
Land Lease Market under Irrigated and Rainfed Conditions in Andhra Pradesh and Telangana

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ABSTRACT

The paper examines the rental burden of tenants in settings with varied risk. In the process it postulates that the lease market is competitive enough to subject tenants to less burdensome rents in a more risky environment and more onerous rents in a less risky setting. It is seen that the tenants of canal irrigated areas facing less of risk have to pay higher rental shares than the tenants of tube-well irrigated areas experiencing greater risk. Alongside, it is found that the rental burden is the least on tenants governed by fixed cash rents that are synonymous with the highest production and price risks and the most on those covered under sharecropping, where the associated risks to tenants are the least. Where it is uppermost in the minds of landlords to receive rents with certainty, they opt for cash rents. But there is a cost associated with their choice, as they have to settle for relatively low rents in the bargain.

Keywords: Land lease market, Rent, Production risk, Tenurial contracts

JEL: D86, Q14, Q15

I

INTRODUCTION

Farmers in the country face severe production risk. Besides, they are also subjected to price risk and are hardly able to reap profit from farming. In the years when the crop is damaged because of bad weather, their farm business income is low and in years when weather is favourable, the income is again low because of low output prices. So, the farmers are driven into the throes of debt and the concomitant suicides (Nagaraj *et al.*, 2014; Sadanandan, 2014).

The position of the tenant cultivator is particularly vulnerable. Besides the financial obligations that impinge on any peasant in general, the tenant also has to contend with rental obligations. Also, because the lease deed between the landlord and the tenant is invariably not registered, the tenant is not eligible to cover his crop losses through insurance schemes. For the same reason, he also cannot benefit from loan waivers, input subsidies and other disaster relief measures of the government (Padhee and Mohapatra, 2020). This explains as to why the suicide rate is far higher

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among tenants as compared to owners. Thus, in 2014, in one of the regions of our study, Telangana (TS), the suicide rate was 25.0 per lakh for owner cultivators and 49.1 per lakh in respect of tenants. The corresponding figures pertaining to Andhra Pradesh (AP), the other region of the study, were 2.5 and 4.0 (Table 1).

TABLE 1. SUICIDES AMONG OWNERS AND TENANTS IN TELANGANA AND ANDHRA PRADESH, 2014

Suicides among (1)	No. of suicides 2014* (2)	Estd. no. of cultivators as per NSS in lakhs, 2012-13** (3)	Suicide rate per lakh cultivators (4)
Telangana:			
Owner cultivators	623	24.9	25.0
Tenant cultivators	275	5.6	49.1
Owners and tenants	898	30.5	29.4
Andhra Pradesh:			
Owner cultivators	73	29.2	2.5
Tenant cultivators	87	21.5	4.0
Owners and tenants	160	50.7	3.2

Sources:*Government of India (2015b), **Government of India (2015a).

Under these circumstances, one expects a demise of the institution of tenancy. But contrary to this conventional wisdom, the incidence of tenancy has been on the rise in the recent past. The National Sample Survey (NSS) estimates suggest that between 2002-03 (59th round) and 2012-13 (70th round) there had been an increase in the proportion of tenant households from 11.4 per cent to 15.0 per cent and tenanted area from 6.7 per cent to 11.1 per cent at the all-India level. In Coastal AP the proportion of cultivator households leasing-in land increased from 23.9 per cent to 46.0 per cent and that of operated area leased-in from 20.0 per cent to 54.7 per cent between 2002-03 and 2012-13. The incidence of tenancy shot up during the period even in arid Rayalaseema region of AP, from 15.3 per cent to 40.5 per cent in respect of the cultivator households leasing-in and from 14.6 per cent to 35.1 per cent in case of the operated area leased-in. In the TS too (despite the presence of relatively radical tenancy legislation) there was a sharp increase in the extent of tenancy during the period from 4.7 per cent to 20.0 per cent in case of tenant households and from 3.1 per cent to 15.5 per cent in respect of tenanted area (Bansal *et al.*, 2018).

It is plausible that both the demand-side and supply-side factors account for the recent increase in the incidence of tenancy. Thus, the grim job-less growth scenario (Kannan and Raveendran, 2019) may have occasioned an increase in the demand for tenanted land. Simultaneously, there may have also been an increase in the supply of land for lease. A decline in the profitability of agriculture, consequent to increase in production and price risks and a boost to the rural wage rate, following the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) (Samba Murty, 2015), may have prompted the medium and large owner cultivators who operate their land mainly with hired labour, to increasingly lease it out. Also, landownership seems to be passing increasingly into the hands of the urban dwellers. Since these landowners, for the reason of not being conversant with agricultural practices and for

the reason of distantly located from the land, may be increasingly opting to lease-out their land (Sreenivasulu, 2020; Shergill, 2019; Mani and Pandey, 1997, 2000).

Thus, there was a turnaround in the significance of tenancy after 2002-03. After the year there was also a marked change in the relative significance of different forms of tenancy. At the all-India level, the significance of sharecropping declined from 40.7 per cent to 30.8 per cent and that of fixed cash rent tenancy increased from 28.9 per cent to 39.9 per cent between 2002-03 and 2012-2013. The trends in the form of tenancy observed at the national level are found obtaining in the regions of AP and to some extent in TS as well. Thus, in the coastal AP, between 2002-03 and 2012-13, the share of fixed cash rent tenancy in total area under tenancy increased from 29.1 per cent to 64.7 per cent and that of sharecropping tenancy decreased from 14.9 per cent to 2.5 per cent. In the Rayalaseema region of AP, the share of cash rent tenancy increased from 28.6 per cent to 48.7 per cent and share of sharecropping decreased from 59.6 per cent to 25.0 per cent during the corresponding period. The figures for TS are as follows: the share of cash rent tenancy shot up from 33.3 per cent to 61.0 per cent and that of sharecropping too increased from 22.5 per cent to 29.8 per cent. These two forms of tenancy acquired increased significance at the expense of fixed kind rent tenancy (Bansal *et al.*, 2018).

Of the two parties involved in lease contracts, landlords and tenants, the former group presumably has a greater bargaining strength and therefore, it is this group which dictates the terms of tenancy including the tenurial form under which the land is rented. It is reasonable to expect that this group prefers fixed cash rent tenancy to fixed kind rent and sharecropping because it brings in assured rental receipts (Shergill, 2019) in a scenario marked by uncertain yields from land and uncertain prices for output.¹

As noted, the demand for and supply of land for lease can impact on the extent of tenancy and on the form of tenure. While this is so, the production and price risks associated with farming may dampen rents in the lease market through their influence on the demand and supply conditions. Farming has never been an enterprise to be cherished and it is more so now. Not everybody would practice it. Leasing-in land is risky and those without an option only would venture to do so. Such of those persons are economically weak. There are limits to exploiting them (Bharadwaj, 1974). On the other hand, some would like to lease-out, because, one, farming as said earlier is risky, two, they have no option but to lease-out, as they are traditionally away from cultivation, have no inclination to operate land, or are distantly located from the land. In this scenario, the competitive forces may dictate that the landlords offer attractive terms to induce prospective tenants to lease-in land. These conditions may entail that the landlords balance between guaranteed rental receipts and the quantum of rent they charge. In an important contribution Mani (1997) finds that, in the context of Western Uttar Pradesh, competitive forces narrow the differences in rents between tenants. Here we study whether the competitive forces impact on rents payable by tenants,

across conditions of varied risk. For the purpose primary data were collected to explore the impact in the irrigated and rain-fed areas of AP and TS.

The study is organised as follows. The objectives and methodology of the study are highlighted in Section II and the background of the survey villages and respondents are given in Section III. The survey data is analysed in Section IV focusing on the relationship between risk and rental burden faced by tenants in irrigated and rain-fed conditions. The conclusions emerging from the study form part of the final Section V.

II

OBJECTIVES AND METHODOLOGY

The study examines the rental obligations governing the lands leased-in by tenants in settings with varied risk. It tests the postulate that the market forces of demand for and supply of land for lease operate freely to subject tenants to less burdensome rents in a more risky environment and more onerous rents in a less risky setting.

The study employs mainly the 'with and without' approach in trying to understand the impact of risk on rents. Here, we compare the rental burden in an irrigated zone – and within that the rents under different sources of irrigation; with that of an arid zone. It is expected that the zone 'with' irrigation – and within that the area with canal irrigation as against tube-well irrigation – faces less of production risk and therefore the tenants there would be subjected to a heavier rental burden than those in the arid zone, 'without' irrigation, which faces more of the risk. Alongside, we compare the rental burden of tenants under different forms of tenure. It is opined that the burden would be the least on tenants governed by fixed cash rents, that are synonymous with the highest production risk and price risk, and the most on those covered under sharecropping, where the associated risks are the least for the tenant.

The study has been undertaken in two villages each of North Coastal Andhra (NCA), South Coastal Andhra (SCA), Rayalaseema (RS), North Telangana (NTS) and South Telangana (STS) regions. The village selection was conditioned by the prevalence of tenancy. The study ensured that tenants leasing-in land under all three forms of tenancy, viz., sharecropping, fixed kind rent and fixed cash rent, figured in the sample. In each village, the data was collected through a questionnaire among 25 tenants selected at random. Where the number of tenants fell short of the required number in any of the chosen villages, we made good the number by drawing tenants from contiguous villages. Thus, in all 250 tenants were selected and the tenants were surveyed during December 2019 and February 2020 with 2018-19 agricultural year as the reference period, are employed to study the influence of risk on the terms of tenancy.

III

BACKGROUND OF SURVEY VILLAGES AND RESPONDENTS

Features of Sample Villages: Growing Significance of Cash Rents

The predominant tenurial forms of tenancy in the sample villages along with predominant sources of irrigation are given in Table 2. On investigation, we find that all three tenurial forms are present in the irrigated zone and fixed cash rent and sharecropping are noticed in the rain-fed zone. The conditions peculiar to a village usually shape the form of tenancy. Unless there is a substantive change in these conditions, the form is unlikely to alter. We noticed that there had indeed been such a change in one of the villages of NCA that altered the form of tenancy in recent decades. Here, the onset of irrigation led to a change in the form from fixed kind rent to sharecropping. A movement away from fixed kind rent and sharecropping to fixed cash rent was noticed, in recent decades, in both the villages of NTS. This is in accordance with what is observed above, in the region-specific NSS data.

TABLE 2. CHARACTERISTICS OF SAMPLE VILLAGES BY REGION

Region (1)	Village (2)	Mandal (3)	District (4)	Predomi- nantly Irri./R.F (5)	Predominant source (6)	Fixed kind rent (7)	Fixed cash rent (8)	Share- cropping (9)
NCA	Cheedikada	Cheedikada	Visakhapatnam	Irrigated	Tank	0	0	25
	Rukminipuram	Yelamanchili	Visakhapatnam	Irrigated	Canal	0	0	25
SCA	Batlamaguturu	Penumantra	West Godavari	Irrigated	Canal	25	0	0
	Kavuluru	G.Konduru	Krishna	Irrigated	Canal	0	25	0
RS	Dinnapadu	Lakkireddipalle	Kadapa	Rain-fed		0	25	0
	China Cheppali	Kamalapuram	Kadapa	Irrigated	T. Well	0	25	0
NTS	Inole	Wardhannapet	Warangal	Irrigated	T. Well	2	23	0
	Kondaparthi	Hanamkonda	Warangal	Irrigated	T. Well	4	3	18
STS	Gundiyal	Hanwada	Mehaboobnagar	Rain-fed	--	0	0	25
	Suraram	Koilkonda	Mehaboobnagar	Rain-fed	--	2	23	0
ALL						33	124	93

Note: NCA: North Coastal Andhra; SCA: South Coastal Andhra; RS: Rayalaseema; NTS: North Telangana; STS: South Telangana; Irri.: Irrigated; R.F: Rain-fed; T.Well: Tubewell.

Two factors contribute to a rise in the significance of fixed cash rent tenancy in the recent past. One of them is the size of the land owned by landlords and the other is the place of their residence. As the size of holding of landlord decreases, his urge to receive rent from the tenant without fail increases. A small landlord would be induced to opt for fixed cash rent tenancy. The landlord's choice of this rental form, besides guaranteeing him the receipt of a fixed sum of money every year (which he cherishes because of his limited wealth), would also free him of the price risk associated with selling the produce received as rent under sharecropping or fixed kind rent. Next, the non-resident landlords too would welcome fixed cash rent tenancy for the same reasons. Moreover, the small and non-resident landlords would usually want

to avoid the necessity of supervising their tenants, necessary under sharecropping, should they opt for it (Shergill, 2019). They may not hesitate even to trade lower rents for secure receipt of rents.

For the tenant, crop sharing arrangement is ideal when faced with the production and price risks. This is particularly so if he is of small size. He could share the risk of farming with the landlord. And, he would be assured of credit support from the landlord, as sharecropping usually involves sharing of production costs between the two parties of the lease contract.

The increased significance of cash rents may compound the difficulties of tenants for, under this tenurial form, rent sometimes has to be paid in advance, at the time of entering into the lease contract, and there is no way that the tenant could share the production and price risks with the landlord. There would be some solace to the cash rent tenant if the rental burden under this rental form is less than under other forms. Ideally, cash rent tenants should be burdened with rents lower than under other forms of tenancy because of the extra risk they bear. But, does it happen so? We examine this question considering the irrigated land and the rain-fed land separately.

Characteristics of Respondents

The caste-wise classification of respondents shows that 90 per cent of them were either OBCs, SCs or STs. Tenants, therefore, belonged to socially lowly-placed castes. We have arrived at the average area owned, leased-in, leased-out and operated by the respondents (Table 3). The average area owned by those owning land worked out to 2.1 acres. It was the lowest at 0.9 acres in NCA and highest at 3.1 acres in RS. The average extent leased-in by those leasing-in was 3.7 acres. The average was the lowest in NCA and the highest in RS. In SCA also the average extent leased-in was quite high. Next, the average area operated worked out to 5.1 acres. The average operated land was the lowest in NCA and the highest in RS. Thus, the tenants that figured in the sample were, by and large, of the same social and economic status. There was convergence of caste and class. So whatever differences that we may observe between them should be attributed to factors other than caste and class.

TABLE 3. AVERAGE SIZE OF LAND BY TENURE AND REGION

Region (1)	Average size of land (acres)			
	Owned (2)	Leased-in (3)	Leased-out (4)	Operated (5)
NCA	0.9	1.0	0.0	1.9
SCA	1.6	5.5	0.9	6.2
RS	3.1	6.3	1.0	8.4
NTS	2.5	2.6	0.0	4.1
STS	2.3	2.9	0.0	5.2
ALL	2.1	3.7	0.7	5.1

IV

RENTAL BURDEN IN IRRIGATED AND RAIN-FED ZONES

A comparison of the conditions presently obtaining in irrigated areas of the study regions with those in rain-fed areas is attempted here to address the question of the impact of risk on the rental burden of tenants. How do the tenants of the two areas fare? What is the rental burden on the land leased-in by them – is it relatively higher in the irrigated zone than in rain-fed zone. Since we expect the rental burden to also vary across different sources of irrigation with different associated risks, we first examine the burden in canal, tank and tube-well areas of irrigated zone. Next, we relate the burden across alternative tenurial forms (viz., fixed kind, fixed cash and sharecropping) in the two zones. Is the fixed cash rent, which is now the most preferred form of tenancy, also the most exploitative? Or is it that landlords trade lower shares of rent for assured receipts of rent, as are possible under fixed cash rent? Here we test the hypothesis whether the risk impinges upon the operation of market forces to the disadvantage of tenants.

In united AP, the government took the initiative to confer credit and other benefits to tenants under the Land Licensed Cultivators (LLC) Act, 2011. It facilitated the flow of institutional credit to tenants possessing Loan Eligibility Cards (LECs). The initiative helped to officially account for tenancies in the initial years – in a much larger measure in AP than in TS (Samba Murty and Srinivasa Reddy, 2017) – but petered out later with the bifurcation of the state in 2014. Now oral leases are the order of the day. With oral leases, it is next to impossible to devise institutional mechanisms to safeguard the interests of tenants. When crops fail, tenants are usually left to the mercy of landlords. However, informal pacts were slowly taking place between landlords and their beleaguered tenants, often with the intervention of village leaders, that reduced the rental burden at times when crops fail. Also, absentee landlords, either out of benevolence or out of helplessness were accepting rents that were less than those contracted, when crop yields were less than normal. These instances were widely reported in our survey of RS and NTS regions.

Meanwhile, the Government of TS launched a cash transfer scheme called *Rythu Bandhu* in 2018-19. Under the scheme, the government presently provides investment support of Rs. 10,000 per acre per year to farmers in NTS and STS regions. The scheme does not envisage to extend the benefit to the tenants covered under oral leases (Government of Telangana State, 2021). Yet, the scheme was found in our field survey to be benefiting them inadvertently. The knowledge that landowners get investment support from the government was enabling the tenants to pressurise their landlords to accede to rents lower than before. These pressures were bearing fruit and the rental burden of tenants was now found to be less than before in TS.

The farmers of the AP state now have the benefit of YSR *Rythu Bharosa* scheme under which a cash transfer is made to them to the tune of Rs. 13,500 per farmer

household per year (This amount includes the cash transfer to owners by the centre under *PM-Kisan*). The scheme was launched on 15th October 2019. The scheme envisages to cover landless tenants belonging to SC, ST, BC and minority categories also (Government of Andhra Pradesh, 2021). Earlier on, the state government had passed 'The Andhra Pradesh Crop Cultivator Rights Act, 2019' (Act, 2019) to provide bank loans, insurance and other benefits to tenant farmers without affecting the rights of the owners of land. And in the bargain, it repeals the Andhra Pradesh (Andhra Area) Tenancy Act, 1956 and the LLC Act, 2011. Under the Act 2019, Certificates of Cultivation (CoC) are issued with the mutual agreement of the landowner and his tenant. The CoC would be in force for 11 months, and they entitle tenant farmers to avail bank finance and other benefits. The Act came into force from 17th August 2019 (Government of Andhra Pradesh, 2021). Since our survey was conducted in the immediate aftermath of these policy interventions, we could not quite gauge their impact. It would possibly take sometime for the impact of the policies to be felt on the terms of tenancy.²

It may be reiterated that the Act 2019 seeks to register the cultivation rights of tenants and provide them with bank credit, crop insurance, input subsidies and disaster relief. Since landlords might thwart such attempts fearing provisions under the Tenancy Act 1956 of the state, it is repealed. The liberal provisions of the Model Agricultural Land Leasing Act, 2016 (Government of India, 2016; Mani, 2016), formulated at the centre are incorporated in the Act 2019. Now, the landlords need not fear that the ownership rights on the tenanted land would eventually pass on to the registered tenants. They are also now free to charge the rents mutually agreed upon between them and their tenants, as there are no legislative curbs on the rents chargeable on the land (Government of Andhra Pradesh, 2021).

It is to be noted, however, that the *Rythu Bandhu* scheme could hinder the enforcement of the LLC Act 2011 (which is incorporated into the statutes of TS after the bifurcation of united AP) in TS and the *Rythu Bharosa* scheme could do so to the Act 2019 in AP. Unless serious campaigns are launched, landlords would loathe to allow tenants to register their cultivation rights, as provided in these acts. This is because, if the cultivation rights are registered, the cash transfers under the schemes would then accrue to the tenants and not their landlords.

Thus, while LLC Act 2011 of TS, and Act 2019 of AP hope to facilitate recording of the cultivation rights of tenants, the *Rythu Bandhu* and *Rythu Bharosa* schemes appear to belie such hopes. Even a landlord may not hesitate to accede to registering the cultivation rights of his tenant to make him eligible for a bank loan – which, all said and done, is a liability; he will surely be reluctant to do so when what he stands to forego, in the bargain, is a liability-free cash transfer under *Rythu Bandhu/Rythu Bharosa*. So, unless care is taken, the schemes could stunt the flow of bank credit to tenants by hindering the recording process of their cultivation rights.

We have seen earlier on that the tenants, barring a couple of exceptions in SCA and RS, are largely small cultivators across the regions of study. It is therefore likely

that their bargaining strength is weak. But what about the capacity of landlords to enforce tenurial contracts. Our survey data reveals that landlords too were generally of small size in both the irrigated zone and the rain-fed zone (Table 4).

TABLE 4. LAND OWNED AND RESIDENCE STATUS OF LANDLORDS

Region (1)	Average land owned by landlords (acres)		Percentage distribution of landlords by residence status*		
	Irrigated zone (2)	Rain-fed zone (3)	Resident (4)	Non-resident (5)	All (6)
NCA	2.8	3.0	90	10	100 (50)
SCA	8.6	0.0	70	30	100 (50)
RS	15.8	2.7	58	42	100 (50)
NTS	4.1	5.7	62	38	100 (50)
STS	0.0	5.8	100	0	100 (50)
ALL	6.8	4.8	76	24	100 (250)

*If a tenant has multiple landlords, only the lease deal involving the landlord from whom the tenant leased-in the maximum extent of land is considered.

Figurers in parentheses are the absolute number of landlords.

On an average, the land owned by them was 6.8 acres and 4.8 acres in the two zones respectively. Only in the irrigated tracts of RS, and to an extent in SCA their average landholding was large, because of the presence of a couple of large landlords. Their residence status shows that 24 per cent of them were non-residents, living mostly in urban parts of the regions (Table 4). So, it may be concluded that the landlords, though better placed relative to their tenants, were not exceptionally of high economic status to dictate terms in the lease market. They had lost control over the credit market to some extent, thanks to government policies. They were not big landholders wishing to gain control over the labour market and product markets.

Rents on Irrigated Land Across Sources of Irrigation

A methodological note is in order. As noted above, all three tenurial forms co-exist on the irrigated land. To facilitate comparison of the rental burden on the tenants operating under the three principal forms of tenancy, we need to express the annual rent payable by them as a percentage of the output of the year. In a context where different crops are grown on the land under lease, and given the need to facilitate comparisons across alternative tenures, we need to convert the physical units into value terms before arriving at the percentage. The study has done so.

The farm harvest prices (FHPs) were employed to arrive at the value of annual rent payable and value of output on land under lease. Thus, for example, the value of the output of paddy of *kharif* 2018/*rabi* 2019 of a farmer was derived by multiplying his paddy output of the season with the FHP of paddy of *kharif* 2018/*rabi* 2019. A similar exercise was carried out to arrive at the value of rent payable. To repeat, it is necessary to arrive at the total value of rent payable and the total value of the output of both seasons combined, for it is the annual rental burden of a tenant that is relevant. Since rent under fixed kind rent and under sharecropping was payable twice

a year, we arrived at the value of annual rent payable as a percentage of the value of the output of the year.

Kind rent governed the leases of all the 25 sample tenants of one of the villages of SCA and 6 sample tenants in the two villages of NTS. The entire land in SCA village was irrigated under the most dependable canals whereas the land of the 6 tenants of NTS was irrigated under a less reliable tube-well irrigation. So, the production risk attributable to prolonged dry weather was more for the tenant in NTS than in SCA. Paddy was the crop grown in both regions. Kind rent was payable in both the *kharif* and *rabi* seasons in both the settings and the rent per acre was less in NTS villages than in the village of SCA. The rent in *kharif* and *rabi* together worked to 18.1 and 11.7 quintals of paddy respectively in the two village settings. We have arrived at the value of rent payable as a percentage of the value of output derived from the land and it was 34.3 per cent in SCA and 28.0 per cent in NTS (Table 5). Thus, the rent was more in the region with more dependable and less risky canal irrigation and was less in the region with less dependable tube-well irrigation facing relatively more of the risk. Competitive forces seemed to ensure that the rental burden was more/less in the region characterised by less/more risk.

TABLE 5. VALUE OF FKR PAYABLE TO LANDLORDS: IRRIGATED LAND (*KHARIF + RABI*)

Region	Extent leased- in under fixed kind rent (acres)	Total value of kind rent payable to LLs per year (Rs.)	Avg. value of kind rent payable per acre per year (Rs.)	Total value of output on the land per year (Rs.)	Value of kind rent payable to LLs as a per cent of value of output per year (6) = (2/5)*100
(1)	(2)	(3)	(4) = 3/1	(5)	(6)
NCA	--	--	--	--	--
SCA*	164.7	4968068	30164	14490973	34.3
RS	--	--	--	--	--
NTS**	14.0	272272	19448	973235	28.0
STS	--	--	--	--	--
ALL	178.7	5240340	29325	15464207	33.9

*Under canal irrigation, ** Under tube-well irrigation, FKR: Fixed Kind Rent, LLs: Landlords.

Cash rent was prevalent, one each in the villages of SCA, RS and NTS. Although there were a few cases where the rent was partly paid in advance of harvest, usually it was payable after harvest. While paddy and groundnut were the principal crops grown in SCA and NTS, paddy and redgram were the main crops grown in RS (See Appendix Table 1 for cropping pattern on irrigated land).³ On an average, the rent in *kharif* and *rabi* together amounted to Rs. 16,511 in SCA with the more dependable canal irrigation and Rs. 19,374 and Rs. 8,674 in RS and NTS, both with less dependable tube-well irrigation. The rental proportion in the total value of output was 27.3, 20.5 and 14.2 per cent respectively in SCA, RS and NTS. Rental share payable to the landlord was, therefore, the highest of the three regions in SCA, the region facing least risk with the most dependable canal irrigation. The difference in the rental shares between RS and NTS is difficult to explain (Table 6).

TABLE 6. VALUE OF FCR PAYABLE TO LANDLORDS: IRRIGATED LAND (*KHARIF + RABI*)

Region	Extent leased-in under FCR (acres)	Total cash rent payable to LLs per year (Rs.)	Avg. rent payable per acre per year (Rs.)	Total value of output on the land per year (Rs.)	Cash rent payable to LLs as a per cent of value of output
(1)	1	2	$3 = 2/1$	4	$5 = (2/4) * 100$
(1)	(2)	(3)	(4)	(5)	(6)
NCA	--	--	--	--	--
SCA*	112	1849200	16511	6775946	27.3
RS**	222	4301000	19374	20979541	20.5
NTS**	47.5	412000	8674	2892117	14.2
STS	--	--	--	--	--
ALL	381.5	6562200	17201	30647604	21.4

*Under canal irrigation, ** Under tube-well irrigation, FCR: Fixed Cash Rent LLs: Landlords

Sharecropping was found to be the rental form in both the villages of NCA and in one of the two villages of NTS. The principal crops grown here were paddy and groundnut. Both the *Kharif* and *Rabi* crops combined, the rental shares of the tenant and the landlord were 55:45 and 49:51 in the two regions. As is usually the case under sharecropping arrangements, some of the costs were also shared by the landlord. The costs associated with ploughing, fertiliser, pesticides, and transport (where sugarcane was grown) were generally found to be shared. The study enquired with the tenants as to the amount contributed by landlords in the process of cost-sharing which has been accounted here to facilitate comparison of rents across tenures.

Before calculating the share of rent in the total value of output going to the landlord, we deducted this amount from the value of output going as his share of the rent (in other words, this amount was added on to the value of output retained by the tenant while sharing his output with the landlord). The rental shares of the tenant and the landlord, after accounting for the cost shares were 61.8:38.2 and 62.7:37.3 in NCA and NTS respectively (Table 7). The shares going to the tenant were about the same in the two settings, even though the risk associated with cultivation was more in

TABLE 7. RENT PAYABLE UNDER SHARECROPPING AFTER ACCOUNTING FOR COST SHARING BY LANDLORDS: IRRIGATED LAND (*KHARIF + RABI*)

Region	Extent leased-in under share-cropping (acres)	Total value of output retained by tenant as part of his rental share + costs borne by LL (Rs.)	Total value of output on sharecropped Land (Rs.)	Value of output retained by tenant plus costs borne by LL as a per cent of total value of output	Value of output accruing to LL (after deducting the costs borne by him) as a per cent of total value of output
(1)	(2)	1	2	$3 = (1/2) * 100$	$4 = 100 - 3$
(1)	(2)	(3)	(4)	(5)	(6)
NCA*	49	1173812	1898307	61.8	38.2
SCA	--	--	--	--	--
RS	--	--	--	--	--
NTS**	38	1302386	2077435	62.7	37.3
STS	--	--	--	--	--
ALL	87	2476197	3975742	62.3	37.7

*Under canal and tank irrigation, ** Under tube-well irrigation, LL: Landlord.

the tube-well irrigated NTS compared to the canal (and partly tank) irrigated NCA. This is to be expected because the risk of cultivation was already shared by the landlord under the sharecropping arrangement.

It can be seen from Table 7 that the rental share accruing to the landlord was less in regions where the tenant had to contend with more risk – as reflected by the source of irrigation, and vice-versa under each of the three forms of tenure. We argue that this may have to do with the free play of market forces.

Rents on Irrigated Land Across Forms of Tenure

We may now examine if a landlord's share of rent is related to risk as exemplified by rental form. More specifically, we assess whether the rental share of a landlord was the least where the tenant had to endure the most risk as under fixed cash rent and the highest where the tenant faced the least risk as was the case with sharecropping. Do market forces aid in ensuring this pattern that is to the advantage of the tenant? Our survey data provides consistent support to this proposition (Table 8). Thus, all regions combined, rental share in the value of output was the least at 21.4 per cent under cash rent and the highest at 37.7 per cent under sharecropping. The share was mid-way between these two extremes under kind rent at 33.9 per cent.

TABLE 8. AVERAGE RENTAL SHARES (PER CENT) OF LANDLORDS IN TOTAL VALUE OF OUTPUT
(KHARIF 2018 + RABI 2019): IRRIGATED LAND

Region	Fixed kind rent		Fixed cash rent		Sharecropping	
	No. of tenants	Rental share	No. of tenants	Rental share	No. of tenants	Rental share*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
NCA	--	--	--	--	48	38.2
SCA	25	34.3	25	27.3	--	--
RS	--	--	25	20.5	--	--
NTS	6	28.0	19	14.2	17	37.3
STS	--	--	--	--	--	--
ALL	31	33.9	69	21.4	65	37.7

*After accounting for costs borne by landlord.

Even the rental shares under different tenurial forms obtaining in individual regions were consistent enough to support the pattern observed at the level of 'all regions.' For example, in SCA, where both kind rent and cash rents prevailed, the rental share was lower under the latter form (at 27.3 per cent) than under the former (at 34.3 per cent). Next, in the NTS region, where all three tenures co-exist, the rental share was the lowest (at 14.2 per cent) under cash rent, and the highest (at 37.3 per cent) under sharecropping with the share under kind rent falling mid-way (at 28.0 per cent) (Table 8). It seems that where it was uppermost in the minds of landlords to receive rents with certainty, they opted for cash rents. But there was a cost associated with their choice, as they had to settle for relatively low rents in the bargain. Competitive forces seemed to aid the tenant from getting too much exposed to risk – they worked to the advantage of the tenant.

Rents on Rain-fed Land Across Forms of Tenure

Fixed rent in kind had a negligible presence in respect of rain-fed land. So, we ignore it in the analysis here in this section. Fixed cash rent was prevalent in the three regions, in RS, NTS and STS. Much of the area in these regions was devoted to groundnut, redgram, blackgram and gingili (See Appendix Table 2 for cropping pattern on rain-fed land). Cash rent as a proportion of the total value of output payable to landlords formed 18.6, 19.3 and 32.0 per cent in the three regions respectively. All three regions combined, the proportion was 23.3 per cent (Table 9). The rent prevailing in STS should be considered very high by any standard and it was higher than that dictated by tenancy law of Telangana area of 1950, which is 25 per cent in case of irrigated land and 20 per cent in respect of other land.

TABLE 9. VALUE OF FCR PAYABLE TO LANDLORDS: RAIN-FED LAND (KHARIF + RABI)

Region (1)	Extent leased- in under FCR (acres) 1 (2)	Total cash rent payable to LLs per year (Rs.) 2 (3)	Avg. rent payable per acre per year (Rs.) 3 = 2/1 (4)	Total value of output on the land per year (Rs.) 4 (5)	Cash rent payable to LLs as a per cent of value of output 5 = (2/4)*100 (6)
NCA	--	--	--	--	--
SCA	--	--	--	--	--
RS	68.5	177500	2591.2	956341.7	18.6
NTS	24.5	175000	7142.9	906477.4	19.3
STS	71.3	299200	4196.4	934202.0	32.0
ALL	164.3	651700	3966.5	2797021.1	23.3

Sharecropping prevailed in a village of STS. A couple of instances of the presence of sharecropping could be found in other regions. Groundnut was the main crop here. The model rental share in the village of its significant presence was 50:50 with cost-sharing. After accounting for the costs borne by landlords the share in the village worked to 35.4:64.6 in favour of tenants (Table 10).

TABLE 10. RENT PAYABLE UNDER SHARECROPPING AFTER ACCOUNTING FOR COST SHARING BY LANDLORDS: RAIN-FED LAND (KHARIF + RABI)

Region (1)	Extent leased-in under share- cropping (acres) (2)	Total value of output retained by tenant as part of his rental share + costs borne by LL (Rs.) 1 (3)	Total value of output on sharecropped Land (Rs.) 2 (4)	Value of output retained by tenant plus costs borne by LL as a per cent of total value of output 3=(1/2)*100 (5)	Value of output accruing to LL (after deducting the costs borne by him) as a per cent of total value of output 4=100-3 (6)
NCA	1	29312	41874	70.0	30.0
SCA	--	--	--	--	--
RS	--	--	--	--	--
NTS	3	152707	275414	55.4	44.6
STS	66	1299783	2011566	64.6	35.4
ALL	70	1481802	2328854	63.6	36.4

A comparison of the rental shares between cash rent tenancy and sharecropping is rewarding. As before, we tested the hypothesis that market forces worked to the advantage of the tenant. Did the landlord satisfy himself with a lower share of rent when he shifted the entire risk of production and price to the tenant, as under cash rent tenancy than when he bore part of the risk, as under sharecropping? Did he trade a lower rental share for assured receipt of rent? The analysis indicate that the landlord's rental share, all regions combined, was 36.4 per cent under sharecropping and 23.3 per cent under cash rent. If we separately consider the STS region, where both the rental forms were present, rent under sharecropping was higher (35.4 per cent), though by a small margin, than under cash rent (32.0 per cent) (Tables 9 and 10). We thus accept the hypothesis that market forces worked to the advantage of the tenant.

A Cross-Sectional Analysis of Irrigated and Rain-fed Lands

We then compare the data on rental shares obtaining in irrigated zone with those in rain-fed zone to see if they were lower across alternative tenures, in the latter zone than in the former. Since kind rent had no more than a token presence in the rain-fed zone such a comparison is not meaningful. But the prevalence of the other two forms of tenure, cash rent and sharecropping, was widespread. A comparison of the rental burden of the two zones is therefore possible. Since the production risk is more for the tenant in the rain-fed areas his rental burden should be correspondingly lower, if market forces have any sway.

A comparison of the rental burden on sharecropped land that was under irrigation with that under rain-fed conditions revealed that there was hardly any difference between two. The rental shares as a proportion of the total value of output under sharecropping were 37.7 per cent and 36.4 per cent respectively for irrigated and rain-fed lands. Like-wise, the rental shares under cash rent were largely equal as between the irrigated and rain-fed lands at 21.4 per cent and 23.3 per cent respectively (Tables 8 and 11). This invalidates our proposition and the rental burden is not related to cultivation risk. It is, however, useful to bear in mind that the initial conditions were different as between the two areas and this could vitiate the conclusions. More than the risk associated with cultivation, historical factors, traditions and conventions play a part in shaping tenurial forms and rental shares.

TABLE 11. AVERAGE RENTAL SHARES (PER CENT) OF LANDLORDS IN TOTAL VALUE OF OUTPUT (KHARIF 2018 + RABI 2019): RAIN-FED LAND

Region (1)	Fixed kind rent		Fixed cash rent		Sharecropping	
	No. of tenants (2)	Rental share (3)	No. of tenants (4)	Rental share (5)	No. of tenants (6)	Rental share (7)
NCA	--	--	--	--	2	30.0
SCA	--	--	--	--	--	--
RS	--	--	25	18.6	--	--
NTS	--	--	7	19.3	1	44.6
STS	2	11.2	23	32.0	25	35.4
ALL	2	11.2	55	23.3	28	36.4

V

CONCLUSIONS

The study essentially seeks to find if market forces bring in a modicum of relief to tenants as they saddle with the production and price risks – if competition in the lease market moderates the rental burden of tenants. Farming has not been rewarding. Not everybody would like to practice it. Only those without an option would venture into it. Leasing-in would appeal to them if the rental burden on the tenanted land is low. On the other hand, many would like to lease-out because, one, farming is not rewarding, two, they have no option but to lease-out as they are traditionally away from cultivation, or are distantly located from the land. Ownership of land has been passing increasingly into the hands of the urban dwellers lacking skills and motivation to farm. This has led to a surge in the land available for lease. Those wishing to lease-out would welcome receipt of high rents with certainty. Also, they would not want to bear the risk associated with farming. Landlords look for cash rents as they satisfy these conditions.

In this scenario, competitive forces are expected to balance the urge of landlords with the desire of their tenants. The conditions in the survey villages suggest that this expectation is being realised. Cash rent tenancies are growing in importance satisfying the demand of the landlords. They are accompanied by rents lower than under other forms to placate the tenants. These emerging tendencies should be seen essentially as a reaction to the opposing demands of the two parties of the lease contracts. It has also been seen that rental share of the landlord was less when the tenant had to contend with more risk (as reflected by the source of irrigation) and vice-versa, under each of the three forms of tenure. This outcome should also be attributed to the free play of market forces. Informal pacts between landlords and their beleaguered tenants that facilitate part waiver of rents at times when crops fail are occasionally found in the survey villages. They should also be seen as balancing competing demands. Since competitive forces operating in the land lease market are safeguarding the interests of both tenants and landlords, there appears little need to place legislative curbs on the market.

Cash transfers such as under *Rythu Bandhu* of Telangana, even though they do not directly benefit tenants, are noted to benefit them indirectly – they dampen their rental burden. They enable them to press the landlords for better terms. Cash transfers under *Rythu Bharosa* of AP might also contribute in future to lowering the rental burden on tenants. Many small initiatives such as these could combine to benefit tenants substantially. However, unless care is taken, these very schemes could stifle the flow of bank credit to tenants by hindering the process of recording of their cultivation rights. So, tenant mobilisation that contribute to the recording of these rights of tenants and therefore the flow of formal credit to them is the need of the hour.

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NOTES

1. In sharp contrast to this argument, it is shown by Shergill (2019) that in Punjab agriculture, cash rent tenancy's predominance has to do with complete certainty over production and price. Our survey data below indicates that absence of production and price risks is not a necessary condition for the prevalence of cash rent tenancy. Instead, it is seen that this tenure form can coexist with the risks – can be found in regions with varied risks. Landlords seem powerful enough to force this rental form upon their tenants to get over these existing risks, but their tenants appear also to have enough bargaining power to oblige them into settling for relatively low rents in the process.

2. As per the latest official documents, landless tenants benefited under *Rythu Bharosa* number 1.54 lakh during 2020-21 (Government of Andhra Pradesh, 2021).

3. Rents could vary from crop to crop. However, we did not calculate crop-specific rents. Cropping pattern is shaped by source of irrigation and the associated risk which is anyway juxtaposed by us with the rental burden. Therefore, conclusions drawn here might not be vitiated.

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APPENDIX TABLE 1. SHARE OF AREA DEVOTED TO IMPORTANT CROPS: IRRIGATED LAND

Region (1)	<i>Kharif</i>		<i>Rabi</i>	
	Main crops (2)	Per cent area under the crop (3)	Main crops (4)	Per cent area under the crop (5)
NCA	Paddy	85.52	Paddy	24.94
	Sugarcane	14.48	Mesta	43.10
SCA	Paddy	66.93	Paddy	96.36
	Groundnut	33.07	Groundnut	3.64
RS	Paddy	91.67	Redgram	88.26
NTS	Paddy	43.22	Paddy	42.76
	Groundnut	51.56	Groundnut	57.24
STS	--	--	--	--
ALL	Paddy	73.19	Paddy	40.96
	Groundnut	21.98	Redgram	39.24

APPENDIX TABLE 2. SHARE OF AREA DEVOTED TO IMPORTANT CROPS: RAIN-FED LAND

Region (1)	<i>Kharif</i>		<i>Rabi</i>	
	Main crops (2)	Per cent area under the crop (3)	Main crops (4)	Per cent area under the crop (5)
NCA	--	--	--	--
SCA	--	--	--	--
RS	Redgram	70.80	Gingili	100.0
	Blackgram	27.74	--	--
NTS	Groundnut	89.09	Groundnut	100.00
STS	Groundnut	42.11	--	--
	Blackgram	29.72	--	--
ALL	Groundnut	35.67	Gingili	60.00
	Blackgram	25.60	Groundnut	40.00