Poverty, agrarian change and form of labour in neo-liberal India: comparative analysis between tribal and upper caste

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Poverty, Agrarian Change and Form of Labour in Neo-Liberal India – A Comparative Analysis Between Tribal and Upper Caste (Other)

Introduction:

Attempt of acculturation, eviction from their own land were happening with the tribes since the ancient ages. Initially it was Hiduization in the ancient history and then replaced by Islamic and Missionary thoughts in the medieval and modern history in India. Thus acculturation and eviction of tribes was prevailed both in the pre-colonial and colonial ages. The difference between the pre-colonial and colonial wasthat in the follower case the tribal scenario of India changed permanently by opening up the tribal regions to communication, trade and revenue administration, and as an consequence, the tribal lands started to pass into the hands of non-tribal landlords and moneylenders and the tribes became more prone to the exploitation by the non-tribal landlords, moneylenders and the administrative officers. After the independence, the objective of Government of India was the development of the tribes with their protection, thus the disparity between tribal and non-tribal was reduced. But the Indian economic development is not that much different from development policies of the colonial ages at least in the case for land issues. Looking at the issues of land reform it would be found that most of the Indian states performed badly: hardly was there any significant initiatives taken to implement land reform agendas. Further for the sake of the growth of the private sector large projects viz. construction of dam, industrial projects, several Special Economic Zones are being set up, predominantly at the tribal areas which is actually diverting the forest lands to non-forest purpose and thus there is a increasing tendency of landlessness among the tribes. Different estimates came up regarding the extent of displacement of tribes due to the so called development projects. Fernandes and Paranjype (1997) estimated that the number of people displaced due to dams, mines, wildlife sanctuaries, industries during the first four decades of independence was about 21 million and as per Government sources at least 75 percent have not been rehabilitated. Again Fernandes (2008), by updating data and by extrapolation based on available studies

and case studies in States, where comprehensive studies have not been done, estimated that there were about 60 million Displaced Person and Project Affect Person (DPs/PAPs), since independence to 2000. It was also estimated that 20 per cent were Dalits and another 20 percent from other rural poor communities, like fisher-folk and quarry workers.Researchers suggest that around 25 percent of India's tribals become DP or PAP at least once, because their regions are rich in natural resource. In absence of official data the Planning Commission report quotes the estimate 60 million DPs/PAPs arrived at by researchers. The Expert Group on Prevention of Alienation of Tribal Land and its Restoration set up by the Government of India estimates that, the total displacement due to development projects was 47 per cent of the tribal population (GoI, 2014). Now regarding the effect of this displacement, Areeparampil (1988) pointed out that the devastation of lives of tribal people caused by loss of access to forest and involuntary displacement from their land is clear. Dispossession takes place both directly by depriving tribal communities of their land, habitat, livelihood, political system, culture, values and identity and indirectly through denials of benefits of development and of their rights. Further Baxi (2008) has highlighted that people are not partners in the process of decision making regarding construction of dams, areas of submergence, environment impact, allocation of resources and allocation of benefits and adverse impacts of development. Displacement is a process in which marginalized section section of the tribal people are pushed out of their own habitat and dispossessed of their resources. In post-independence period, their experience of displacement is as dehumanizing as before independence. Moreover due to neo-liberal reform initiated by the Government in early 1990s, was characterised by decreasing input subsidies, deregulation of administered prices etc, actually reduced the profitability of the farms, specifically the small farms and thus forced the small landowners to sale their lands and became landless or marginal landowner. Several researchers argued that the deceleration of agricultural growth has also led to a lack of decent jobs in the agricultural sector, thus severely impacting on the occupational structure of the tribes, particularly women, who largely depended on neighbourhood work for paid employment (Padhi, 2012; Prasad, 2010).

Thus it is quite clear that although there is no direct reform package associate with agriculture as it was associated with financial sector, industrial sector etc, but due to the

cut in Government agricultural subsidies, and of quantitative trade restrictions in all agricultural products actually increased the agricultural cost of production substantially. Further allowing big projects in the tribal dominated regions and diversion of their forest land to non-forest purposes actually forced to alter the pattern of land use and thus increase the landlessness among the tribal. Thus the above two factors influencing the dispossession and displacement among the tribe actually influenced the occupational structure, the nature of semi-proletarianisation and proletarianisation among the tribe. The changes in occupation structure can influence the income level of the household for specific and the society in general. Now increasing landlessness and change in the occupation structure of a group can influence the poverty situation of that group.

Objectives:

An attempt has been in this paper to check how the change in occupational structure and landlessness varies between the social groups - Schedule Tribe and Other (OBC and Upper-Caste) in the ages of increasing agrarian distress and increasing pattern of dispossession in the era of economic reform.

An attempt has been made in this paper to check whether there is an increasing semi-proletarianisation among the tribes comparing with the Others. And further see how these changes influences the poverty diversity between ST and Others.

Methodology:

Lenin defined semi-proletarianisation, as the peasant who till tiny plot of land, i.e. those who obtain their livelihood by wage labourers .... and partly by working their own rented plot of lands which provide their families only part of their means of subsistence......the lot of these semi-proletarian is very hard one (Borras, Kay and Lahiff). Further Moyo and Walter (2013) defined a workforce in motion, which can best be conceptualised as a semi-proletariat, as the labour force straddled communal lands, white farms, mines and industrial workplaces, aggregating peasant-worker households, differentiated by gender and ethno-regional divisions.

Now before defining the term semi-proletarianisation in Indian context, it is important to classify the landholding and occupation level as classified by NSSO and NCO. Following the NSSO definition of Landholding classes into five classification - Marginal – holding less that 1.01 hectare of land, Smallholding between 1.01 hectare to 2 hectare, Semi-Medium: holding between 2.01 to 4 hectare, Medium: holding between 4.01 to 10 hectare and Large: holding more that 10 hectare of land (NSSO). Further NCO-2004 classifies the 1 digit occupation classes into different skills level. Now based on this, several categories have been created in this paper in the following manner (as stated in table-1) where agricultural work as category-1, elementary work as category-2, clerks, craft related workers, plant and machinery operator etc has been considered as category-3, associate professional as category-4 and professional and legislator senior official etc. as category-5.

Table:1 Classification of occupational category

NCO-class	Description	skill level	Occupation Category
1	Legislators, Senior Officials, and Managers	not defined	5
2	Professionals	4	5
3	Associate Professionals	3	4
4	Clerks	2	3
5	Service Workers and Shop & Market Sales Workers	2	3
6	Skilled Agricultural and Fishery Workers	2	1
7	Craft and Related Trades Workers	2	3
8	Plant and Machine Operators and Assemblers	2	3
9	Elementary Occupations	1	2

Source: NCO -2015 (Col-5 is categorised by the Author)

Now to measure the extent of semi- proletarianisation in this paper, it has been defined in two manners

1. Semi-proletarianisation -it includes all the households that are characterised as marginal landowner and having the skill level 1 or 2.

2. Acute Semi- proletarianisation – it includes all the households that are characterised as marginal landowner and included in the occupation category-1 or 2.

Now using this method it would be enough to check how the change in occupational structure, landlessness and the extent of semi-proletarianisation varies between the social groups Schedule Tribe and Other

Logit Model:

Now to relate poverty with the changing occupational structure, landlessness and the extent of semi-proletarianisation a binomial Logit regression model is the appropriate technique to see the probability for a household to remain poor given the household belong to any specified category. The households are classified as either poor or non poor based on their monthly per capita expenditures. Predictor variables are a set of socioeconomic characteristics of the households. Now to check whether a household is poor or non-poor, it important to have a poverty line. Now regarding poverty line it is important to mention that The period of study (1987-88 to 2011-12)[1] is witness of three different Expert Committee Reports, namely Ladkawala Committee Report (1993), Tendulkar Committee Report (2009) and Rangarajan Committee Report(2011), regarding the fixation of poverty line. Furthermore no single committee reports, among the above mentioned three, did recommend the poverty lines for the entire period of my study. The poverty line recommended by Tendulkar Committee have been used in this analysis since it is available for the entire round except 43rd the rounds of NSSO. To backdate the poverty line CPIAL for rural and CPIIW for urban area have been used. Now looking at the logit function

The basic form of logit function is

$$P = \frac{1}{1+e^{z}} \quad ....(1)$$

Where Z is the predictor variable and e is the natural logarithm. The alternative form of this equation can be written as

$$P = \frac{1}{1+e^{z}} = \frac{exp\,(z)}{1+exp\,(z)} \quad ....(2)$$

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[1] Here there NSSO rounds (43rd, 61st, and 68th)have been used

Now when Z becomes infinitely negative, P approaches to zero and when Z become infinitely positive, P approaches to unity. Now following the equation (2) it can be written that

$$\frac{p}{1-p} = e^z$$

Now taking log both side, it will be found that

$$\log \frac{p}{1-p} = z$$

Here the $\frac{p}{1-p}$ is called the odd and the $\log \frac{p}{1-p}$ is called logit of P

The model we estimate is a binary logistic regression, where the probability of being at risk of poverty is explained.

Model-1

$$\log \frac{p}{1-p} = \alpha + \beta_1 * \textbf{typeholding} + \beta_2 * \textbf{categoryoccupation} + \beta_3 * \textbf{socialgroup} + \textbf{ e}$$

where

α – constant

β_i - coefficient of the predictor variables

Typeholding – Marginal – holding less that 1.01 hectare of land, Small: holding between 1.01 hectare to 2 hectare, Semi-Medium: holding between 2.01 to 4 hectare, Medium: holding between 4.01 to 10 hectare and Large: holding more that 10 hectare of land socialgroup – this is categorical in nature, comprises ST, SC and Others

Categoryoccupation – agricultural work as category-1, elementary work as category-2, clerks, craft related workers, plant and machinery operator etc has been considered as category-3, associate professional as category-4 and professional and legislator senior official etc as category-5.

Now acute proletariat have been defined as the households included in the occupation category-1 or 2 and other as non- proletariat. Now interacting two categorical variables

namely proletariat class (includes acute-proletariat and non-proletariat) with land holding classes $10(5x2)^2$ arrangements can be set up.

Model-2

$$\log \frac{p}{1-p} = \alpha^1 + \beta_1^{\ 1} * \textbf{typeholding} * \textbf{plroletarialclass} + \beta_2^{\ 1} * \textbf{socialgroup} + \textbf{u}$$

Panel Analysis:

Further an attempt has been made to relate degree of semi-proletarisation among the ST relative to that of Oth with the increase the divergence among the ST and the Other. Squired Poverty Gap has been used as the poverty index in this paper since it satisfies all the three axioms of poverty. To compare the poverty situation of the different social groups whether their gap is narrowing down or not we introduced the gap coefficient (GC) which is equals to the ratio of their SPG. If we assume the existence of two Social Groups say Gr-A and Gr-B

Gap Coefficient (GC) between A and B $= \frac{SPG\ among\ Gr-A}{SPG\ among\ Gr-B}$

It is important that GC follow the following properties

1. The value of GC would lie between zero to infinite i.e. GC = (0, ∞)
2. GC = 1 indicate that the gap between the two groups is no longer exist.
3. The more the value of GC deviating from 1 the gap between two groups will expand up more and the more the value of GC converge to 1, the gap between two groups will narrow down more.
4. The situation, GC>1 initially and the value of GC moving towards one sequentially, indicates that the group, has been put numerator of the GC is economically backward relative to the other group and over the time the gap of backwardness between these two groups lessen.
5. The situation, GC>1 initially and the value of GC increasing sequentially, indicates that the group, has been put numerator of the GC is economically

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[2] Landholding classes-5 and acute-proletariat & non-proletariat

backward relative to the other group and over the time the gap of backwardness between these two groups widen.

6. The situation, GC<1 initially and the value of GC moving towards one sequentially, indicates that the group, has been put denominator of the GC is economically backward relative to the other group and over the time the gap of backwardness between these two groups lessen.

7. The situation, GC<1 initially and the value of GC decreasing sequentially, indicates that the group, has been put numerator of the GC is economically backward relative to the other group and over the time the gap of backwardness between these two groups widen.

To do that an Panel regression analysis poverty Gap Coefficient (GC) between ST and Others has been used as the dependent variable ratio of acute semi- proletarianisation, ratio of marginal landowner engaged in agriculture, ratio of average landowned, ratio of irrigated land holding between ST and Other as independent variables.

Here the model is as follow

$$GC_{it} = \Omega_{1i} + \Omega_2 X_{2it} + \Omega_3 X_{3it} + \Omega_4 X_{4it} + \Omega_5 X_{5it}$$

    i-   State (20)

    t- time (43rd, 61st, and 68th of NSSO round)

Data Source

Three NSSO large sample data rounds viz- 43rd for the year 1987-88, 61st for the year 2004-05 and 68th for the year 2011-12, have been used in this study. The analysis concentrate only in the rural India.

Analysis:

It has been found that the share of the landless and marginal landowner actually increased from 67 percent in 1987-88 to nearly 80 percent in the year 2011-12, whereas all the other forms of landowner decelerate in this time regime in rural India. Further, it has been found that the share of landlessness is most among the Schedule Caste and least among the Scheduled Tribe in all the NSSO rounds used in this analysis. Further clubbing the

share of Landless and marginal landowner and the small landowner, it had been found that the share of household owned less than 2 hector of land is most among the SC and least among the Others (OBC and Forward Caste).

Table:2 Trend in Landholding pattern among the different social groups

Land Holding Classes	Nsso Round	%age share of Households			
		ST	SC	OTH	ALL
LandLess and Marginal LandOwner	43	61.39	85.56	63.37	67.54
	61	68.52	89.79	72.46	75.78
	68	73.88	90.08	76.34	79.00
Small Landowner	43	19.44	8.42	16.30	15.09
	61	17.57	6.49	13.79	12.62
	68	15.22	5.69	12.62	11.43
Semi-Medium Landowner	43	12.69	4.06	11.43	10.11
	61	11.03	2.65	9.15	7.95
	68	8.72	2.96	7.66	6.78
MEDIUM Landowner	43	5.63	1.74	7.19	5.94
	61	2.66	0.94	3.95	3.17
	68	1.97	1.19	2.87	2.41
LARGE Landowner	43	0.85	0.21	1.71	1.32
	61	0.21	0.13	0.64	0.49
	68	0.21	0.08	0.51	0.39

Source: Author's calculation from NSSO unit level data

And the share of Landless & marginal landowner and the small landowner reduced for all the social groups. Now looking at the occupation status of the households (as shown in table-3) it has been found that the share of households engaged in agriculture or elementary work, although highly significant such as 85% in 1987-88, but decelerating over the years, and reached to 72 percent in 2011-12. Similarly, there is a slide decline in share of households engaged with occupation of associate professional from 2.2 percent to 1.8 percent. Comparatively share of households engaged skill level-2 type occupations [3] such as service worker, shops, craft related trade workers, plant and machinery operator or assembler etc. have increased, similarly the higher skilled share of worker have also increased from 1 percent to 5 percent. Now here it is important to note that share of unskilled workers did not reduced significantly during the last two decades in fact the

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[3] It is important to mention that agricultural worker also belong to skill level – 2..........

pattern of occupational structure did not changed significantly looking at the overall picture in general.

Table:3 Trend in Occupation Category pattern among the different social groups

Occupation category	Nsso Round	ST	SC	OTH	ALL
1	43	44.63	25.38	54.62	47.65
	61	41.88	23.93	50.24	43.59
	68	38.71	21.23	42.17	37.20
2	43	47.42	61.78	27.38	36.52
	61	47.70	57.12	26.72	35.51
	68	41.65	53.07	27.57	34.63
3	43	6.72	10.93	14.00	12.56
	61	7.56	15.64	17.59	16.18
	68	14.46	21.00	21.15	20.43
4	43	0.91	1.19	2.79	2.26
	61	1.65	1.95	2.77	2.48
	68	1.40	1.26	2.09	1.84
5	43	0.32	0.72	1.20	1.00
	61	1.20	1.36	2.68	2.24
	68	3.78	3.44	7.03	5.91

Source: Author's calculation from NSSO unit level data

But is it the case? Is the occupational structure stagnant over the last two decade? In fact it is the high time to check. Now among the Scheduled Tribes it has been found that both the share of household engaged in the agriculture and in elementary activities is decelerating and share of household engaged in other activities had increased and among them increment in the share of households associated in skill level-2 type occupations (except agriculture) is significant. Now looking at the top of this story it would be assessed that it is a movement toward a caste or social group based equality situation. But is this the whole story? Let's check it.

As it has been defined earlier, the acute semi-proletarianisation increased at a low rate in the time period between 1987-88 to 2011-12 from 51 percent to 52 percent. But the semi-proletarianisation actually increased from 62 percent to 71 percent. Further looking at the semi-proletarianisation among the STs, it has been found that acute semi-proletarianisation and semi- proletarianisation both increased most among the STs.

Table:4 Trend in Semi- proletarianisation pattern among the different social groups

		%age share of Households			
	Round	ST	SC	OTH	ALL
Semi-proletarianisation	43	58.80	83.21	57.75	62.95
	61	67.05	86.53	64.87	69.88
	68	70.02	85.83	67.48	71.79
Acute Semi-proletarianisation	43	53.15	73.13	45.57	51.93
	61	60.30	71.57	48.79	54.96
	68	56.53	65.50	47.91	52.66

Source: Author's calculation from NSSO unit level data

Now this finding do support the view that landlessness is increasing among the STs and along with the changed in the occupational structure of the landless, the share of elementary and semi-elementary level occupation increased significantly. It is also worth noting that among the STs the share of households engaged in high skilled jobs also increased. Thus the situation of ST can be assessed as: on the one side the share of unskilled or semi unskilled jobs increases along with the increase in share of high skilled jobs i.e. the white colour job holder are increasing along with increasing semi-proletarianisation. Hence it can be concluded that the the disparities among the STs are increasing over the time.

Impact of the Occupational Structure and Land holding on Poverty:

Analysing logit model-1 and looking at the odd ratio it can be stated that taking skill level- 2 as reference it has been found that household engaged in agriculture has 30 percentages more chance to lie below the poverty line whereas the household engaged in elementary occupations are most prone to lie below the poverty line (so what is the difference if there is any is not very clear). Alternatively, households engaged in skill level-3 are least prone to poverty.

Table:5 Logit Model Result

	Model-1			Model-2	
Poverty	Odds Ratio	z value	Poverty	Odds Ratio	z value

Occupation Category1	ref		lanless*acutprol	5.986844	7.61
Occupation Category2	2.195737	53.62	landless*non acutprol	2.344009	3.62
Occupation Category3	0.764733	-17.15	small* acutprol	3.718757	5.58
Occupation Category4	0.224801	-40.13	small* non acutprol	1.404488	1.43
Occupation Category5	0.284422	-37.95	semi-medium* acutprol	2.879256	4.49
landless& marginal	1.450796	18.69	semi-medium* non acutprol	1.188431	0.71
small landowner	1.210913	8.48	medium* acutprol	2.175643	3.29
semi-medium landowner	ref		medium* non acutprol	0.876088	-0.52
medium landowner	0.773582	-8.9	large* acutprol	1.599205	1.95
large landowner	0.580959	-10.4	large* non acutprol	ref	
ST	2.23477	50.68	ST	2.212427	51.17
SC	1.39058	22.9	SC	1.614309	34.43
OTH	ref		OTH	ref	
_cons	0.357147	-58.04	_cons	0.129502	-8.7

Source: Author's calculation from NSSO unit level data

Further analysing the model-2, where household engaged in agriculture and elementary occupations have been identified as acute-proletariat and the remains as non-proletariat, and combining them with the different classes of land holding, it has been found that landless proletariat are most prone to the poverty and medium non-proletariat landowner are least prone to the poverty. Further looking at the social group it has been found that STs are more prone to poverty followed by SCs and the others. Further it imply that given the landholding if the household is proletariat he has more chance to lie below the poverty line relative to a non-proletariat and similarly a household being a proletariat if land holding increases it have less chance to lie below the poverty line. It indirectly proves that semi-proletarianisation increases the chance of lying below poverty line for a given time period. Although it is really strange that over the years in one hand semi-proletarianisation is increasing and poverty decreasing on the other. This can be happens either there is some problem in poverty estimation in rural India or because the purchasing power of the semi-proletariat increasing over time absolutely in such a manner that they are able to get cross the poverty line. This is really a serious matter of concern but will not be discussed over here.

Table: 6 Rural Gap-coefficient between different ST and Others at national level

RURAL	38th Round	43rd Round	50th Round	55th Round	61st Round	66th Round	68th Round	%age change
st/oth	1.92	2.17	1.89	2.53	2.66	2.24	3.39	76.28

Source: Author's calculation from NSSO unit level data

Now there is another matter of concern that the increasing diversity between the STs and Others. Now it can be inferred from the above table, that instead of gap between ST and forward groups getting narrowing down, which has been claimed by different researchers like Panagarya and Mukim (2013), the gap actually widen over the years. It has been found that in rural India where the gap-coefficient is increasing steadily between the ST and Others, which indicate the increasing divergence between ST and Others. Summarising this it could be inferred that where there is a increasing divergence between ST and Others the rural India. Now to explain this increasing divergence in poverty a panel analysis has been used taking poverty divergence between ST and Other as dependent variable and ratio of acute semi- proletarianisation, ratio of marginal landowner engaged in agriculture, ratio of average landowned, ratio of irrigataed land holding between ST and Other as independent variables. It has been found that acute proletarianisation ratio and ratio of marginal landowner engaged in agriculture are statistically significant to explain the poverty ration between the ST and Others.

Table:7 Panel Regression coefficient

			R-sq:	
GC	Coef.	z value	within	0.0399
landowned Gap	-0.31319	-0.58	Between	0.5962
landirrigated gap	0.366185	0.52	Overall	0.2322
acute semiproletarisation	1.630741	2.63	sigma_u	0
share landless in agricul	1.328021	2.05	sigma_e	1.894116
_cons	-0.71503	-0.58	Rho	0

Source: Author's calculation from NSSO unit level data

It could be stated that acute semi- proletarianisation ratio and ratio of marginal landowner engaged in agriculture influenced the poverty ratio between the ST and Others with coefficient 1.63 and 1.32 respectively. Hence it could be stated that the divergence between the STs and Others are increasing over the years mainly because the STs are becoming more semi-proletariat relative to the Others. Another reason is that even being the increasing marginalisation and landlessness, STs are more dependent in agriculture relative to the other. Thus reducing the semi-proletarianisation is main dent for increasing divergence.

Conclusion:

Thus it can be concluded that landlessness have increased in the neo-liberal reform era. Further the share of household engaged in the low-skilled have increased in the neo-liberal reform period which signifies that the landless-skillless labourer are increasing at a massive rate. This actually reduced the bargaining power of the semi-proletariat class, and increases the profit opportunities among the capitalists. And as a result inequality in the society is increasing. Furthermore whereas after the independence the objective of Government of India was the development of the tribes with their protection, thus the disparity between tribal and non-tribal can be reduced, it has been found that the gap coefficient of poverty actually widen over the years between the ST and Others which indicate the increasing divergence between ST and Others. It also has been found that the STs are getting more semi-proletarised relative to the Other. This paper conclude that increasing semi-proletarianisation among STs relative to that of Others is one of the reason increasing divergence between ST and Others.