
Linking welfare distribution to land records: a case-study of
the Rythu Bandhu Scheme (RBS) in Telangana

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Contents

List of Figures	1
List of Tables	2
1 Introduction	4
2 Summary of findings	8
3 Approach and methodology	12
3.1 Understanding capacity at the level of the state and district	12
3.2 Selection of districts and villages	14
3.3 Understanding citizens' perspectives at the village level	16
3.4 Error estimation in delivery of benefits under the RBS	16
4 State and district profiles	18
5 Land Records Updation Program (LRUP)	22
5.1 Legal framework governing land administration and land records .	22
5.2 State of land records prior to the LRUP	26
5.3 Implementation of the LRUP	27
5.4 Departments involved in the administration of the LRUP	28
5.5 Budget	35
5.6 Outcomes	35
6 Land records updation in forest areas	40
7 Rythu Bandhu Scheme (RBS)	43
7.1 Departments involved in the implementation of the RBS	43
7.2 Implementation of the RBS	45
7.3 Budget	49
7.4 Outcomes	50
8 Conclusion	63
9 Acknowledgements	68

List of Figures

1	The State of Telangana	18
2	District-level map of Telangana	19
3	Revenue Department: Organisation structure	29
4	Information flow in updating and creating records under the LRUP	34

5	Process for grant of pattadar passbooks (PPBs) to holders of Recognition of Forest Rights (ROFR) certificates	41
6	Agriculture Department: Organisation chart	45
7	Integrated Tribal Development Agency (ITDA): Organisation structure	46
8	Comparison of the process flows in cheque distribution and direct benefit transfers (DBTs)	48

List of Tables

1	Overview of farm income support schemes introduced in 2018-19	5
2	Overview of questionnaires: state and district levels	13
3	District selection parameters	15
4	Matrix for estimating inclusion and exclusion errors	17
5	Administrative divisions, size and demographic profile	20
6	Land use pattern in Telangana (2016-17)	21
7	Size of agricultural landholdings	21
8	Legal framework governing land administration and land records in Telangana	23
9	Land records maintained in rural areas	24
10	Fields of information in Pahaani records	24
11	Persons eligible to apply for PPB in Andhra Pradesh and Telangana	26
12	Overview of capacity used in the LRUP	28
13	Administrative hierarchy - Revenue	29
14	Village-wise reports to be filed by District Collectors	32
15	Budget estimates for land reform in rural areas	35
16	Coverage of LRUP (districts, villages and area)	36
17	State-level outcomes under the LRUP: area, no. of land parcels and PPBs issued (as on 4 th June, 2019)	37
18	District-level outcomes under the LRUP: no. of khatas and PPBs issued (as on 4 th June, 2019)	38
19	Outcomes of district-level disputed cases under the LRUP (as on 4 th June 2019)	40
20	District-level disputed khatas	40
21	District-level outcomes in respect of ROFR	42
22	Coverage of farmers under the RBS	43
23	Administrative hierarchy - Agriculture	44
24	Administrative hierarchy - ITDA	45
25	Designated Banks for RBS	47
26	Broad heads of expenditure for the administration of the RBS	49
27	Sample size and distribution of farmers interviewed in the sample villages	50

28	Profile of respondents in the focused group discussions (FGDs) . . .	51
29	Profile of respondents: farmers with disputed titles	51
30	Indicative list of FGD questions on awareness	52
31	Indicative list of FGD questions on operationalisation and imple- mentation	53
32	Indicative list of FGD questions on service delivery	54
33	Indicative list of FGD questions on service delivery	55
34	Average annual expenditure of beneficiary farmers in the FGDs . . .	56
35	Snapshot of LRUP and RBS outcomes	56
36	Relevant entries in Pahani records	58
37	Overview of entries in Pahani records of Marriguda and Shapally .	59
38	Profile of Pattadars and their landholding in Marriguda and Shapally	59
39	Estimation of inclusion and exclusion errors in the administration of the RBS	60
40	Discrepancy in area calculation across Pahani records and RBS ben- eficiaries' list	61
41	Excess payout in the sample villages under the RBS	62

1 Introduction

The Indian government, at the centre and at the level of the states, provides support for the agriculture sector in several forms, such as through subsidising inputs, access to cheaper capital, loan waivers and minimum support prices for outputs. In the last five years, there is an increasing trend towards direct cash transfers as one of the main tools of supporting farmer welfare. While most of these efforts have been concentrated at the state level, the interim budget 2019-20 introduced the Pradhan Mantri Kisan Samman Nidhi (PM Kisan Scheme), the first fully centrally sponsored income transfer scheme for farmers. The scheme proposes to transfer an annual income support of Rs.6,000 to the bank accounts of small and marginal farmers. This is a unique scheme in that it almost entirely relies on land records for the identification of beneficiaries. Since the entitlement to the income support is linked to land ownership, the successful implementation of the scheme is directly linked to the robustness and accuracy of the underlying land records infrastructure.

The *PM-Kisan Scheme Operational Guidelines 2016* specify a cut-off date for eligibility of beneficiaries, and make the States responsible for the identification of beneficiaries for the purpose of the PM Kisan Scheme. The design of the scheme and its linkages to land records poses unique challenges with respect to the identification of beneficiaries on the basis of land records.¹ Apart from the land records databases, the identification process possibly requires co-ordination between various state government departments as well as the integration of databases and de-duplication efforts. These challenges naturally lead to questions of state capacity for the effective implementation of the PM Kisan Scheme.

Apart from the central government, three other states, namely, Odisha, West Bengal and Andhra Pradesh, have also announced and are in different stages of implementing, similar income support schemes for cultivators of agricultural land.

² Table 1 gives an overview of the features of these schemes.

¹The scheme provides for income support to small and marginal farmers family, which is defined as “a family comprising of husband, wife and minor children who collectively own cultivable land upto 2 hectare as per land records of the concerned State/UT”.

²The Krushak Assistance for Livelihood and Income Augmentation (Kalia) scheme announced by the Odisha government, the Annadata Sukhibhava announced by the government of Andhra Pradesh and the Krisak Bandhu scheme announced by the government of West Bengal, entitle farmers who cultivate land to cash support.

	Centre	Telangana	Andhra Pradesh	Odisha	West Bengal
Name	PM Kisan Scheme	RBS	Rythu Bharosa	Kalia	Krishak Bandhu
Year of announcement	2019	2018	2019	2018	2018
Basis of calculation	Absolute	Per acre basis	Absolute	Absolute	Per acre
Annual amount	6,000	10,000	7,500	4,000	5,000
Number of instalments	3	2	Unclear	2	2
Eligibility	Land owners	Land owners	Land owners & tenant cultivators	Land holders & tenant cultivators	Unclear
Annual budget allocation (INR crores)	75,000	12,000	8,750	5,611	3,000
Targeted number of beneficiaries (millions)	120 (households)	6 (farmers)	4 (farmers)	7.5 (households)	7.2 (farmers)

These features are extracted from the scheme documents available in public domain as on January 2020.

Table 1: Overview of farm income support schemes introduced in 2018-19

Table 1 shows that in a span of two years, five major income support schemes have been announced in India. These schemes link the income support to the type of land held by the beneficiary, namely, agricultural land. Two of these schemes link the amount of the entitlement to the size of the land parcel, and at least two of them link it to land ownership.

While it is clear from the PM Kisan Scheme and RBS scheme documentation that the list of beneficiaries will be drawn up from land records, the manner of identification of beneficiaries under the other schemes is unclear. However, a common theme running across these schemes is farm income support linked to agricultural land holding (whether on possession or ownership basis).

The level of preparation and state capacity deployed prior to the implementation of the schemes has differed from state to state. For instance, while the Telangana government undertook a LRUP prior to operationalising the RBS, Odisha and West Bengal governments did not make any structural changes to the quality of their land records infrastructure prior to rolling out the schemes. The variation in the quality of land records across states and the state capacity for the identification of beneficiaries, will naturally affect the delivery of programs like the PM Kisan Scheme.

In this context, Omidyar Network commissioned a study on the RBS, with the objective of understanding the state capacity that was deployed in the conceptualisation, operationalisation and implementation of the RBS. Specifically, this study seeks to answer the following questions in the context of the RBS:

1. What is the extent and scope of the land reforms that were undertaken by the state government prior to operationalising the Rythu Bandhu scheme?
2. What institutional mechanisms have been set up by the government of Telangana to operationalise the distribution of welfare benefits linked to land ownership?
3. What is the state capacity needed, both in quantitative and qualitative terms, for Rythu Bandhu?
4. What are the gaps, if any, in the implementation of the Rythu Bandhu scheme?
5. What solutions can be implemented at the state-level and the local level to fill these gaps?

Given the increasing instances of states linking welfare distribution to land records in the last two years, the learnings of this study can be potentially applied to analyse the state capacity involved, the design features and potentially the effectiveness of land records linked welfare distribution for the overall economic well being of farmers in India.

This report contains the findings of this study. The report is organised as follows. Section 2 gives an overview of the key findings of our study. Given that the LRUP immediately preceded the implementation and laid the foundation for the RBS, we study the implementation of the LRUP in as much detail as that of the RBS. This gives a holistic perspective of the state capacity deployed by the state government of Telangana for rolling out the RBS. Section 3 describes our approach, methodology and tools used for the purpose of this study. We rely on legislation and internal departmental circulars issued by the departments of the state government involved in the implementation of the LRUP and the RBS. To understand the resourcing used for both these programs, we interview officers of these departments at the level of the state, two select districts and a village in each of these districts. To understand the outcomes of both these initiatives, we conduct two separate exercises. First, we conduct FGDs with the beneficiaries and persons excluded from the design of the RBS. Second, we attempt to estimate the extent of wrong exclusion and over-inclusion under the RBS in the two selected villages. In Section 4, we present a brief profile of the state of Telangana, the two selected districts and villages. Sections 5 and 7 present our findings on the design, administrative structures of the departments involved, the capacity created and utilised, and the outcomes of the LRUP and the RBS respectively. In Section 8, we conclude with some learnings and takeaways from the LRUP and the RBS on linking land records with welfare distribution.

2 Summary of findings

The objective of this study was to gain an in-depth understanding of the capacity built by the state of Telangana before rolling out the RBS. Telangana is an interesting and a special case for studying the implementation of an agriculture income support scheme. This is because unlike the other states that have rolled out similar schemes, the state government of Telangana undertook a state-wide land records updation drive, which involved the rectification of errors, updating the land records and the issuance of digital and secured PPBs to the owners of agricultural land parcels.³ We approach this study at the level of the state, two selected districts, namely, Nalgonda and Mulugu and a village (Marriguda and Shapally) in each of these districts.

Both the LRUP and the RBS target agricultural land and the rural population only. We find that while the urban population in Telangana has been steadily increasing at a higher pace than the national average, a little more than half the population continues to live in rural areas and nearly 43% of the total area of the state is actually cultivated (Table 6). Further, bulk of the agricultural land holdings in Telangana are in the marginal to small category, that is, they measure anywhere between 0.1 to 2 hectares (Table 7). For the purpose of our study, we selected Nalgonda and Mulugu, because among other reasons, they have a large concentration of small and marginal agricultural landholdings.

The LRUP

At the outset, we find that even before rolling out the LRUP, the state government of Telangana had been undertaking land reforms on a sustained basis. This is evident from the year-on-year expenditure on land reforms, as reflected in the annual financial statements published by the state government (Table 15). The LRUP was initially undertaken on a pilot basis in some districts before it was rolled out across the state. This is a critical takeaway as it indicates a progressive trend towards land records updation and while the official duration of the LRUP spanned three months, it appears that the state government has had a consistent focus on 'land reforms' since 2016-17.

During the three months of the project, the LRUP covered 32 out of the 33 districts of Telangana, spanning nearly 86% of the area of the state. The design of the LRUP has important implications for the speed and efficiency of the program. First, the law was amended to simplify the format of PPBs by dispensing with the requirement to record any interest other than that of ownership (referred to as 'Pattadars') in the PPB. Thus, interests that are inherently more difficult to record, such as actual occupants and mortgages, are not reflected in the PPBs (Table 11).

³PPBs is a land record that was unique to the erstwhile unified state of Andhra Pradesh and subsequently adopted by the government of the newly formed Telangana state.

Second, the program was carried out in two phases: the first phase would involve the issuance of PPBs only to those Pattadars whose title to their parcels was not disputed; and the land parcels with disputed titles would be kept for the second phase of the program. This ensured that the capacity was not diverted toward resolving title disputes to land. In terms of capacity, we find that no specific new capacity was created for the implementation of the LRUP and that 3,500 officers of the Revenue Department organised themselves into 1,507 teams for the purpose of implementation (Table 12).

Contrary to the popular notion of land being a relatively highly disputed area, nearly 95% of the area covered was cleared for the first phase. This means that there was no major dispute with respect to the ownership of agricultural land parcels comprising 95% of the area covered under the LRUP. However, it is possible that the disputes in respect of these land parcels would be mitigated by two factors. First, the LRUP was not preceded by a survey. Second, the LRUP involved the updation of a limited number of fields of information in a PPB.

For 93% of the cleared agricultural land parcels, digital PPBs have already been issued (Table 17). The disputed land parcels were classified into one of 33 categories, such as pending civil court or revenue court case, boundary dispute and so on (Box .1). In terms of number of agricultural land parcels, about 5.62% of the land parcels are disputed. We find that about 6% of the agricultural land parcels were disputed in Nalgonda and about 4% of them were disputed in Mulugu (Table 20).

The RBS

Once the implementation of the LRUP was complete and PPBs were distributed in respect of the bulk of the cleared Khatas, the LRUP database was handed over by the Chief Commissioner of Land Administration (CCLA) to the Commissioner and Director of Agriculture (CAD) for the identification of beneficiaries under the RBS. The RBS involves payment of a benefit of Rs.5,000 per acre to every land owner for the Kharif and Rabi seasons. The RBS does not envisage payment to tenants of agricultural land. However, holders of ROFR certificates would be entitled to claim RBS benefits although they are technically not owners of the forest land cultivated by them. Also, owners of agricultural land parcels that were disputed under the LRUP could not avail of the benefits of RBS. Further, the RBS scheme is an unconditional transfer, that is, a beneficiary identified under the scheme would be entitled to claim the benefit even if she does not actually cultivate the land owned by her. Also, no beneficiary is required to submit proof of utilisation of the previous benefit amount.

The Agriculture Department is entirely in charge of implementation of the RBS, and the role of the Revenue Department is to provide updated land records data to the Agriculture Department prior to every season of distribution.

The total number of beneficiaries under the RBS is 16,62,169 with an average of nearly 54,000 beneficiaries per district (Table 22). We find that while for the first season, the RBS entitlement was distributed through the medium of cheques, the state government has subsequently shifted to the DBT mode of delivery. Resultantly, the entitlement is now directly transferred from the account of the state government with the Reserve Bank of India (RBI) through the e-Kuber platform. This has considerably reduced the costs and administrative capacity required for the purpose of the RBS (Figure 8).

A budget of Rs. 12,000 crores was provided for payment of the RBS entitlements for the financial year 2018-19. This was on the basis that the RBS entitlement was Rs.4,000 per acre. However, with effect from 2019-20, the State Government increased the RBS entitlement to Rs.5,000 per acre. On this basis, it is estimated that the RBS budget for the year 2019-20 (beginning Kharif 2019) should be enhanced to Rs.15,000 crores. However, the budget speech for 2019-20 indicates that a sum of Rs.12,000 continues to be allocated for the purpose of the RBS. A deeper analysis of the budget documents indicate that the state has made a provision of Rs. 9,056 crores for the purpose of the RBS. The shortfall in the budget allocation, despite an increase in the amount of entitlement, remains unexplained. This is perhaps reflected in the relatively higher levels of farmers reporting the non-receipt of their entitlement for the Rabi 2019 season.

We find that while the beneficiaries are aware of the RBS and the mechanism to avail it, the level of awareness among tenants is relatively lower. We also find that the RBS entitlement covers about 10% of the average annual expenditure of a small and marginal farmer and about 6% of the average annual expenditure of the medium to large farmer (Table 34). We also find that in the absence of a specific grievance redressal mechanism, farmers are unclear about the forum to redress their grievances.

We begin to estimate the error in the calculation of beneficiaries by comparing the data available on the number of PPBs issued with the number of beneficiaries under the RBS, at the state level. We estimate the total number of beneficiaries as a sum of the number of PPBs holders and the number of ROFR certificate holders. On this basis, we find no exclusion error and estimate an inclusion error of about 9.37% in the number of beneficiaries. However, this approach has its limitations as it does not rely on the base land records, namely, the Pahaani. It also does not offer insights into the estimation errors, if any, in the area covered under the RBS. This is critical from a budgetary outlay perspective as the RBS entitlement is linked to the area of the land parcel owned by the farmer.

We, therefore, adopt the approach of comparing the base land records and the number of beneficiaries to get a more holistic picture of the estimation errors in terms of the number of beneficiaries and the area. However, we limit this exercise

to two villages, namely, Marriguda and Shapally. On comparison of the base land records and the RBS beneficiaries' list for Marriguda and Shapally villages, we find that while Marriguda has a 20% exclusion error, Shapally does not have any exclusions, but has a 16% over-inclusion error, in terms of the number of beneficiaries. We also note significant discrepancies in the area of agricultural land covered in the base land records and the RBS beneficiaries' list. We find that there is a discrepancy in the area recorded for more than 50% of the beneficiaries in Marriguda village and about 40% of the beneficiaries in Shapally village.

Among the beneficiaries who witness a discrepancy in the area recorded in the Pahani records and the RBS beneficiaries' list, bulk of the beneficiaries witness a discrepancy of between 0.5 to 1 acre. This means that for most of the beneficiaries, the RBS list records anywhere between 0.5-1 acre more or less area than that recorded in the base land record for that beneficiary. The average discrepancy is towards recording surplus area in the RBS beneficiaries list. On an average, the beneficiaries' list of Marriguda records 0.55 acres surplus area held by a beneficiary; and the RBS beneficiaries' list of Shapally records 0.17 acres surplus area held by a beneficiary (Table 40). This has important implications for fiscal slippage under the state budget for the RBS, and underscores a need for periodic audits to be conducted to minimize slippages.

3 Approach and methodology

The literature on welfare distribution in India since 2013 has largely focused on the impact of DBT, which was widely taken up by the Central Government as the primary mode of delivering welfare to citizens (Aiyar 2019). This seems to be on par for the course as the adoption of DBTs has reportedly curbed significant leakage in the welfare distribution system (Nandi and Bhaskar 2019). The literature on DBT has, in turn, focused on the quality of implementation and the satisfaction level of citizens who are recipients of DBT benefits. For example, Muralidharan, Nihaus, and Sukhtankar 2017 studied the scheme that replaced the delivery of food ration through the Public Distribution System with DBT in the Union Territories of Chandigarh, Puducherry and Dadra and Nagar Haveli. They use household surveys to ascertain the quality of implementation of the DBT for food in these union territories over a period of one year. Similarly, Gosar and Mishra 2019 study the satisfaction levels of citizens who opt for the DBT scheme in place of the LPG subsidy. Both these studies use a survey methodology for the purpose of their studies. None of these studies focus on questions of state capacity involved in setting up the system of DBT.

More specifically, there is little literature that traces the state capacity that was involved in implementing the RBS. Tata Institute of Social Sciences 2018 focus on the problems of high suicides among tenant farmers in Telangana and underscore the importance of extending the RBS to tenant farmers. Muralidharan, Nihaus, Sukhtankar, and Weaver n.d. sits on the intersection of state capacity and the delivery of RBS benefits. They conduct an experiment involving phone-based monitoring of officials responsible for the last mile delivery of RBS benefits and analyse the extent to which such monitoring increases the efficiency of service delivery. IIHS 2018 has brief policy note that studies the design of the LRUP that immediately preceded the RBS and makes two recommendations with respect to the LRUP.

The extant literature has, thus, largely focused on the beneficiaries' perspectives of the delivery of the RBS. Our study builds on the existing work by focusing on the aspect of state capacity involved in the RBS. We similarly focus on the state capacity involved in conducting the LRUP as it is an integral part of the capacity build-up leading to the operationalisation of the RBS.

3.1 Understanding capacity at the level of the state and district

To understand the state capacity that was involved at the level of the state, district and the village, we study the internal circulars, guidelines and administrative instructions issued in connection with the implementation of the LRUP and the RBS. We also administer questionnaires to government officials of the following

departments of the Telangana government: Revenue Department; Agriculture Department; Finance Department; the ITDA: and the Information Technology, Electronics and Communication (ITES). Within the Revenue and Agriculture departments, we interviewed officials involved in the implementation of the RBS and the LRUP at two administrative levels: at the level of the state and a district.

Table 2 gives an overview of the themes of the questionnaires administered to officers of the Revenue and Agriculture Departments respectively.

Table 2 Overview of questionnaires: state and district levels

State level	District level
Agriculture Department	
Reliance on land records by the department	Not covered
Databases maintained by the department	Not covered
Role of the department in operationalising and implementing the RBS	Role of the department in operationalising and implementing the RBS
Organisation structure, administrative or other reforms for implementing the RBS	Organisation structure, administrative or other reforms for implementing the RBS
	Quantitative and qualitative capacity dedicated to the implementation and operationalisation of the RBS
Citizen services in connection with the RBS	Citizen services in connection with the RBS
Revenue Department	
State of land records prior to LRUP	State of land records prior to the LRUP
Extent and scope of LRUP	Extent and scope of the LRUP
Role of the department in operationalising and implementing the RBS	Role of the department in operationalising and implementing the RBS
Organisation structure, administrative or other reforms for implementing the RBS	Reporting structure, training policy and interaction with banks and gram panchayats at the village level
Citizen services for LRUP and the RBS	Citizen services for the RBS

1. The question on the left applied to the whole of Telangana.
2. The question on the right applied in scope to the district in which it was being asked.

The questionnaire administered to the Finance Department largely pertained to the administrative budget sanctioned at the level of the state and each district for the LRUP and the RBS.

The themes of the questionnaires administered to the ITDA in Mulugu district are summarised below:

- State of land records in tribal areas
- Land reforms undertaken in tribal areas prior to operationalising the RBS
- Role of the ITDA in operationalising and implementing the RBS
- Reporting structure, training policy, and interaction with officers of the Revenue Department and village-level bodies
- Quantitative and qualitative capacity dedicated to LRUP and RBS in tribal areas
- Databases maintained by them and their inter-connectivity with other land records
- Citizen services in tribal areas in connection with the RBS

3.2 Selection of districts and villages

Telangana currently has a total of 33 districts. We selected two districts, namely, Nalgonda and Mulugu for the purpose of our study. Here, it is important to state that we had originally selected Warangal Rural as one of the districts for the district and village level studies. However, during the course of the project, Mulugu was carved out as a new district from Warangal Rural.

The selection strategy was largely driven by the number of small and marginal agricultural landholdings and the SC and ST population in the district. Table 3 gives an overview of the number of small and marginal land parcels in the selected district of Nalgonda and Warangal (Rural) from which Mulugu was eventually carved out in February 2019. Since Mulugu has been carved out as a new district from Warangal Rural, official data on these parameters for Mulugu are not yet available.

Table 3 District selection parameters

	Nalgonda	Warangal (Rural)	State avg.
Area (in sq.kms)	7,122	2,175	1,12,007
No. of agricultural land parcels (in ha)	3,46,516	1,72,463	1,67,197 (55,17,511)
Small and marginal agricultural landholdings			
Marginal	2,10,618	1,38,108	1,14,006
Small	96,135	35,510	43,946
Total	3,06,753	1,73,618	1,43,593 (47,38,592)
As a % of state-total	6.47	3.66	3.12
SC and ST population			
SC Population	3,21,496	1,38,846	2,00,182
ST Population	2,31,991	1,14,829	1,18,480
Total	5,53,487	2,53,675	2,98,747 (95,59,915)
As a % of state-total	5.49	2.51	3.12

1. Marginal landholdings measure ≤ 1 ha.
2. Small landholdings measure $1 \geq 2$ ha.
3. Nos.in brackets indicate absolute total numbers.
4. Hyderabad has been dropped from the calculation of SC and ST population.
5. Source of data: Directorate of Economics and Statistics.

Table 3 shows that while Nalgonda occupies 6.35% of the total area of Telangana, the number of small and marginal agricultural land parcels and the SC and ST population in Nalgonda are significantly above the state average. Similarly, while Warangal (East) occupies a little less than 2% of the total area of Telangana, the number of small and marginal agricultural land parcels in Warangal East is above the state average.

While the SC and ST population in Warangal (Rural) is slightly below state average, we were informed that the newly formed Mulugu district (carved out of Warangal Rural), had a significant concentration of scheduled areas with population belonging to the scheduled tribes. From the 452 revenue villages in Mulugu, 235 have been notified as scheduled areas and 70% of the area is covered in forests. This presented a unique opportunity of studying two districts with significant variation, while nevertheless abiding by our original selection parameters. Given the concentration of scheduled and forest areas in Mulugu, our findings in Mulugu would take into account the applicability of two special laws which

affect land records, namely, the *Forest Rights Act 2006* and the *Telangana Land Reforms Act 1973*. Both these laws have implications for the occupants in these areas in relation to the land occupied by them, which in turn, affects the kind of land records maintained in these areas and their consequent coverage under the RBS. The implications of these laws are explained in greater detail in subsequent sections of this report.

3.3 Understanding citizens' perspectives at the village level

We supplemented our interviews on state capacity with obtaining information from citizens at the village level through FGDs. The objective of the FGDs was to understand the experience of the citizens in interfacing with the village-level state administrative machinery in connection with claiming their benefits under the RBS.

We conducted FGDs with four groups of people in two select villages, namely, Marriguda in Nalgonda district and Shapally in Mulugu district. The average size of each group was 12. The groups were divided on the basis of the interest of the citizen with respect to the RBS benefit, as under:

1. Small and marginal farmers who own agricultural land of <5 acres.
2. Medium and large farmers who own agricultural land of ≤ 5 acres.
3. Farmers who own agricultural land, but have not been included in the RBS beneficiary list as their land was identified as being under the 'disputed' category in the LRUP.
4. Tenant farmers who have been excluded from the RBS by design.

3.4 Error estimation in delivery of benefits under the RBS

In the two selected villages, we attempt to map the extent of inclusion and exclusion errors in the delivery of the RBS benefits. Since the state has relied on land records to draw up the list of beneficiaries eligible under the RBS, we compare the village-level original land record, namely, the Pahani records with the beneficiary list maintained under RBS.

Table 4 explains the manner in which the inclusion and exclusion error has been estimated.

Table 4 Matrix for estimating inclusion and exclusion errors

	In Pahaani	In RBS
Right beneficiary	Yes	Yes
Inclusion error	No	Yes
Exclusion error	Yes	No

If an individual's name is present in the Pahaani and the RBS list, we do not count it as an error. If an individual's name appears in the Pahaani, but not the RBS list, we count it as an exclusion error. On the other hand, if an individual's name does not appear in the Pahaani, but appears in the RBS list, we count it as an inclusion error.

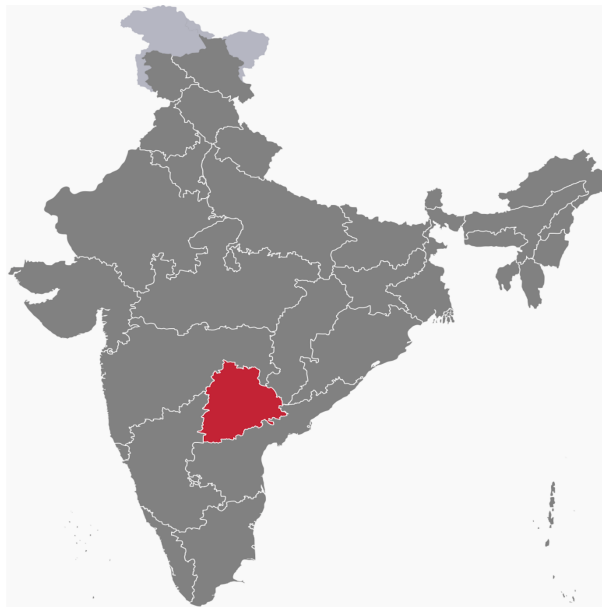
For the purpose of the error estimation exercise, we also compare the area recorded in the Pahaani with that recorded in the RBS beneficiary list against the name of each beneficiary. This is critical as the amount of the RBS benefit is linked to the area owned by a beneficiary. In this manner, we are able to estimate estimation errors in terms of number of beneficiaries and area.

4 State and district profiles

In this section, we present an overview of the profile of Telangana, the terms and conditions of the RBS, the legal framework applicable to the maintenance and updation of land records in Telangana, the LRUP and the organisation structure of the departments involved in the operationalisation and implementation of the RBS.

The Telangana region was part of the erstwhile Hyderabad State from 1948 to 1956. In the year 1956, the Telangana region was merged with Andhra state to form the state of Andhra Pradesh. In 2014, the *AP Reorganisation Act* re-organised the state of Andhra Pradesh by bifurcating it into two states, namely, Andhra Pradesh and Telangana, and provided for the division of all assets and liabilities of the erstwhile state of Andhra Pradesh among these two states.⁴ Figure 1 is a map of the present state of Telangana.

Figure 1 The State of Telangana



Specifically, with respect to land administration, *AP Reorganisation Act* provided that all land situated within the “transferred territory” will pass to the state of Telangana, and in any other case, will remain the property of the state of Andhra Pradesh.⁵ It also provides that the right to recover arrears of land revenue shall belong to the state in which the property is situated.⁶ Further, both the governments of both the states were given a period two years within which they could adapt any law that was in force prior to the bifurcation to their respective state.

⁴The *AP Reorganisation Act* came into force on 2nd June, 2014.

⁵See section 48 of the *AP Reorganisation Act 2014*.

⁶See section 50 of the *AP Reorganisation Act 2014*.

Pursuant to this, the Telangana government passed the *Telangana Adaptation of Laws Order 2016*, adopting a series of laws that were applicable to the Telangana regions of the erstwhile state of Andhra Pradesh, including several laws that applied to the administration of land records and the collection of land revenue.

Originally starting out with 10 districts, Telangana now comprises 33 districts, with two new districts having been formed in 2019.⁷ Figure 2 is a district-level map of Telangana.⁸

Figure 2 District-level map of Telangana



Table 5 summarises some key features of the 33 districts.

⁷The districts are: Adilabad; Bhadradi Kothagudem; Hyderabad; Jagtial; Jangaon; Jayashankar Bhupalpally; Jogulamba Gadwal; Kamareddy; Karimnagar; Kumuram Bheem; Mahabubabad; Mahabubnagar; Macherial; Medak; Medchal; Mulugu; Nagarkurnool; Nalgonda; Narayanpet; Nirmal; Nizamabad; Peddapalli; Rajanna Sircilla; Rangareddy; Sangareddy; Siddipet; Vikarabad; Wanaparthy; Warangal (Rural); Warangal (Urban); Yadadri Bhuvanagiri. (Source: Telangana Statistics available at <https://www.telangana.gov.in/about/state-profile>, last visited on November 18, 2019)

⁸Source: Government of Telangana

Table 5 Administrative divisions, size and demographic profile

Administrative divisions	
No. of districts	33
No. of Revenue Divisions	70
No. of Revenue Mandals	584
No. Revenue Villages (As per 2011 census)	10,343
No. of census towns (As per 2011 census)	158
No. of statutory towns	136
Size	
Total area (sq.kms)	112,077
Area of largest district (sq.kms)	7,483 (Badradri Kothagudem)
Area of smallest district (sq.kms)	1,084 (Medchal)
Avg. area of districts (sq.kms)	3,721 sq.kms
Size of median district	3,619
Demography	
Total population	83,04,000
% of rural population	61.12
% of urban population	38.8

Source: Telangana Government website (visited on 5th February, 2020)

1. Statutory towns are towns with a designated urban local bodies.
2. All other places that satisfy the following criteria are census towns: population of 5,000; atleast 75% of the male working population is engaged in non-agricultural pursuits; and a population density of 44 persons per sq.kms.

A combined reading of the Department 2018 and the figures in Table 5 indicate that while the urban population in Telangana has been steadily increasing at a higher pace than the national average, a little more than half the population continues to live in rural areas. It is also interesting to note that 86% of the census towns are statutory towns, that is, they have urban local bodies for their governance. Despite the trends showing increasing levels of urbanisation, bulk of the area continues to remain being utilised for agriculture and as forests (Table 6).

Table 6 Land use pattern in Telangana (2016-17)

Sr. No.	Pattern of land use	Area (in lakh hectares)	% of total area
1.	Forest	26.98	24.07
2.	Barren and uncultivable land	6.07	5.42
3.	Land put to non-agricultural use	8.52	7.60
4.	Cultural waste	1.82	1.62
5.	Permanent pastures and other grazing land	2.99	2.67
6.	Land under Misc.Trees and groves	1.12	1.00
7.	Other fallow land	6.69	5.97
8.	Current fallow land	10.95	9.06
9.	Net area sown (incl.fish culture)	47.74	42.59
Total		112	100

Source: Department 2018

Table 7 gives an overview of the size of agricultural landholdings and the number of agricultural landholdings of different sizes in Telangana.

Table 7 Size of agricultural landholdings

Sr. No.	Description	No. of landholdings	% of total landholdings
1.	Marginal (> 1 ha)	34,20,202	61.98
2.	Small (1-2 ha)	13,18,390	23.89
Total small & marginal		47,38,592	85.88
3.	Semi-medium (2-4 ha)	5,98,145	10.84
4.	Medium (4-10 ha)	1,65,127	2.99
5.	Large (>10 ha)	15,647	0.28
Total medium & large		7,78,919	14.11
Total		55,17,511	99.99

Source: Directorate of Economics and Statistics, Hyderabad

1. Nos. for Mulugu district are not available.

2. Hyderabad district is shown as not having any agricultural land parcels.

Table 7 shows that the bulk of the agricultural landholdings in Telangana are in the small to marginal categories. This has implications for the design of the RBS which links the amount of the benefit to the size of the land.

5 LRUP

The first survey, settlement and bandobast operation in the Nizam State was done in the period from 1932-34. On the basis of this, the Khasra Pahani for the State of Hyderabad was finalised in 1954. During this process, farmers were given survey numbers and khata numbers. Since then no re-survey (survey of an already surveyed area) operation has been carried out in the Telangana region of Andhra Pradesh or the state of Telangana. The key components of the LRUP are as follows:

1. Verification of existing land records with reality
2. Issuance of PPBs with security features, such as:
 - QR and bar codes
 - AADHAAR number
 - anti-copying features
3. Recording information on government land, forest land, wakf and endowment land.

Since PPBs are key to the LRUP and the RBS for the purpose of identification of the beneficiaries and they are unique to the states of Andhra Pradesh and Telangana, we describe the concept of PPBs in the subsequent sections. Finally, we give a brief overview of the LRUP.

5.1 Legal framework governing land administration and land records

As mentioned in Sections 1 and 3 of this report, the RBS was preceded by the LRUP, which involved a state-wide land records updation exercise by the Revenue Department. Before analysing the manner in which this drive was implemented, the capacity and budget required and its outcomes, it is imperative to provide the reader an overview of the legal framework governing the maintenance and updation of land records and land administration in Telangana.

The legislative framework in Telangana is made up of two types of laws: those which applied to the Telangana region prior to the division of the erstwhile Andhra Pradesh, which have now been adopted by the State of Telangana; and those which are freshly enacted in the newly formed State of Telangana.⁹

Table 8 lists the key laws that affect rights in land or the maintenance and updation of land records and land administration in Telangana.

⁹Since this distinction is not relevant for the purpose of this report, we have not distinguished between them and have listed them with a brief overview of the same.

Table 8 Legal framework governing land administration and land records in Telangana

S.No	Legislation	Overview
1.	Telangana Land Revenue Act 1317F	Provides for the appointment of revenue officers; and collection of land revenue .
2.	The Survey and Boundaries Act, 1923	Provides for survey of government lands and its boundaries and the manner of conducting such surveys ; duties of persons occupying land which has been surveyed; a mechanism for grievance redressal.
3.	Telangana Tenancy & Agricultural Lands Act, 1950	Governs agricultural tenancies.
4.	Telangana Rights in Land and Pattadar Passbooks Act, 1971.	Provides for updation of record, preparation of registers, maintenance of Records of Rights (ROR), recording of transactions in a record called the PPB.
5.	Telangana Land Reforms (Ceiling on Agricultural Holdings) Act, 1973	Imposes ceilings on the extent of agriculture holdings, provides for its administration and vests surplus land in the state government.

We find that each of these laws affect the manner in which land records are maintained and their content. For example, the Telangana Land Revenue Act 1317F empowers the State Government to prescribe the format in which land records are to be maintained. However, this is largely overridden by the Telangana Rights in Land and Pattadar Passbooks Act, 1971 which prescribes the format of the record of rights to be maintained for each village. It also requires the issuance of an entirely new title record, which is the PPB. Similarly, restrictive laws such as the Telangana Tenancy & Agricultural Lands Act, 1950, which restrict tenancies, restrict the extent to which tenancies are actually recorded in the land records.

Table 9 lists the types of land records maintained in respect of land located in rural areas in Telangana.

Table 9 Land records maintained in rural areas

S.No.	Name	Description
1.	Sethwar	Contains information about the cultivable area for each agricultural parcel of land
2.	Khasra Pahani	Records details of crops on each agricultural parcel of land
3.	Pahani	Record containing parcel-level information on agricultural land, including various interests created.
4.	ROR IB	Records different kinds of interest in a land parcel.
5.	Pattadar Passbook	Booklet which contains details of the landowner.

The Pahaani is the most basic record of agricultural land parcels that is drawn up at the village level. See 10 for a list of the fields of information contained in a Pahani record.

Table 10 Fields of information in Pahaani records

Identification	Survey and Khata nos.
Area and extent	Total acres
Interests in land	Name of Pattadar; how was it acquired.
Land use	Extent of cultivable and non-cultivable land; actual cropped area
Crop	Kharif and/ or Rabi crops cultivated on the parcel; name of the crops; Single crop, multi-cropped; yield
Water source	Rain-fed or irrigated; Bore-wells tanks rivers canals wells Area under tanks

Source: Interview with Agriculture Extension Officer of Nalgonda, June 2019.

1. The Pahaani record also included information on the actual and legal “occupant” of the parcel. However, this field has now been dispensed with.

5.1.1 Concept of Pattadar Passbooks

In 1971, the erstwhile state of Andhra Pradesh passed the *AP Rights in Land and Pattadar Passbooks Act 1971* which provides for the maintenance and regulation

update of record of rights in each village, sets out the fields of information which must be captured by the record of rights, the process for update of information in the Record of Rights and the lays out the presumption for the correctness of entries in the Record of Rights. In 1994, a subsequent amendment to the law introduces the concept of a “title deed and passbook”. The purpose of this document was two fold: first, to allow farmers to apply for credit on the basis of the passbook¹⁰; and second, empower the Collector to recover, on behalf of the lender, an unpaid loan obtained on the basis of this title deed and passbook.¹¹ The following persons are eligible to apply for and obtain a PPB in respect of their interests in land:

1. owners,
2. Pattadars, or the person who pays the land revenue¹²;
3. mortgagees,
4. tenants;
5. occupants of Inam land.

The State of Telangana adopted the *AP Rights in Land and Pattadar Passbooks Act 1971* and renamed it as the *Telangana Pattadar Passbooks Act 1971*. In 2018, Telangana made two critical amendments to the *Telangana Pattadar Passbooks Act 1971*: first, it dispensed with recording the interests of tenants and occupants who are not owners on the PPBs; second, it specifically provided that loans could be made

¹⁰Section 6A(5) of the *AP Rights in Land and Pattadar Passbooks Act 1971* states, “(5) The title deed issued under sub-section (1) and duly certified by the Mandal Revenue Officer, or such other authority as may be prescribed, shall be the title deed in respect of an owner-pattadar and it shall have the same evidentiary value with regard to the title for the purpose of creation of equitable mortgage under the provisions of the Transfer of Property Act, 1882 (Central Act 4 of 1882) as a document registered in accordance with the provisions of the Registration Act, 1908 (Central Act 16 of 1908) has under the law.”

¹¹The operative parts of Section 6C of the *AP Rights in Land and Pattadar Passbooks Act 1971* states; “(1) Every loan granted by any credit agency] [on the security of the land, or crop] every encumbrance of land for the grant of a loan and every repayment of such loan shall be recorded in the pass book by the concerned officer or authority under attestation by a competent officer of the credit agency, and also made an entry of the discharge after the repayment of the loan:...” “(3) Every loan referred to in sub-section (1) shall be deemed to have been secured by a charge on the land or interests of the borrower. If any loan referred to in sub-section (1) remains unrecovered, then the credit agency shall request the Collector to recover the loan. On receipt of such request from a credit agency by the Collector, every loan referred to in sub-section (1) shall be liable to be recovered as arrears of land revenue by the Revenue Department and the amount recovered shall be paid to the credit agency. The recovery under the Revenue Recovery Act shall be without prejudice to other modes of recovery available to a credit agency.”

¹²The *The Telangana Land Revenue Act 1317F* defines a “Pattadar” as a person who is “directly responsible to the Government for payment of land revenue and whose name has been entered as such in Government records, whether he be personally in possession of the holding or through his Shikmidar...”

on the basis of the electronic record of rights, and that the production of the PPB should not be insisted upon for the advancing loans on the security of land, the interest of the owner in land or the crops growing on it (see).

Table 11 Persons eligible to apply for PPB in Andhra Pradesh and Telangana

	Andhra Pradesh	Telangana
Pattadar	Yes	Yes
Mortgagee	Yes	No
Tenant	Yes	No
Occupant of Inam land	Yes	Yes
Occupant of Government land	No	No

The non-inclusion of tenancies and other interests in the PPB is an important amendment as it ultimately affects the identification of beneficiaries under the PPB.

5.2 State of land records prior to the LRUP

Prior to the implementation of the LRUP, the state government was undertaking steps for the digitisation of land records and the integration of land records databases. Part of this was under the aegis of the Digital India Land Records Management Program (DILRMP).¹³ Similarly, copies of official communication shared with us indicates that the Department of Industrial Policy and Promotion had set certain targets to be achieved during 2017-18 as part of the Ease of Doing Business initiative. As part of this, targets had been set for:

1. indexing of village maps;
2. preparation of a disputes register;
3. integration of land records databases with the database maintained by the judicial wing of the revenue department;
4. process for automatic generation of mutation certificates;
5. timelines for the mutation of land transactions.¹⁴

¹³See [Land Records Updation Project 2017](#) which is the introductory circular for the LRUP. It refers to a “pilot purification and updation of land records” taken up in a few districts on a pilot basis.

¹⁴Communication issued by the office of the CCLA on 9th June, 2017, 14th June 2017 and 15th June 2017 in connection with an integrated rural land registry and the EoDB action plan to achieve targets.

It appears that the state government undertook a pilot program akin to the LRUP in a few districts prior to rolling out the state-wide LRUP. In villages where this pilot was undertaken, “upto 90% of records were purified and updated”.¹⁵

There was a huge gap between land records and ground reality leading to litigation and disputes. In particular, the following areas were identified as problematic:¹⁶

- irregular mutations on land records;
- unrecorded partitions;
- errors of name, extent and survey numbers;
- double khata numbers;
- issues with inam land;
- agricultural land being put to non-agricultural uses;
- details of government lands;
- poor recording of government assets, acquired lands, forest lands, wakf and endowments and Bhoodan lands.

In light of the problems caused by the state of records and the need for reliable land records for effective implementation of a flagship government scheme, the government of Telangana took the decision to undertake a coordinated large scale effort to update land records in the state.

5.3 Implementation of the LRUP

The LRUP was envisaged as a three month exercise to purify land records in Telangana. The LRUP was to be carried out across all 10,823 villages in the state in two phases:

First phase : In the first phase of the LRUP two types of land parcels would be covered: land parcels with no disputes and land parcels where there were undisputed errors on the records. Such errors included errors of names including surnames, extent of land, khata number, clubbing two khata numbers into one and deleting portions of land already sold.

Second phase: In the second phase, the LRUP was to cover lands with pending court cases.

¹⁵*Land Records Updation Project 2017*

¹⁶Source: Interviews with state and district level officials and “Note on Land Records Updation Programme” available at <http://www.mcrhrdi.gov.in/OTPPprob2018/week1/LRUP%20Note.pdf>

Table 12 gives an overview of the timelines involved, the capacity created and the per team coverage for the LRUP.

Table 12 Overview of capacity used in the LRUP

Dates of the project	15th September, 2017-31st December, 2017
Total number of revenue officers involved in the project	3,500
No. of teams	1,507
No. of villages assigned to each team	9
Estimated area to be covered per day	250 acres per team
Estimated No. of days per village	10
Estimated No. of days per district	100
No. of Phases	2

Source: *Land Records Updation Project 2017*

The objectives of the government in conducting the LRUP were to (i) achieve accuracy in land records to reflect the ground reality, (ii) have transparent and accountable land records management system so that farmers are able to freely access land records.¹⁷

5.4 Departments involved in the administration of the LRUP

The Revenue Department was responsible for the implementation of the LRUP that immediately preceded the RBS. As the RBS was rolled out, the LRUP database forms the basis for the identification of beneficiaries and the calculation of the per beneficiary entitlement amount.

The Revenue Department is the oldest administrative department and plays a pivotal role in administration in the State of Telangana. The functions of the Revenue Department include maintenance and updation of revenue records and administration of law relating to land and land administration. In addition to this, the department also collects certain cesses and taxes on behalf of the government.

The Revenue Department had two wings: The first was the Revenue wing. The second was the Survey, Settlement and Land Records wing. The Survey, Settlement and Land Records department was established in 1875 with the aim of

¹⁷*Ibid*

conducting an initial survey/re-survey. The initial survey was completed in or about 1936, and in 1999, the position of the Commissioner (Settlements, Survey and Land Records) was abolished and her functions was assigned to the now CCLA.

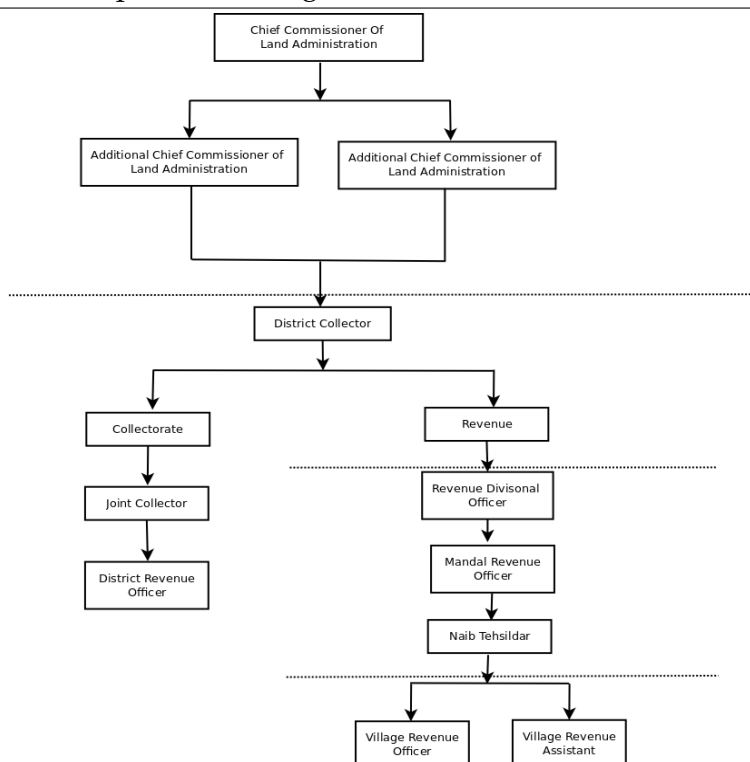
Table 13 sets out the administrative hierarchy within the Revenue Department.

Table 13 Administrative hierarchy - Revenue

S.No.	Administrative division	Designated officer
1.	State	Chief Commissioner of Land Administration
2.	District	Collector
3.	Division	Revenue Divisional Officer
4.	Mandal	Tahsildar
5.	Village	Village Revenue officer

Figure 3 explains the organisational structure of the Revenue Department.

Figure 3 Revenue Department: Organisation structure



Formation of field teams : The district collectors were given the responsibility to form teams for every nine villages in the district. The teams were headed by Tehsildars/ Dy. Tehsildar. Each team was to consist of revenue functionar-

ies. In addition to revenue functionaries, the collectors were permitted to draw upon para legals.

Each team was to tackle approximately 250 acres of land per day. It was estimated that each team would take ten days per village.

Training of field teams : The team members were to undertake training and orientation programmes at various levels. These were to be conducted by District Collectors. In particular, each team was trained in:

- the objectives of the exercise;
- step by step processes involved in the exercise
- the formats for collection of information
- the statutory processes to be followed for correction and modification of the records
- the progress reports to be sent every day to district and state

There were control rooms set up to help field teams in clarifying doubts for on-ground issues. A district control room was set up in each district to monitor progress as well as to ensure that progress reports are sent on time. In addition to the district control rooms, the State Government was also to set up a State Control Room.

Preparatory work : The teams were to collect specified types of land records prior to conducting the LRUP. These included base records such as the Sethwar and Khasra Pahani, latest pahani from the land records database, amendment register for the preceding 10 years and village maps.

Teams were to do desk verification of records. The desk verification process involved four areas of rectification:

Correction in extents: Teams were to reconcile areas in the Pahani and Sethwar with the extent in the Khasra Pahani. It was decided that the extent of a survey number in the Khasra Pahani should be the constant against which corrections of extents in the Pahani should be made.

Correction of details of Pattadars : Teams had the option of doing the correction at the desk level or listing the same for field verification. Some of the details that were listed for verification were listing of dead pattadars, mutations which were completed offline by not carried out in the Pahani, clerical errors, missing pattadar details in the online land records database.

Listing of non-agricultural land: The teams were to document information about non-agricultural land in a specified format. The information

included land acquisitions awards/post ward actions, alienation proceedings.

Litigation details: The teams were to list the details of the civil and revenue cases for each parcel in their internal registers.

The teams were to serve a copy of 1B extract to each Pattadar/farmer before the visit to each village.

During the field visit : The tehsildar was to ensure a time table of the team visits were given to each of the pattadar. A day before the visit, intimation was to be given by the beat of tom tom in the village.

A gram sabha was to be conducted to explain the objectives of the LRUP.

The pattadars were given 1B extracts and acknowledgements were taken. The teams were to record claims and objections and also record the status of occupation of government lands.

Each team was to fill out a village revenue profile, the format of which was specified by government notification and was uniform across all teams. The revenue profile of the village contained information such as the total number of survey numbers in the village, total number of pattadars, total geographical area in the village.

The teams were to undertake correction of records based on the field inspection. Disputes were to be recorded in unsettled issues register prescribe.

At the end of this exercise, each team shall declare that the record of rights of that village was updated and made error free to the maximum possible extent possible. A final copy of the record of rights with attested signatures of all farmers was to be published in the village chavdi.

Record of cases that could not be solved was to be listed by teams in the specified form.

In addition to these general instructions, teams were to do the following specific tasks:

- Government lands: Wherever the original assignee was in physical possession, those entries were to be recorded and 1B extracts were to be served obtaining the assignees signature. Where the original assignee was not in possession the team was to record details of all such occupants along with their socio-economic status, in a specified form.
- Forest lands: Teams were to record all details of forest land, survey number-wise in village and the status of the same.

- Water spread areas: The team was to record the details of survey number-wise extent of water spread area of each every source.

Further, during the process of updation and purification, there were regular meetings held with the District Collectors for on-boarding requests made pursuant to the experience of teams on the field. These concerns were documented.

The concerns mainly arose out of the teams being restricted by rules and laws. For example, it was suggested that in the case of partition during the lifetime of the father who is a pattadar, the partition has to be stamped as per Article 40 of the Indian Stamp Act. In case of the death of the father, where the legal heirs are partitioning, there is no need for registration of partition deed, however they should record the statements of all interested persons. For this, sub section (1) of Section 5-A of the ROR Act was to be amended.

Final documentation and accountability Each District Collector was to compile village-wise reports to give a clear picture of the outcomes of the LRUP exercise. The proformas for each of these reports was drafted and circulated to all District Collectors to maintain uniformity. Table 14 sets out the reports to be compiled by the District Collectors.

Table 14 Village-wise reports to be filed by District Collectors

S.No.	Report name	Description
1	Report I	Details of the missing serial numbers for entry in to the Pahani
2	Report II	Sethwar-Pahani Extent Variation
3	Report III	Unsettled issues in the village
4	Report IV	Details regarding Government Assigned Lands
5	Report V	List of lands put to non-agriculture use in the village

Each of these were to be filled and updated in forms specified by various government notifications.

Further, to declare a village as completed, teams were required to undertake certain tasks and document the findings in specified forms. Some of these were as follows:

- survey number wise reconciliation of the extent with setwar/pahani

- acknowledgement register in which IB copies were served to the farmers
- minutes of the first gram sabha
- claims and objections received during the field visit
- minutes of the final gram sabha

District Collectors were to allot mandals to all senior revenue officers by Revenue Divisional Officer (RDO), District Revenue Officer (DRO) and Joint Collector (JC) and prepare schedules for thorough verification of the above reports and records. In addition to this, supporting staff were to assist these officers and also were to visit the mandals allotted to them, verify all the records and reports and point out defects if any to rectify. Senior officers allotted to the Mandals were to visit the mandals and verify all the records of that Mandal and certify that the Mandal team has completed the LRUP in the manner prescribed. The proforma for the Mandal level checks was specified to maintain uniformity and accuracy.

After completion of this process, the inspecting officers were to furnish reports to the District Collector and the District Collector in turn was required to send a consolidated LRUP completion report to the CCLA.

Records management under LRUP The Revenue Department was engaged in data management at two main junctures. The first was during the final stages of the LRUP. At this stage, efforts were directed at securing and preserving records to avoid tampering. Record and data management here, was in respect of the physical records.

During this stage, one hard copy of the Pahani and 1-B ROR, for each parcel, with the signatures of all the farmers for each of the members of the field team was mandatory. Each copy was also required to bear the round seal of the Revenue Department with the signature of the Village Revenue Officer (VRO) in the center.

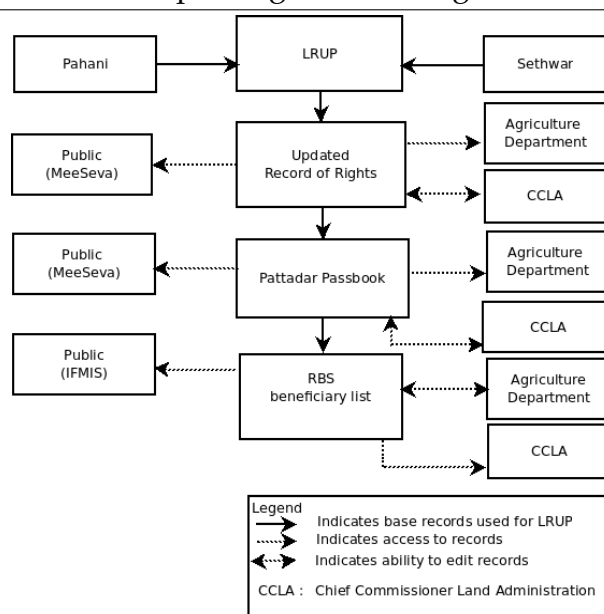
Once the field visit was completed, each team was required to pack all the records in bundles which were to be placed in truck boxes. All the records were required to be scanned and stored in a digital format. The physical copies were to be stored in the Tehsil office, the RDO office and with the District Collector. The second stage of data management began after the certification of completion of the LRUP. One of the features of the LRUP was the digitisation of records to ensure inter-operability across departments.

Under this LRUP, a village-wise database was to be created. The officers responsible for the authenticity and correctness of the records in this database were the Tehsildars.

A separate digital Amendment Register was to be maintained by the Tehsildar. The purpose of this register is to ensure that records remain updated. All transaction details from 1 January 2018 were to be recorded. The recording was to be done in accordance with the *Telangana Pattadar Passbooks Act*. A daily report of amendments, signed by the District Collector was to be sent to the CCLA. The data from the Amendment Register was to be entered in the LRUP portal.

Figure 4 describes the information flows and the records used during the LRUP, the PPB and ultimately for the creation of the RBS list.

Figure 4 Information flow in updating and creating records under the LRUP



The vertical middle column of Figure 4 shows the process of creation of PPBs. The columns on the left and the right show the points of access of information in the records.

The Pahaani and the sethwar were used as base records for updating the ROR under the LRUP. This information was used to issue digital PPBs. The RBS beneficiaries' list was created using the list of PPBs holders. Therefore, there are several records containing information about agricultural landholdings that overlap with each other.

As Figure 4 shows, the updated RORs and the PPBs is accessible to the public, the Agriculture Department and the CCLA. However, only the CCLA is empowered to make changes to these records. On the other hand, while the RBS beneficiaries' information is accessible to the Agriculture Department and the CCLA, the Agriculture Department is empowered to edit this record. The public is entitled

to access the information of the status of their own payment under the RBS from the website of the Directorate of Treasuries and Accounts.¹⁸

5.5 Budget

We find that the state budgets of Telangana for the years 2016-17, 2017-18 and 2018-19 specifically record expenditure on land reforms under the broad head of 'Rural Development'. While the specifics of the land reform are not explained in the budget, Table 15 gives an overview of the budget estimate for land reforms in the rural areas.

Table 15 Budget estimates for land reform in rural areas

Financial Year	Budget Estimate (in INR lakhs)
2015-16	13,63.03*
2016-17	12,56.56
2017-18	13,35.85
2018-19	15,02.20
2019-20	15,06.18

Source: Annual Financial Statements and Explanatory Memorandum for financial years 2015-16, 2016-17, 2017-18, 2018-19 and 2019-20.

*Since the budget estimate for the financial year 2015-16 does not indicate the specific budget allocated to land reforms, this is the actual amount spent on land reforms in 2015-16.

More specifically, on the LRUP, we were informed that an aggregate budget of Rs. 100 crore was allotted for the purpose of implementation of the LRUP. While Rs. 40-60 crores was utilised for the printing of PPBs, the balance was utilised for arranging for logistics at the village level. We were also informed that a blanket sum of Rs. 1-2 crores was assigned to the Collector of each district for the implementation of the LRUP at the district level.¹⁹

5.6 Outcomes

The main objective of the LRUP was to update land records and issue updated and more secure title deeds and PPBs to land owners. Table 16 gives an overview of the number of districts, mandals and revenue villages covered under the LRUP in Telangana.

¹⁸This information maybe accessed scheme-wise at <https://treasury.telangana.gov.in/index1.php?service=allschemas>, last visited on 28 February, 2020

¹⁹Interview with the Principal Secretary, Finance Department on 6th June, 2019.

Table 16 Coverage of LRUP (districts, villages and area)

Unit	Coverage	Total	Coverage (%)
Districts	32	33	96.77
Mandals	573	584	97.26
Revenue Villages	10,823	Unclear	Unclear
Area (in acres)	2,38,18,551	2,76,94,830	86

Source: Report dated 4th June, 2019 provided by the revenue department.

As per Census 2011, there are 10,343 revenue villages in the state. For this reason, the numbers provided by the state government on coverage do not reconcile with the census 2011 figures.

Table 17 gives an overview of the state-level outcomes obtained under the LRUP in terms of the area covered, number of land parcels covered and the number of PPBs issued.

Table 17 State-level outcomes under the LRUP: area, no. of land parcels and PPBs issued (as on 4th June, 2019)

State-level LRUP outcomes: in acres and gunthas	
Total extent verified	2,38,53,248.36
Total extent clear	2,28,77,333 (94.65)
Total extent not clear	9,75,915.34 (4.09)
Details of land cleared	
Agricultural land cleared under LRUP	1,59,86,421.28
Area for which PPBs digitally signed & printed	1,54,51,919.39 (96.65)
Area for which PPBs not yet issued	5,34,501.29 (3.34)
Non-agricultural & govt. assets	68,90,542.02
State-level LRUP outcomes: in number of land parcels	
No. of Survey Nos. verified	1,96,78,844
No. of Survey Nos. cleared	1,87,60,272 (95.33)
No. of Survey Nos. not cleared	9,18,572 (4.66)
Total No. of Khatas covered	71,71,409
Total No. of cleared Khatas	67,68,151 (94.37)
Agricultural Khatas	60,00,509
Total No. of agricultural Khatas not cleared	4,03,258 (5.62)
Non-agricultural and govt. assets	7,67,642
State-level LRUP outcomes: in number of PPBs issued	
No. of cleared agricultural Khatas	60,00,509
No. of PPBs issued	55,85,396 (93.08)
No. of Khatas cleared for PPBs, but not yet digitally signed	4,15,113 (6.91)
AADHAAR is available	1,65,055
AADHAAR is unavailable	2,50,058

Source: Report dated 4th June, 2019 provided by the revenue department.

1. Nos. in brackets are percentages of the total of the head under which they appear.
2. The *AP (Telangana Area) Land Revenue Act 2014* vests “all public roads, lanes, paths, bridges, ditches, dikes, rivers, streams, tanks, ponds, canals, lakes and flowing water and all lands and the rights appertaining thereto”, except those belonging to persons whose rights are established and those in respect of which any order under the law has been made, in the state government.

The LRUP outcomes at the district-level have been set out in Table 18.

Table 18 District-level outcomes under the LRUP: no. of khatas and PPBs issued (as on 4th June, 2019)

District-level LRUP outcomes: number of khatas in Mulugu	
Total No. of Khatas covered	86,839
Agricultural Khatas	66465 (76.53)
Non-agricultural and govt. assets	19058 (21.94)
Total No. of Khatas not cleared	1316 (1.51)
District-level LRUP outcomes: number of khatas in Nalgonda	
Total No. of Khatas covered	5,02,447
Agricultural Khatas	4,51,928 (89.94)
Non-agricultural and govt. assets	32,237 (6.41)
Total No. of Khatas not cleared	18,282 (3.63)
LRUP outcomes: number of PPBs issued in Mulugu	
No. of cleared agricultural Khatas	66,465
No. of PPBs issued	58,055 (87)
No. of Khatas cleared for PPBs, but not yet digitally signed	8,410 (12.65)
AADHAAR is available	3,614 (5.43)
AADHAAR is unavailable	4,796 (7.21)
LRUP outcomes: number of PPBs issued in Nalgonda	
No. of cleared agricultural Khatas	4,51,928
No. of PPBs issued	4,19,274 (92.77)
No. of Khatas cleared for PPBs, but not yet digitally signed	32,654 (7.22)
AADHAAR is available	17,734 (3.92)
AADHAAR is unavailable	14,920 (3.30)

Source: Report dated 4th June, 2019 provided by the revenue department.

1. Nos. in brackets are percentages.

2. The *AP (Telangana Area) Land Revenue Act 2014* vests “all public roads, lanes, paths, bridges, ditches, dikes, rivers, streams, tanks, ponds, canals, lakes and flowing water and all lands and the rights appertaining thereto”, except those belonging to persons whose rights are established and those in respect of which any order under the law has been made, in the state government.

Disputed cases under the LRUP

During the LRUP, disputed cases were set aside for resolution and updation under phase-2 of the LRUP. These khatas and lands were titled “part b”. There are thirty three categories in which disputed cases were bucketed. Box .1 lists these categories.

Box 1: Categories of disputes under LRUP

- Civil court cases
- Revenue court cases
- POT cases
- Sadabainama cases
- NALA complete survey no.
- NALA part survey no.
- NALA minor non-agri. for DC
- Government asset complete survey no.
- Government asset part survey no.
- Unauthorised occupant -shivai jamedar
- LTR case
- Deletion of fictitious survey no.
- Overlapping survey no.
- Miscellaneous khata
- Forest revenue boundary dispute
- Forest land as per revenue record
- Endowment land
- Bhoodan land
- Wakf land
- Government land
- Full survey number acquired
- Part survey number acquired
- Extent less or excess
- Unclaimed meagre balance extent
- Sold out
- Adhaar incorrect/eKYC not done
- Clear - Adhaar incorrect
- Clear - Adhaar available but unable to capture biometrics
- Clear - Adhaar not given
- Clear - Adhaar unavailable (NRI-Company-Institution)
- Unsettled inam
- Dispute in succession
- POT-5Km ban-DH/MH/MT/MP/HMDA

Source: Revenue Department, Telangana

Table 17 shows that out of a total area of 2,76,94,829 acres, the LRUP covered about 86% of the area. Out of the area covered, nearly 95% of it was cleared as having no disputes on the Pattadar's title. In terms of number of land parcels covered, nearly 95% of the Survey Numbers and Khatas covered under the LRUP had no disputes. Finally, the state government digitally signed PPBs in respect of 93% of the cleared agricultural Khatas.

At the district level, the data on disputed cases has been set out in Table 20. We have included specific information in respect of the sample districts.

Table 20 District-level disputed khatas

State-level	Nalgonda	Mulugu	
Total Khatas	71,71,409	5,02,447	86,839
Disputed Khatas	4,03,258 (5.62)	18282 (3.63)	1,316 (1.51)

6 Land records updation in forest areas

The *Forest Rights Act* was enacted with the aim of giving recognition to the rights of forest dwellers who were residing in forest areas for generations, but did not have formal records of such rights. The Act aimed to do so by vesting them with rights including occupation rights.

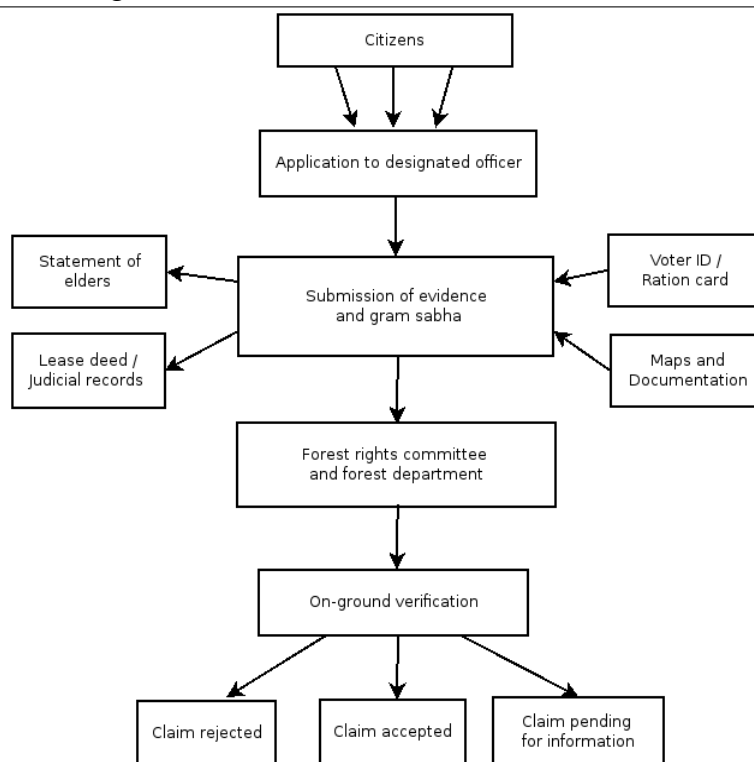
The initial announcement of the RBS, did not include forest dwellers and therefore, the first phase of the LRUP did not include forest lands. Subsequently, after Rabi 2018, the second season of implementation, the Government of Telangana announced that the RBS was to be extended to agency areas and ROFR patta holders.²⁰

The nodal agency for implementation of the *Forest Rights Act* is the Tribal Welfare Department. However, under the above-mentioned Government Order, the District Collectors were given the responsibility to identify the ROFR beneficiaries under the RBS. They were to do so in consultation with the Tribal Welfare Department and the Forest Department. The nodal officers in both cases includes the Project Officer from the ITDA. The organisational chart and departmental capacity of the ITDA has been set out in Table 24 and Figure 7.

Figure 5 explains the process flow for granting of ROFR pattas.

²⁰G.O. Rt. No.202 -Agriculture and Cooperation Department, 1st June, 2019

Figure 5 Process for grant of PPBs to holders of ROFR certificates



Disputed cases in forest areas

Disputes in case of ROFR holders may arise on two occasions. The first set of cases arise with RBS beneficiaries who already have ROFR pattas, but have had a change of circumstance which has not been reflected on the record. In these cases, fresh ROFRs need not be issued, but they have to be updated. In this category, there may be four kinds of cases:²¹

- **Death of the title holder:** In such a case, since forest rights are heritable by law, the title will be transferred to the direct heir and maybe divided where there is more than one heir. RBS cheques are to be issued in the name of the legal heir after a detailed field enquiry.
- **Selling the land:** Under the law, forest rights are heritable but not transferable and therefore, transferring or alienating land except in case of inheritance, is a violation of the law. The RBS amount will be not granted in this case.
- **Loss of title deed:** In such a case, the District Collector may order a field enquiry. A duplicate deed may then be granted.

The second category of cases arise on account of pending applications, or fresh applications for ROFR.

²¹RC. No. 812/2017/TRI/RoFR, Commissioner of Tribal Welfare, 11th May, 2018

Table 21 sets out the district level information about ROFR related claims, rejections and pendency.

Table 21 District-level outcomes in respect of ROFR

District-level no. of ROFR applications	
Total no. of ROFR applications	Not known
Mulugu	1041
Nalgonda	9440
District-level no. of ROFR applications accepted	
Total No. of ROFR accepted applications	Not known
Mulugu	Not known
Nalgonda	4248
District-level no. of ROFR applications rejected	
Total No. of ROFR rejected applications	Not known
Mulugu	Not known
Nalgonda	3969
District-level no. of ROFR applications pending	
Total No. of ROFR pending applications	Not known
Mulugu	Not known
Nalgonda	NIL

Source: Data provided by the ITDA in Mulugu and Nalgonda as of October 2019.

7 Rythu Bandhu Scheme (RBS)

The RBS was announced on 25th February at the Rythu Samanvaya Samithi by the Chief Ministry of Telangana, K. Chandrasekhar Rao. The terms and conditions of the RBS are codified in a circular issued by the Ministry of Agriculture and Co-operation Department.²² The circular motivates the RBS as follows:

“...[F]armers’ income in the state has been under stress in view of the ever growing input costs, unpredictable process and rising family expenses, especially on health and education. Therefore the daunting task before Government of Telangana is to provide a sense of income security to the farmers.”

The RBS aimed to cover every land owner farmer in the state. Table 22 presents some summary statistics about the coverage of RBS, with a particular focus on Nalgonda and Mulugu, which were the districts selected for the purpose of this study.

Table 22 Coverage of farmers under the RBS

Total number of beneficiaries	54,20,102
Avg. number of beneficiaries per district	1,86,900
Median number of beneficiaries per district	1,62,711
Minimum no. of beneficiaries in a district	63,146 (Mulugu)
Maximum no. of beneficiaries in a district	4,19,723 (Nalgonda)
No. of beneficiaries in Nalgonda	4,19,723
No. of beneficiaries in Mulugu	63,146

Source: Website of Rythu Bandhu hosted by the Agriculture Department.

1. Information for three districts, namely, Medchal, Narayanpeth Rangareddy out of 32 districts in which RBS is implemented, is not available in public domain.

2. The information for Mulugu was provided by the Assistant Director, ITDA.

3. The information pertaining to minimum number of beneficiaries does not take into account Hyderabad which has 0 beneficiaries.

4. The number of beneficiaries need not match the number of land parcels in the district as a beneficiary may own multiple parcels of land.

Table 22 shows that each district has an average of about 1,86,900 beneficiaries and at least 50% of the districts have upto 1,62,711 beneficiaries. Here, it must be noted that districts with a larger number of beneficiaries are likelier to have fragmented agricultural landholdings, relative to districts with a smaller number of beneficiaries.

7.1 Departments involved in the implementation of the RBS

The Agriculture Department is the nodal ministry for implementing the RBS.

²²2018004circular'agri

The main objective of the Agriculture Department is to provide agriculture extension services to farmers. In addition to this, the Agriculture Department works in the area of credit assessment and arrangement, crop insurance, farmers training. The department also supplies input such as fertilisers, pesticides and seeds.

The Agriculture department has officers at all levels of the administrative divisions to operationalise and implement various schemes. Table 23 sets out the administrative hierarchy within the Agriculture Department.

Table 23 Administrative hierarchy - Agriculture

S.No.	Administrative division	Designated officer
1.	State	Commissioner and Director of Agriculture
2.	District	District Agriculture Officer
3.	Mandal	Mandal Agriculture Officer
4.	Village	Agricultural Officers and Agricultural Extension Officers

Figure 6 is a flowchart that details the organisation structure of the Agriculture Department.

In addition to the Agriculture Department, the ITDA is responsible for the delivery of benefits and redressal of grievances of persons residing in tribal areas.

The ITDA was established to implement development programmes for tribals in designated areas (sub-plan areas). There was a need for a single agency to achieve better coordination and offer redressal for grievances of tribals. The ITDA performs a comprehensive set of functions in all spheres that concern tribals. Some of these include:

- reservations and appointment of tribals
- caste verification
- functions in relation to forest rights under the *Forest Rights Act*
- functions under the *Panchayats (Extension to the Scheduled Areas) Act*
- resolving land disputes in Scheduled Areas

Table 24 sets out the administrative hierarchy within the ITDA.

Figure 6 Agriculture Department: Organisation chart

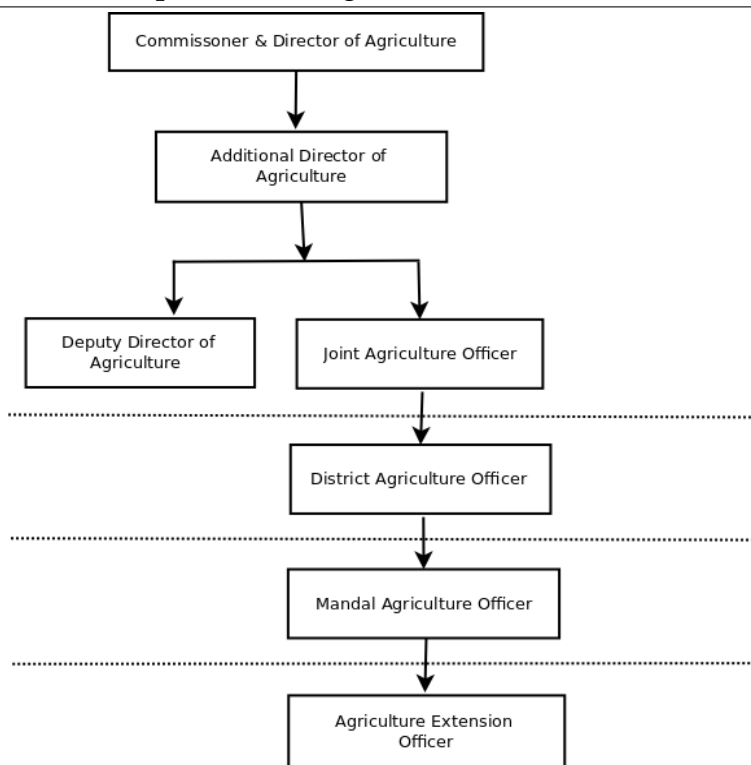


Table 24 Administrative hierarchy - ITDA

S.No.	Administrative division	Designated officer
1.	State	-
2.	District	District Collector and Chairman, ITDA
3.	Mandal and village	Project Officer and Asst. Project Officer

Figure 7 explains the organisational structure of the ITDA.

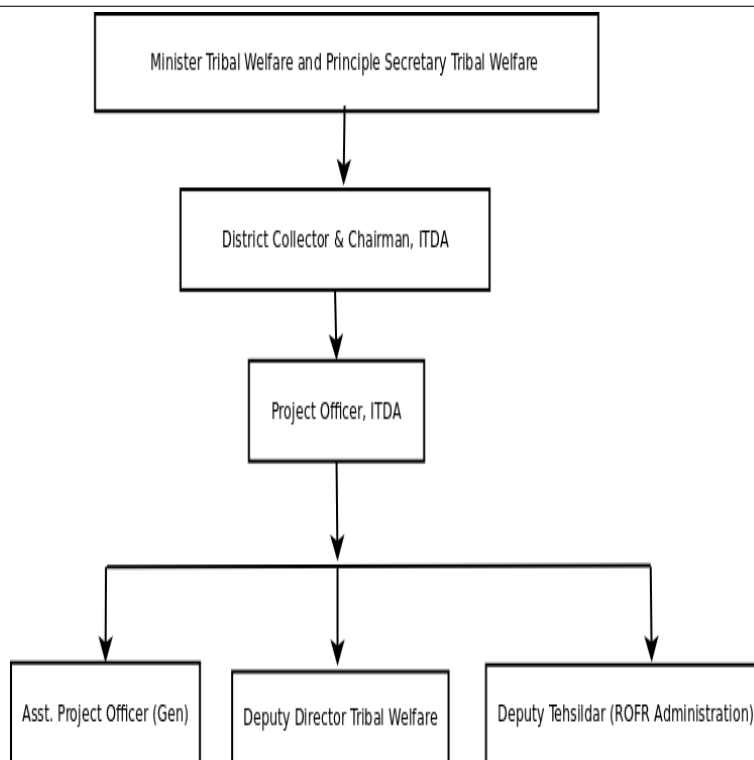
7.2 Implementation of the RBS

The key features of the RBS and our observations thereon, are summarised below:

Cheque distribution v. Direct benefit transfer: The RBS is a direct benefit transfer of cash to all eligible farmers within the state. The cash transfers are aimed at aiding farmers make investments in inputs during each cropping season.

While the RBS is now a DBT scheme, for the first round of distribution, the government opted to transfer the money by way of cheque distribution. In fact, the circular titled **2018004circular'agri** stipulates detailed implemen-

Figure 7 ITDA: Organisation structure



tation guidelines for the process of cheque distribution. For example, it states that the cheques to be distributed will be “Order cheques”. It commissions a centralised portal for the updation of information pertaining to daily cheque disbursements by the village-level mandal agriculture officers (MAOs). To ensure smooth co-ordination between the banks disbursing the cheques, the Agriculture Department, the Finance Department and the NIC, it provides for the constitution a state level monitoring committee comprising of the Principal Secretary, Agriculture, the Commissioner and Director of Agriculture, the Joint Secretary of the Finance Department, the State Level Bankers Committee (SLBC) and the NIC.

The process flow for co-ordination of the cheque distribution exercise is described in Box .2.

Process flow for delivery of RBSs through cheques (Kharif 2018)

- Four nationalised banks banks, and two rural co-operative banks, were designated for the purpose (Table 25).

Table 25 Designated Banks for RBS

Bank	No. of Mandals covered
State Bank of India	251
Andhra Bank	130
Syndicate Bank	38
Corporation Bank	31
Indian Overseas Bank	27
Canara Bank	23
Telangana Gramina Bank	33
Andhra Pradesh Gramina Vilas Bank	35

- The CAD would:
 - open accounts with these banks for crediting the sums of money;
 - transfer the details of the beneficiaries from the LRUP database in the formats provided by the banks.
- The banks would print cheques as per the details of the beneficiaries provided by the CAD with the digital signature of the CAD.
- The banks would charge for the cheque printing and despatch at rates fixed by the SLBC.
- The printed cheques would be despatched to the office of the CAD, which in turn, was responsible for delivering the cheques to the MAOs.
- The MAOs were responsible for cheque distribution within the Mandals to the beneficiaries.

To operationalise the cheque distribution to the beneficiaries, distribution tents were set up in each village, along with some basic infrastructure such as provision for drinking water. On the appointed day, village level agricultural officers, who had been entrusted with the cheques, distributed the cheques by crossing off names from the list of eligible farmers. Each farmer had to produce the newly issued PPB for this purpose.

After the first season of cheque distribution, the government abandoned the method of cheque distribution by shifting to the DBTs method. The seeding of bank account and AADHAAR numbers with the Revenue Department made this possible. Since this dispensed with banks as intermediaries and the costs associated with cheque distribution, we were informed that the administrative costs of making the DBTs were one tenth of the costs involved

in cheque distribution.²³ Like most other DBTs schemes of Telangana, the process of DBT in the RBS also involves transfers from the state consolidated account of Telangana with the RBI through the E-Kuber platform directly into the bank accounts of the beneficiaries.

Bi-annual payments: The RBS was designed as a biannual payment to be given to farmers per acre of land owned, prior to the Kharif and Rabi cropping seasons, respectively. The initial amount was set at Rs. 4,000/- per acre per season for each farmer. This amount was enhanced to Rs. 5,000/- for the year 2019-20, that is, from Kharif 2019 onwards, the amount was enhanced.²⁴

Eligibility for the scheme : The RBS benefits are available to all land owning famers in the state. This includes farmers in scheduled areas and forest areas as well as those who have been granted rights under the *Forest Rights Act*.

No upper limit on land holding: There is no eligibility floor or ceiling on the extent of landholdings of farmers. The scheme therefore covers small, marginal, medium and large farmers in the state.

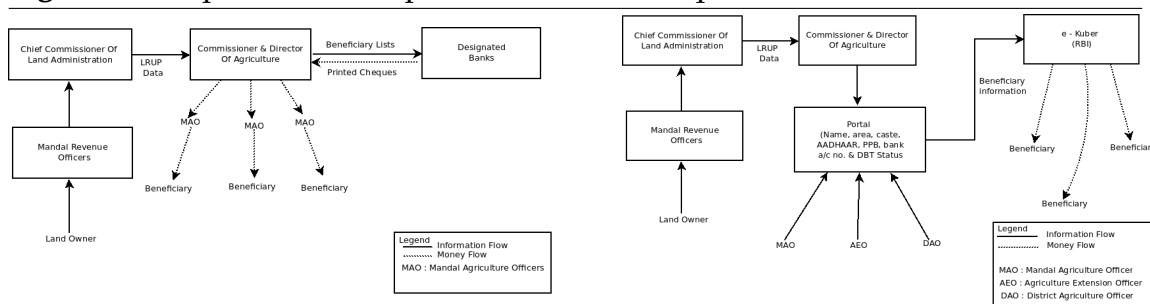
Reliance on land records for implementation: The RBS relies on the land records infrastructure in the state for implementation for the identification of eligible farmers within the state and for calculating the extent of the benefit to be granted to each farmer.

Exclusion of tenant famers: Tenant farmers and landless farmers have been excluded from the purview of the RBS.

End-to-end process flows

Figure 8 depicts the end-to-end process flows involved in the distribution of the RBS benefits to the end-beneficiaries under the scheme through cheques and DBTs.

Figure 8 Comparison of the process flows in cheque distribution and DBTs



²³Interview with Mr. Rahul Bojja (CAD dated 3rd June, 2019.)

²⁴*Guidelines for Implementation of Agriculture Investment Support Scheme 2019.*

7.3 Budget

A budget of Rs. 12,000 crores was provided for payment of the RBS entitlements for the financial year 2018-19.²⁵ This was on the basis of the RBS entitlement being Rs.4,000 per acre of agricultural land owned. Subsequently, with effect from 2019-20, the State Government increased the RBS entitlement to Rs.5,000 per acre.²⁶ On this basis, it is estimated that the RBS entitlement budget for the year 2019-20 (beginning Kharif 2019) should be enhanced to Rs.15,000 crores.

We find that the expenditure statement of the state government's budget does not separately refer to the Rythu Bandhu (or an equivalent head) for provision of money for the RBS entitlement. However, an analysis of the Budget Speech indicates that the budget for 2019-20 provides for a sum of Rs. 12,000 for the purpose of the RBS. Further, an analysis of the budget documents indicate that the state has made a provision of Rs. 9,056 crores for the purpose of the RBS.²⁷ The shortfall in the budget allocation, despite an increase in the amount of entitlement, remains unexplained.

Similarly, the expenditure involved in the administration of the RBS cannot be discerned from the budget documents of the state government. However, we were informed that the original budget allocation of Rs. 12,000 crores included the costs of administering the RBS.²⁸ Table 26 contains the broad heads of expenditure for the administration of the RBS.

Table 26 Broad heads of expenditure for the administration of the RBS

Head of expenditure	Amount (INR)
Cheque printing and service charges for banks	70 crores
Allocation to each District for cheque distribution	1-2 crores
Awareness and marketing	10-15 crores

Source: Interview with the Principal Secretary, Finance Department conducted on 3rd June, 2019.

This gives an overview of the expenditure involved in the first round of distribution of the RBS entitlement only.

After the first round of distribution, the service charges and the expenses involved in the printing of cheques would have been eliminated as in the DBT mode of distribution, the amount of entitlement is transferred directly from the bank account of the state government with the RBS into the beneficiary's bank account through e-Kuber.

²⁵ *Guidelines for Implementation of Agriculture Investment Support Scheme 2018*

²⁶ *Guidelines for Implementation of Agriculture Investment Support Scheme 2019*

²⁷ Research 2019

²⁸ Interview with the Principal Secretary, Finance Department conducted on 3rd June, 2019.

7.4 Outcomes

Table 22 gives an overview of the number of farmers who are covered by the RBS. To understand the ground level of experience, we undertook two kinds of exercises in the two villages where we conducted field visits:

- We conducted FGDs with four groups of farmers, as explained in Section 3.3.
- We attempted to estimate the inclusion and exclusion errors, as explained in Section 3.4.

7.4.1 Citizens' perspectives

A study of a scheme is incomplete without examining perceptions of the group targeted by the scheme. To comprehensively understand the implementation and effectiveness of the RBS, we conducted FGDs in both sample villages - Marrigudda and Shapalli. The detailed methodology adopted in selecting the farmers and farmer groups is set out in Section 3.

The aim of this exercise was twofold. First, to understand the on-ground effect and implementation of the RBS; and second to highlight citizens' experiences. In addition to recording the perspective of targeted beneficiaries of the scheme, we also highlight the experiences of those who have been excluded from the scheme, either by design or otherwise.

Sample size and farmer profiles

Table 27 gives an overview of the size of the groups involved in the FGDs.

Table 27 Sample size and distribution of farmers interviewed in the sample villages

S.No.	District	Mandal	Village	Number of farmers
1.	Nalgonda	Nalgonda	Marrigudda	48
2.	Mulugu	Eturnagaram	Shapalli	34
Total				82

In each of the two villages, we classified the groups into three main groups, namely, beneficiaries, Pattadars who are excluded from the RBS because their land is classified as 'disputed' under the LRUP and non-beneficiaries (that is, tenant farmers). Table 28 gives an overview of the size and constitution of the groups interviewed for the purpose of this study. Our FGDs comprised 82 people with 48 of them in Marriguda and 34 in Mulugu.

Table 28 Profile of respondents in the FGDs

Group	Marriguda	Shapally	Total
Beneficiaries	25	21	46
Small and marginal	16	13	29
Medium and large	9	8	17
Pattadars excluded	10	9	19
Tenants	13	4	17
Total	48	34	82

Farmers owing <5 acres are grouped together as small and marginal farmers.

Farmers owning ≥ 5 acres are grouped together as medium and large farmers.

To understand the second and third groups, that is, the Pattadars whose land was classified as disputed and tenants, Table 29 zooms into the details of the land owned by farmers of this group.

Table 29 Profile of respondents: farmers with disputed titles

Group	Marriguda	Shapally	Total
Pattadars excluded	10	9	19
Small and marginal	9	3	12
Medium and large	1	6	7

Table 29 shows that for the randomly constituted FGDs groups, while most of the disputed titles were in respect of larger parcels of land in Mulugu, the reverse was true in Nalgonda.

Learnings from the FGDs

For brevity, we have divided our learnings from the field FGDs into four main categories. The indicative questions asked for each category and our learnings in each category are as follows:

Awareness about the RBS: Awareness is one of the key ingredients for the success of any welfare scheme. The beneficiaries of the scheme must be informed about their rights with respect to their entitlement to the benefits under a given scheme. A well informed beneficiary will be better placed to undertake the procedures required to avail the benefits of the scheme as well as seek redressal in case of grievances. Together, these raise the potential for effectiveness of the scheme at the grass-roots levels.

To understand the awareness levels of the RBS among farmers on the ground, we administered questions on awareness across all interviewed groups. Table 30 sets out an indicative list of the questions administered in this category.

Table 30 Indicative list of FGD questions on awareness

Questions	Interviewed group
Have you heard about the RBS?	All groups
Was there an effort by the state to create awareness about the scheme? If so, how?	All groups
What is the process of obtaining benefits under the RBS?	All groups

We find that across all beneficiary groups, farmers were aware about the RBS. We did not see any difference in the awareness levels of the small and marginal farmer group and medium and large farmers group. Even land-holding farmers who have not received benefits under the RBS (excluded group) have basic levels of awareness about the scheme. However, we find that among tenant farmers in the village of Marriguda, there was less awareness about the scheme. One tenant farmer, for example, had not heard about the RBS altogether. Tenant farmers in the Shapalli village, we found, were better informed. They also appeared to have a more symbiotic relationship with the landlord farmers from the village.

Among the disputed farmer groups, we found that even though farmers are aware about the scheme, they are unable to understand the reason for their exclusion. In all the cases we saw, the excluded farmers owned disputed land or had acquired the land by irregular transactions and therefore, their PPB had been reserved for Phase II of the LRUP. While we were informed by farmers in Marriguda that awareness about the RBS was conducted at the office of Mandal Revenue Officer (MRO). This programme was attended by fifteen farmers who in turn would return to the village and explain the scheme to all the farmers in the village. In addition to this, awareness had also been created through local vernacular newspapers and television channels. In Shapalli, however, we were informed that no specific awareness drive had been conducted. Information about the programme was obtained through newspapers, television channels and fellow farmers who knew about the RBS.

Farmers in both sample villages and across all groups, except tenants, were aware that in order to obtain the benefits under the RBS they were required

to furnish copies of their PPBs, AADHAAR cards and bank passbooks as proof.

Operationalisation and implementation: In this category of questions, we included questions that would help understand the on-ground operationalisation and implementation of the RBS. Table 31 sets out an indicative list of the questions administered in this category:

Table 31 Indicative list of FGD questions on operationalisation and implementation

Question	Interviewed group
How difficult or easy was it for you to obtain the PPB?	All groups
How difficult or easy was it for you to obtain benefits under the RBS?	All groups
Was your land parcel part of LRUP?	Landholder farmers
Did you have to open a bank account for the purpose of RBS?	All groups

In Shapally, a forest village with a predominantly tribal population, we learnt that farmers with land in forest areas, had problems updating their land records. Even in cases of non-forest land, farmers expressed concerns about delays in changing names and updating land details in records. We were informed that many records in the village had not been updated. For example, many small and marginal farmers who inherited land, were unable to have their names updated on their record. In these cases, the records still had their parents' names. Some of the reasons offered by the farmers for the lack of updated records were that the land is situated in forest areas or that the land is designated as tribal land. We later learnt in case of tribal lands, which are to be sold only to tribals, many non-tribals have acquired the land and since the law does not permit this, they cannot be issued PPB (sadabainama cases). However, they continue to occupy the land. In Marringuda, small and marginal farmers informed us that the process of updating of records was not done in manner which involved the community. Records were updated in consultation with some big farmers in the village. For the purpose of implementation, by and large farmers had bank accounts even before the introduction of the RBS so there was no need to open one for the purpose of the scheme. We were informed that the reason for farmers having bank accounts prior to the RBS was to avail crop loans.

Service delivery: The objective of asking questions under this category was to understand the last mile service delivery under the RBS.

Table 32 sets out an indicative list of the questions administered in this category:

Table 32 Indicative list of FGD questions on service delivery

Questions	Interviewed group
Have you received the amount you are entitled to under the RBS for the last three cycles?	All landholder farmers
What has been your experience interacting with government officials and banks?RBS?	Beneficiaries
What is the distance from your home to the bank?	Beneficiaries

One farmer in Marrigudda village reported that he had received the RBS amount on account of an incorrect IFSC code. We learnt that in Marrigudda many farmers had not received the third instalment of the RBS amount despite their documents being in order. These farmers had received the RBS amounts during the first and second seasons. Non-beneficiaries from Marrigudda village informed us that they had experienced caste discrimination in updating names on the records. When non-beneficiary farmers approached revenue officials, they were told that the budget was over and hence money could not be transferred to them, despite them having the required documents.

The farmers across all groups in both sample villages were not aware of the process to redress grievances. They would approach a village level officer or the Tahsildar directly for all grievances, be it RBS related or related to their PPB. Small and marginal farmers in Shapalli informed us that they have received only one instalment of the RBS. This was done by cheque distribution. This group also said that cheque distribution was better than online transfers. The main reason for this was because they had faced some technical problems for online transactions. Further we were also informed that banks would appropriate the RBS amount against any outstanding loans of a farmer.

All other respondents preferred online transfers because this avoided the need to physically go to the bank and complete the required formalities to transfer money into their accounts. The distance from Shapalli village to

the local bank is approximately 12 kms. The distance from Marrigudda vil-
lage to the local bank is approximately 5 kms.

Among the medium and large farmers in Shapalli, we were informed that
only about 25% of farmers had received the RBS benefits for two seasons.

End use and farmer satisfaction: In this category we included questions aimed
at understanding the farmers perspectives on the effectiveness of the RBS
as well as their overall satisfaction with the scheme. Table 33 sets out an
indicative list of the questions administered in this category:

Table 33 Indicative list of FGD questions on service delivery

Questions	Interviewed group
What are the main purposes for which you use the benefit amount?	Beneficiaries
Has the scheme helped avoid taking on debt for the purpose of agriculture?	Beneficiaries
What is the distance from your home to the bank?	Beneficiaries
Is the entitlement sufficient? Why or why not?	Beneficiaries

Most small and marginal farmers interviewed said that the amount was
useful in aiding investment by them during the cropping season. Medium
and large farmers were of the opinion that the amount given was insuffi-
cient to meet investment expenses. In Marrigudda, we were informed that
there was a reduction in farmer suicides after the introduction the RBS. The
amount reduced farmer dependence on borrowings. Consequently, mort-
gages have also reduced. All farmers who had received benefit amounts
under the RBS said that they had utilised the amount for the purpose of
agriculture.

Sufficiency of the RBS amount: We were informed that while the RBS amount
was helpful, it was insufficient to meet a farmers investment needs during
the cropping season. In order to assess the gap between the RBS amount
actually spent by farmers, we collected information on the per season ex-
penditure by individual farmers who were respondents in the FGDs. Table
34 sets out the sample characteristics of the respondents, including their
annual investment in agriculture.

Tenant farmers: There was a general lack of awareness about the scheme among

Table 34 Average annual expenditure of beneficiary farmers in the FGDs

	Average across two villages	Marriguda	Shapally
Small and marginal farmers	87,069	88,937	84,769
Medium and large farmers	1,71,786	1,30,111	2,18,670

tenants in both villages. This group had heard about the scheme but did not know the details such as the entitlement amount or the manner of calculation of the entitlement. Tenants in Marrigudda complained that they bear the cost of production as well as the rents payable to the landlord. According to this group, most farmer suicides occurred among tenant farmers. Tenants in Shapalli were of the opinion that if they were given RBS amount, landlords would increase rents. This group borrows money from money lenders for agricultural investment as banks do not give loans to tenant farmers who do not own land which can be mortgaged.

7.4.2 Inclusion and exclusion error estimation

Table 35 gives a snapshot of the total number of land parcels cleared with under the LRUP, the number of PPBs issued and the number of RBS beneficiaries.

Table 35 Snapshot of LRUP and RBS outcomes

No. of agricultural khatas cleared under LRUP	60,00,509
No. of Part B (disputed) Khatas	4,03,258 [®]
No. of PPBs issued	55,85,396
No. of ROFR certificate holders*	94,774
Total no. of PPBs holders and ROFR certificate holders	56,80,170
No. of beneficiaries	54,20,102 [!]

Sources: Revenue Department, Agriculture Department and ITDA.

[®] This number does not include non-agricultural and government assets.

* This number includes information for 24 out of 32 districts.

[!] This number includes information for 29 out of 32 districts. Information for the balance districts is unavailable in the public domain.

Table 35 gives insights into the state-level aggregate numbers. Here, the information about the number of beneficiaries and the number of ROFR certificate holders for some districts (as indicated in the notes to the table) is not available in the public domain.

Theoretically speaking, since the RBS coverage includes PPBs holders and ROFR certificate holders, the number of beneficiaries should be the sum of PPB holders and the holders of ROFR certificates. Since the information on beneficiaries is not available for two districts, it is difficult to estimate the error, if any, in the absolute number of beneficiaries at the state-level.

Although the number of beneficiaries is lesser than the total number of holders of PPBs and ROFR certificates, it is inaccurate to attribute this to an exclusion error as the number of beneficiaries does not include information about two districts. The average number of beneficiaries per district is 1,86,900 (Table 22). On this basis, the aggregated number of beneficiaries in the the remaining three districts can be approximated at 5,60,700.

If this assumption is in an accurate range, then the total number of beneficiaries can be approximated at 59,80,802, which exceeds the total number of holders of PPBs and ROFR certificates by 5,60,700, thereby implying a potential inclusion error in the absolute number of beneficiaries covered under the RBS. This translates to an inclusion error of 9.37%. However, this number must be approached with caution as it makes some critical assumptions about the number of beneficiaries in the remaining three districts.

This estimation is based on comparing the available data on the number of PPBs issued and the number of beneficiaries available in the public domain. This approach has its limitations as it does not rely on the base land records, namely, the Pahaani. It also does not offer insights into the estimation errors, if any, in the area covered under the RBS. This is critical from a budgetary outlay perspective as the RBS entitlement is linked to the area of the land parcel owned by the farmer.

In the next few sections, we attempt to estimate the error by comparing the base land records with the number of beneficiaries, to get a more holistic picture of the estimation error.

We measured the inclusion and exclusion error in the administration of the RBS in Nalgonda and Shapally villages through two parameters:

No. of beneficiaries: By comparing the original land records, namely the Pahani, maintained at the village level with the village level RBS beneficiaries' list, we estimate the number of beneficiaries wrongly included or excluded in the RBS.

Extent of area: By comparing the original land records maintained at the village level with the village level RBS beneficiaries' list, we compare the extent of area wrongly included or excluded in the RBS.

Method and validation checks

While the Pahani records are maintained in Telugu, the RBS beneficiaries' list is available in English. We begin the exercise by translating the Pahani records into English. We found that there is no unique numbering system that allows us to identify the same person across the Pahaani records and the RBS beneficiaries' list. Since the lists are maintained by separate departments, the manner in which they enter names is different. For this reason, we had to perform numerous

validation checks for the purpose of identification of persons across the Pahaani records and the RBS beneficiaries' list.

Here, it is important to note that at various stages of the field visit, it was suggested that we should compare the list of PPBs holders with the RBS beneficiaries' list. However, in our view, since the Pahani records are the most original land records maintained at the village-level, using the Pahani record is a more rigorous approach. Since the RBS beneficiaries' list is drawn up using the PPB database as the base, it would not be meaningful to compare the PPB database with the RBS beneficiaries' list. This would yield the added benefit of providing an approximate proxy for the extent of inconsistencies between the base land record and the PPBs as well.

As explained in Section 5, the Pahani records contain several entries. Table 36 lists the entries which we relied on for the purpose of this exercise.

Table 36 Relevant entries in Pahani records

Category	Fields of information
Identification	Survey and Khata Nos.
Landholder	Name Name of the father / Son of/Wife of
Area (acres, gunthas)	Actual area
Type of landholding	How was it acquired

We extract the details of those people in the Pahani records who have been classified as 'Pattadars', and compare the details of the Pattadars with the RBS beneficiaries' list. This exercise, by itself, requires some aggregation as the Pahani records list each land parcel separately. On the other hand, the RBS beneficiaries' list aggregates the land of each unique beneficiary to compute the extent of her entitlement. For this reason, the number of entries in respect of Pattadars in the Pahani records will exceed the number of entries in the RBS beneficiaries' list. We identify unique Pattadars in the Pahani records and aggregate the extent of land held by them for the purpose of the comparison with the RBS beneficiaries' list.

In Table 37, we present some summary statistics of the information contained in the Pahani records of both the villages.

Table 37 Overview of entries in Pahani records of Marriguda and Shapally

	Marriguda	Shapally
Total no. of entries in Pahani	3004 (1414.38)	513 (1423.57)
Unique entries	1287	211
Type of holdings		
Entries with government land	87 (116.38)	74 (371.72)
Entries with built-up land	86 (47.53)	0
Entries with forest land	0	2 (793.07)
Entries with Pattadars	1811 (675.66)	251 (98.59)
Other entries	1020 (574.80)	186 (160.91)
Total	3,040	513

1. Nos. in brackets indicate areas in Acres and Gunthas and have been rounded off beyond two decimal points.

2. Government land comprises entries marked as government land, canals and road.

3. Built up land comprises entries marked as house sites, house plots, houses, residential plots.

4. Others comprise entries such as Railways, Buyer/ Seller, Inheritance, Stones and fences, etc.

5. In the case of Shapally, Pattadars includes all entries identified as “virasat patta”.

From the information summarised in Table 37, we extracted the information for entries classified as ‘Pattadars’ in the Pahani records. In the Pahani records for Shapally, we noted some entries classified as ‘virasat Pattadars’, which we included in our analysis.

Table 38 Profile of Pattadars and their landholding in Marriguda and Shapally

	Marriguda	Shapally
Total Pattadar entries	1811	251
No. of Pattadars	848	128
Min. land holding (acres)	0.005	0.01
Max. land holding (acres)	13.59	4.11
Avg. land holding (acres)	0.79	0.75
Median land holding (acres)	0.23	0.24
Min. count	1	1
Max. count	21	9

In the second row of Table 38, we identify the unique Pattadars in the Pahani records to aggregate the land belonging to them. Table 38 shows that while the smallest land parcel in Marriguda is smaller than the smallest parcel in Shapally, there is a big gap between the sizes of the largest land parcel held in both the villages. The average size of the land parcel in both the villages is roughly the same. The last two rows indicate the number of times the name of the same Pattadar has appeared in the Pahani records. Thus, while a Pattadar appears

to hold twenty-one different land parcels (Khatas) in Marriguda, the maximum number of land parcels (Khatas) held in Shapally is 9.

Findings on error estimation

In Table 39, we present the findings our exercise involving estimation of the inclusion and exclusion errors in the administration of the RBS.

Table 39 Estimation of inclusion and exclusion errors in the administration of the RBS

	Marriguda	Shapally
No. of inclusion and exclusion errors		
No. of Pattadars in Pahani	848	128
No. of beneficiaries in RBS list	662	144
Exclusion error	186	0
Inclusion error	0	16
No. of Pattadars with area discrepancy		
No. with area discrepancy	348	57
No. with no area discrepancy	314	87
Extent of area discrepancy (in no. of Pattadars)		
Discrepancy of upto +/- 0.5 acres	83	10
Discrepancy of +/- 0.5 \geq 1 acre	124	24
Discrepancy of +/- 1 \geq 2 acres	77	17
Discrepancy +/- >2 acres	64	6
Avg. area discrepancy (in acres)	-0.55	-0.17

1. Area discrepancy is the area recorded in the Pahani less area recorded in the RBS beneficiary list.

2. Some ROFR holders in Shapally may have been included in the RBS beneficiary list.

Table 39 shows that while about 186 Pattadars appearing in the Pahani records of Marriguda have been excluded from the RBS beneficiaries' list, there are no such exclusions for Shapally. The number of disputed Khatas in these villages is 18,282 and 1,316 respectively. Since we do not have access to the case-level details of these disputes, running a matching exercise between the Pattadars whose Khatas have been disputed and the wrongly excluded beneficiaries in Marriguda, is challenging.

On the other hand, while we record no inclusion error for Marriguda, 16 persons whose names do not reflect in the Pahani records have been wrongly included in the RBS beneficiaries' list for Shapally. It is possible that some of these beneficiaries may be holders of the ROFRs. However, since we do not have person-level information on ROFR holders, verifying this is a challenge.

We record greater discrepancies in the computation of area. We find that there is a discrepancy in the area recorded for more than 50% of the beneficiaries in Marriguda village and about 40% of the beneficiaries in Shapally village. Amongst the beneficiaries who witness a discrepancy in the area recorded in the Pahani records and the RBS beneficiaries' list, bulk of the beneficiaries witness a discrepancy of between 0.5 to 1 acre. The average discrepancy is towards recording more area in the RBS beneficiaries list. On an average, the beneficiaries' list of Marriguda records 0.55 acres in excess of the area held by a beneficiary; and the RBS beneficiaries' list of Shapally records 0.17 acres in excess of the area held by a beneficiary.

Table 40 presents our findings on the extent of area wrongly included and excluded in the RBS beneficiaries' list in Marriguda and Shapally.²⁹

Table 40 Discrepancy in area calculation across Pahani records and RBS beneficiaries' list

	Marriguda	Shapally
Area under inclusion error (acres)		
Area of wrong beneficiaries	31.67	6.1
Surplus area of right beneficiaries	383.22	39.35
Total area wrongly included	414.89	45.45
Area under exclusion error (acres)		
Deficit area of right beneficiaries	48.41	14.01

This does not include 26 beneficiaries in Shapally village who were included in the RBS as ROFR certificate holders.

On the basis of Table 40, we estimate that an excess pay-out in respect of about 366 acres is being made in respect of the Marriguda village. The corresponding number for Shapally is lower at about 31 acres. This results in a total excess payout of INR 46,03,400 across both villages. Table 41 presents the amount of excess payout on account of over-inclusion of land area in the sample villages of Marriguda and Shapally.

²⁹For the purpose of estimating the error, we have not included 26 beneficiaries in the Shapally village as they are holders of ROFR certificates. Since we do not have the original list of ROFR holders, we are unable to estimate whether these beneficiaries have been rightly or wrongly included in the RBS scheme.

Table 41 Excess payout in the sample villages under the RBS

Total area wrongly included (acres)	460.34
Marriguda	414.89
Shapally	45.45
<hr/>	
Total Annual payout for sample villages	1,78,28,052
Marriguda	1,48,39,746
Shapally	29,88,306
<hr/>	
Annual excess payout for sample villages	46,03,400 (25.82)
Marriguda	41,48,900 (27.95)
Shapally	4,54,500 (15.20)

1. Nos. in brackets indicate percentages and have been rounded off beyond two decimal points.

2. For the purpose of calculation of the total pay-outs, we have included the pay-outs made to 26 beneficiaries who are holders of ROFR certificates.

3. This is on the basis of the beneficiary lists prepared for Kharif 2019.

Assuming that the beneficiary list remains the same for two seasons, we find that there nearly 26% of the annual amount paid to the beneficiaries in these sample villages is on account of over-inclusion. The error is higher in Marriguda where nearly 28% of the amount paid is attributable to over-inclusion, and about 15% of the amount paid in Shapally is on account of over-inclusion.

Limitations

Our estimations have been made on the basis of the Pahani records and the RBS beneficiaries' lists provided for the villages of Marriguda and Shapally for the period ending June 2019. The number of beneficiaries for the Shapally village does not take into account ROFR certificate holders, who have also been brought within the ambit of the RBS scheme. However, given that the RBS was extended to ROFR certificate holders only with effect from June 2019, we do not anticipate the over-inclusion to be attributable to the holders of ROFR certificates.

8 Conclusion

We find that the manner in which the LRUP and the RBS have been implemented has important lessons - both negative and positive - for states that desire to implement or are in different stages of implementing DBT schemes linked to land records. It also has important lessons for the Central Government for the implementation of the PM Kisan Scheme.

Design of DBT schemes

At the outset, our finding with the general level of satisfaction with the RBS has lessons for the manner in which the state designs a DBT scheme. The RBS is relatively simpler to administer because it is unconditional and relies on pre-existing land records infrastructure. Beneficiaries are not required to show any other proof, such as the fact that they actually cultivated the land or that they actually utilised the amount for purchasing agricultural inputs, for claiming the benefit. They were not even required to prove their eligibility at the time of the first round of distribution of the scheme. The state used the existing land records infrastructure to generate the list of beneficiaries. This naturally yields two advantages. First, it significantly reduces the costs and resources required for the administration of the scheme. Second, it increases the overall satisfaction among the beneficiaries as it reduces their touch-points with the administration and offers utmost clarity about the eligibility criteria.

The design of the PM Kisan Scheme is relatively more complicated. The PM Kisan Scheme specifies a cut-off date for the identification of beneficiaries, which means that it does not take into account land transfers taking place after the cut-off date. This naturally creates complexities in the administration of the PM Kisan Scheme as the updated land records at the state level will no longer match with the static beneficiaries' list generated for PM Kisan Scheme purportedly generated on the basis of the states' land records. Similarly, the PM Kisan Scheme has several exclusions, which increases the costs of identification and reduces the overall satisfaction levels with the PM Kisan Scheme. This is corroborated by the fact that during the FGDs, we noted a relatively higher level of satisfaction with the RBS, as compared to the PM Kisan Scheme.

States that propose to link the DBT entitlement to the area of the land parcel owned by the landholder, might similarly witness an increase in the resources required for the administration of the scheme. This is because in addition to proving ownership, the scheme would require a person to prove that she does not hold land in excess of a given threshold. It might also skew the incentives of landholders to fragment land further, if the one time cost of sub-division are lower than the DBT benefits receivable over time.

During the course of our research study, the question of linking the entitlement

amount to the area of the land parcel, came up frequently. While the scheme may, on the face of it, appear inequitable as the amount of entitlement increases in proportion to the size of the land parcel owned, we note that 85% of the agricultural land parcels are in the marginal and small category (that is, they measure anywhere between 1 to 2 hectares). A further 10% of the land parcels measure anywhere between 2 to 4 hectares, and about 3% of the land parcels are in the medium to large category. While imposing a size linked threshold for availing the benefit might appear more equitable and also reduce the burden on the state exchequer, the costs of imposing a size-linked threshold must be evaluated in light of the proportion of land parcels that are in the medium to large category. As explained above, a size linked threshold would complicate the design of the scheme, increase the administrative burden involved in the identification process and might lead to the unintended consequence of fragmentation of land. Further, in states (such as Andhra Pradesh) that include tenant-farmers within the ambit of the scheme, if medium to large landholdings are cultivated by tenants, a size linked threshold naturally excludes them from the ambit of the scheme.

Using state level land records for the identification of beneficiaries under the PM Kisan Scheme

The PM Kisan Scheme uses the land records maintained by the state governments for the identification of beneficiaries under the PM Kisan Scheme. This does not appear to be a good mechanism as the design of the PM Kisan Scheme envisages small and marginal landholder families (SMFs) holding agricultural land as beneficiaries. A SMF is defined as “a family comprising of husband, wife and minor children who collectively own cultivable land upto 2 hectare as per land records of the concerned State/UT.” Unlike the RBS, the unit of entitlement under the PM Kisan Scheme is a family. The land records maintained in Telangana (and all other states) are at the level of the individual land parcel. In states like Telangana, the database containing the information on PPBs holders will organise the information at the individual level. Further, as mentioned above, SMFs comprising earning professionals such as lawyers, doctors, etc. are excluded from the purview of the scheme.

This means that the existent state records cannot, by themselves, be used for the purpose of identification of beneficiaries under the PM Kisan Scheme and the state governments have to assimilate information from across several databases to identify a family unit eligible for the benefit under the PM Kisan Scheme, run de-duplication exercises and identify exclusions.³⁰ The extent of groundwork involved in the identification of beneficiaries under the PM Kisan Scheme underscores the need to (a) either re-design the PM Kisan Scheme such that existing state-level land records can be utilised for the identification of beneficiaries, or

³⁰This is corroborated by our interview with the CAD on 6th June, 2019.

(b) conducting periodic audits to identify the extent of inclusion and exclusion errors.

Updation of base land records

The second important finding pertains to the manner and scale of updation of the LRUP. The most obvious learning is that updation of the land records is a key pre-requisite for rolling out a DBT scheme linked to land records. This updation exercise will require the bulk of the capacity for ultimately running an efficient DBT scheme. Updated land records will minimise slippages and ensure that exclusions are minimised as well.

We find that while the design of splitting the LRUP into two parts helped the state implement it in a relatively shorter period of time, the problem areas are mainly two. First, as explained in Section 5, the state government departed from the method of recording interests such as tenancy and mortgage on the PPBs. This simplification and minimisation of information in PPBs might have reduced the costs and increased the efficiency of the LRUP. However, it invariably leads to exclusion of landless farmers who are cultivating land and incurring expenditure as tenants. Previous literature on the subject as well as our FGDs indicate that tenant farmers have little access to capital from formal sources and see a higher incidence of distress and suicides (see Section 3). To ensure that the agriculture income support is beneficial to the actual cultivator, the design of the land record that is used as the base for the identification of beneficiaries, is critical. If the land record records interests such as tenancy and occupancy, it is easier to include tenants and actual cultivators within the ambit of the DBT scheme. Several states already record tenancy and other interests in land in their land records.

Second, despite the updation of land records, we find inclusion and exclusion errors, in the villages we studied, which are not insignificant. The discrepancies are higher in the areas recorded in the base land records and the beneficiaries' list, and we note the inclusion of surplus area in both the villages studied. This may be attributable to the fact that the LRUP did not include a re-survey of the state. While the decision to undertake a survey or a re-survey is driven by several considerations, the extent of discrepancy in the area across different records has implications for the design of the DBT. Since most states are in the process of undertaking or have not undertaken state-wide surveys, a DBT scheme that links the amount of the entitlement to the area would have to factor in the estimation errors that may arise in the absence of accurate measurement of land parcels.

Systems for intra-departmental co-ordination

A striking feature of the implementation of the RBS is the setting up of systems with central servers that connect the entire Agriculture department across all hierarchies. As explained in Figure 8, once the CCLA provides the LRUP database

to the CAD, the information is fed into a central portal that is accessible to all officers of the Agriculture Department involved in the implementation of the RBS, including those responsible for the delivery of last-mile services. The central portal allows officers of all levels to track the delivery of the RBS entitlement to the beneficiaries. At the higher levels of the administrative hierarchy, the portal allows officers to view aggregated information about the progress of the DBT delivery program.

The design of the portal, the information which it captures and the manner of access, has implications for the quality and efficiency of delivery of the program. States that propose to implement such schemes must dedicate resources towards designing and operationalising centralised databases that allow officers at all levels to track the delivery of the DBT entitlement to the end-beneficiary.

Grievance redressal

The RBS scheme documentation does not set out a grievance redressal process for farmers who are inadvertently excluded from the scheme or farmers who do not receive, suffer a shortfall in, or do not receive in a timely manner, the benefit promised under the RBS scheme. During the course of the FGDs, we noted several farmers who were aggrieved for not having received the entitlement for the ongoing Rabi 2019 season. Some of them had not received the benefit for the Kharif 2019 season as well. Although the intra-departmental connectivity described above allows the village level agriculture officers to update them about the status of their benefit, it does not allow them to record or address grievances. Grievance redressal is of paramount importance to a beneficiary as in the absence of such a mechanism, the state's promise is virtually un-enforceable on the part of the beneficiary. A grievance redressal mechanism also serves as an audit and feedback loop as it captures critical data on the performance and satisfaction levels with the scheme.

States that propose to roll out DBTs must put in place an effective grievance redressal mechanism. There are two important features of such a mechanism. First, it must identify a single village-level official who is responsible for addressing the grievances reported under the scheme. Second, aggrieved persons must be able to report their grievances on this platform with relative ease and through remote means. The platform must be monitored by the officer next in the line of seniority to the village level officer. It is important for the district level government officer to, in turn, capture and monitor the aggregate level data on grievance redressal over time. Capturing this information can potentially reveal trends and weaknesses in the DBT delivery system. This, in turn, will aid in planning capacity in the areas which are the weakest.

Finally, we conclude by reiterating the literature on welfare distribution that highlights the advantages of income support relative to other forms of support, such

as minimum support prices and targeted input subsidies. Apart from the distortionary effects that these forms of support have on the agriculture sector, the state capacity required for the administration of these forms of support is much more as compared to the state capacity required for administering a simple DBT scheme like the RBS. Additionally, a scheme that links welfare distribution to land records might potentially have positive externalities for the land records infrastructure. This is because over time, the contribution of land revenue to the state exchequer has significantly reduced. However, once welfare distribution is linked to land records, the state is incentivised to update and maintain more accurate land records as they directly impact the fiscal situation of the government. Moreover, beneficiaries under such a scheme are likelier to be incentivised to record changes in their landholdings due to the linkage with DBT schemes.

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