference between a large land owning migrant and a small land owning migrant in terms of the nature of intervention (crop choice) but does not explain the reason for the difference. Can one classify the migrants into groups? In the same vein can one classify the natives with an emphasis to capture forms of intervention in land market. One interesting observation made in the studies is that in the early stage of migrant intervention, one sees the dominance of permanent transaction followed by a fall in the in permanent transaction and dominance of temporary transfer.

**1.3: Information Difference as a Possible Explanation of Land Based Migration:**

The above studies show that the village of origin of the peasant migrant is a village with wet lands. These migrants usually introduce these wet crops in the area to which they migrate. The crop cultivation skill is defined as the information set of the agent. The migrant possesses information set which is the skill/knowledge of cultivation of a new crop. One can describe the migrated village as a traditional village which has a stable crop/live stock/common property resource management, and where the motive for production is not trade. This stable crop combination has evolved over a period of time in the village. The villages have skill on the cultivation of the crop. As the villages produce for consumption needs and not for trade they may not have any incentive to have private information.
Here, an attempt is made to specify what is meant by information. Townsend (1994) considers information to be on timing of inputs, quantity of inputs and quantity of output. In the study by Townsend, the peasants are producing the same crop, if one introduces different crop combinations one can classify information into three groups. If one considers a production function

\[ Y = F(K, L), \quad \text{where} \quad K = \text{Capital} \quad L = \text{Labour} \]

We can consider three types of information sets with the agents.

(i) If the agents lack information on \( F() \), i.e., the agents lack information on the technical combination of inputs. This includes the knowledge on **sequencing of operations** for the cultivation of a crop. In case of dry regions growing jowar and bajra, the agents would not be having information on \( F(.) \) or the sequence of inputs usage pertaining to irrigated crops. Migrants generally migrate to areas where the natives lack information on \( F() \).

(ii) The agents have incomplete information on the **timing of inputs**. The agents may have information on the sequence but may lack the information on the timing of input usage like period of transplantation, the distance between the saplings, the time of application of pesticides, herbicides, fertilizer, etc.

(iii) The agents have incomplete data on the **quantum and type of input usage**. In an interesting article (Vidyasagar, 1995) on fertilizer usage in India, the author maintained that lack of technical information is widely prevalent which adversely affects the output.

Jenson and Meckling (1992) in their study classify information in terms of cost of transfer of information\(^2\). They do not specify the nature of costs. One important cost is

\[ \text{Information considerations are one of the important explanatory variable to explain the existence of large FIRMS. In an interesting paper Jenson and Meckling (1992) attempt to explain the information problems of a firm from a manager's perspective. Finns are organisational structures} \]
the cost of acquisition of information. They define two types of information in terms of restrictions on transfer of information. If an agent charges a price for the transfer of information, the information is personal and specific. While if no price is charged, the information is general and public.

**General information:** Any information is said to be general information, if all agents can use the information and can't exclude others from the use of the information.

**Specific information:** An information with an agent is specific information, if he can exclude others from using the information and can charge a price for the transfer of information.

There are two processes to acquire information. One way to acquire information is by actually taking part in the process, while the second process of learning is by viewing/reading the experiments done by others.

where the agents within a firm have decision Right (User Right in our terminology) but do not have the right to alienate the decision Right. The Manager of the firm needs vast set of information to organise the activities of the firm. But the manager faces the problem of limited capacity to collect and process information.

Large FIRMS' solve this problem of information constraint faced by the manager by partitioning the decision right to agents who have acquired SPECIFIC information. They define specific information as information that is costly to transfer between agents. In contrast to specific information they define general information as information that is costless to transfer between agents. The examples they cite for general information is information on prices and quantities and for specific information, i.e., specialised information. For them transfer "...means effective transfer and not merely communication". [Ibid., p.254]. They recognise that transfer of information is not an instantaneous process but may take time which would effect the cost of transfer. They maintain that, "... the cost of transferring information depends on factors such as nature of knowledge, the organisational environment and technology... the more costly knowledge is to transfer the more specific it is and the less costly the knowledge is to transfer, the more general it is" [Ibid., p.254]. The manager transfer the decision Right to an agent with specific information to solve the problem of information constraint faced by Manager. The transfer of decision Right does not have the contingent Right to trade the Right. This in the studies of FIRM leads to the control problem". 
Romer (1992) in an article brings information (ideas) to the centre stage of economic analysis. He says that there are two ways for development of developing economies. One is by "using ideas" while the second is producing ideas. In the case of the first, the ideas are produced at some other place and are transferred to this place. While in the second, the economies produce ideas. Romer felt that, most ideas with economic value are not controlled by charitable organizations willing to bear the cost of dissemination. Instead, they are controlled by people who will not incur the cost needed to share what they know unless they have monetary incentives to do so making the information a specific information. As a result, the gains from dissemination of ideas will not be realized if distortions, weak institutions and bad political structures prevent the holder of ideas from sharing in the gains that accrue when the ideas are brought to a new geographic area. [Romer (1992)]

In the first process, agents learn by taking part in the actual process of production. The agents make decisions which would generate information in the process as they face new problems. Any new problem, the agent has to face it and attempt to solve it. This process of acquisition of information is called 'learning by doing'. This information gets embodied in labour. For an agent to learn from doing, the agent must be having the user right on the land. If an agent does not have the user right, then he cannot learn by doing.

The second process of acquisition of information is by learning from the experiments done by others like the experiments done by Agricultural Universities, Research Organizations, etc. The peasant views the experiments done by the others and then tries to repeat the process. This process is termed as ‘learning by viewing’.

In case of 'using ideas', one can say that migrants are agents who have ideas (specific information) and want to implement their ideas. In the process they want monetary gains, as information on production of a crop does not have a market, the migrants want contract on land which is advantageous to them. The success of the
intervention would depend on the **Institutional** structure of the area migrated to i.e., the forms of land tenure. The natives also learn in the process of viewing the cultivation process as implemented by the **migrant**. A migrant can be seen as an agent who has specific information in the village of migration.

Agriculture has two features which create conditions for transmission of information between agents or to make transmission of information costless in a village.

(a) One of the features of agriculture is the "Open" system of **production**. The operations done by a farmer can be seen by the neighbour and the farmer cannot exclude others from seeing what is being done on the **farm**. In contrast, in industry, production is done in a closed factory, where other producers cannot see what are the operations done in the factory. The "open" system of agriculture results in "learning by viewing" by the agents. So if an agent has a changed input sequence or input usage, the neighbours can learn from it. So in agriculture there is a potential to learn by viewing.

(b) The second feature of agriculture is the "perverse externality" problems [Hayami (1981)]. Given the small scale of operation of farms in South Asia, peasants may not be able to internalize externality. To cite a case, if a pest is found in an area, a peasant may not be able to find the menace eradicated if he applies pesticide in his farm only. The pest can be removed if all the farmers apply the pesticide, so if an agent has information on pesticide he would have to share the information with all. So in case of agriculture, where small farm size dominates agents may not be able to internalize the externality. So any gain in information would be shared by all agents.

If there exists another village with a different crop/live stock/common property resource management i.e., a village with a different information set with agents then there is always a potential for agents to migrate from one village to another. If one takes the case of migrants of the Coastal Andhra to the backward regions one sees the same
phenomenon. In Coastal Andhra, the peasants have been cultivating paddy, tobacco, cotton etc. (i.e., in the area of their origin) These peasants have in the process acquired information on the sequence of production. This information on sequence of production is absent in the village that they have migrated into. Here another set of crops are grown as these areas are dry areas. The potential to be irrigated by canal of newly constructed dams and the lack of information cultivation with canal water attracts the migrant. The migrants want to trade on the information they have, as information is specific before the starting of production and would become general after the migrant starts production. The change from specific to general information would change the nature of land market contracts.

Description of Land Based Migrant:

A land based peasant migrant is an agent who moves from his village of origin, where he has acquired an information set, to a village with a different information set in order to benefit from the difference in the information, contracting on land.

One can classify migrant peasants by their capacity or the level of information they have on the production process so as to internalize uncertainty. Agent specific internalization would arise only when the risk are non-covariate. Agent would have two options, one is to experiment i.e., to change the sequence of production or change input usage etc., where the peasant would learn in a process of doing. But in this case, the peasant always faces the risk that due to his experiment the output may fall and they would need a hedge against this risk. One form of hedge could be land ownership i.e., large land owners may have the capacity to "learn by doing" and can be risk-neutral. This may lead to the peasants gaining information on the production process. This type of peasant can be called a Non-Fuzzy agent, as they would experiment and thus are risk neutral and have the capacity to face new uncertainties. A cultivating large land owner
has the potential to be a Non-Fuzzy farmer.

The second option arises if an agent takes the information that he has as given and does not experiment. This information is gained either inter-generational or by "learning by viewing or derived information". These farmers do not experiment as they do not have a hedge against uncertainty as they own a small piece of land. If the agent faces a new uncertainty, this agent would not experiment but only repeat the sequence leading to a fall in output. This type of agent is called an agent with a Fuzzy information set as he takes the information he has as given and is not ready to face new uncertainties.

As in the earlier discussion one has classified migrants in terms of information but information is a qualitative variable. So as a simplification one is taking land owned as a proxy for quality of information. A small farmer may not be able to internalise the risk as compared to the large farmer, so there is a scope for small farmer being fuzzy and large farmer being non-fuzzy.

The interaction of the above two agents with the native would be markedly different in the two cases. So it is necessary to classify the nature of the natives. Agents are classified into natives who are able to meet subsistence ($N^1$) and those above subsistence ($N^2$). Agents who have an alternate occupation where the opportunity cost is higher in non-agriculture than in agriculture are classified as $N^3$. In case of the migrants, the agents with small land ownership in the village of origin are classified as ($M^1$) and with large land owners in the village of origin are classified as ($M^2$). Land owned is taken as a proxy for information with large land owners being Non-Fuzzy agents with small land owner being fuzzy agents. In case of natives, non-agriculturist are taken as agents of $N^3$ variety while cultivating small farmers who produce for self consumption are taken as $N^2$ type agent and cultivating natives with large land ownership are taken as $N^1$ type agents. In the next section we would study the nature of contracts between agents.
CONTRACTS ON LANE

Contracts on land could be of three types, one a share tenancy, second a fixed lease and lastly a sale and/or purchase of land.

Share Tenancy (ST):

This is a form of temporary lease arrangement between two agents. The landowner transfers the User Right on the land to the tenant for a temporary period. The leasing-in household has User right on the land and temporary Exclusion right. This agent may also have temporary Tradability Right on the land. In this form of land tenure, the rent is paid in kind not in cash and as a share of output. A whole spectrum of arrangements in this form of tenures exist. At one extreme one has an proportionate sharing of all inputs and output while on the other hand one has an arrangement where all inputs are applied by one agent while output is shared between the agents.

Fixed rent contracts (FR):

In this form, the landowner transfers the Exclusion right temporarily to the tenant. As in the case of Share-Tenancy, the leasing-in agent has temporary Exclusion right on land and also temporary Tradability right on the land. Rent in this tenure is fixed and may be payable either in the form of cash or kind. The timing of payment of the rent could be different for cash and kind. In some cases of cash rent contracts, rent is paid before the production process begins. In some of these arrangements input sharing could also take place.

Sale/purchase of land (SP):

In case of sale - purchase of land, the seller transfers the User right permanently to the buyer. This right also carries with it the Exclusion right and Tradability right. A sale-purchase contract represents a case of permanent transfer of User right on land.
The Migrant comes to this village with the expectation that output with the information that they have (referred to as $Q_2$) would be greater than output with the information with the native (referred to as $Q_1$) and his share of output would be greater than in the village of origin. The native would provide land only if he expect a higher returns. Now let us try to work out the calculus of contracts for the first year of entry of migrant.

Possible alternatives for $M$:

Any early Migrant would face two risks in the new village. The first risk is the quality of soil. The Migrant faces an uncertainty with reference to quality of soil and its response to the new crop or technique. If the crop yield is not responding to the soil quality the Migrant may lose the money. The second risk is the seasonality effect. Agricultural operations are time bound and the Migrant faces uncertainty with reference to incomplete information on the seasonality. A small variation would adversely effect the quantity of output. After a period of time migrants would understand these factors. The migrant has conversion cost of land for the shift to canal cultivation. (Here purchase of land for production is only considered and not land purchase for speculation, even though this is an important feature)

The Migrant is a small farmer in the village of origin. This farmer has migrated out so that he can earn a higher income in the migrated village with the help of information he has. The nature of contracts acceptable to $M^1$ would depend on their risk taking capacity. As $M^1$ are small farmers, they would not be able to internalise the two important risks, and so are not the early migrator to the village. This is also expressed in the literature in the earlier section of this chapter. As $M^1$ are not the early migrator, the only constraining factor to the migrant is the cash restriction. The preferred contract of $M^1$ would be to purchase land given the constraint of cash needs for conversion. If the migrant need more land they would lease in the market.
In case of $M^2$, as the literature shows are the early migrants, they face three forms of risk. As these farmers are large farmers and have a hedge against risk, they prefer land on permanent transaction and then would start experimenting. On seeing the responsiveness of the soil and the seasonality affect, they would choose the nature of crop to be cultivated. If the difference between the $Q_2$ and $Q_1$ is small or marginal, the migrant would either not enter the village or, if they come will want a temporary contract.

Alternatives for $N$:

As has been described earlier, the native can be classified into $N^1$ (subsistence farmer), $N^2$ (farmer above subsistence any cultivating their land) and $N^3$ (land who has a higher opportunity income in non-agriculture than in agriculture).

In an agrarian economy, where there is low expansion of employment outside agriculture, the opportunity cost of labour for $N^1$ is higher in being land owner than being agricultural labour; where land ownership is a hedge against risk, $N^1$ would have no incentive to sell land(excluding the case of distress sales). If the migrant starts to cultivate the land in the village, the native would start to learn. Then the difference between $Q_2$ of migrant and $Q_2$ of native would decrease, in which case the migrant may not purchase land but would lease land.

As has been defined earlier, $N^2$ is a farmer above subsistence but cultivating the land using the already existing information. This farmer may not be ready to give land on permanent transfer but may give a small piece of land so that he can gain the information of the migrant. This farmer would be ready to give land on temporary transfer, as he is interested in the information embodied in the farmer. So he is ready to take risk of effects of Migrant on soil.

But this agent is not one who would transfer land permanently on large scale but
on small scale. He may transfer the land temporarily but only to get information on $F_2$. Once he gets it this agent would not transfer land.

The $N$ type of native has no information on cultivation. This agent would transfer the land for any contract if he can earn a greater income. This agent may not prefer a temporary transfer as he has no information on soil and if the Migrant\(^1\) degrades the soil it would adversely affect $N^3$. SO $N^3$ would be ready to give land on sale.

After a period of time the native would learn the process of cultivation. This would get expressed in an increase in the opportunity income for the native with an expectation of an increase over a period of time. They would not prefer to give land on permanent transfer but may give on temporary transfer provided the migrant is ready to pay a higher rent. The nature of lease contract also would be different.

The nature of contracts between the migrant and the native would keep changing over a period of time as a result of learning by viewing by the native. As has been specified earlier, at a early stage of entry of the migrant, the migrant would prefer a permanent contract and then a fixed rent contract but may not prefer a share contract. The preference of these contracts by the migrant is because they are able to appropriate all the gains in output due to information difference, while in case of share tenancy the migrant would have to share the gains in output with the native, provided the migrant does not influence the share rates. The specific form of contract would depend on price difference expected by the migrant between the actual price, the price rise due to migrant intervention and risk involved by the migrant. As the native also learns the process of cultivation the price of land would increase. This period would witness a decrease in permanent transaction and an increase in temporary transaction. So one would witness a phase of high transaction in permanent transaction market followed by a phase of low transaction in permanent market.
OBJECTIVE OF PRESENT STUDY

A migrant to be able to play an innovative role should have a contract on land, which would be either a permanent or a temporary contract. In a general context of inactive land market, the entry of the migrant would generate transactions in land. So it would be interesting to study the nature of land market activity after the interaction of the migrant to know whether an innovative peasant migrant can change the nature of land market behaviour.

In a general context of low turnover in the permanent transfer market and a higher turnover in the temporary market, the present study would like to analyse the nature of land market activity in the context of peasant migration. Has the migrant generated conditions of active land market will be analysed. In this process, peasant migration is seen as a case of development initiating migration. The migrants introduce new crops, new techniques of production and also activate the land market by their interaction.

The objective of the study is to analyses (under condition of assured water supply) migration as a process initiating land market Activity.

Based on the above discussion on the possible nature of temporary and permanent transaction, an attempt is made to study the nature of land market activity in the selected villages. Does migration with the provision of water, which generate high turnover in the market, have an active land market?

i) The dominant opinion on the land market is that there is low turnover in the permanent transfer market, while the empirical studies show a high turnover in the market in case of migration. Here an attempt is made to study the turnover in the land market. In this process one would document land market contracts in terms of land ownership, forms of contracts & by caste and study the nature of agents in the exchange.
ii) This study has emphasised one of the characteristics of agents in the market which is
the migrant-native status. Here the difference between the migrant and native in terms of
resource position, contract difference and performance is studied.

iii) To study the nature of activity of the land market we would analyse determinants
influencing Price/Rent, the quantum of land transacted and then derive the nature of
demand and supply of land.

iv) The institutional change introduced by the migrant in the village are also described.

Selection of Villages:

To conduct the above study a village 'Annasamudram' was selected, which is part
of command area of Nagarjuna Sagar dam which irrigates lands in Prakasam, Guntur,
Nalgonda districts. The reasons for selection of this village are as follows. Firstly, this
village had witnessed four streams of migrants in the post 1960's phase; secondly this
village has received assured water supply in the recent past enabling the villagers to
explain the changes easily; and lastly, all the revenue department officials opine that
Annasamudram is a conflict village and the migrants are also responsible for the
conflict.

Two more villages were selected near Annasamudram, with different
geographic and institutional constraints. One is Lellapalli a dry village and the second is
Medapi which is a village in the command area. We have studied these two villages
with an emphasis to capture differences in the nature of activity of the land market vis-a-
vis Annasamudram.

Sources of Data:

The analysis is broadly at two levels. At one level, we collected data on the
Taluka/Mandal, on the village from secondary sources like census of India, District Handbook etc. However the study depends heavily on primary village survey, wherein qualitative as well as quantitative data were collected from both the migrants as well as native peasants. The emphasis in the primary data collection was on the nature of exchanges in the land market. Land market has two components, a temporary arrangement i.e., lease and secondly a permanent arrangement i.e., sales and purchase of land. A detailed questionnaire was canvassed to all the households who had lease contracts in the year 1995-96. In case of permanent transaction market, data was collected for the sales-purchases for the period 1990-95. In addition to qualitative and quantitative data on land market, more relevant data on initial conditions and problems faced before migrant interventions, and also after interaction was collected by interviewing migrants and natives.

Data for the work was collected at two levels, one is the qualitative changes taking place at the village over a period of time, and second is the quantitative data on the land market exchanges. The qualitative data on the nature of village, migrant interaction and a resulting changes was collected from the village elders. This information was cross-checked with other caste leaders. (This issues of price paid and rent paid by the first and second migrant were varying and so were not specified in the work.)

The second set of data was on the land market exchanges. The data was collected on two steps. The first step was a schedule for all the households in the village. The second schedule was on the land market exchanges. The causes schedule consisted of data on name of the head of the household, extent of wet and dry land. The second part of this schedule was on whether the household bought/sold land, the extend of land, the price paid, whether the buyer is a migrant or a native and the year of purchase. In case of lease market the data collected was on whether a household leased land in the year. ( a problem faced during the field work was the hesitancy of households to reveal data land
owned and land exchanged. A friend of mine who had accompanied me was a resident of the village when his father was a teacher in the school. An explanation by him that this was to write a report on the village and not a government report cleared some hesitation and they provided information.

The next step was identification of households who sold or purchased land in the village. It was seen that there was a divergence between the figures given by the seller and the buyers of land in land exchanged, price as well as number of number of exchanges. The number of exchanges quoted by buyer was large then that of seller. So buyers schedule was taken for identification of households in exchanges. Then a separate questionnaire was canvassed for households in the two markets. This questionnaire had questions on land owned by households, caste, migrant-native status of both the agents and the occupation of seller and the reason for sale of land by the sellers.

They second part was on price of land, extent of land, quality of land and the year of exchanges. The price of land showed a difference in price quoted between buyers and sellers. If the difference between the prices quoted is small the buyers price is taken as the price of land while if the price difference is large the price quoted is large this was verified by other caste leaders and neighbour in the village. It was seen the price quoted by buyers is generally the price also quoted by villagers. The use of buyers price may result in over reporting of price but here we assume the price is over reported by the same ratio by all households.

In case of lease market, the dominant feature was the lessor maintained that they do not lease land. Here, the response of the lessee was taken the identification of households in the lease market. This schedule also had two parts one was on the identification of characteristic of agents in the market while the second was on terms of exchange. The characteristic of agents were the land owned, caste migrant native status of both the agents. The second part was on form of contract, the rent paid, form of payment of rent. In addition to the above data, labour exchanges between both agents
was also collected and output produced on the farm as well as share of consumption in total output was also collected. The data on the lease market may have under reporting at two levels one on the terms of exchanges and the output produced by households. As data was collected for lessee we assume the same bias for all households.

Chapter Outline

The work is organised as follows:

Chapter II describes the interventions and impact of four streams of migrants in the village Annasamudram. In this chapter an attempt is made to qualitatively describe the interaction of three streams of migrants with the village, while in case of the fourth migrant only the nature of intervention with the village is specified. The second section would be studying the interaction of the first migrants with the village. While section three would take the case of the second migrants interaction. The section four would study the third set of migrants interaction. The fifth section, would describe the nature of the fourth migrant. The last section would describe the economy at the end of the four streams of migrants which will be the basis of analyses of land market contracts.

In chapter III and IV, we propose information differences as basis to study land market contracts and analyse the data on temporary and permanent transfer market in Annasamudrum. The chapters [chapter III is on permanent transaction while chapter IV is on analyses of temporary transaction] have four sections. The first section is on theoretical studies on the market, while the second and third section is on the analyses of nature of the market and a study of variability of rent/price, while the last section is on the analyses of variables influencing price(rent) & land transaction in the markets, regression results. Here an attempt is made to study variables effecting land transaction & the price/rent variable-regression results.

The fourth migrant had come a few month before the field work of the researcher. The impact of this migrant would be a premature study at this stage.
In chapter V, analyses of the nature of land market in the other two villages as compared to Annasamudram are undertaken. Here an attempt would be made to compare the temporary and permanent transaction market in the three villages and then to try to generate a model for land market where we try to study the demand and supply of land in the two markets and its implications. Based on this model, we would study the nature of land market in three villages.

Lastly in chapter VII, we give the broad conclusions of the study.
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PRAKASAM

Gngole

ANDHRA PRADESH

BAY OF BENGAL