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in Rajasthan**

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Deprivation and Inequality Among SCs and STs in Rajasthan

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Abstract

Scheduled Castes (SCs) and Scheduled Tribes (STs) have a share of 18% and 13% respectively in the population of Rajasthan. In the political and administrative spectrum of Rajasthan, upper castes wield political power non-proportional to their relative weights in population and the political regime in Rajasthan has always been dominated and controlled by upper caste. The study is based on a primary survey of 4544 rural households selected from 17 districts in Rajasthan. The objective of the study was to measure the degree of inequality as well as the identification of determining variables to accessibility to different occupations, household assets and capital equipments in agriculture. It was found that inequality exists in the possession of consumer durables such as television, refrigerator, two wheeler and four wheeler and computer. In ST dominant districts and centres of their habitation, public transport is relatively poor and, therefore, ST and SC households keep two wheelers for transportation, particularly to reach their work place in the nearby town. In the case of other consumer durables, level of inequality is higher as SCs and STs do not possess such items. The Logit regression revealed that land area under possession is an important variable influencing accessibility to different types of occupation. SC and ST households have a probability of becoming a wage labour in agricultural or casual wage labour significantly higher than non-SC and non-ST households. A higher probability was found for non-SC and ST households to become a farmer as compared to SCs and STs. Being an SC and ST, the probability of owning a four wheeler, generator and livestock is much less than non-SCs and STs. The study underlined that land is an important variable influencing the accessibility to different types of occupations and other assets, which together determine the relative social standard.

Introduction

Rajasthan is the largest state in India in terms of area with more than 70 million people. In the total population of Rajasthan, Scheduled Caste (SCs) and Scheduled Tribes (STs) had a share of 18% and 13% respectively in 2011. In the political and administrative spectrum of Rajasthan, Rajputs and Jats still together wield political power non-proportional to their relative weights in population. The political regime in Rajasthan has always been dominated and controlled by upper caste. The SCs and STs have always been at the receiving

end. Inequality and deprivations are not the same. Even in the absence of visible deprivation, inequality can prevail at varying levels. Inequality refers to disparity in the distribution of income and wealth and it is manifested primarily in the socially determined and culturally evolved standard of life for a grouping in a political entity. Sources of inequality trace its roots to (inherited) wealth, accessibility to sources of earning, better facilities for education, health and public spaces. Both inequality and deprivation is multidimensional in content and perception. Deprivation represents a situation wherein basic necessities for a pleasant life defined in terms of the social needs at a particular time point for any social and economic grouping or a person are denied by the system and, therefore, deprivation is systemic. Inequality, on the other hand, is the outcome of a deliberative act by one group or individual against the other to own more than the other. Sen argued that food starvation was a statement of ownership and, therefore, starvation could be understood by looking into the structure of ownership (Sen, 1981). Famine is a question of supply of food, but entangled in a complex structure of ownership and entitlement in a market economy and entitlement is a set of relationships comprising trade, production, own-labour, inherited and transferred entitlements (*ibid*). Picketty pointed out that source of inequality emerges mainly from inherited ownership and it is an inevitable offshoot of private property relations under capitalist production relations (Picketty, 2013). These entitlements come into play in a market economy, for which ownership of the roots of entitlement is primary (Sen, 1981). Entitlement failures drive to deprivations and eventually to poverty and starvation. Given the setting, the present study has set out the research question: why and how distribution of land and other important assets by social groups differ across social groups? More specifically, the study takes up following objectives: (i) estimate the inequality in the distribution of land and other assets in Rajasthan by social groups; and (ii) identify factors influencing possession of assets by social groups. The discussion is organised in four sections. Section 1 elaborates the data source and methods. In Section 2, inequality in the distribution of assets by social groups is estimated; and Section 3 analyses major determinants by social groups. The Section 4 summarises findings of the study.

Economic inequality has always been a resonating issue and a yardstick to measure the level of living for different social groups in the country. Sharma, *et al.*, (2017) found that the nature, pace of growth and geographical spread of inequality in India had been on the increase since trade liberalization. It is observed that the nature and content of inequality is distinctly different for urban and rural India. A distinction is made between rural and urban India to understand the intensity of economic inequality. Land is an important asset in rural area whereas, in addition to land, buildings are a major constituent to asset distribution in urban India. Livestock and agricultural machinery constitute a miniscule part of asset portfolio of urban population while the same to the rural area is rather important. However, the declining trend in livestock population and farm equipments in rural India is a manifestation of the crisis of rural reproduction for the last 25 years (Sharma, *et al.*, 2017). It is perhaps question begging because the waning importance of agriculture is the primary reason breeding inequality in income and asset distribution and it has manifested in acquiring and maintaining agricultural equipments. In this case, inequality in the possession

of agriculture machinery and livestock have been declining and cattle rearing as a source of living has lost its importance for the rural area. The distribution is found unequal for assets holding too and it increases in rural India with higher concentration of assets in higher deciles. Among social groups, assets among SCs and STs are much less as compared to non-SC and ST population. For SCs in rural area, the inequality is relatively stable while for STs, inequality has been worsening (Sharma, *et al.*, 2017). Deshpande observed that significant inequality prevailed in expenditure on education, food, clothing and land holdings across caste groups in different states in India (Deshpande, 2000). A study on slum dwellers in four major cities of India revealed that relative well being of slum dwellers in the lower social stratum was much less as compared to their counterpart in the upper layer. Shelter and provisions for health and education do help reduce inequality in different dimensions but basic amenities alone are not adequate enough to improve the overall well-being of people. Apart from the disparities in terms of possession of assets, there are other vital dimension to be considered to estimate inequality. Government intervention in health and education sectors do reduce inequality (Roy *et al.*, 2004). Inequality in income and asset holding by social groups have been sufficiently explored in the Indian context. Inequality is often analysed with the socially constructed perception that land is the major source of inequality. Inequality is manifested in different forms. However, income and land distribution are two sources of inequality. Inequality may also be examined with respect to chances of acquiring white collar jobs, which is also a manifestation of the maternal conditions and accessibility to social capital. There exists a gap in the literature on determinants of inequality in the accessibility to opportunities by social groups and the present study is an attempt to analyse inequality arising from non-conventional sources of its origin and its prevalence by social groups.

Section 1

Data Source and Method

The study is based on a primary survey of 4544 rural households from 17 districts in Rajasthan. The districts wherein schemes and programmes for the upliftment of livelihood status of rural households, particularly, women had been implemented by the government during the last ten years have been purposely picked up for the study. The objective of Rajasthan Rural Livelihood Project (RRLP) is to empower women through Self-Help Groups (SHGs) to enable them to sustain livelihood activities with institutional support. Table 1 lists number of sample villages, development blocks and households by sample districts. For the study, 306 villages, 51 development blocks and 4544 households have been covered. It may also be considered as a major limitation of the data used for the analysis. The study covered 306 villages, 51 development blocks and 4544 rural households from 17 districts purposely selected for the study. In the total sample households selected for the study, 14% were general, 19% were SC and 22% of the sample households belonged to Scheduled Tribe. Rest of them were, Other Backward Castes (OBCs) and Special Other Backward Castes (SOBCs), which together constituted 45% of the total sample households (Table 2). The

distribution of sample population tallies with the population Census by social groups in the state for 2011.

Table 1. Number of Sample Villages, Blocks, Districts and Sample Households

Districts	No. of Villages	No. of Blocks	No. of Households
Baran	18	3	240
Bhilwara	24	4	475
Bundi	12	2	180
Banswara	18	3	191
Bikaner	18	3	240
Chittorgarh	18	3	280
Churu	18	3	340
Dausa	18	3	298
Dholpur	12	2	200
Dungarpur	12	2	190
Jhalawar	18	3	200
Karauli	18	3	300
Kota	18	3	220
Rajsamand	18	3	273
Sawai Madhopur	18	3	200
Tonk	24	4	400
Udaipur	24	4	317
Total	306	51	454

Source: Primary Survey

Table 2. Distribution of Sample Households by Social Groups (Percentage)

Districts	General	SC	ST	OBC & SBC	Total	Number of Households
Banswara	6	8	75	11	100	240
Baran	7	3	16	40	100	475
Bhilwara	12	19	5	6	100	180
Bikaner	19	28	0	5	100	191
Bundi	9	20	18	5	100	240
Chittorgarh	14	17	15	5	100	280
Churu	17	24	2	57	100	340
Dausa	17	18	31	3	100	298
Dholpur	18	13	13	5	100	200
Dungarpur	10	7	5	31	100	190
Jhalawar	8	10	28	5	100	200
Karauli	8	27	30	3	100	300
Kota	10	20	26	4	100	220
Rajsamand	25	13	15	47	100	273
Sawai Madhopur	23	14	31	32	100	200
Tonk	14	19	9	58	100	400
Udaipur	17	9	52	23	100	317
Total	14	19	22	45	100	4544

Source: Primary Survey

Table 3 gives distribution of SCs and STs in rural Rajasthan by districts in sample districts along with the total population in rural Rajasthan for 2011. Sample districts together accounted for 41% of SC population and 72% of total rural tribal population of Rajasthan. As compared to SC population, relative share of ST population is higher in sample districts because tribal dominant districts were purposely chosen to study the livelihood status of vulnerable sections in relation to others. About 18% of the total population and 19% of the total rural population are SCs and 17% of the rural population is STs in Rajasthan. However, there exists a significant variation in the relative share of SC and ST population across districts in the state. In agriculturally advanced districts such as Sri Ganga Nagar, share of SCs in total population is as high as 38% whereas in Tribal dominant districts such as Dungarpur and Banswara, relative share of SC population is less than the state average. The relative share of tribal population varies from less than 1% to 80% of the total population across districts in Rajasthan and it underlines the importance of a tribal policy framework for the state by districts.

Table 3. Distribution of SC and ST Population by Districts in Rajasthan-2011 (%)

District	SC Rural	ST Rural	Percentage of SC to District Population	Percentage of ST to District Population
Banswara	0.74	15.62	4.20	81.30
Baran	1.75	3.04	17.30	27.30
Bhilwara	3.48	2.47	17.50	11.30
Bikaner	4.17	0.04	25.40	0.20
Bundi	1.76	2.5	19.00	24.40
Chittorgarh	2.23	2.22	16.90	15.30
Churu	3.95	0.09	25.70	0.50
Dausa	3.3	4.83	22.10	29.30
Dholpur	2.12	0.6	21.10	5.80
Dungarpur	0.4	11.12	3.40	74.40
Jhalawar	2.16	1.98	17.40	14.50
Karauli	3.28	3.62	25.20	25.40
Kota	1.91	1.4	23.50	16.40
Rajsamand	1.28	1.73	12.50	15.40
Sawai Madhopur	2.38	3.14	21.30	25.50
Tonk	2.47	2.00	21.40	15.80
Udaipur	1.28	17.06	5.00	60.30
Total Sample	38.75	73.5	-	-
Others	61.25	26.4	-	-
Rajasthan	100.00	100.00	18.50	16.90

Source: Census of India, 2011.

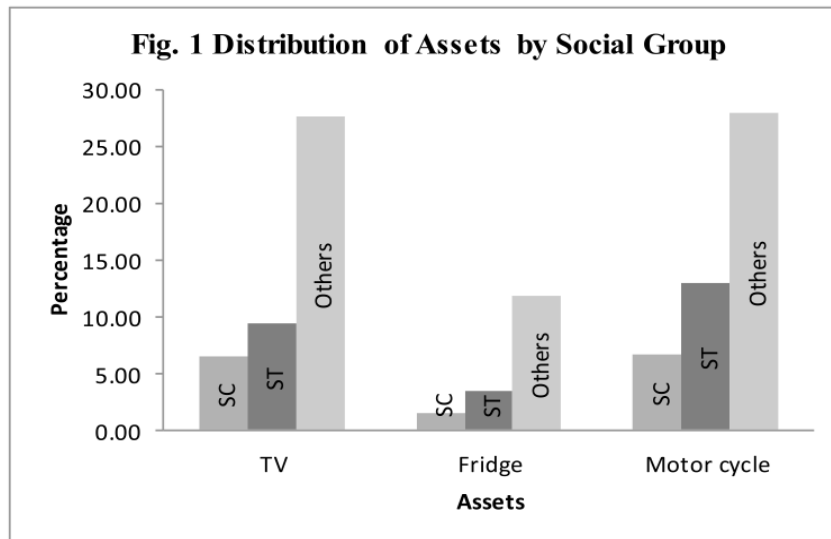
Among 17 sample districts considered for the study, three districts, viz., Bikaner, Churu and Karauli have a substantial size of SCs (25%) in the population of the district. In the case of STs, Banswara district has a relative share of 81%, Dungarpur has 75% and Udaipur has 60% of STs in district population. Eight out of 17 districts in the sample districts have a share of STs above 25% in district population. A brief analysis of the demographic structure of the population indicated that the structure of asset distribution and consequent social and economic exclusion of social groups from accessing to a better living standards calls for a detailed analysis.

The primary survey tools had seven blocks. It captured broadly different types of assets including land, house, primary and secondary occupation, agricultural equipment such as tractor, threshers and tiller, consumer durables such as fridge, television and two and four wheelers. The objective of the block in the survey tool was to map out differences in the distribution of assets in the society by social groups. We have classified groups into SCs, STs, General and Others. The social group 'Others' include general caste, OBCs and SOBCs. The population proportion possessing assets and employment by social groups have been weighted with the respective share of population by social groups in districts.

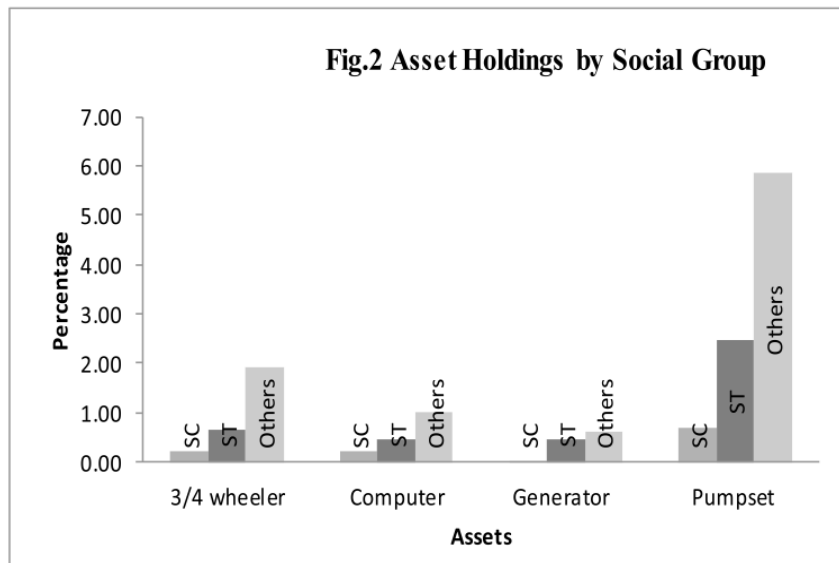
Section 2

Distribution of Assets by Social Groups

The cost of production of labour involves a physical and a cultural cost of living. (Marx, 1968) The physical cost of living includes basic necessities/amenities of life in a society at a particular point of time. Often, such amenities, by its standards, are included in poverty estimation. However, the cultural component of the living standard or reproduction cost is more important for social and economic equality. It is defined as historically evolved and culturally determined social cost of living (Marx, 1968). For a social group, individual social status depend on relative living standards and precisely for this reason that Marx argued that workers should be more concerned with relative income across social groups rather than the absolute change in individual income. For different social groups, relative standard of living matters more than the absolute standard of living. For comparison of relative living standard of different social groups in sample districts, seven items of consumer durables, viz., (i) colour television; (ii) fridge; (iii) motor cycle; (iv) four wheeler; (v) pumpsets for agricultural purpose; (vi) generator for electricity; and (vii) computer are considered in this study. Fig. 1 shows the distribution of television, fridge and motor cycle among SCs, STs and Others. Percentage of households possessing these items in the total households by social groups have been weighted with relative share in population of respective social groups. It was found that 28% of rural households from Non-SC and non-ST groups reported to have possessed television sets and the corresponding proportion from SC and ST population was 6% and 9% respectively. It is worth mentioning in this context that possessing a television sets by purchasing on own income is different from availing it through government schemes. In the case of SCs and STs, certain consumer durables have been made available through different schemes of the government and it does not exactly reflect the economic status of households. In the case of possession of refrigerator, 1.5% of SCs and 3% of STs possessed it while 12% of Others (non-SCs and non-STs) reported to have possessed it. More or less the same disparity could be observed in the case of motor cycles as well. Figure 2 shows the distribution of pump set, vehicles (3 & 4 four wheelers), computer and generator (used for irrigation purpose). The observed differences in the possession of agricultural equipments and vehicles across social groups are more starking.



Source: Primary Survey



Source: Primary Survey

Table 4. Distribution of Households Possessing Refrigerator and Television by Social Group and Sample Districts

Districts	Refrigerator			Television		
	SC	ST	Others	SC	ST	Others
Banswara	0.32	0.00	2.68	0.97	8.20	11.24
Baran	1.42	7.90	8.92	9.77	20.83	39.64
Bhilwara	1.48	0.51	14.71	5.90	0.51	33.68
Bikaner	0.78	0.00	14.05	8.99	NIL	32.63
Bundi	2.97	1.63	11.13	8.31	10.57	24.50
Chittorgarh	1.92	0.78	15.56	5.38	3.14	39.10
Churu	1.32	0.08	17.84	6.92	0.33	37.49
Dausa	4.06	5.11	13.35	10.37	8.86	23.63
Dholpur	0.81	2.01	14.73	7.30	3.3	28.44
Dungarpur	0.00	2.54	3.92	0.62	16.91	13.06
Jhalawar	2.75	1.74	7.29	5.49	6.09	20.66
Karauli	2.95	7.86	12.65	5.6	11.19	26.12
Kota	3.81	1.71	17.44	15.24	8.88	36.09
Rajsamand	0.39	0.39	15.28	7.42	3.4	43.49
Sawai Madhopur	0.79	4.84	11.91	3.94	9.67	21.24
Tonk	1.22	0.99	10.40	8.25	6.91	29.07
Udaipur	1.25	4.91	14.15	2.92	16.08	22.57
Total	1.53	3.39	11.83	6.47	9.43	27.60

Source: Primary Survey

Table 5. Distribution of Households Possessing Computer by Social Group (Percentage)

Districts	Computer		
	SC	ST	Others
Banswara	0.00	0.00	0.00
Baran	0.00	0.72	0.99
Bhilwara	0.21	0.51	1.07
Bikaner	0.00	NIL	0.45
Bundi	0.00	0.00	0.56
Chittorgarh	0.00	0.00	0.40
Churu	0.00	0.00	1.51
Dausa	0.90	1.02	2.74
Dholpur	0.81	0.00	2.03
Dungarpur	0.00	0.85	0.00
Jhalawar	0.00	0.00	0.61
Karauli	0.98	0.91	2.04
Kota	0.64	0.00	1.20
Rajsamand	0.00	0.00	0.00
Sawai Madhopur	0.00	1.32	1.04
Tonk	0.61	0.49	1.89
Udaipur	0.21	0.89	0.34
Total	0.24	0.48	1.01

Note : SC - Scheduled Caste; ST- Scheduled Tribe

Source: Primary Survey

Table 6. Distribution of 2 Wheeler and 4 Wheeler by Social Groups and Districts in Rajasthan (%)

Districts	2 Wheeler			4 Wheeler		
	SC	ST	Others	SC	ST	Others
Banswara	2.26	30.74	8.03	0.00	0.00	0.00
Baran	7.73	17.96	41.62	0.20	2.16	2.48
Bhilwara	8.6	3.08	4 .5	0.00	0.00	1.71
Bikaner	5.08	NIL	16.32	0.78	NIL	6.3
Bundi	7.72	15.4	30.06	0.00	0.81	3.90
Chittorgarh	7.68	8.24	49.87	0.38	0.00	2.79
Churu	4.28	0.08	16.6	0.3	0.08	2.12
Dausa	10.37	13.29	19.18	0.00	0.3	2.05
Dholpur	8.12	3.79	3 .5	1.62	0.00	1.52
Dungarpur	0.62	14.37	11.76	0.00	0.85	1.31
Jhalawar	3.6	4.93	30.99	0.92	0.29	1.82
Karauli	10.80	13.61	28.16	0.3	2.12	2.04
Kota	7.62	9.23	31.28	0.00	0.00	1.20
Rajsamand	8.59	8.29	5 .4	0.00	0.00	1.96
Sawai Madhopur	9.47	12.75	19.17	0.00	0.4	1.5
Tonk	9.48	10.86	3 .09	0.31	0.00	1.42
Udaipur	2.92	25.01	16.85	0.21	2.23	1.01
Total	6.6	13.02	27.95	0.24	0.67	1.92

Note : SC - Scheduled Caste; ST- Scheduled Tribe

Source: Primary Survey

Table 7. Distribution of Generator and Pumpsets by Social Groups and Districts in Rajasthan(%)

Districts	Generator			Pumpset		
	SC	ST	Others	SC	ST	Others
Banswara	0.00	0.00	0.00	0.00	4.10	0.5
Baran	0.20	1.4	1.98	2.04	4.31	11.89
Bhilwara	0.00	0.00	1.07	0.84	0.00	10.02
Bikaner	0.00	NIL	1.81	0.78	NIL	13.60
Bundi	0.00	0.00	1.11	0.00	1.6	6.12
Chittorgarh	0.00	0.00	0.40	0.77	1.18	6.78
Churu	0.00	0.00	0.91	1.32	0.00	8.47
Dausa	0.00	0.68	0.3	0.00	1.70	1.37
Dholpur	0.00	0.22	1.02	0.00	0.67	8.6
Dungarpur	0.00	0.00	0.00	0.00	4.23	1.31
Jhalawar	0.00	0.00	1.22	0.92	2.03	10.3
Karauli	0.00	0.60	0.00	0.6	4.5	5.71
Kota	0.00	1.03	0.60	0.00	2.39	5.41
Rajsamand	0.00	0.00	0.00	0.39	0.00	3.92
Sawai Madhopur	0.79	1.32	1.04	1.58	6.16	8.81
Tonk	0.00	0.00	0.24	1.22	1.48	3.5
Udaipur	0.00	0.89	0.3	0.00	0.4	1.01
Total	0.04	0.48	0.6	0.69	2.4	5.86

Note : SC - Scheduled Caste; ST- Scheduled Tribe

Source: Primary Survey

Table 4 shows the distribution of refrigerator and television and computer among sample households by sample districts in Rajasthan. The population by social groups differ significantly and the sample averages have to be adjusted for the population proportion by social groups and by districts. Tables 4 to 7 are derived from sample data weighted with population proportion by social groups. In ST dominant districts like Dungarpur and Banswara, not even a single household from ST reported to have owned refrigerator. Less than 0.5% of sample ST households owned refrigerator in 7 out of 17 sample districts and the common characteristics of these districts is that these are either SC or ST dominant districts. Barring Banswara and Dungarpur, the Social group 'Others' reported to have possessed refrigerator and the proportion of households possessed refrigerator is much higher than SCs and STs. Non-availability of electricity is one of the reasons for the low proportion of households possessing refrigerator in ST dominant districts. It points out to another form of state-mediated deprivation. Computer and internet have increasingly become an inevitable part of education in the present day world. Table 5 shows the distribution of computer by social groups in sample districts. It was found that ST households in eight and SC households in nine out of 17 sample districts did not have it. In the case of Others, barring two district, which are ST dominant, other districts have reported possessing computer, *albeit* the proportion of households owning it are negligible. These two districts are Banswara, wherein 81.30% are STs in the total population, and Rajsamand, wherein SCs and STs together constituted 28% of the district population.

Table 6 shows the possession of two wheeler and four wheeler by sample households. At the outset, a word of caution is requested in the interpretation of the data. The public transport system, particularly in rural area is scarce and, therefore, own transport is more or less a necessity rather than a luxury in every day life, especially in rural areas of STs dominant districts. Public transport is scarce because wage labourers in rural area go to cities in search of daily wage employment, and own transport is inevitable for them. There is little employment opportunities in rural area even during peak agricultural seasons because farmers who own a few *begha* of unirrigated land cultivate only once in a year. For cultivation, labour is seldom hired as family labour and neighboring cultivator households help each other to carry out agricultural operations during peak seasons. Moreover, price of agricultural land is not only very low, but there is little buyers of lands in villages especially in ST dominant districts. It is found that 30.34% of ST households in ST dominant districts such as Banswara possess two wheeler and the same is the case with other ST dominant districts like Dungarpur and Udaipur and therefore owning two wheeler is not a sign of prosperity. The contrasting scenario can be made clear from the possession of four wheelers by social groups in sample districts. The ST households in six and SC households in eight out of 17 sample districts have reported that they do not own four wheeler. Table 7 shows the distribution of generator and pumpsets, which are primarily used for agricultural purposes as well as for drinking water. It is worth mentioning in this context that electricity is available only for a few hours and its supply is more often than not interrupted. In several districts in Rajasthan, families in the lower income strata keep generator for electricity and for lifting

water from tubewells for irrigation. To a great extent, unlike in urban area, where power supply is not interrupted rather frequently, irrespective of the income level, farmers keep generators. Farmers with sizable agricultural land invariably keep generator and pumpsets and therefore upkeep of generator and pumpsets can be considered as items of essentials. It is found that households in the social group, 'Others' keep generator in varying proportions across sample districts. However, in ST dominant districts, viz., Banswara, Dungarpur and Karauli, not even a single household reported as owning generator or a pumpset.

2. 2. Inequality in Asset Distribution

It is important to estimate the degree of inequality in the distribution of major assets across social groups and sample districts. There are different measures of inequality. Measures of inequality is used to measure unequal distribution of income or expenditure. In this case, measure of inequality are used to measure the degree of inequality in the possession of four important consumer durables, viz., television, fridge, motorcycle and four wheeler. Gini coefficient is the widely used measures of inequality and it is estimated from the Lorenze curve. However, a major limitation of Gini coefficient is that it cannot be decomposed to estimate the sources of inequality (Poverty manual, 2005:95-107). Although SCs and STs face different types of deprivation, inequality measures appear to be more relevant in this particular social context. Poverty indicators are confined to poor while inequality measures assess the relative living standard of people in a society. For decomposition, the best known measure is Theil's Index. The Theil Index allows the estimation of the source of inequality, which could be from within or across groups. Another measure of inequality is the Atkinson's measure of inequality. It needs to be underlined in this context that the inequality measure is not estimated based on expenditure or income measures, but on asset holdings. There exists literature arguing that any form of inequality slows down economic growth and general well-being of people (Sharma *et al.*, 2017).

The general formula for Theil Index is given in Eq. (i). It may be noted that the value of General Entropy (GE) measure varies between 0 and 1 and it is estimated using Eq. (i). Although, a bit complicated in computation, Atkinson has suggested a measure of inequality which is known as Atkinson measure of inequality. Atkinson Measure of Inequalities are presented in Eqs. vi and vii. For Theil Index and Atkinson measure of inequality, the dispersion of inequality is estimated under two assumptions. $GE_{(0)}$ represents equal weights to all observations in the series, (ii) under $GE_{(1)}$ weight is proportionally is assigned to observations. Similarly, Atkinson is estimated under Atkinson, $e=1$ and Atkinson, $e=2$ as well (World Bank, 2005).

$$GE(\alpha) = \frac{1}{\alpha(\alpha-1)} \left[\frac{1}{N} \sum_{i=1}^N \left(\frac{y_i}{\bar{y}} \right)^\alpha - 1 \right] \dots\dots\dots (i)$$

$$GE(1) = \frac{1}{N} \sum_{i=1}^N \frac{y_i}{\bar{y}} \ln \left(\frac{y_i}{\bar{y}} \right) \dots\dots\dots (ii)$$

$$GE(0) = \frac{1}{N} \sum_{i=1}^N \ln \left(\frac{y_i}{\bar{y}} \right) \dots\dots\dots (iii)$$

$$A_\varepsilon = 1 - \left[\frac{1}{N} \sum_{i=1}^N \left(\frac{y_i}{\bar{y}} \right)^{1-\varepsilon} \right]^{1/(1-\varepsilon)}, \varepsilon \neq 1 \dots\dots\dots (iv)$$

$$= 1 - \frac{\prod_{i=1}^N (y_i^{1/N})}{\bar{y}}, \varepsilon = 1 \dots\dots\dots (v)$$

y is the mean value of assets of different types. The value of General Entropy (GE) varies between '0' and α . Like Lorenze curve '0' represents equal distribution and as the value deviates positively from '0' , it represents the level of inequality. (World Bank, 2005)

Table 8 presents the degree of inequality of four important items of consumer durables estimated under different measures of inequality.

Table 8. Inequality in Asset Distribution by Type of Assets

Item	Theil's T GE ₍₁₎	Theil's L GE ₍₀₎	Atkinson E=0.5	Atkinson E=2
Television	0.146	0.178	0.183	0.717
Motorcycle	0.132	0.146	0.174	0.810
Fridge	0.224	0.234	0.282	0.762
4 Wheeler	0.311	0.600	0.423	0.960

Source: estimated from primary survey data

Following observations can be made from Table 8. Although different types of measures of inequality in income or assets exist, yet these measures are not strictly comparable. A general observation is that there is a positive association between the value of the asset and inequality. In other words, number of households possessing television sets are significantly higher than refrigerator and the number of households possessing refrigerator is much higher than four wheeler. In this context, an increase in the value of different measures of inequality indicate that consumer durables with a higher value is possessed less by SCs and STs as compared to the social group 'Others'. For instance, inequality measured by GE₍₁₎ is 0.311 for 4 wheeler and for television is 0.146 and by Atkinson index e=2 is 0. 717 for television. In the case of 4 wheeler, estimated value of GE₍₁₎ is 0. 311 and it indicates that the inequality for four wheeler is higher than television sets for all measures of inequality indexes. As the value moves away from zero and approaches to one (0-1), inequality increases from the ideal distribution of perfect equality to inequality. There is a difference between GE(0) and GE(1). The GE(0) represents Mean log deviation or in other words, equal weights are assigned to values above and below the average while GE(1) attributes weights to observation above and below the average value and, therefore, the Theil Index of GE(0) and GE(1) gives different values of inequality.

Section 3 Deprivations and Capabilities

In this section, unequal access to different types of employment and its determinants are identified. Social capital and material conditions of reproduction of labour do play an important role in determining opportunities and it is true for availing employment in the organized sector or jobs in the secondary labour market. For the estimation of accessibility to jobs and possessness of assets by different social groups, a Logit Model is fitted. Logit model explains the probability of a household to avail employment of different types, and the probability of possessing different items of consumer durables and agricultural equipments. The model also explains factors influencing the possession of assets.

Three sets of models were specified to capture the major determinants of accessibility to employment and possession of different assets. In the first set of equations, major determinants of occupations or livelihood are specified. Primary data was collected for three broad types of occupations under principal status of employment of sample households. Types of employment included in the model are: (i) self-employed in own account enterprises including cultivators; (ii) regular and salaried employment; (iv) casual wage labours. Employment type is specified as dependent variables in each model and independent variables are: (i) area under cultivation (land in *bigha*); and (ii) social groups, viz., SC, ST and Others ('Others' include OBCs, SOBCs and General). In the case of social groups, in order to capture the combined effect of SCs and STs as well as individual effects of SCs and STs separately, three independent models were specified. In otherwords, for each y variable, there are three specifications.

Model 1: SC and ST =1 and otherwise= 0. (combined effect of SC and ST)

Model 2: SC =1 and Otherwise (ST excluded) = 0 (Individual effect of SC only)

Model 3: ST =1 and Otherwise (SC excluded) = 0 (Individual effect of ST only)

Dependent Variables : Occupation (X_1 to X_5).

In the second set of models, major determinants of consumer durables, viz., four wheeler and two wheeler are specified. In the third set of models, Agricultural equipments (tractor), and possession of livestock are specified.

For every dependent variable, three specifications have been estimated, viz., (i) for SC and ST combined; (ii) SC only and (iii) ST only.

Model 1: Dependent variable is type of occupation (Farmer-1; regular salaried job-2; wage labour-3) Independent variable: Area under cultivation (*in Bigha*) and Social Group (SC & ST = 1; 0= Otherwise). The Logit model (general specification) takes the following form:

$$\ln\left(\frac{P_i}{1-P_i}\right) = \beta_0 + \beta_1 Agri. land + \beta_2 Social Group + \mu_i$$

Table 9 gives nine specifications, three specifications for every occupational category. Important observations from different specifications of Logit regressions in Table 9 are the following: (i) households from SC and ST has relatively less probability to be a farmer or self-employed in own enterprises (farms are included under enterprises) as compared to 'Others' (1.048 odds ratio). Area under cultivation or size of land holding is one of the major determinants of self-employment in agriculture or engagement in own account enterprises. As SCs and STs possess relatively smaller area for cultivation as compared to Others (Non-SCs and Non-STs), probability of SCs and STs to earn livelihood from farming is relatively less and they are left with the option of being employed as wage labours. There exists a negative association between land area under possession/cultivation and salaried employment. It implies that households with larger area under cultivation still prefer to be self-employed in agriculture rather than being employed on a regular basis non-farm sector elsewhere (Model 2). In this model, the negative sign of the coefficient and Odds ratio show that the probability to become a salaried employee is relatively less for SCs and STs as compared to Non-SCs and STs. In the analysis, Model 3 appears to be rather crucial and a revealing one. There is a negative association between area under cultivation and casual laboring. On the contrary, the association between SC or ST household and engaged in casual laboring is positive and significant. It shows that a household from SC and ST category is more likely to be a casual daily wage labourer. In other words, there exists a higher probability to become a wage labour as compared to Non-SC and Non-STs. Similarly, the probability of working as a daily wage casual labour is negatively associated with agricultural land under possession and the observation appear to be consistent with other studies. The finding justifies that the presence of SCs and STs in wage laboring more than proportional to their population share in the total. Models 4 to 9 (Table 9) present different specifications for SCs and STs. It was found that the relations observed in the combined SC and ST model holds good for SC and ST separately as well. In short, different specification of employment models of SCs and STs indicate that probability of SCs and STs households are more likely to be a casual labour rather than a regular salaried employee or a farmer as compared to people in the general and OBC categories. Models 1 to 12 in Table 10 shows the probability of SCs and STs owning different types of consumer durables, capital equipments for agricultural operations and livestock. It is found that the probability of owning a four wheeler for a SC and ST household is less by 37% as compared non-SC and non-STs. Models 11 and 12 have examined the same relationship for SCs and STs separately and found that the probability of owning a four wheeler by a ST household is found less by 41% as compared to Non-SCs and non-STs in Rajasthan. Model 16 shows the probability of owning a motor cycle by SC and it is less for SCs and STs as compared to non-SCs and STs. In the context of agrarian crisis, number of days of employment available to casual labours have declined substantially while marginal and small farmers face crisis of reproduction. Other studies have indicated that farmers do depend more on dairying during the crisis in the crop production sector. However, the Logit regression with probability of owning a cow or buffalo or both for SCs and STs are found much less as compared to non-SCs and STs.

Table 9. Logit Regression Model : Determinants of type of Employment

Model No.	Y variable (Categorical)	No. of observations	LR (χ^2)	R ²	X-Variables	B	Odds Ratio	Z-Statistics	P-Value	Average Marginal Effect dy/dx	Estimated Prob.
1.	1=Farmer 0 = Otherwise (Combined for SCs & STs)	4147	103.26 (0.000)	0.018	Agricultural Land	0.047	1.048	8.81	0.000*	0.0113	0.51
					1=SC & ST; 0 = Otherwise Constant	-0.057	0.944	-0.88	0.378	-0.0137	0.49
						0.069	1.071	1.3	0.153		0.52
2.	1 = Regular Salaried Employment; 0=Otherwise (Combined for SCs & STs)	4147	6 .59 (0.000)	0.0224	Agricultural Land	-0.089	0.9152	-5.4	0.000*	-0.0056	0.48
					1=SC & ST; 0 = Otherwise Constant	-0.206	0.8139	-1.61	0.107	-0.0131	0.5
						-2.185	0.1124	-23.4	0.000*		0.10
3.	1 = Casual Wage Labour; 0=Otherwise (Combined for SCs & STs)	4147	387.07 (0.000)	0.1328	Agricultural Land	-0.358	0.699	-13.00	0.000*	-0.0326	0.41
					1=SC & ST; 0 = Otherwise Constant	0.787	2.196	7.59	0.000*	0.0717	0.69
						-1.519	0.219	-17.84	0.000*		0.18
4.	1 = Farmer; 0=Otherwise	3247	116.99 (0.000)	0.0262	Agricultural Land	0.047	1.048	8.15	0.000*	0.0112	0.51
					1=SC; 0 =Otherwise Constant	-0.403	0.668	-4.80	0.000*	-0.0963	0.40
						0.070	1.072	1.42	0.156		0.52
5.	1 = Regular Salaried Employment; 0=Otherwise	3247	6 .28 (0.000)	0.021	Agricultural Land	-0.083	0.920	-4.81	0.000*	-0.0055	0.48
					1=SC; 0 = Otherwise Constant	-0.097	0.9080	-0.61	0.44	-0.0065	0.48
						-2.202	0.111	-23.23	0.000*		0.10
6.	1 = Casual Wage Labour; 0=Otherwise	3247	321.85 (0.000)	0.1418	Agricultural Land	-0.332	0.717	-10.75	0.000*	-0.0298	0.42
					1=SC; 0 = Otherwise Constant	0.956	2.600	7.98	0.000*	0.0856	0.72
						-1.55	0.211	-17.58	0.000*		0.17
7.	1 = Farmer; 0=Otherwise	3375	72.30 (0.000)	0.0159	Agricultural Land	0.040	1.040	7.12	0.000*	0.0094	0.51
					1=ST; 0 = Otherwise Constant	0.247	1.280	3.05	0.002*	0.0583	0.6
						0.106	1.112	2.15	0.032**		0.3
8.	1=Regular Salaried Employment; 0=Otherwise	3375	4 .70 (0.000)	0.0267	Agricultural Land	-0.094	0.911	-5.04	0.062***	-0.0059	0.48
					1=ST; 0 = Otherwise Constant	-0.311	0.733	-1.87	0.000*	-0.0195	0.42
						-2.170	0.114	-22.73	0.000*		0.10
9.	1 = Casual Wage Labour; 0=Otherwise	3375	273.07 (0.000)	0.1333	Agricultural Land	-0.413	1.877	-11.5	0.000*	-0.0314	0.5
					1=ST; 0 = Otherwise Constant	0.630	0.662	4.62	0.000*	0.0480	0.40
						-1.46	0.235	-16.26	0.000*		0.19

Table 10. Logit Regression on Determinants of Consumer Durables, Capital Equipments for Agriculture and Livestock

Model	Dependent variable (Categorical)	No. of Obs	LR (χ^2)	R ²	X-Variables	B	Odds Ratio	Z-Statistics	P-Value	Average Marginal Effect dy/dx	Estimated Prob
1.	1 = Owning Four Wheeler; 0=Otherwise	4147	4.46 (0.000)	0.0501	Agricultural Land Under Possession (in Bigha)	0.042	1.043	6.5	0.000*	0.0011	0.51
					1=SC & ST; 0 = Otherwise Constant	-0.552	0.576	-2.61	0.009*	-0.149	0.37
2.	1 = Owning Four Wheeler; 0=Otherwise	3247	50.62 (0.000)	0.0571	Agricultural Land Under Possession (in Bigha)	0.044	1.045	5.92	0.000*	0.0012	0.51
					1=SC ; 0 = Otherwise Constant	-0.804	0.448	-2.47	0.013**	-0.0228	0.31
3.	1 = Owning Four Wheeler; 0=Otherwise	3375	47.65 (0.000)	0.0495	Agricultural Land Under Possession (in Bigha)	0.043	1.044	6.39	0.000*	0.0012	0.51
					1 = ST; 0 = Otherwise Constant	-0.382	0.682	-1.3	0.000*	-0.0115	0.41
4.	1 = Owning tractor; 0=Otherwise	4147	176.68 (0.000)	0.1027	Agricultural Land Under Possession (in Bigha)	0.071	1.074	12.87	0.000*	0.0032	0.52
					1=SC & ST; 0 = Otherwise Constant	-0.252	0.777	-1.62	0.105	-0.0114	0.4
5.	1 = Owning Tractor; 0=Otherwise	3247	144.79 (0.000)	0.1125	Agricultural Land Under Possession (in Bigha)	0.066	1.068	10.61	0.000*	0.0028	0.52
					1=SC ; 0 = Otherwise Constant	-1.255	0.285	-4.08	0.000*	-0.0542	0.22
6.	1 = Owning Tractor; 0=Otherwise	3375	164.45 (0.000)	0.1053	Agricultural Land Under Possession (in Bigha)	0.073	1.076	12.6	0.000*	0.0038	0.52
					1=ST; 0 = Otherwise Constant	0.196	1.216	1.16	0.245	0.0102	0.5
7.	1 = Owning Motor Cycle; 0=Otherwise	4147	4.96 (0.000)	0.0096	Agricultural Land Under Possession (in Bigha)	0.020	1.020	4.72	0.000*	0.0048	0.50
					1=SC & ST; 0 = Otherwise Constant	-0.322	0.724	-5.04	0.000*	-0.0794	0.42
					Constant	-0.058	0.943	-1.27	0.204		0.49

(Table 10 Contd.)

8.	1 = Owning Motor Cycle; 0=Otherwise	3247	6 .88 (0.000)	0.0082	Agricultural Land Under Possession (in Bigha) 1=SC ; 0 = Otherwise Constant	0.009	1.009	2.30	0.022**	0.0023	0.50
9.	1 = Owning Motor Cycle; 0=Otherwise	3375	38.79 (0.000)	0.0083	Agricultural Land Under Possession (in Bigha) 1=ST; 0 = Otherwise Constant	-0.45	0.641	-5.29	0.000*	-0.1099	0.39
10.	1 = Owning Livestock; 0=Otherwise	4147	415.92 (0.000)	0.0799	Agricultural Land Under Possession (in Bigha) 1=SC & ST; 0 = Otherwise Constant	-0.002	0.998	-0.04	0.968		0.50
						0.023	1.023	4.96	0.000*	0.0055	0.51
						-0.231	0.793	-2.95	0.003*	-0.0572	0.4
						-0.076	0.927	-1.60	0.110		0.48
						0.165	1.180	15.21	0.000*	0.0330	0.4
						-0.123	0.885	-1.74	0.081***	-0.0245	0.47
11.	1 = Owning Livestock; 0=Otherwise	3247	374.54 (0.000)	0.0898	Agricultural Land Under Possession (in Bigha) 1=SC ; 0 = Otherwise Constant	0.176	1.192	3.16	0.002*		0.4
						0.148	1.159	13.4	0.000*	0.0299	0.4
						-0.560	0.571	-6.6	0.000*	-0.1137	0.6
						0.228	1.256	4.03	0.000*		0.6
12.	1 = Owning Livestock; 0=Otherwise	3375	329.86 (0.000)	0.0813	Agricultural Land Under Possession (in Bigha) 1=ST; 0 = Otherwise Constant	0.163	1.177	13.6	0.000*	0.0306	0.4
						0.307	1.359	3.5	0.001**	0.0579	0.58
						0.183	1.201	3.16	0.002**		0.5

(Note: Level of Significance * 1%, ** 5% and *** 10%)

Conclusion

Distribution is as important as production in a society where hierarchy and class divisions are intricately integrated. Often assets are inherited and it is one of the important sources of inequality. Inheritance being a determining source of wealth, SCs and STs have been historically on a disadvantageous position as they possess little to be inherited from their predecessors and little to be passed over to younger generation. Inequality is, therefore, systemic. Land and other assets were possessed by a vicious combination of upper caste and class, which very often put up joint resistance against structural changes in the distribution of assets and production of wealth. Deprivations, social and economic inequality and its myriad forms that SCs and STs encounter in their everyday life are historically rooted and calls for structural changes in distribution and exchange. Being a SC or ST households, the probability of becoming a casual labour is much higher than a person in the non-SC-ST category. It is found that inequality exists in the distribution of consumer durables such as television, refrigerator, two wheeler and four wheeler. As value of consumer durables increases, fewer people possess it and among the few, who have the capacity to possess high value consumer durables, proportion of SCs and STs are much lower than their share in population. It is always asked why the proportion of agricultural labours are more than their relative share in population. Analysis indicated that SC and ST households are more likely to be a wage labours as compared to non-SC and non-ST households. An important determinant of the choice of occupation is the land under possession. However, for regular and salaried employment, land is not a constraint. It is explained that there exists inequality in assets distribution and the inequality in land distribution is one of the major determinant of accessibility to different types of occupation. It is a case of inequality breeds inequality.

Different types of assets considered for the analysis indicated that there existed a unequal distribution in social wealth between SC and STs on the one side and non-SCs and STs on the other. The analysis, in short, indicates that economic inequality is the base on which social inequality is built up.

¹For a detailed discussion of different measures of inequality, see Introduction to Poverty Analysis (2005).

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