

Working paper

6th International
Conference of the
BRICS Initiative for
Critical Agrarian
Studies



BRICS Initiative for
Critical Agrarian Studies

NATURE AND COMPOSITION OF NON-CULTIVATING
HOUSEHOLDS IN RURAL INDIA

SOME OBSERVATIONS

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November/2018



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Published by: BRICS Initiative for Critical Agrarian Studies (BICAS)

in collaboration with:

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Brasília, Brazil

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Abstract

The agriculture sector in India has been undergoing a structural change in the recent period. One of the features that has triggered this change is the emergence of land-owning households, contrary to self-operating households, in the rural set up. The paper attempts to capture the characteristics and the process of emergence of these households in contrast to traditional landlords. These households, who migrate from farm to non-farm sector without losing interest in land, are the ones looking for investment ventures outside the farm sector. It further examines a set of institutional arrangements evolving through these changes. Primary data from two irrigated villages has been analysed to understand the trends at the micro level and the secondary data from National Sample Survey to provide macro-level illustration of it. It is observed that the irrigated and high-growth areas have witnessed these developments. The paper studies whether deceleration of agriculture growth and growth-retarding institutions like tenancy are related?

Keywords: Agriculture, Landlord, Occupational diversification, Tenancy.

Acronyms

BC	Backward Caste
CV	Coefficient of Variations
NCH	Non-cultivating Households
NFH	Non-farm Households
NIC	National Industrial Classification
NSDP	Net State Domestic Product
NSSO	National Sample Survey Organization
OC	Other Caste
SC	Scheduled Caste
SUR	Seemingly Unrelated Regressions

I. Introduction

Is Indian agriculture witnessing a rise of a new class/group of households that owns land, but do not self-cultivate it? A major share of these households could be leasing out the land.

Historically, a similar class/group, which owned land but did not self-cultivate, are landlords in the rural scene. These landlords, who are dominantly the product of the land settlement process, owned large extents of land. They are seen as a major constraint for growth of the economy in general and agriculture in particular. A crucial policy change in this regard was to abolish intermediaries/landlords between the State and the tiller, to impose ceilings on large land holdings and redistribute land to reduce land inequality (Deshpande, 2007). The abolition of intermediaries in the rural economy was largely successful in the first phase of policy changes. However, in the recent period, the agrarian structure has stood witness to certain significant changes, some as a response to changes in public policy like introduction of a new method of cultivation and mechanisation, while some independent of the policy changes leading to a new group of households that owns land, but do not use their labour to organise production.

In the existing literature there are evidences of the importance of these households in the rural economy. Ramachandran et.al (2010), in a detailed class-based analysis of three villages in the erstwhile Andhra Pradesh classifies these set of households as *big capitalist class*. Using a similar classification, the study was also conducted by Swaminathan and Das (2017) in three villages of Karnataka. The three villages in the erstwhile Andhra Pradesh show a significant presence of these households, but the studies in Karnataka do not show the same result. These households were earlier cultivators, but during the survey period they had not employed their manual labour in cultivation. Vijay (2012) and Bhue and Vijay (2016) identify these as non-cultivating households (NCH) owning the land. At an all India level, they show that the relative importance of this class is on the rise. Scholars analysing the agrarian changes identify the rise of a new class of absentee landlords in the irrigated zones. Breman (2010) in his study on south Gujarat villages also identifies the presence of absentee landlords who were earlier cultivators and have now diversified into other businesses, but continue to own the land and lease out the same. The share of tenancy also has increased for all the states in India (D A and Vijay, 2017). Vakulabharanam et.al (2011) in their study on the reasons for crop holiday in irrigated Godavari districts identify the increasing presence of ‘absentee landlords’ who were using crop holiday as an instrument to ‘discipline’ the

workers. Bardhan P K (1970) while analysing the National Sample Survey data on the earliest rounds (8th and 17th rounds) found a significance presence of absentee landlord. Sanyal, S. K (1972) using the 17th round NSSO data for the year 1961-62 found a significant percentage of absentee landlords in West Bengal, Punjab, Uttar Pradesh and at all India level. The percentage of absentee landlord stood highest for Punjab at 30.51 percent followed by West Bengal (22.21%) and Uttar Pradesh (18.49%). The World Bank (2007) study on land markets in rural India presents empirical evidence of the presence of these households and their characteristics. According to the study, higher education and high mean income from farming has led to leasing-out of land. The report says, *“Mean village income increases the tendency to rent out, implying that as the level of income increases with overall development, households will be more likely to move out of agriculture and supply their land to the rental market”*. Going by the report, they move out of the village, but do not sell their land and thus become absentee landlords who extract rental income.

This paper seeks to characterise the non-cultivating households owning land and the processes that might be supporting the generation of this category of households. The paper has two objectives. To present the composition of this class/group. Were these households cultivators earlier? What is their present occupation? Have these households moved out of the village economy, but continue to have land? Are they large land owners? Two, if these households are increasing their presence in the rural economy, is the increasing importance of rural non-farm sector and tenancy as an institutional arrangement sustaining this process?

The first part of the paper uses primary data collected from two villages in West Godavari in Andhra Pradesh in 2014. A complete enumerative survey of all the resident households in the two villages was conducted in 2014 and the data on relevant variables were collected for the agriculture year 2013. The household is a unit where all family members live together with a common kitchen. The data on demographic profile, land owned/operated and information on interaction in the three primary markets (land, labour and credit) were collected. In addition, cropping pattern and channels of crop disposal were also collected. The authors do not believe the two villages are representative ones, but are used to present trends for the growth of this class. The second part of the article uses unit-level data from relevant rounds of NSSO data.

The paper has five sections. The introduction is followed by some information on two surveyed villages, a preview on the structure of a village economy. The third section emphasises on the characteristics and occupational diversification of non-cultivating households. The first sub-section in that provides information on the resident non-cultivating households and the following sub-section on non-resident non-cultivating households in the two villages. It also dwells on the distribution of non-cultivating households across social groups. The fourth section comprises the secondary data analysis to examine the factors influencing the emergence of non-cultivating households in the rural economy. This is followed by conclusion, the fifth section.

1.0. Basic information on two study villages of West Godavari district

Geographically, the West Godavari district can be sub-divided into three zones. One is the delta zone which is canal-irrigated. The second is the upland area where the main source of irrigation is tube-wells and the third zone is the agency area. In the canal-irrigated part of the district, paddy is the principal crop cultivated. The district contributes 9 and 10 percent of the State's area and paddy production, respectively. This is also one of the selected regions for the implementation of Green Revolution technology during 1960s. Two irrigated villages have been surveyed here - Kothapalli in Ganapavaram mandal and Mentipudi in Veeravasnam mandal. The selection of the villages were purposive. These villages are in addition to the eight villages that were earlier surveyed in 2004, to analyse changing agrarian relation and so we wanted to re-visit the villages to understand importance of non-cultivating households owning land¹. Both Kothapalli and Mentipudi were in the canal irrigated areas of West Godavari district. An observation during the survey was that "The difference between land owned and land operated is significantly different in the two canal irrigated coastal villages ..." (Vijay and Sreenivasulu (2013), p 45). The earlier survey and the above article do not address the reason for the difference, but had hypothesised that non-resident households owning land could be one of the reasons for this divergence. The later survey attempts to address this issue by trying to find out from the leasing-in households whether the lessors are residents or not.

¹During the survey in 2004 we had found the importance of non-resident and non-cultivating households in the two villages. There were large difference between land owned and land operated as well as leasing in and leasing out land, which could be attributed to the presence of non-resident households owning land Rao and Bharathi (2010), Vijay and Sreenivasulu (2013).

Both the villages are entirely canal-irrigated and paddy is the major crop cultivated. Kothapalli is a larger village in terms of the number of households when compared to Mentipudi. (table 1). In both the villages, land owned by resident households is much smaller than the land operated by them. In case of Kothapalli, 33% of the land operated is owned by the resident households, while Mentipudi's share is around 17%. Under-reporting of land owned and/or over-reporting of land operated by the resident households might be one of the reasons for this wide divergence between land owned and land operated. The other might be the increasing presence of non-resident households owning land in the village. The increasing importance of non-resident households in terms of land implies that either tenancy should be high or the land should be kept fallow. In both the villages, nearly 90% of the land operated is leased-in². A similar observation arises in the tenancy market. The extent of land leased-in is around 408 acres in Kothapalli while it's around 440 acres in Mentipudi village. The resident households lease out only 11% of the total land leased in Kothapalli and it forms only around 3% in Mentipudi. These trends hints at non-resident households playing a key role in land distribution.

As non-residents are distributed in the near vicinity as well as in Hyderabad and other metropolis, the survey tried to capture the importance of non-residents from the leasing-in agents. A set of questions were asked to the leasing-in agents on the nature of leasing-out households. The information collected from the leasing-in households was used to analyse the relative importance of non-resident households. There are a few limitations in this method of analysis. One, if a non-resident household is leasing-out to a non-resident household or keeping the land fallow, this method would not be able to capture the effect of these households. Two, the data collected on land owned by leasing-out could be biased in either direction. Three, if a non-resident household has leased-out to more than one tenant, there is a possibility that the tenants can give more than one number of land owned by the non-resident. In such cases, the minimum number of acres reported by the tenants has been considered as the land owned for the land owner. In Kothapalli,

²Studies conducted in the coastal areas of Andhra Pradesh also present a similar picture of very high share of land under tenancy Ramachandran (2010). The erstwhile state government of Andhra Pradesh also had two commission which also report early 70% of land under tenancy.

leasing-in households have reported that the non-resident households own nearly 335 acres of land and in Mentipudi, they own 403 acres. Interestingly, the difference between the land owned and land operated and leased-in land leased-out land is approximately equal to the land owned by the non-resident households.

Table 1: Basic information on two study villages

District	West Godavari	
Mandal	Ganapavaram	Veeravasaram
Village	Kothapalli	Mentipudi
Source of irrigation	Canal	Canal
Share of land irrigated	100	100
Major crop cultivated	Paddy	Paddy
Total no. of resident households	301	178
Land owned by resident households	156.68	85.7
Land operated by resident households	466.77	483.87
Land leased-in by resident households	408.3	440.3
Share of leased-in land to total operated land	87.50%	91%
Land leased-out	47.32	11.9
Avg. area owned	0.52	0.48
Avg. area operated	1.55	2.71
Avg. area leased-in	1.35	2.47

Source: field survey.

Note: area in acres

1.1. Structure of two villages:

The surveyed households in the two villages have been classified into six categories (table 2) based on the nature of their occupation. The first group comprises households that do not operate any land, but participate in production activities by selling labour, who are classified as agricultural labour. On the other hand, those who operate land and participate in the production activities both by demanding and supplying labour or exclusively any one are called cultivators. These two groups play an important role in the village economy and actively participate in almost all the agricultural activities and they broadly form the farm sector. Both the surveyed villages are

highly dependent on the farm sector and they have almost similar share of farm households. Around 66.44 % of households in Kothapalli are in farm sector whereas in Mentipudi, it is 68 %. However, the share of cultivators compared to farm households in Mentipudi is 89 %, much higher than Kothapalli (69 %). Interestingly, the share of agricultural labour households in Mentipudi is much lesser than in Kothapalli, due to which it faces labour scarcity in the production system. Around 31 and 14 % of households are agricultural labourers in Kothapalli and Mentipudi respectively. The small share of agricultural labour households in Mentipudi is because about 7.9 % of households are international migrants, where at least one of the family members has migrated to other countries (mostly to the UAE and Kuwait) for jobs. Most of these migrating households are from socially marginalised mala (SC) community, who were agricultural labourers in the village. Surprisingly, the other family members of the migrant households do not participate in any agricultural activities in the village. This withdrawal of labour force from labour market will have serious implications on the village economy.

Table 2: Classification of farm households based on land owned in the two surveyed villages

	Kothapalli		Mentipudi	
	No. HHs	Share	No. HHs	Share
Agricultural labor HHs	62	(31.0)	17	(14.0)
Total cultivators	138	(69.0)	104	(86.0)
Farm sector	200	66.4	121	68.0
Non-farm sector	68	22.6	9	5.1
Dependents	33	11.0	22	12.4
International migrations	0	0.0	14	7.9
Incomplete	0	0.0	12	6.7
Total	301	100.0	178	100.0

Source: field survey

Note: figures in parenthesis are ratio to farm sector.

The households under non-farm sector are those who do not own and operate land or participate in any agricultural activity. They largely lease-out the owned land and their major source of income is from non-agriculture enterprises. The share of non-farm households in Kothapalli (22.6) is four times higher than in Mentipudi (5.1). Similarly, another section in the village is called dependent households, who also might own land, but do not operate or participate in any agricultural activity. They just lease-out land and live on the rent or remittances and pensions

from the government. Further, there were around 12 incomplete schedules from Mentipudi, where household members were hesitant to give complete information.

2.0. Importance of Non-Cultivating Households in the two surveyed Villages:

In the recent period, studies on agrarian relation by Ramachandran et.al (2010), also present information on the relative importance of households who own land, but do not use their labour for cultivation. This class of households are heterogeneous in terms of their origin. Ramachandran et.al (2010) identifies two classes in the households who own land, but only supervise. One is the landlords and the second is 'Big capitalist class'. To quote extensively,

Capitalist farmers also do not participate in the major manual operations on the land. The main difference between these capitalist farmers and landlords is that the former did not traditionally belong to the class of landlords. Some of them came from rich peasant or upper-middle peasant families that had a tradition of family labour, whose members, in fact, actually worked at major manual tasks even in the present or previous generation. Such families invested the surplus they gained from agriculture or other activities- including moneylending, salaried employment, trade and business- in land. Agriculture was or became the focal point of their activity, and the basis of their economic power (Ramachandran et.al (2010), pp 24-25).

Some were the products of land settlement called the traditional landlords and the second is the product of the growth process. Harriss (2013), responding to the classification by Ramachandran et.al, maintains it is difficult to separate the traditional landlord and big capitalist. He says, *"it may be difficult to distinguish 'landlords' from 'capitalist farmers', who also organize agriculture production but do not participate in the manual work involved in cultivation"*. As separating the two classes in the economic domain is difficult, we identify all the households who own land, but do not use their labour in agricultural operation as non-cultivating households.

The three villages studied in the erstwhile Andhra Pradesh (Ramachandran et al (2010) and three villages in Karnataka (Swaminathan and Das, 2017) show the differences in the relative importance of these classes with respect to other classes. In case of the erstwhile Andhra Pradesh, the households who own land, but only supervisor form nearly two % of the households, but own

nearly 19% of the land. Within this group, the rich capitalist class dominates. In case of Karnataka, the importance of this class is not so significant.

In the first section, some information on the resident non-cultivating households has been provided, and in the following section, non-resident non-cultivating households in the two villages surveyed have been presented.

3.1. Importance of resident Non-Cultivating Households (NCH) in a village economy.

In Kothapalli village, 7% of the households are NCH's and they own nearly 30% of the land (table 3). The corresponding numbers for Mentipudi village are 9% and 23%. In both the villages, NCHs are important players in the village economy. But an interesting feature seen in the two villages is that these households also operate around 12% of the land. They also lease-in land and approximately 12% of the leased-in land is by these households. But, there are also major leasing-out households in the village. These households leasing-in land as well as leasing-out imply heterogeneity within the class. Unlike using the origin of the household as criteria to identify sub-classes within this class, we have tried to use the nature of interaction in the land lease market to define the two sub-classes in this class.

The non-cultivating households can be divided into two groups; the households who own land but lease-out completely and engage in non-farm activity. These households are referred to here as NCH (lessors). They only derive rent from land, but do not intervene in any farm activities. These households engage in non-farm activities within or outside the village. The second are the households that operate land, but only as supervisors. These households are termed supervisors.

Table. 3. Share of land owned, operated, leased-in and leased-out among NCH households

Class	Kottapalli			Mentipudi		
	NCH (Lessors)	Supervisors	Total	NCH (lessors)	Supervisors	Total
No. of HHs	6	8	14	1	10	11
Share of HHs to total HHs	3	4	7	0.8	8.3	9.1
Share of area owned	24.9	5.9	30.8	9.1	13.9	23
Share of area operated	0	11.1	11.1	0	13.6	13.6
Share of area Leased-in	0	11.5	11.5	0	13.1	13.1
Share of area Leased-out	85.1	0	85.1	100	0	100

Source: Field survey.

i. Kothapalli

In Kothapalli, around 3% of the farm households are NCH (lessors) and about 4% are supervisor households. The lessor households own around 24.9 % of the total owned land in the village and lease-out almost 85 % of the land and the rest is left fallow. The average land owned by these households is 3.1 acres. On the other hand, the supervising households do not own a significant share of land (5.9 % of the total land owned), but operate 11.1 % of the land. The land operated here means supervision without any manual participation. A major share of the land operated by these households is a leased-in land from non-cultivating households. The average land owned is 0.6 acres, but they operate 6.4 acres with 5.8 acres of average leased-in land.

The lessor households mostly engage in non-farm enterprises some of which are college lecturers, agricultural field officers or any other government job. However, some households in this group also engage in non-farm activities within the village like owning a kirana (grocery) shop or provide machineries required for agricultural activities. There is one dependent household that leases-out land and survives on the rental income along with pension. The lessor households' participation or intervention in farm activities is minimal.

However, the supervising households play an important role in production activities. The eight supervising households comprise one sarpanch, one machinery contractor, three mestris (labour) and three supervisors, who only supervise farm activities with no other additional occupation. Some of these households own land, but all of them lease-in land and supervise the farm activities. The supervising households are so much part of the system that the entire farm sector revolves around them. First, they are politically active and have bureaucratic contacts (there was one commission agent whose wife was a sarpanch of the village, but he performs all the duties). The non-resident non-cultivating households contact supervisors to lease-out their land. Accordingly, the supervising households take the responsibility of finding tenants for the land and also supervise the farm activities. They basically lease-in land and hire labour and supervise the farm activities. They also provide seeds, fertilizers, pesticides and harvesting machinery through their contacts in the town and get commission for the same from the sellers. In most of the cases, the

supply of inputs to tenants are tied to the output. When the tenants sell their output to the commission agent, the input charges would be deducted and the rest would be paid. They are also an important informal source of credit during crisis. Another important function of these households is that they collect rent on behalf of the land owner from tenants.

ii. Mentipudi

In case of Mentipudi, the composition of non-cultivating households is slightly different than in Kothapalli. Around 8.3 % of them supervise households and there is only one lessor household. The supervising households own around 14 % of the total land and operate 13.6 % of it. They also lease-in 13.1 % of the total leased-in land. The average land owned by these households is 0.8 acres, which is higher than their counterparts in Kothapalli and other farm households in Mentipudi. The average land operated by these households is 6.4 acres with 5.7 acres of average leased-in land.

If we look at the occupational structure of these households, the one lessor household in this village is a marketing executive in a nearby town and leases-out all his land. On the other hand, the characteristics of supervising households form an interesting story. Occupation-wise, three of the total supervising households include one marketing executive, one real estate agent, and a kirana (grocery) shop owner. The other seven supervising households are dependent households. At least one member in these dependent families has been diversified into non-farm sector working in either public or corporate sector. For example, one of the households' son is a software engineer in Vishakhapatnam and in another family, their son is a machine operator in a town. For some reason, these households have not moved out of the village as their children are settled well in urban areas. Interestingly, all these households were earlier cultivators. They own the land now, but do not participate manually in the production activities. Some of them are above 60 years of age while some are still in their 40s. The main activity of these households is to lease-in land from non-cultivators and supervise the production activities with hired labour. One among them has also been elected as village sarpanch and he is politically active. All these households belong to Kapu sub-caste and it was observed that all the land that was leased-in was from Kapu community non-cultivating households. It can be that they are either relatives or close friends. We could not

collect any information on the prospect of these households buying land in urban areas or in the same village.

Some interesting differences were found between these villages in terms of occupational structure and characteristics. The supervising households in Mentipudi are just a link between non-resident land owners and tenants providing land for cultivation. There are no labour mestri's and machinery contractor to provide labour and machineries, like in Kothapalli, for cultivators during peak harvesting season. Most of the supervising households are mixed tenants, in contrast to Kothapalli, who also own land and have leased-in a large extent of land from non-resident land owners. There are only three pure tenants among 10 supervising households in Mentipudi. Further, there are only three households for whom tenancy is a hereditary occupation and all the others entered tenancy recently, which could be due to the emergence of non-resident non-cultivating households. This recent entry of earlier land owning cultivators into tenancy market, as supervisors, is an interesting observation made in the village. Another observation worth mentioning here is that the "commission agent system" has not yet evolved as much as in Kothapalli. The households here do not have political affiliations. The difference between the supervising households in Kothapalli and Mentipudi is that the households in the latter are the relatives or close friends of non-resident non-cultivating households. These households do not supply any input to tenants like in Kothapalli, but there are a few who are developing that interlinkages in the recent times. However, these households are the major channel for tenants to sell their output. There are no "labour mestris" in Mentipudi village. However, the cultivators organise labour themselves during peak seasons.

There are some similarities that are found between the supervising households in these villages and the kind of intermediaries referred to in a study by Van Schendel (1991). As his study shows, during pre-colonial and colonial period in Kaveri delta region, these kinds of households emerged as a link between non-resident land owners and tenants to perform tasks on behalf of the land owners. The share in the output was the reward for their service and the number of these households increased by the end of the eighteenth century.

3.2. Importance of non-resident Non-Cultivating Households (NCH) in a village economy.

This section presents some guess-estimates on the importance of these households in the two villages. We call it guess-estimates as the survey was on resident households and the data collected was on non-resident households from their respective resident tenants. Here, both the land-owning resident and non-resident households are presented to highlight the importance of non-cultivating households in terms of owning land in a village. Around 104 and 119 households in Kothapalli and Mentipudi respectively, are non-resident households (table 4) and they own 74.9 % of land in Kothapalli and 88.6 % in Mentipudi. The average land owned by these households is 4.5 acres in Kothapalli and 5.6 acres in Mentipudi. Interestingly, among the non-residents, it was found that some of the households' primary occupation was being self-employed in agriculture in other villages, but they do not cultivate in the study villages³.

Table 4: Distribution of residents and non-residents based on self-cultivation

Village		Kothapalli			Mentipudi		
		No.	Share	Avg. land owned	No.	Share	Avg. land owned
Non-residents	No. HHs	104	65.0		119	65.4	
	Area owned	467.7	74.9	4.5	667.5	88.6	5.6
Residents	No. HHs	56	35.0		63	34.6	
	Area owned	156.68	25.1	2.8	85.7	11.4	1.4
Total	No. HHs	160	100	0.0	182	100	0.0
	Area owned	624.38	100	7.3	753.2	100	7.0

Source: field survey.

Note: area in acres.

On the other hand, around 56 households in Kothapalli and 63 in Mentipudi are resident land-owning households. But, the share of land owned by these households is much lesser (25.1 % in Kothapalli and 11.4 % in Mentipudi) than the non-resident households. The average land owned by the resident cultivators is much lesser (2.8 and 1.4 acres in Kothapalli and Mentipudi, respectively) than the non-cultivators. Evidently, the share of land owned by the non-residents is higher in both the study villages. Another important aspect to mention here is that the non-resident

³ The share of these households is 7.7 and 14.3 %, owning 9.6 and 11.3 % of the total land owned in Kothapalli and Mentipudi, respectively.

households in table 5 also include women's property⁴, who are married and moved out of the village.

i. Are non-resident households earlier residents?

The share of non-resident households is significantly high and they own a large share of land in the study villages. But are non-residents the earlier residents or are they buying land in rural areas. If the non-residents were earlier residents, it implies that the households have diversified from agriculture and have moved out to non-farm sector. Two, the outsiders, maybe from nearby villages/town or urban areas, are buying land in the villages and leasing it out. The dynamic land prices or high rental rates, which would be an additional and stable income, in the region could be an incentive for the buyers from outside.

The villages have a high share of land owned by the non-resident households. But if taken village-wise, there are differences on whether they originate in the village or not. In case of Kothapalli, 78% of the non-resident households are previous residents, but the share of land owned by these households is 24% (table 5). In case of this village, there seems to be a large-scale out-migration from the village, but the extent of land owned by the non-residents who were not previous residents is high. In case of Mentipudi village, the non-residents were not dominantly the previous residents both in terms of the share of households and the land owned.

Table 5: Classification of NCHs, based on their previous place of residence.

	Kothapalli				Mentipudi			
	No. HHs	Share	Area (in acres)	Share of area owned	No. HHs	Share	Area (in acres)	Share of area owned
Previously residents	39	78	70.7	24.4	27	39.1	65.5	16.7
Previously Non-residents	11	22	219.5	75.6	42	60.9	326.5	83.3
Total	50	100	290.2	100.0	69	100.0	392	100.0

Source: field survey.

⁴ Around 40 and 28 % of the total leasing-out households in Kothapalli and Mentipudi respectively, belongs to this category. As giving land as a dowry is a common practice in this part of the country, we have excluded these households from the analysis in the following sections.

ii. Are non-residents small or large land owning households?

Are the non-residents from better asset groups than the resident households? Here, we consider land as an important asset. Based on land owned, we have classified all the resident and non-resident households across the standard land size holding classes. In both the villages, around 85 % of the resident cultivators were marginal and small land-holders. And they owned around 72 % of land in Kothapalli and 88 % in Mentipudi. Clearly, the resident cultivators do not have a significant presence among medium and large land owners. On the other hand, the non-resident households are dominated by the medium and large land owners+. Around 68 % in Kothapalli and 76 % in Mentipudi are semi- medium, medium and large land owners. In terms of land owned, around 90 % in both the villages is owned by these groups. Evidently, in both the villages, as the class size increases, the share decreases for residents and vice-versa for non-residents.

iii. Occupational structure of non-resident Non-Cultivating Households.

What is the occupation of the non-resident households in the two surveyed villages? The non-farm sector occupation is widely diverse, but for analysis, we have tried to fit in all of them into three broad categories as shown in table 6. The categorization of occupation into three groups is as follows; a government employee that includes those who are working or had worked (retired employees) in any public sector. Two, the business/private employ group includes the members of households who are self-employed in non-farm sector or working any private sector organization. This group also includes those who work as intermediaries or Commission agents. The commission agents are basically those who work as linkages in output and input market or in real estate and get their share in the money transactions. Three, another broad group called ‘others’ include those households that do not fit in other two groups. These households could be the ones engaged in traditional non-farm sector or caste-based occupation.

Table 6: Distribution of NCHs and share of land owned based on nature of occupation.

Occupation	Kothapalli		Mentipudi	
	HHs	Area (in acres)	HHs	Area (in acres)
Govt. Employee	25.8	14.4	36.6	43.2
Business/private employee	58.1	68.4	48.8	33.1
Others	16.1	17.1	14.6	23.7

Total	100	100	100	100
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Source: field survey.

The government sector employment, employment in the private sector and self-employment in non-farm sector (business) were the most common forms of occupation found in these two villages. In aggregate, around 58.1 % of the households in Kothapalli are engaged in some of business activities that could be anything ranging from owning a small shop in the town to investing in films and working in construction sector in cities. There is a significant difference in the nature of the occupation among the earlier resident and earlier non-resident households. In Kothapalli, the share of households engaged in the public sector is larger among earlier resident households when compared to the earlier non-resident households. The latter, on the other hand, are largely engaged in business or private sector. In fact, the outsiders who own land in the village are all engaged in business activities. On the other hand, in Mentipudi, around 48.8 and 36.6 % of total non-residents are engaged in business/private employment and public sector respectively. Quite in contrast to Kothapalli, the share of earlier resident households is more among business and private sector groups. The earlier non-resident households are more or less equally distributed between the two groups though the share of land owned by them is more by the government employees.

Based on the nature of the occupation of non-resident non-cultivating households, we come to the following conclusion with regard to the two villages. One, the households in Kothapalli were able to improve themselves with better skills and education and therefore succeeded in entering several public sector organisations. Two, in Mentipudi, the income from the farm sector was transferred into non-farm sector in the form of investments and the households were able to set up their business ventures. However, these changes would have an impact on the structure of the village economy. An investment in the non-farm sector from the earlier cultivators would decrease the reinvestment in agriculture and adversely affect the growth of the sector. As shown above in the empirical analysis of secondary data, we can say that the non-farm sector has been a driving force in transforming land-owning cultivators into land owning non-cultivators in the study villages.

iv. A caste-wise distribution of Non-Cultivating Households.

Historically, the social groups and owning land are correlated in India. Presenting the social group composition of non-resident households would help us understand the land-owning groups within a village, whether they are traditionally cultivating groups or not, and who have moved out into the non-farm sector. The migration of land-owning households from farm to non-farm sector in the coastal region of Andhra Pradesh has been a significant change in the evolution of business communities in the State. After the successful irrigation work over Godavari River, the region saw an agrarian revolution in terms of production of paddy and sugarcane (Damodaran, 2009). Most of the land-owning caste groups like Kamma, Raju and Kapu hugely benefitted from this. Rising from there, the Kamma community went on to dominate most of the industries and gained political power in the State. Kapu community is another land-owning group that got benefitted, but its members took some time to go for other ventures outside the farm sector.

Table 7: Distribution of share of NCHs across social groups.

	Kothapalli	Mentipudi
Social Group	Share	Share
SC	34.8	5.3
BC	8.1	27.6
OC	87.1	67.1
Total	100.0	100.0

Source: field survey

However, the study villages largely comprise Kapu and Mala communities. In both the study villages, the Mala community belongs to Scheduled Caste (SC) and Kapu community belongs to Other Castes (OC), and they are the two major social groups. There are only a few households that belong to Backward Caste (BC) like Vellamas. If we classify all the NCHs according to social groups, hardly around 5 % of them belong to SC or lower social group in both the villages. Around 87 % in Kothapalli and 67 % of NCHs in Mentipudi belongs to OC (table 7). The share of Backward Caste is very less in Kothapalli, but Mentipudi has a significant share (27.6 %).

The Kapu and Rajulu communities are two major groups that belong to OC in this part of the State. They also belong to landlord and rich farmer classes (Vakulabharanam et al, 2011). In Kothapalli, around 63 % of the earlier residents belong to Kapu community. However, the Rajulu community, from outside, have been buying land in the village. This community is a socially and economically dominant one in the State. They are known for aquaculture and own most of the

aqua ponds in that region. Buying land in these villages and converting them into ponds for aquaculture in near future could be one of the reasons. Whereas in Mentipudi, the share of Kapu households, who were earlier residents, is around 38.1 %. Another dominating group among Backward Castes is Vellamas (33.3 %), who were earlier residents of the village, but migrated out later. The share of Kapu and Vellama community among earlier non-residents is also significant, but an interesting development that was noticed in this village is that Brahmins have purchased land and have leased it out. Hence, a large share of out-migrated households belong to traditionally cultivating and high social groups.

3.0. Factors influencing the generation of Non-Cultivating Households: a view from NSSO rounds

Post 1980's, a significant increase was witnessed in the share of households in the rural sector who own land, but do not cultivate it. The share of the non-cultivating households (NCH) owning land in the rural areas increased from 19.1 to 34.67 % between 1981 and 2013 (see table 8). An increase in the share of non-cultivating households implies diversification of cultivating households into non-cultivation. They are potentially labour-supplying households and in the process facilitate the formation of labour market. But with the increase in these households, there was an increase in the share of land owned by them and a subsequent increase in the share in the value of land owned by them over time. This trend is true of all the major States in India (Vijay (2012)). The estimates on the relative importance of non-cultivating households are calculated for the rural households in the relevant samples and so would be underestimates on the importance of non-cultivating households in the Indian economy.

Table 8: The share of Non-Cultivating Households in rural sector from 1981 to 2013.

Year	1981	1991	2003	2013
Share of Non-cultivating Households	23.7	34.0	40.3	38.0
Share of Land owning Non-cultivating households	19.1	29.6	34.4	34.7
Share of Land owned by Non-cultivating households	NA	5.17	6.3	11.0
Share of Land under tenancy	15.2	11.0	10.1	12.3

Source: The 1981 and 1991 data taken from Vijay (2012) and authors have calculated for 2003 and 2013. Note: Share of Land under Tenancy has been calculated by using the NSSO's unit-level data on Land and Livestock Holding. The Share of Non-cultivating Households and share of land owned by them were calculated from the unit-level data on Debt and Investment Survey of NSSO.

The rising importance of non-cultivating households in the rural areas would necessitate a source of income for them. These households have three main options to use the land. One, shifting the land use pattern to non-agricultural use. Between 2003 and 2013, at the all India level, Bhue and Vijay (2016) report an increase in the share of land owned by non-cultivating households being used for residential purposes. Two, shifting the land use pattern to plantation crops which are less labour-intensive with reduced monitoring costs. And the third one is to temporarily transfer the user rights to a potential cultivator in the form of tenancy. Between 2003 and 2013, the share of land with non-cultivating households went up while the share of land under tenancy also increased (table 8).

Keeping in mind the increasing importance of non-cultivating households owning land in the rural areas, the present section makes an attempt to analyse the growth and sustenance of these households. Data on the share of NCH owning land and tenancy has been taken from the unit-level data on Debt and Investment Survey and Land and Livestock Holding of the National Sample Survey Organisation for the agricultural year 2002-03 and 2012-13. Non-farm Households (NFH) are the ones where all the members of the household are engaged in a non-farm activity as defined by the National Industrial Classification (NIC) of Government of India. The NIC uses income as the base to classify the activity status of an individual/household. The data for the two periods i.e., 2002-03 and 2012-13 has been pooled. To analyse the impact over the two phases, we have introduced a time dummy 'd' (0 for 2002-03 and 1 for 2012-13). We have estimated many equations, but here we are presenting sets of regression equations using Seemingly Unrelated Regressions (SUR) technique (table 9).

The shifting of a household from being cultivating household to a non-cultivating household implies its diversification. Does an increase in the share of non-farm sector households (NFH) influence growth of the non-cultivating households? The first set of estimated equations analyse this particular relationship with a time dummy. Two specifications of NCHs are presented. One, the share of land owned by NCHs and second, the share of NCHs to total households. In both the specifications, a positive significant relation between the share of non-farm households (NFH) and the share of non-cultivating households and/or non-cultivating households owning land can be witnessed. One would have expected a positive relationship between the growth of NCH and NFH, but not a positive relationship between NCH owning land and NFH households. The reason

for this trend could be that the cultivating households are diversifying to non-farm sector, but continue to have interest in agriculture and therefore keep the land as a hedge against uncertainties raised in the non-farm sector. The growth of the non-farm sector is inducing diversification on the one hand, but is also increasing ‘plural’ households in the rural areas. The time dummy is not significant in this sets of equation, but is negative. The estimated result is presented in Table 9.

Table 9: Estimates of factor influencing the growth of NCH owning land

	Model-1		Model-2	Model-3	
	NCH		NFH	Tenancy	
	1	2	3	4	5
Dependent Variable	Share of Land Owned NCH	Share of NCH HHs	NFH	Share of Land owned	Share of HHs
NFH	0.167*** (0.044)	0.483*** (0.156)			
CV of Agricultural Income			-56.741* (30.641)		
Irrigation Intensity			9.349 (7.175)	11.668*** (3.850)	9.073*** (3.994)
Land Owned by NCPH				0.862*** (0.862)	
Share of NCPH					0.293*** (0.093)
Time Dummy	-0.523 (0.981)	-0.685 (3.458)	2.985 (3.567)	3.717** (1.912)	3.626** (1.879)
Constant	2.43 (1.837)	22.15*** (6.466)	25.929*** (7.280)	-6.265* (3.688)	-9.649*** (4.175)
R-Square	0.32	0.16	0.16	0.43	0.45

Source: Author’s calculation.

Note: * $\leq 10\%$, ** $\leq 5\%$, *** $\leq 1\%$ level of significance; figures in the parenthesis are standard error.

The second relation studied are the factors that explain the growth of the non-farm households. One of the dominant opinions is that the growth of the non-farm sector is agricultural-led. Here, irrigation intensity as proxy variables for agrarian growth has been introduced. We have also introduced another variable coefficient of variation (CV) of the output produced. This variable is expected to capture risk in the agrarian production. For calculating CV for the year 2002-03, we have taken the State-wise NSDP data on agriculture from 1998-99 to 2002-03. Similarly, for 2012-13, the State-wise NSDP data on agriculture from 2008-09 to 2012-13 has been taken to calculate the CV. In model 2, the results of this regression analysis are presented. Quite on the

expected lines, as irrigation intensity increases, an increase in the share of the households in the non-farm sector can be seen. This positive and significant relationship between irrigation intensity and share of households in the non-farm sector implies that the non-farm sector is agrarian growth-led. But with the CV of output, one sees a negative significant relationship to share of households in the non-farm sector. This implies that decrease in risk in agricultural production leads to expansion of the non-farm sector. Given this, if households with the ‘potential’ to diversity find that the income of land has less variability, there is a possibility that these households may diversify.

The realization of the potential ‘secure’ income from agriculture for the non-cultivating household depends on the existence of an institutional arrangement called tenancy. So the third model estimates the factors influencing the extent of land under tenancy. Does the share of non-cultivating households influence the tenancy market, and do high irrigation-intensity States also have higher tenancy? One finds a positive relationship between the non-cultivating households and tenancy i.e., as the share of non-cultivating households increases, tenancy also increases. This observation was also made by the World Bank report (2007). It’s observed that a lower CV in output also has a positive significant influence on the tenancy arrangement.

The diversification of households from cultivators to non-cultivating households depends on two aspects. One, the growth of the non-cultivating households owning land depends on the growth of the non-farm sector which in turn depends on the growth of the agricultural sector. But the nature of the growth is one where the CV of output decreases, which also increases the non-cultivating households owning land. If a cultivating household diversifies to a non-cultivating household but continue to have interest in land, a process to derive income from land is by leasing it out. Tenancy is function of the share of land owning non-cultivating households as well as lower risk in output.

5.0. Conclusion

One of the significant structural changes witnessed in the Indian agriculture is the growth of class/group of households who own land, but do not use their labour for cultivation. Unlike the earlier case of landlords who were the product of land settlement process and had individually large extent of land, these households are concentrated in the green revolution area and

individually own small pieces of land, but as a class/group, it owns a significant proportion of land. The areas that were known as high growth areas or area capitalist enclaves have been witnessing a significant presence of households who are not the old landlords, but those who own land and only supervise.

There are two processes in motion which might explain the increase in the number of the non-cultivating households. One, the benefits of technology as part of green revolution introduced in the irrigated areas in the 1970's started to taper out by 1990's and nearly 90% of the wheat and 70% of the paddy areas were using the high yielding variety of crops (Kotwal A, et.al 2011). Given the absence of new technology at that time, profitability in the agriculture sector started to fall. So the households with a surplus started to move out of agriculture to non-farm sector. This was also the period of expansion of the non-farm sector in the Indian economy. The potentially rich peasant households, who had surplus, started to diversify out of agriculture to the non-farm sector. This trend has been reported in the irrigated areas of coastal Andhra by Upadhyaya (1988) and Upadhyaya et al (2012). Analysing the commission agents in the State of Punjab, the study by Sukhpal Singh et al (2011) presents evidences that, post-green revolution, the nature of commission agents also witnessed a change. In the pre-green revolution period, the *baniyas* and *khatris* were the traders, but post-green revolution, the erstwhile cultivators (45 %), particularly big farmers, became commission agents (non-traditional). At present, around 92 % of them are non-traditional agents. In our village survey too, one finds a significant presence of earlier resident cultivators who are non-cultivating households. So one segment of the NCHs were earlier cultivators who have diversified into non-cultivating households. These households could be called non-cultivating peasant households.

A second set of agents who are NCHs are households who own land, but not the earlier residents of the village. These households could be from other rural areas or could be from urban areas as well. Based on the two villages surveyed, it seems that the households with regular employment bought land in the villages. These households could have bought the land in the village as a source of investment. So one has two different processes generating a set households who own land and only supervise the production process.

The Indian rural sector does show the increasing presence of a class/group of households who own land, but do not cultivate the same. A significant presence of these households is in the irrigated areas. Another observation on the scene of Indian agriculture is the decelerating growth of the irrigated States (World Bank (2004). Are the decelerating growth of irrigated States and growth-retarding institutions like the presence of non-cultivating households and tenancy related?

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