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The Land Question: Political Economy of Dispossession and Rural Livelihoods

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Abstract

Land dispossession under the neoliberal capitalist development has become a focal point of debate across the states in India and West Bengal is no exception. Based on primary data collected through three rounds of household-survey in 2009, 2014 and 2016 in Rajarhat, West Bengal, this paper examines the mechanism of land acquisition executed by the former Left Front Government (LFG). It illuminates the impact of large-scale land acquisition for a planned township for Information Technology (IT) parks, business centres and dwelling units. The study shows that the government had substantially diluted several legal provisions laid down in the Land Acquisition Act (LAA) of 1894 and denigrated the Rehabilitation and Resettlement (R&R) benefits recommended in the National Policy for Rehabilitation and Resettlement (NRRP). The ensuant transformation in livelihood activities of the dispossessed in the post-acquisition stage came forth with two key characteristics: first, there had been a sudden increase in the share of non-farm workers; and second, a bulk of this increase in non-farm activities comprised both menial and flourishing livelihood activities. The transitional informal employment opportunities in the form of 'syndicates' created by the government for the dispossessed households were 'non-inclusive', which kept three quarters of dispossessed households outside their circuits. Comparatively well-off households well-linked with the local authority and political leadership had better access in gaining these opportunities.

1. Introduction

The government of India has always attempted to uphold a commitment to higher industrial growth and infrastructure development ever since the end of colonial rule (Bapat, 2009). This commitment became stronger with the liberalisation and globalisation of the Indian economy – what Levien (2013: 383) calls 'neoliberal regime' that is focused more on capital-centric growth model and has given birth to emerging investment opportunities to large capital giants. This led many Indian states to compete with each other for attracting industries and infrastructure developers by giving them lucrative incentives in the form of easy access to natural resources (land and mineral resources), lower cost of incorporation, and easy credit and tax benefits.

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The incidences of land acquisition for private capital-intensive industrial enterprises, infrastructure development projects and new townships in the contemporary regime, unlike the regime of post-colonial state capital-driven development ventures what Nehru called 'temples to India's industrial modernity'(Parry and Struempell, 2008: 47; Sharma, 2010), have become far more numerous than ever before. Studies across the world, especially in developing countries, reflect that land acquisition for development projects results in deprivation of property rights, marginalization (Cernea, 1996; 1999 and 2000; Fernandes, 1998 and 2005; Amirthalingam and Lakshman, 2009) and social exclusion of the affected people (Mahapatra, 1999; De Wet, 2001; World Bank, 2004; Council for social Development, 2008 and Sharma, 2010).

In the last few decades, particularly after the economic reforms in 1991, vast tracts of agricultural land have been acquired by state governments under different ruling parties including left front government (LFG) of West Bengal in the name of public interests. The data from the Ministry of Agriculture, Government of India, shows that the country had registered a decline of 4.06 lakh hectares of cultivable land due to various development activities only over a short span of four years between 2007-08 and 2010-11 (Mohan, 2013). The conflict between farmers and the states over land has thus become a central locus and a focal point of debate across the nation. Although, with the legislative power under the constitution of India, several states have made some procedural amendments and made laws with regards to acquisition of land, surprisingly the substantive parts of these amendments and enactments contribute in accelerating the process of land acquisition (Upadhay and Sinha, 2009).

In the second half of its political hegemony, the LFG successfully acquired or attempted to acquire vast tracts of land in many places (e.g. Rajarhat, Kharagpur, Baruipur, Singur, Nandigram, Uluberia, Dankuni, Durgapur, Salboni, Haldia, Purulia and so on) in West Bengal. Among them, Singur and Nandigram are the only two places that gained national attention and led to debate and controversy for land-based capitalist development in current times. Surprisingly, the place that witnessed the largest dispossession of farmers from their means of subsistence due to a forcible acquisition of cultivable land is Rajarhat where the LFG under the purview of public purposes laid down in Part-II of the LAA of 1894 had acquired 6933.72 acres of agricultural land and fisheries in order to establish private capital-driven world-class business centres, financial and Information Technology (IT) hubs, and dwelling units in the form of a planned township that would resemble what Sassen (2001) called 'global cities'. This planned township was subsequently named in 2010 as 'Rajarhat Newtown' which now comes under the jurisdiction of Rajarhat-Gopalpur Municipality. The acreage of land acquired in Rajarhat is about seven times greater than that of Tata Motors[2] in Singur (997.11 acres). The dispossessed farming households in Rajarhat were severely affected by such a large-scale, state-mediated acquisition of land, which almost eradicated cultivation from the project affected villages. Even then, Rajarhat did not come to limelight as Singur did. Most of the work on land acquisition (Sarkar, 2007; Banerjee and Roy,

[2] The Tata Motors Small Car project in Singur is a 'gone down' project. The strong and violent peasant uprisings forced the Tata to pull out its project from West Bengal to Gujarat in 2008.

2007; Fernandes, 2007; Mohanty, 2007; Chandra, 2008; Sau, 2008 etc.), and empirical (Ghatak et al, 2013) has so far focused largely on Singur and only a handful of studies had focused on Rajarhat. However, no study has looked into the implementation of various aspects of important legal provisions concerning the acquisition of land and rehabilitation of the dispossessed households in Rajarhat. N have they analyzed the changes in livelihoods of the dispossessed at individual level. The present study had been taken up at Rajarhat as a case study to enquire into these issues and understand the effect of this acquisition. Specifically the paper attempts:

1. To look into the process of land acquisition designed and executed by the Left Front Government in Rajarhat in West Bengal, and
2. To assess the pattern of change in livelihoods of dispossessed farmers caused by the conversion of agricultural land into non-agricultural land in the post-acquisition stage.

2. Study Area and the Data source

Rajarhat in North 24 Parganas district is a C.D. Block with a population size of approximately 0.19 million (Population Census, 2011). It is about 12 kilometres away from Kolkata Metropolitan City and adjacent to the Netaji Subhas Chandra Bose International Airport (Kolkata Airport). Agriculture was not well developed and major portion of the acquired agricultural land had been cultivated by the farmers with two types of paddy :aman and boro, used successively during the rainy and summer seasons. A section of the farmers cultivated several vegetables (e.g., potato, cabbage, cauliflower, brinjal, carrot, mooli and some leafy vegetables) on the higher land adjoining their homesteads in the winter season.

In 1993–94, shortly after the liberalisation of Indian economy, the former LFG planned to develop an eco-friendly township mainly for IT parks, business centres, institutions, and planned dwelling units on a large tract of rural land in Rajarhat located in the north-eastern rural-urban fringe of Kolkata (Roy, 2014). Under Part II of the LAA of1894, the LFG had acquired 6933.72 acres of agricultural land and fishing embankment from 15,000 land owners and registered tenants of 26 revenue villages in Rajarhat (Figure 1 and Table 1) over a period of sixteen years from 1995 to 2011. Rajarhat is now undergoing a massive transformation. It was predominantly a rural landscape in 2001 with 95.37 per cent of its population being rural in character while in 2011, 52.81 per cent became urban. The rapid urbanization has now almost eradicated agricultural cultivation from the project-affected villages.

The data for this study had been gathered through household survey conducted in Rekjuani revenue village in Rajarhat in 2009. 117 households had been randomly[3] drawn. A series of informal discussions with many dispossessed peasants were also undertaken while revisiting Rekjuani in 2014 and 2016 as follow-up visits to comprehend the

[3]The sample households were randomly drawn because of two reasons. First, the list of dispossessed households was not provided by the concerned offices (panchayat office, block development officer's office, block land revenue office, district land acquisition cell or West Bengal Housing Infrastructure Development Corporation Limited Office). Second, not every dispossessed household wished to provide the required information. Many dispossessed farmers were suspicious about the political affiliation of the strangers.

overall changes among the villagers. Rekjuani comes under the jurisdiction of Rajarhat-Bishnupur-I panchayat in North 24 Parganas district. Although the sample households were randomly selected, a careful attempt was undertaken to draw them from all pockets of the revenue village. The household information was also complemented by a discussion with the Panchayat Prodhan and members, local school teachers and state government authorities including Rajarhat Block Development, and Block Land Revenue Officers. Based on the mean size of landholdings (1.95 acres) among the sample dispossessed households at the pre-acquisition stage, all sample households have been grouped into four categories: large (more than 2.65 acres), medium (1.65 to 2.65 acres), small (0.65 to 1.65 acres) and marginal (less than 0.65acre) farmers/ farming household.

3. Land Grab in West Bengal: Understanding the LFG's Rationale

Since independence through the 1970s West Bengal was entrapped in an 'agrarian impasse' (Boyce, 1987; Rawal, 2001). In the 1970s West Bengal was one of the slowest growing states in agricultural sector in the country, whereas in the 1980s it became the fastest growing state (Sen and Sengupta, 1995; Bhalla and Singh, 1997; Khasnabis, 2008) with a growth rate of 6.50 per cent per annum in food grains production (Saha and Swaminathan, 1994). The Net State Domestic Product (NSDP) of West Bengal (at 1993-94 prices) grew at 4.70 per cent per annum in the 1980s, whereas it was only 3.10 per cent in the preceding decade (West Bengal Development Report, 2010). The scholars mostly believed that this remarkable growth in agriculture was primarily an upshot of two ventures initiated by the communist government. First, the successful implementation of land reforms and redistribution of surplus land without ownership among the landless and land-poor in rural areas which gave them title to land and provided an immense impetus to work harder; and second, the adoption of new technologies in the form of HYV seeds, fertilizer, plant protection chemicals and most importantly the expansion of both private and government-owned tube well irrigation for assured supply of water to crops (Harriss, 1993). Moreover, the rights of sharecroppers to land were secured by the LFG through a programme called 'operation barga'. The share of landless households in rural areas declined sharply in the first half of its political power in the state. The rural poor were substantially empowered. By 1988, fifty eight per cent of panchayat members in West Bengal belonged to the poor peasants or agricultural labourers (West Bengal Human Development Report, 2004: 48). However, the development policy of the same government in West Bengal started changing dramatically in the 1990s after the liberalization of the Indian economy. The communist government made a substantial stride by introducing industrial policy reforms in 1993-94 that promoted large scale private investments, foreign technologies and foreign investments, in which land acquisition on a large-scale played a central part. The government contended that the growth in agriculture and service sector can't be sustained over a long period without an increase in growth of manufacturing sector (Commerce and Industries Department, Government of West Bengal, 2008: p3); growth in organised manufacturing industries increases per capita value of output at higher rate which accelerates the per capita GDP of a state and prospers its economy. In West Bengal where a pro-peasant Communist Government began its career in 1977

with a vision of social, political and economic changes by bridging a gap between the poor and the rich seemed to be more interested in acquiring agricultural land since the second half of the 1990s for capital. The government which kept on winning the state assembly election in a regular fashion primarily owing to an enormous support of the farming communities ever since its ascend in power started grabbing their means of subsistence (land) and livelihoods contingent upon in the name of development. It would be noteworthy to mention that West Bengal is one of those few states which have the most fertile agricultural land in the country. Population density is very high. Share of barren and uncultivable waste land (0.23 per cent) to total geographical area is extremely low (Ministry of Agriculture, GOI, 2010). Moreover, agriculture, as per standard categorisation of landholdings size, is dominated by marginal farming households (88 per cent).However, despite having acquired a large tract of agricultural land from about fifteen thousand of owner cultivators and registered tenants and almost eradicated cultivation from the project affected villages in Rajarhat, the former state government neither brought forth aninclusive and lucrative policy intervention to secure the livelihoods of dispossessed and other project affected peoplenor complied with the existing rehabilitation and resettlement policies enforced by the Government of India in 2003 and 2007.

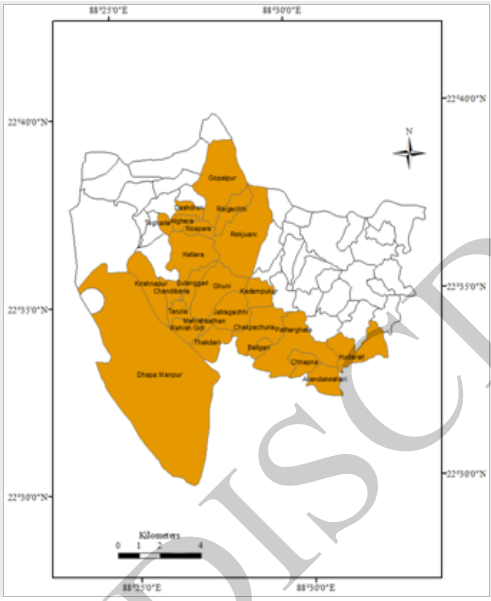
4. Execution of Land Acquisition in Rajarhat, West Bengal

The legal process of acquisition of 6933.72 acres of agricultural land and fishing embankments in Rajarhat commenced with the publication of preliminary notifications (more than a hundred) under the section 4(1) of the LAA between 1995 and 2011 in the Official Gazette and two daily newspapers. The government intended to acquire the specified land in the name of employment generation and socio-economic development under the purview of public purposes. Although a section of unwilling farmers registered their objections under the section 5A of the act within a month from the date of publication of preliminary notifications, the collector published a declaration of the purpose of acquisition under section 6 of the LAA without any concluding judgment to the filed objections. Subsequently, he issued public notices under the section 9(1) of the same Act about the government's intention of taking possession of the notified land. The total compensation for a particular land to be acquired was estimated by him as the sum of four following components: (a) the basic price (market value) of land at the date of publication of preliminary notification, (b) a solatium at the rate of 30 per cent of the basic price, (c) an interest at the rate of 12 per cent per annum for the period between date of publication of preliminary notification and the date of the declaration of compensation award, and (d) a compensation for the standing crops on notified land.

In 1993-94, the LFG of West Bengal under veteran communist leader Jyoti Basu planned to develop an eco-friendly township in Rajarhat block in the north-eastern rural-urban fringe area of Kolkata. In view of the commencement of land acquisition process, the Government imposed restrictions on 'selling, purchase and registration of land' in these villages in Rajarhat in the second half of 1995 under the Land Registration Act (West Bengal Amendment), 1981. The restrictions prevailed in a particular revenue village until the acquisition completed. To obviate the possibility of speculative appreciation in

the market value of land in subsequent years, the available sales proceeds for 1995 were taken as the base data for calculation of the market rate with an annual premium of five per cent for 1996 and thereafter (CAG, 2007).

Figure 1: Project-affected revenue villages in Rajarhat from where lands were acquired



The restriction on land registration kept real estate agents, housing developers, land mafias and speculators away from the land market until the acquisition was over in a particular revenue village. In April 1996, the LFG entrusted the work of land acquisition to the West Bengal Housing Board (WBHB); but after a period of over two years in August 1999 the government handed over this work to the West Bengal Housing Infrastructure Development Corporation Limited (WBHIDCO) under the West Bengal Town Planning and Development Act, 1979. The WBHIDCO prepared a project report for the acquisition and development of 7598.33 acres of land for five different purposes, namely residential (50.50 per cent), industries (6.50 per cent), New Business District (4.60 per cent), roads (9.70 per cent), open spaces and water bodies (28.70 per cent). In 2004-05, the WBHIDCO extended the project area to 13343.40 acres with a new Action Area-IV of 5745.08 acres in the fourth phase but it could acquire only 6933.72 acres of land under Action Area-I, II, III and IV till March 2007 (CAG, 2007). Although the process of acquisition was initiated in 1995 in Teghoria Mouza, it begun in the sample revenue village Rekjuani in 1998 and the process was completed in 2005. In 1998 the collector paid only a sum of rupees (Rs.) 3.60 lacs per acre of land as a total compensation regardless of its type and quality. In 2003 the total compensation was revised and increased to Rs. 7.80 lacs. The collector also acquired the notified land from those owners who did not accept the compensation award. In such cases, the collector deposited the amounts of compensation awards to the court under section 31(2) of the LAA. During the course of interaction with the dispossessed farmers in

Rajarhat, a few who went through these experiences bemoaned that the retrieval of compensation money from the court was an extremely difficult and painful task. Instead of being assisted by the officers in the land acquisition cell, they often faced harassment in respect of legal proceedings. The difficulties in retrieval of compensation award from the court made many farmers frightened in the successive phases of acquisition, and consequently they gave up their land in despair.

Table 1: Revenue villages in Rajarhat from where land was acquired

Panchayat	Project Affected Revenue villages	Area Acquired (Acre)
1. Patharghata	1. Patharghata	948.97
	2. Akandakeshari	267.59
	3. Baligari	34.61
	4. Chakpachuria	724.32
	5. Chapna	176.14
	6. Kadampukur	342.265
2. Jyangra – Hatiara-II	7. Ghuni	473.29
	8. Jatragachhi	537.797
	9. Sulanggari	26.83
	10. Hatiara	249.624
3. Mohisbathan-II	11. Tarulia	157.06
	12. Mohisgot	196.77
	13. Thakdari	314.01
	14. Mohisbathan	85.54
	15. Dhapamanpur	42.44
4. Rajarhat – Bishnupur-I	16. Rekjuani	945.52
5. Chandpur	17. Hudarait	n.a.
6. Rajarhat – Gopalpur @	18. Atghara	8.581
	19. Chandiberia	23.54
	20. Dashdron	n.a.
	21. Gopalpur	193.95
	22. Kaikhali	1.76
	23. Krisnapur	1.95
	24. Raigachhi	204.02
	25. Noapara	150.466
	26. Tegharia	8.349
Total	26 Revenue Villages	6933.72

Source: WBHIDCO, 2014.

Note: (1) @ indicates Municipality; (2) n.a. indicates not available.

5. Scenario of Voluntary and Involuntary[4] Households: A Lens of Political Economy

In terms of actual consent, the dispossessed households were of two types: voluntary and involuntary. While voluntary households sold or gave up and alienated their land to the land acquiring body (government) with their consent (willingly), involuntary households refrained from giving up or alienating their land willingly; it was acquired by the government forcefully.

The government had acquired agricultural land from the majority of dispossessed households in Rekjuani mouza without their consent (Table 2). A small proportion (8.55 per cent) sold their land willingly; and they did so due to economic and political reasons. For the majority, cultivation was the sole source of income before acquisition. Farmers often sold off their land when they were in dearth of money in their urgent needs, such as marriages of family members, medical treatment, performing Hajj etc. Although the process of acquisition in Rekjuani mouza started in 1998, getting money through land sales by the villagers became impossible after 1995 due to government's ban on private sales of land and registration. Therefore, some farmers had to take loans from banks, cooperatives, moneylenders etc. at higher interests at the time of such urgencies. Repayment of loans within the stipulated time often became difficult as the net return from primarily rice-based cultivation was not remunerative. This led to an accretion of the burden of interests over time. In such a situation when government offered them market price calculated on the basis of 1995-sale deeds of similar land in the area and promised an assured job for at least a member of each dispossessed household in the upcoming industries on acquired land, some farmers gave up their land willingly. In addition, a section of households with a strong faith in the then ruling communist party also sold their land voluntarily.

While interacting with project affected villagers during the surveys, it was found that the voluntary sellers were mostly a section of large, powerful and politically well-connected landlord cum farmers for whom cultivation was a secondary activity whose lands were mainly cultivated by tenant farmers. These farmers through a series of close-door meetings with the land acquisition officers and the top-level ruling CPI(M) political leaders were convinced to keep the state-mediated acquisition an easy and hassle-free affair in order to accomplish the LFG's most desirable development project− famous as 'Rajarhat Newtown'. These agricultural households worked as catalysts for the LFG and secured the most profitable post-acquisition employment opportunities as syndicate businesses and contractors when the WBHIDCO started urban development work on the acquired Rajarhat area. No less important was the game of local cadres of the ruling CPI(M) in the affected villages who not only helped channelizing land for the Newtown project but often intimidated those who were not ready to part with their means of subsistence: land. The immediate 'societal' aftermath was that the once

[4] The dispossessed households had been categorised on the basis of their actual consent/opinion about selling or giving up land for the project, not on the basis of their written consent on the government's record at the time of receiving compensation money under Section 11(2) of the LAA of 1894. To be noted that dispossessed households obtained compensation money from the government only after giving their consent in writing on the official document.

traditionally closely-knit and mutually reciprocal farming communities in Rajarhat fell apart. The affected villages are no more rural villages they were two decades earlier, they are now what Vasudevan (2013) calls 'urban villages' surrounded by occupied or yet to be occupied multistoried housing colonies, corporate and government offices, and institutions.

Most of the dispossessed households received full compensation from the government (Table 3). A small proportion (8.55 per cent), of the sample households on the other hand, reported that the government did not offer them any compensation for their acquired plots that were subject to litigations or had ownership issues.

Table 2: Scenario of voluntary and involuntary households in Rajarhat

Landholding Size wise Household Category	Voluntary Selling		Involuntary Giving up		Total
	Household	%	Household	%	
Large (Above 2.65 acres)	4	18.18	18	81.82	22 (100.00)
Medium (1.65 to 2.65 acres)	1	3.23	30	96.77	31 (100.00)
Small (0.65 to 1.65 acres)	4	7.69	48	92.31	52 (100.00)
Marginal (Below 0.65 acre)	1	8.33	11	91.67	12 (100.00)
Total	10	8.55	107	91.45	117 (100.00)

Source: Household survey.

Table 3: Responses to receiving compensation award by the dispossessed households

Landholding Size wise Household Category	Full compensation received		Did not get compensation for a part of acquired land		Total
	Count	Per cent	Count	Per cent	
Large (Above 2.65 acres)	17	77.27	5	22.73	22 (100.00)
Medium (1.65 to 2.65 acres)	27	87.1	4	12.9	31 (100.00)
Small (0.65 to 1.65 acres)	51	98.08	1	1.92	52 (100.00)
Marginal (Below 0.65 acre)	12	100.00	-	-	12 (100.00)
Total	107	91.45	10	8.55	117 (100.00)

Source: Household survey.

6. Dilution of the Regulatory Guidelines of the LAA and NRRP: Implementation Aspects

The process of land acquisition in Rajarhat was completed in March 2011; and in 2005 for sample village (Rekjuani). The Government of India (GOI) brought in the National Rehabilitation and Resettlement Policy (NRRP) 2003 and NRRP 2007 into force in February 2004 and October 2007respectively. The acquisition on a large-scale was executed under the legal provisions laid down in Part-II of the LAA of 1984. Hence, one may logically assume the fulfillment of two crucial legal aspects: first, that the acquisition of land in Rajarhat would accomplish following the legal guidelines of the LAA; and second, that the LFG would have either offered a superior Rehabilitation and Resettlement (R&R) package over the NRRP 2003 or at least complied with it. Keeping these two aspects in view, this section attempts to bring forth the nuances and

discrepancies with regard to implementation of several important legal provisions of the LAA of 1894 and the NRRP 2003 while expropriating lands from the peasants in Rajarhat. In so doing, it also draws a comparison between the different R&R components of the NRRP 2003 and those of the NRRP 2007, and the lately enacted 'Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013' (RFCTLARRA, 2013). The comparison broadly portrays the changes in R&R components over time and helps to capture the degree of grandeur the latter two embodied.

There are eight parts to the LAA of 1894, of which the Part-II and Part-VII were used for acquiring private land. While the former was used by the central /state government or companies owned or controlled by the government for acquiring land for public purposes, the latter was used for both the public and non-public purposes by the non-government companies. Notably, the scope of acquiring land for non-public purposes under the latter was very limited (Choudhary, 2009). Acquisition of land on a large scale in Rajarhat had been accomplished by the government for the private sector IT and corporate giants and real estate agents. Hence, acquisition was legally meant to be accomplished by the LFG under Part-VII of the Act. While interacting with the dispossessed peasants in Rajarhat and looking upon the acquisition notices served to them by the collector, it, however, came to light that the state (government) actually acquired lands from them under Part-II of the LAA of 1894. This, in other words, underpins a legal violation.

One of the few grounds[5] on which project affected persons could file objection against the preliminary notification under section 4(1) was that the land acquiring body had notified religious places or graveyards (section 5A). The collector notified a Muslim community graveyard in Rekjuami (sample revenue village) for acquisition. Although the concerned Muslims filed objections in writing to the collector, the government acquired the community graveyard for the Rajarhat Newtown project. The section 23(1) of the LAA directed the land acquiring body to pay reasonable expenses to the displaced persons who were compelled to change their place of residence or business due to the execution of acquisition. In Rekjuani mouza, a homestead with a house of a family headed by a widow was acquired by the collector. However, the collector neither offered any resettlement site to the displaced family for its lost one, nor rendered any monetary support for constructing a new house and shifting its belongings to the new place of living. Moreover, based on the market value of agricultural land, the collector determined the final compensation for its homestead.

The Act did not embody any written clause or sub-clause restricting private sales of land following the publication of preliminary notification in a specified area where lands

[5] The affected stakeholders were allowed to file their objections against the acquisition on the following grounds: (i) the purpose for which land was sought to be acquired was not a public purpose; (ii) more land was being acquired than the actual requirement of proposed project; (iii) the project could be accomplished on an alternative piece of land (e.g. wasteland instead of fertile cultivable land) which would affect people to a lesser extent; (iv) the notified land contains historic monuments, graveyards, religious buildings (e.g. tombs, mosques, temples) etc; and (v) the amount of compensation being offered to the persons interested in lieu of their land was meagre or insufficient (Mahalingam and Vyas, 2011).

were to be acquired. Nonetheless, in order to make the acquisition process in Rajarhat easier and hassle-free, and to keep the land market 'monopsonistic' and controlled, the LFG imposed restrictions on private sale of lands and their subsequent registrations. One of the central goals of the NRRPs was to effectively minimize the displacement of people and to deliver a better standard of living to the project affected families by generating sustainable income to them. The LFG, unlike the post-colonial Nehruvian developmental state, indeed minimized the displacement in Rajarhat to a miniscule level. Only one of the 117 sample households in Rekjuani mouza was found displaced. However, the government did not provide any resettlement benefits to this household (Table 4)

Before commencing the legal processes of land acquisition in Rajarhat, the LFG promised to provide assured employment to at least one member of each dispossessed household in the upcoming project. Clause 6.18 of the NRRP 2003 and clause 7.13.2 of the NRRP 2007 also mandate necessary training facilities for project affected families to develop entrepreneurship. The same has also been scripted in the RFCTLARRA 2013. However, despite having acquired a large tract of agricultural land in Rajarhat that had perpetually uprooted a majority of the project affected families from their primary livelihood activities in Rekjuani mouza, the government had neither taken any initiatives to provide permanent livelihood opportunities to them, nor provided any necessary training facilities for developing entrepreneurship, technical and professional skills to be engaged in self-employment projects/ activities.

Interestingly, the rapid urbanisation in Rajarhat has developed a unique source of temporary employment−an unorganised employment− in the form of supplying mortar to a large number of undergoing construction sites locally known as 'syndicate'[6]. The former government in assistance with the concerned project affected panchayats entitled this opportunity only to the dispossessed households. This employment opportunity was, however, not inclusive in nature. The syndicate happened to be a source of employment to only a quarter (24.79 per cent) of the dispossessed households in Rajarhat (Table 5); and surprisingly, a majority of the households involved in syndicates were from the comparatively better-off large and medium dispossessed farm households who could gain access due to their comparative larger propensity to invest and acquiring a better political linkage with local governance. These phenomena reflected a negligence of the state government to adopt proper equity measures to benefit the poor dispossessed households equally. Therefore, aim of providing better standard of living and sustainable income opportunities envisioned by the central government in the R&R policies did not deliver the expected results in Rajarhat acquisition. The rehabilitation components were not properly delivered to the dispossessed households of Rekjuani mouza in Rajarhat. The initiative indeed was much inferior one as compared to the R&R benefits recommended by the GOI in both the NRRP 2003 and 2007 (Table 6).

[6] A syndicate is a cooperative formed by a group of members (generally 10-20 members) from the PAFs under the aegis of the concerned project affected village panchayats. Its only function is to supply construction materials.

Table 4: Comparison between key resettlement benefits recommended by the Central Government in the NRRP 2003, 2007&RFCTLARRA 2013 and the benefits offered by the LFG in Rekjuani mouza of Rajarhat

Sl. No.	Benefit	NRRP 2003	NRRP 2007	RFCTLARRA 2013	Benefits offered by the LFG
1	House or homestead	A 150 square metres of land in rural areas free of cost for an affected family whose house has been acquired.	A house site to the extent of actual loss of area of the acquired house but not more than 250 square metres of land in rural areas.	A constructed house satisfying the Indira Awas Yojana specifications for a family that lost its house in a rural area; or a constructed house with no less than 50 square metres in plinth area for a family that lost its house in an urban area	Nil
2	Onetime resettlement allowance	-	-	Resettlement allowance of Rs. 50,000 to each affected family.	Nil
3	Alternative land for cultivation	Agricultural land or cultivable waste land to the extent of actual land loss but not more than one hectare of irrigated land or two hectares of un-irrigated land /cultivable waste land to the affected family whose cultivable land has been acquired, subject to availability of the-government land in the same district.	If government land is available in the resettlement area, every affected family owning land in the affected area will be allotted agricultural land or cultivable wasteland equivalent to the actual lost land but not more than one hectare of irrigated land or two hectares of unirrigated /cultivable wasteland in the name of khatedar(s) of the acquired land.	In case of irrigation projects, each project affected family whose owned land has been acquired and has been reduced to the status of a marginal farming household or agricultural land less would be given at least one acre of land in the command area. However, regardless of the types of projects, the Scheduled Castes (SC) and Scheduled Tribes (ST) would be given land equivalent to the owned land acquired or 2.50 acres whichever is lower.	Nil
4	Provision of developed land in the project	-	-	25 per cent of the total land acquired for urbanisation projects would be reserved and offered to the owner households in proportion to the area of their acquired land after development, and at a price equal to the cost of acquisition and cost of development.	Nil

5	Grant to develop waste land into cultivable land	A financial assistance of Rs. 10,000 to each affected family to develop an allotted wasteland into a cultivable land. Onetime monetary assistance of Rs. 5,000 to each affected family for agricultural production in case of allotment of agricultural land.	A financial assistance of Rs. 15,000 to each affected family to develop the allotted waste or degraded land. One-time monetary assistance of Rs. 10,000 to each affected family for agricultural production in case of an allotment of agricultural land.	-	Nil
6	Grant for cattle shed or petty shop	Financial assistance of Rs. 3,000 for construction of cattle shed to the affected families having cattle.	Financial assistance of Rs. 15,000 for construction of cattle shed to the affected families having cattle.	An amount no less than Rs. 20,000 for the construction of cattle shed or petty shop to each affected family.	Nil
7	Transportation cost for shifting belongings	Financial assistance of Rs. 5,000 for shifting belongings, building materials and cattle to the resettlement area.	Financial assistance of Rs. 10,000 for shifting belongings, building materials and cattle to the resettlement area.	Financial assistance of Rs. 50,000 for shifting belongings, building materials and cattle to the resettlement area.	Nil
8	Infrastructure amenities	-	-	The act mandated the following infrastructures and basic minimum amenities that are to borne by the land acquiring body: a) Roads within the resettled villages, and an all-weather road linking to the nearest pucca road; b) Proper drainage and sanitation plans to be executed before resettlement; c) One or more assured sources of safe drinking water for each resettled family and provision of drinking water for cattle; d) Grazing land as per the proportion acceptable in the state; e) A reasonable number of fair price shops; f) Panchayat buildings and village level post offices with facilities for opening savings account; g) Seed and fertilizer storage facilities; h) Irrigation facilities to the agricultural land allocated to the resettled families; i) Proper transportation facilities connecting the resettled villages with the nearest urban centre; and j) Burial or cremation ground, depending on the castes and communities.	

Table 5: Scenario of Employment of Dispossessed Households in Syndicates in Rajarhat

Category	Dispossessed households	Employment of dispossessed households in syndicates			
		Involved	Percent	Uninvolved	Percent
Large (Above 2.65 acre)	22 (100.00)	11	50.00	11	50.00
Medium (1.65 to 2.65 acre)	31 (100.00)	7	22.58	24	77.42
Small (0.65 to 1.65 acre)	52 (100.00)	11	21.15	41	78.85
Marginal (Below 0.65 acre)	12 (100.00)	-	-	12	100.00
Total sample households	117 (100.00)	29	24.79	88	75.21

Source: Household Survey. Note: Figures in parenthesis indicate their respective share.

7. Land Dispossession and Rural Livelihoods

Agricultural land as 'pre-eminent asset' (Bardhan et al., 2011: 1) has always played a central role in shaping the pattern of rural livelihoods in India, particularly in West Bengal(Roy, 2016: 36). It would, therefore, be of utmost significance to capture how state-mediated acquisition of agricultural land from the peasants on a large scale in Rajarhat and its subsequent conversion for urban development largely driven by capital dramatically transformed the livelihood structures of both the dispossessed households (by farm size) and individual dispossessed work force.

(A) Changes in Livelihood Structure among the Dispossessed Households

Alternative livelihoods for those affected by land acquisition projects have been central to the debates on modern development ventures by expropriating land from the farmers. In near absence of agriculture in rapidly changing and urbanising social milieu in Rajarhat, a large section of dispossessed households, regardless of their agrarian status (landholding size) in the pre-acquisition stage, established a foothold in non-farm economic activities (Table 7) that included a wide range of employment as construction labour, mason, carpenter, grill maker, e-rickshaw driver, taxi-driver, conductor, motorbike mechanic, security guard, housekeeper, gardener, salesman in the malls, and so on. On the other hand, one-third of the households preferred to be engaged in self-employed activities which included both petty and flourished businesses. It was observed during the survey that the petty businesses were mainly run by the small and marginal dispossessed households who were primarily involved in merchandising of vegetables, fruits and coconuts; operating tea-betel-cigarette stalls; selling of afternoon and early evening snacks on the mobile trolleys or in the unauthorised structured/semi-structured road side food stalls (dhabas) mainly erected at the bus stops or around the corners of the newly constructed multispecialty hospitals, academic institutions, corporate offices, hotels and gated housing complexes. Rapid urbanisation, ever-growing urban population, changing market structure and progressively increasing count of new families in hundreds of newly emerged real estate housing complexes in Rajarhat have generated such demands which encouraged the dispossessed small and marginal households to undertake these employment opportunities. These economic activities are, however, largely menial and contingent upon the daily needs of the new townships− what Sanyal (2007), and Bhattacharya and Sanyal (2011) call 'need economy'. The dispossessed labour forces in the need economy virtually 'survive at the

Table 6: Comparison between key Rehabilitation Components recommended by the GOI (in NRRP 2003, 2007 and RFCTLARRA 2013) and Rehabilitation Components offered by the LFG in Rekjuani mouza of Rajarhat

Sl. No.	Benefit	NRRP 2003	NRRP 2007	RFCTLARRA 2013	Benefits offered by the LFG in Rekjuani
1	Financial assistance to self-employed persons	A financial assistance of Rs. 10,000 for construction of shop to the project affected family (PAF) comprising self-employed person or rural artisan or small trader.	A financial assistance of Rs. 25,000 for construction of shop to the PAF comprising self-employed person or rural artisan or small trader.	A financial assistance of at least Rs. 25,000 to each affected family of an artisan, small trader, self-employed person or a family that owned commercial or industrial or institutional structure and has been involuntarily displaced.	Nil
2	Onetime grant where employment not offered	A rehabilitation grant equivalent to 750 days minimum agricultural wages to each dispossessed household for losing entire agricultural land where neither agricultural land nor regular employment to one member of the household has been provided.	A rehabilitation grant equivalent to 750 days minimum agricultural wages to each dispossessed household for losing entire agricultural land where neither agricultural land nor regular employment to one member of the household has been provided. PAF may, however, keep upto 25 per cent of its rehabilitation grant amount in the form of shares and debentures if the land requiring body is a company.	A onetime rehabilitation grant of Rs. 5,00,000 per affected family if job is not given.	Nil
3	Financial assistance for becoming a marginal farmer	A financial assistance of 375 days minimum agricultural wages to each PAF whose agricultural land has been acquired partially and consequently become a small farmer.	A financial assistance of 500 days minimum agricultural wages to each PAF whose agricultural land has been acquired partially and consequently become a marginal farmer.	-	Nil
4	Rehabilitation allowance	A onetime rehabilitation assistance equivalent to 625 days of minimum agricultural wages to each PAF belonging to agricultural labourer or non-agricultural labourer.	-	A onetime rehabilitation allowance of Rs. 50,000 to each PAF belonging to agricultural labourer, tenant, sharecropper, artisan who had been working in the affected area for at least three years prior to the acquisition of land, and whose livelihood primarily remained dependent on acquired land.	Nil

5	Subsistence allowance	A monthly subsistence allowance equivalent to 20 days of minimum agricultural wages per month for a period of 1 year to each displaced family from the date of its displacement.	A monthly subsistence allowance equivalent to 25 days of minimum agricultural wages per month for a period of 1 year to each involuntarily displaced family from the date of its displacement.	A monthly subsistence allowance of Rs. 3,000 per month to each affected family for a period of one year from the date of compensation award. Additionally, an amount of Rs. 50,000 would be given to each SC and ST family displaced from the Scheduled Areas.	Nil
6	Skill development training	Necessary training for enhancing or developing entrepreneurship among the members of affected families to help them engage in self-employment projects or livelihoods.	In case of a project involving land acquisition on behalf of a requiring body, the requiring body has to arrange training of the affected persons to develop their skills for suitable jobs.	Necessary training to the members of PAFs for taking up suitable jobs in the project will be given by the land acquiring body.	Nil
7	Employment	No provision for providing jobs to the project affected families.	If land is acquired by the government on behalf of a requiring body, the requiring body has to provide job to at least one person per nuclear family in the project, subject to the availability of the vacancies and suitability of the affected persons for employment.	If jobs are created in the project, at least one member per affected family would be given job after providing suitable training and developing skills in the required field.	Nil
8	Scholarship during training	-	Provision of scholarships to the eligible persons of the PAFs during the training programme.	-	Nil
9	Livelihood options (other than job in the project)	-	The project affected persons or their groups or cooperatives would be given preference in allotment of outsourced contracts, shops and other economic opportunities coming up in or around the project site.	-	About 25 per cent of the dispossessed households gained opportunities for supplying required construction materials (see Table 5). The construction labourers, however, have been hired by the contractors or builders from outside, primarily from Murshidabad and Malda districts of West Bengal).
10	Choice of annuity	-	Annuity policies at the cost of project authorities that pay a pension for life time to the vulnerable and affected persons, such as disabled,destitute, widows, unmarried girls, orphans,abandoned women or persons above fifty years ofage; who are not provided or cannot immediately be provided with an alternative livelihood, and who are not otherwise covered as a part ofa family.	An annuity of at least Rs. 2,000 to each project affected family for 20 years with an appropriate indexation to the consumer price index for agricultural labourers.	Nil

margin of subsistence through political negotiation and struggle' (Bardhan 2018: 19).

The flourished businesses, on the contrary, had been hegemonized by the comparatively larger and better off dispossessed households who were involved in garment shops, mobile and electronic shops, household ware shops, supplying construction materials, rentiers, property dealers and real estate agents. The cross section analysis, brought forth two reservations. First, although a section of dispossessed households from each category chose business as their primary activity in the post-acquisition stage, the share of dispossessed households belonging to large farmer households (36.36 per cent) had surpassed all others. Second, the proportion of dispossessed households engaged in low profile casual and non-farm wage earning activities reflected an increasing trend with a decreasing size of landholdings. Thus far, many global capital giants and corporate have set up their enterprises in Rajarhat Newtown and a handful are yet to come. However, there was very little opening for those from the sample dispossessed households, to take hold of the benefits of white collar employment in the corporate enterprises.

(B) Changes inLivelihood Structure among the Dispossessed Work Force

Agricultural land is a coveted resource to the farming communities. Although agriculture in Rajarhat, unlike much debated Singur, was not highly developed due to low lying nature of the major portion of its vast agricultural field, the working population of dispossessed households was predominantly engaged in agriculture-based livelihood activities in the pre-acquisition stage (Table 8). Noticeably, despite being closely located to Kolkata metropolitan city and the Netaji Subhas Chandra Bose International Airport, a meagre proportion of the work force of sample dispossessed households was engaged in non-agricultural activities. This was because the majority lacked technical or professional skills, and possessed low level of education.

Some dispossessed households in Rekjuani even continued cultivating crops on their acquired land for a few years that followed the completion of acquisition in the village (2005), because the entire acquired land was not brought under urban and infrastructure development activities by the government at once. The filling and leveling of the low lying land with soils and constructions of roads, drainage, sewerages, electric poles and built-up areas for the planned urban development progressed from the south to north. Cultivation on acquired land in Rekjuani was completely stopped in 2007. Consequently, in absence of agricultural cultivation, livelihoods of the dispossessed work force underwent a dramatic transformation after 2007.

The eradication of cultivation, conversion of agricultural land into non-agricultural land and rapid urbanisation compelled and led a majority of unskilled workforce of the dispossessed households to establish their foothold in various diversified non-farm economic activities (Table 8) stated in the preceding section. A few dispossessed workers turned into real estate brokers and contractors who are working as middlemen between the land/flat/house sellers and the buyers by fixing the deal at 2 to 3 per cent

Table 7: Farm Size Category wise Change in Prime Economic Activity of Dispossessed Households after Acquisition

Landholding Size wise Category of Dispossess Households	Change in prime household activity in the post-acquisition stage							
	No change in main occupation	Cultivator to casual and non-farm worker	Cultivator to business	Cultivator to others (driver, conductor, e-rickshaw puller & security guard)	Cultivator to agricultural labourer	Cultivator to jobless	Cultivation was not prime activity in pre-acquisition stage	Total Households
Large(Above 2.65 acre)	-	7	8	5	-	-	2	22
%	-	31.82	36.36	22.73	-	-	9.09	100.00
Medium(1.65 to 2.65 acre)	1	12	10	6	-	-	2	31
%	3.23	38.71	32.26	19.35	-	-	6.45	100.00
Small(0.65 to 1.65 acre)	-	25	16	7	2	1	1	52
%	-	41.08	30.77	13.46	3.85	1.92	1.92	100.00
Marginal (Below 0.65 acre)	-	6	2	3	-	1	-	12
%	-	50.00	16.67	25.00	-	8.33	-	100.00
Total households	1	50	38	18	2	2	5	117
%	0.85	42.74	33.33	15.38	1.71	1.71	4.27	100.00

Source: Household survey.

commission on each sale agreement from both the parties[7]. Similar scenarios have been reported by Reddy and Reddy (2007), and Levien (2012) in two distinct case studies carried out in acquisition-torn villages near Hyderabad and Jaipur.

Private capital-intensive urbanisation in Rajarhat Newtown had developed a new and unique source of supply chain economic opportunities. A massive construction work for the corporate enterprises, real estate housing complexes, offices and infrastructure facilities demanded supply of construction materials like bricks, iron rods, cement, stones, tiles, marbles, sand etc. To supply these materials, many unregistered cooperatives with 10 to 20 members (or sometimes even more) of dispossessed households were formed under the aegis of concerned village panchayats locally called as 'syndicates'. Most of the members of a syndicate are comparatively from better-off large farm households and with good network with the local authorities and politicians. Although a single person is not entitled to be the sole owner of a syndicate, no provision is there for 'a fixed share' among its members either. Therefore, a large proportion of the capital invested in a syndicate is primarily contributed by the better-off dispossessed households. And the profit earned by a syndicate is distributed among the members as per their share to the total capital invested. Although the syndicates are temporary and informal in nature, they are important sources of income for a section of dispossessed households in the post-acquisition stage.

A considerable proportion (17.49 per cent) of the dispossessed workforce in Rekjuani in the post-acquisition stage became jobless (Table 8). The jobless workers fell under two particular categories. The first category included those who belong to the lower end of working age population and was from comparatively better-off dispossessed households. A majority of them were literate but not well-skilled and well-educated. They were ambitious about their sought after work and conscious about the status of menial employment, such as construction labour, domestic servant etc. The second category included those who had reached the upper end of working age limit, and were unskilled with diminishing physical strength, resembling the 'stagnant reserve' of the unemployed (Bardhan, 2018: 19). Illiteracy or very low level of education made this group 'permanently excluded' (Bardhan 2018: 19) in a process of economic change largely driven by neoliberal capital-intensive urbanism that deprioritized traditional rustic labour force. No woman, unlike the Mahindra World City SEZ near Jaipur in Rajasthan studied by Levien (2012, 949), were rendered unemployed. On the contrary, some women of comparatively indigent dispossessed households− who were only housewives earlier− became sentinels in the malls; or got engaged in care work and housekeeping activities in the newly constructed high-rise apartments, which in turn contributed to their household earnings.

[7]A broker may fix the deal in two ways. First, he can bargain for his commission with both sellers and buyers. The price of the property will be determined by the seller only. Broker will find the buyer. Accordingly, sales agreement will be finalised between the seller and buyer and the broker will earn his commission on the total value of the sale agreement from both the parties. Second, broker himself first fixes the selling price with the seller and look for the buyer. But the broker will always keep higher price before the buyer than the price desired by the owner and the excess amount over the price demanded by the owner (seller) will go to the broker's pocket.

Table 8: Change in livelihoods of the working population of dispossessed households in Rajarhat

Livelihood activities	Occupation before Acquisition		Occupation after Acquisition	
	Count	Percent	Count	Percent
Cultivators	233	88.59	1	0.38
Agricultural labours	1	0.38	3	1.14
Non-agricultural workers and waged non-agricultural labours, maid servants	2	0.76	62	23.57
Dairy and fishing	-	-	6	2.28
Carpenters, painters and mason	2	0.76	30	11.41
Syndicate business	-	-	19	7.22
Divers, e-rickshaw drivers and conductors	-	-	13	4.94
Business (other than syndicate)	2	0.76	49	18.63
Brokers	-	-	2	0.76
Security Guards	-	-	5	1.90
Government / Private company employees	11	4.18	10	3.80
Teachers	4	1.52	3	1.14
Electricians and mechanics	2	0.76	2	0.76
Others (Anganwadi helper* , private tutors, Tailors etc)	6	2.28	12	4.56
Jobless	-	-	46	17.49
Total Workers	263	100.00	263	100.00

Source: Household survey.

Note: Here those workers have been considered whose age was above 15 years and below 60 years at time of acquisition and who were engaged in economic activities.

8. Conclusion

While dispossession of peasants and tribal from land in India has a long drawn history, it is under the neoliberal regime that a clamorous debate, controversy, and wide media and political attention have been observed. Whether for infrastructure, industrial or neoliberal urban development, dispossession of land for capital today is seemingly a fickle socio-political issue in India, and many other developing countries in the Global South. Redistribution of agricultural land through its expropriation from the producers has long been identified as a condition of successful capitalist development (Arrighi et al, 2010: 411). And surprisingly, the land-based development ventures undertaken by the neoliberal Indian states over the last two and half decades have been overwhelmingly private capital-intensive, reflecting an 'underlying' feature for restructuring of rural spaces largely on the capitalist line. Contemporary dispossession of peasants has thus become a central focus of public debates across the states, flaring up a contestation between the two polarized propositions: (1) 'the villagers are willing to desert the fields for a better future outside their mud-walled home' (Gupta, 2005), and (2) 'the villagers still prefer the rustic life over the urban one' (Roy, 2007). And the central to this contestation have always been the legal maneuver of execution of dispossession,

and the viable post-acquisition alternative livelihood.

The findings from the Rajarhat reveals that several legal provisions laid down in the LAA of 1894 had been diluted by the LFG while acquiring lands from the peasants for capital-intensive urbanism in Rajarhat. In doing so, the government not only fell short of creating secured and viable alternative livelihoods for the dispossessed households (a promise that it made) but remained indifferent in the post-acquisition stage to cater any skill development training as to facilitate them undertake new economic opportunities arising from a process of economic change. Additionally, the implementation of rehabilitation benefits remained substantially mean-spirited.

With the near eradication of agricultural cultivation followed by a large-scale private capital-intensive urbanisation, the livelihood activities of the dispossessed households in Rajarhat went through a dramatic transformation, whereby majority of the dispossessed (both at household and individual worker level) established their foothold in a wide range of non-farm livelihood activities that include employment as carpenter, mason, grill-maker, sentinel, taxi driver, e-rickshaw driver, gardener, housekeeper and care labour, and both petty and flourished businesses. Discussions with the dispossessed peasants revealed that the flourishing small businesses were primarily hegemonized by the comparatively large and better-off dispossessed households while the small and marginal households secured the ascendancy in petty businesses that largely relies on the daily demands of Rajarhat Newtown– what Kalyan Sanyal (2007) calls 'need economy'. The transitional informal employment opportunities in the form 'syndicates' created by the government for the dispossessed households were non-inclusive, whereby comparatively larger and better off dispossessed households with networks and political connections secured better opportunities.

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Could Well-Intentioned Policies End up Worsening Inequalities? An Investigation of Paddy Prices across India and the Policy of Announcing Support Prices

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Abstract

This study uses wholesale market level data from 2003 to 2016 to examine if, and how, the differences in the access to the support-price policy have influenced price movements of one of India's major food-grains: paddy. It also analyses whether the pattern of availability/absence of procurement facilities could be indirectly influenced by some other important factor like class relations and economic inequalities. The paper finds that prices often fall below the government declared support price (MSP) wherever procurement is low. Furthermore, it is in States like Jharkhand and West Bengal, where rural regions have a relatively low concentration of landownership that the extent of procurement is lower. By contrast, in States like Punjab and Haryana, which are relatively affluent regions marked by high class inequalities, procurement is higher. As the former regions are also lagging behind in terms of economic development, continuation of such uneven procurement patterns will worsen both inter-regional and intra-regional inequalities. Given that the present government's response to farmer distress has been overtly in terms of raising the MSP, this pattern will reinforce and worsen the skewed distribution of wealth across already unequal regions.

1. Introduction

Until a few decades ago, the preoccupation with growth overshadowed concerns over economic inequality, except for in Marxist discourses. It is only after the 1970s-80s that the strong voice of Development Economists like Tony Atkinson, Angus Deaton, Joseph Stiglitz, Branko Milanović, Thomas Pikkety and others brought this issue overtly in to mainstream academic discourses. As Ray (1998) puts it, inequality is not just undesirable for its own intrinsic sake, but also for the fact that it hinders long run growth of an economy as a whole. With the emergence of welfare states in the later decades of the twentieth century, many governments began to actively engage in formulating policies that would soften the adversely unequal outcomes of purely capitalist markets and provide a safety net to those who lose out in the market competition.

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If we look at development of the different sectors of the economy, it is the primary sector that tends to lag behind in most developing countries. The urban bias thesis (UBT) of Lipton (1977) attributes this to the rural-urban divide. As the urban sector is more organised and has more power, it is able to influence policy decisions in its favour. However, it is the rural sectors that contain more poverty and also 'low-cost sources of potential advance'. This leads to not just unfair but also slower development. Although the original thesis has been debated and challenged on multiple grounds, Rao (1980) points out that it reminds the social scientists of the L.D.C.s that they have neglected the basic tasks: (a) making a realistic study of the problems of development, and (b) seeking relevant answers that may solve their many contradictions.

If we look at India, our agricultural sector has been struggling with different challenges throughout the decades since the country's independence. By now, the phrases 'agrarian distress' and 'farmer suicide' have now become closely linked to rural India. By 2012-13, about 42 percent of those engaged in agriculture in the country expressed the desire to quit (NSSO, 2014). A crucial issue is that as an occupation, farming is increasingly being termed as 'non-remunerative' in several developing countries. While the works of Prebish (1950), Singer (1950) and Lewis (1954) postulate a theoretical downward trend in primary commodity prices over time, Patnaik (2003) attributes the prolonged fall in primary product prices directly to the contractionary fiscal policies of developing county governments undertaking neoliberal reforms, and to trade liberalization in a context of worldwide recession.

The masses of Indian farmers have a limited resource base and slumps in the price of agricultural commodities could adversely affect their livelihood sustainability. As a major support policy, the government of India (GOI) tries to provide a floor to the market price of some major commodities by announcing a Minimum Support price (MSP)[2]. In the event when market price falls below the MSP, the farmers have the option to sell any quantity of their produce to the government at the MSP. Since 1965, MSP has remained as the cornerstone of India's agricultural policy (GOI, 2012). The response of the present government to the current distress has increasingly been in the lines of this policy. The Budget presented for 2018-19 put forth an increased MSP as a fix-all solution to ensure remunerative prices to farmers.

Although it is well-intentioned, a major flaw with the support-price policy is its uneven implementation. A farmer will be able to benefit from MSP only if there is a government agency to procure the item at the announced price in the region. Adequate procurement agencies are, however, absent in several States. Even in those states where procurement takes place, it is restricted to only a subset of farmers (GOI, 2016;NSSO, 2014). This implies that procurement is selective.

The above discussion leads us to two important research questions: (1) Does the access (or absence of access) to MSP influence the price received by farmers? (2) Is

[2] Support price is effective mainly in case of four crops, i.e. wheat, paddy, cotton, sugarcane.For sugarcane, there is SAP, mills are legally obligated to buy cane from farmers at prices fixed by government

the inequality in access to MSP rooted in some structural factor? If procurement is higher in regions where class inequalities are high, and if this selective procurement does lead to systemic price differences, it may disproportionately benefit larger farmers and, over time, worsen economic inequalities. It will also have adverse consequences for the long-run distribution of wealth across the country, which can affect the country's future development prospects.

This paper takes up the two research questions stated above and looks into the decades after the 2000s. Important technological advances and policy changes had occurred in India in the decades that precede this period. From 1950 to 1990, land reforms were aimed at redistributing land in favour of the smaller famers. By the 1980s, India's Green Revolution (the seed-water-fertilizer revolution) had spread to many parts of the country and transformed the way agriculture is practiced even by small and marginal farmers. The 1990s saw liberalisation of the economy and there was a growing recognition of the need to raise the terms of trade (ToT) in favour of agriculture. So now, the question is: Even after these reforms, do structural factors (like class inequalities) continue to influence agricultural policy execution and market outcomes? The fact that India has been in the grip of an agrarian crisis makes investigating this issue quite crucial. If the execution of a policy like the MSP that is intended to support poor farmers has ended up widening class inequalities, it would have adverse consequences on economic welfare.

2. A Quick Look at Literature and Theories

Agriculture is as old as civilization is. Yet, it has deluded academicians in understanding its complexities. Agricultural prices are tricky and are highly sensitive to local and temporal influences. Conventionally, spatial variations in agricultural prices have been attributed to differences in the way production is organized, grades/varieties, transport, transaction and marketing costs, information gaps etc. In policy related discussions, an emerging issue is the possibility of agricultural policy itself being a major source of inter-state disparity in price realizations by farmers. An important concern being raised in some circles is that the bias in foodgrain procurement couldbe a source of systemic disparities in the price received by farmers against their produce at wholesale markets in different regions (Bathla, 2012; Chatterjee & Kapur, 2016; GOI, 2016; GOI, 2015; Haque & Joshi, 2018). A study by Chatterjee & Kapur (2016) finds that, within specific States, the real prices across primary agricultural produce assembly markets (mandis) show high variation. This indicates that, apart from differences in quality, there may be some systemic sources leading to spatial variation in prices. Using a Shapley-Shorrocks decomposition, they find that during the period from 2005-2014, time-invariant district fixed effects accounted for 37 per cent of the variation in log (real) prices. They have related this persistence of spatial price variation to the practice of selective procurement by government.

Now, a second and more significant question that arises is: are the observed spatial differences in procurement a second-order manifestation? In simple worlds, is there some other factor which could determine locations where farmers have access to procurement and where they do not? An answer to this can be found in the theoretical

discourses of Michal Kalecki and Ashok Mitra who argue that in developing economies, class relations have an important influence on relative prices. Kaleki (1971) points out that large farmer may be able to exercise monopolistic power in selling agricultural produce in those regions where the distribution of land ownership is highly skewed. Mitra (1977) argues that class relations can explain the varying pressures affecting pricing decisions concerning agricultural commodities in India. Although the share of big farmers in total output is small, the quality of influence that they bring to bear upon the state of expectations in the market is crucial. They are in a position to decide the location and timing of release of stocks. In an open market, it is operations at the margin that determine the basic trends and thus big farmers in regions with high land-ownership inequality may be in a position to push relative prices up. The way the policy of administered prices (MSP) was executed in India, he points out, has led to not just inter-regional price disparities, but also to inter-crop discriminations. Over time, the support price of rice has increased less proportionately than that of wheat[3], which could be a major cause of the shifting of the relative price between the two commodities against rice. Such a trend is also seen in the case of cotton and jute, with jute being at the disadvantaged position. He attributes these differences in the rates of increase in respective MSPs to the fact that the relatively weaker elements, i.e. the small and marginal farmers, predominate in the cultivation of certain crops (here, rice and jute) and in certain regions (here, eastern and some southern regions) and they are unable to shift policy in their favour. Thus, he asserts that interregional disparities are an outcome of "political arrangements having their roots in the antithesis of class".

These arguments were raised in the 1970s. The land, technology and neo-liberal reforms gathered pace in the decades that followed with an objective to make land and production relations more democratic. However, Patnaik (2003) points out that except in Punjab, it is the conservative path of landlord-dominated redistribution that has taken place in all the States. Furthermore, an estimated maximum of only about 12 per cent, of total cultivated area has been redistributed at the all-India level in the four decades of reform and the ex-intermediaries continued to monopolize land ownership and extract rent.

The relatively recent works of Chatterjee & Kapur (2016) and Bathla (2012) tell us that there are significant differences in the prices being realized by farmers across India. They point at differences in access to MSP as a possible factor but do not explore the possible links between these differences and structural factors like land inequality. It is in this gap that this study is placed. If influences of class inequalities are still strong is shaping agricultural market outcomes, we have reason to doubt the efficacy increased MSP in reducing inequalities in a country where small and marginal farmers are growing every year.

3. Data and Methods

In this study, we take up the case of paddy (dhan), which is one of the two most

[3] Wheat has traditionally been a major crop in western parts of the country, while rice has been the major crop of the eastern and southern regions.

important foodgrains in India. Although MSP is operational for both wheat and paddy, the choice of paddy over wheat is motivated by the fact that its production is well spread over the eastern, western and southern parts of the country. The proportion of small and marginal farmers engaged in paddy cultivation is also higher than that of wheat. Moreover, drawing from the theoretical literature referred to above, paddy makes a more interesting case for the study.

3.1 Data

All data used in this study are from secondary sources. We study the wholesale market (*mandi)* price[4] of paddy for the period from 2003 to 2016. Data on the daily prices reported at these mandis are available from Directorate of Marketing & Inspection (DMI), Government of India (GoI) (http://agmarknet.gov.in). This agriculture e-governance portal (AGMARKNET) developed by the Ministry of Agriculture (MoA) covers about 7000 *mandis* of India. Additionally, data on MSP and procurement levels of paddy are obtained respectively from the publications of Ministry of Agriculture and Farmer Welfare and the Food Corporation of India (FCI), Ministry of Food and Public Distribution, GoI.

3.2 Analytical Concepts and Quantitative Tools

The aim of this study is to first understand how paddy prices differ across India, and then to investigate whether access to procurement facilities (or the lack of it) influences price realizations in specific locations. We initiate the analysis from an aggregated all-India level and the take it down to the level of States. Simple statistical tools like median and standard deviations at disaggregated levels provide rich information on the nature of differences. To get an idea of how low the lowest prices are, the concept of 'price deficiency' is explored. Of late, this term is increasingly being discussed in policy circles. Put simply, 'price deficiency' relates to the difference between the realised price and some reference price. The reference price can be indicative of the cost of cultivation. If the realised price is below it, the price received will not be remunerative. Here, we take the declared MSP as the reference price.

Tools used in poverty-gap analysis like 'Average Income shortfall' (AIS) and the Foster-Greer-Thorbecke (FGT) Index can be useful to estimate the price deficiency. Adapting from the AIS, an Average Price Deficiency (APD) measure is defined as follows:

$$\text{APD} = \frac{\sum_{i=1}^{N}(\text{MSP} - P_i)}{N}$$

Where, N: Number of below-MSP observations in State

P: Price reported

The higher the APD of a State, the larger is the average gap between MSP and realised below MSP prices.

[4] In India, as per the Agricultural Produce Market Committee (APMC) Act, trade in agricultural commodities can only take place through APMC mandis. Hence, this is where farmers sell their produce to traders.

4. Findings and Discussion

This section is divided into two sub-sections. The first presents an empirical picture of the price received by paddy across India. We compare price with the MSP and calculate a measure of price deficiency, wherever relevant. The second sub-section tries to relate the larger social-economic picture with the differences in procurement across regions. The implications of this are also discussed.

4.1. Paddy prices across India: Where are the prices low?

To begin with, Figure1 plots the median, mean and standard deviation (SD) of reported paddy prices (both nominal and real) across India for each year (excluding the 'very high prices'[5]). The median of the nominal price registers a steep increase post 2007. Even in case of the real price (deflated by the respective month's WPI for rice), a change in the level is seen from 2008, with two small dips in 2010 and 2014.

The declared MSP for respective years is also plotted in Figure 1 We find that although the mean of reported nominal prices remains above the MSP in most years, the median has rarely been above it. This observation raises concern as whenever the median is below MSP, more than half of the realized prices across the country will have fallen below the stipulated 'floor price'. In all years, across India, more than 30 per cent of the prices reported have remained below MSP. This proportion is particularly high in the years after 2007, which surprisingly is seen as a period of 'higher prices'. In fact, from 2011 to 2013, even the mean of the reported prices is below MSP. However, the prices have not been low everywhere. The dispersion in the data, measured by the SD, tells us how individual prices differ from the median price. We see a very large spread in prices with the dispersion being substantially high post 2007 (the calculated SD remains mostly above 200 units post 2008). Such high SD in the prices is the first pointer towards the presence of large spatial differences in price across India. On converting to logarithms, the average SD of all years is found to be 0.196, which is quite large even after considering differences in transportation and transaction costs[6].

Here it is important to ask: where are the prices low? Figure 2 provides a State-wise picture by presenting the proportionof below-MSPobservations (daily prices) in total reported observations for the different States. Except for NCT of Delhi, Kerala, Manipur, Punjab and Haryana, in all the other States more than 30 per cent of the reported prices are below MSP in most of the years. Orissa, Chhattisgarh, Jharkhand, Telangana, Uttar Pradesh, West Bengal, Assam and Pondicherry have more than 70 per cent of reported prices below the MSP in most years.

[5] On investigating the distribution of paddy prices, an abnormally high jump is seen from the 99th percentile to the next in all the years under study. These can be regarded as 'Very High Priced' (VHP). They may either represent very superior quality paddy or include some data entry errors during the initial years (2003-2005). As these observations will unduly affect the analysis of dispersion, we exclude them in the current analysis.

[6] Chatterjee and Kapur (2016) find a similar figure for the SD of log of real wholesale prices of wheat and corn. They point to the fact that this figure is much higher than that for Philippines, which Allen (2014) finds to be 0.15. Philippines, being formed by group of islands, is expected to have high transport and information costs and therefore high spatial differences.

The immediate question that comes to mind is: how far below the MSP are these 'below-MSP' prices? The larger the gap, the worse off will be the farmers who sell at these prices. In States where prices have repeatedly fallen below the MSP, we calculate

Figure 1: Median price of different paddy varieties in India from 2003-2016

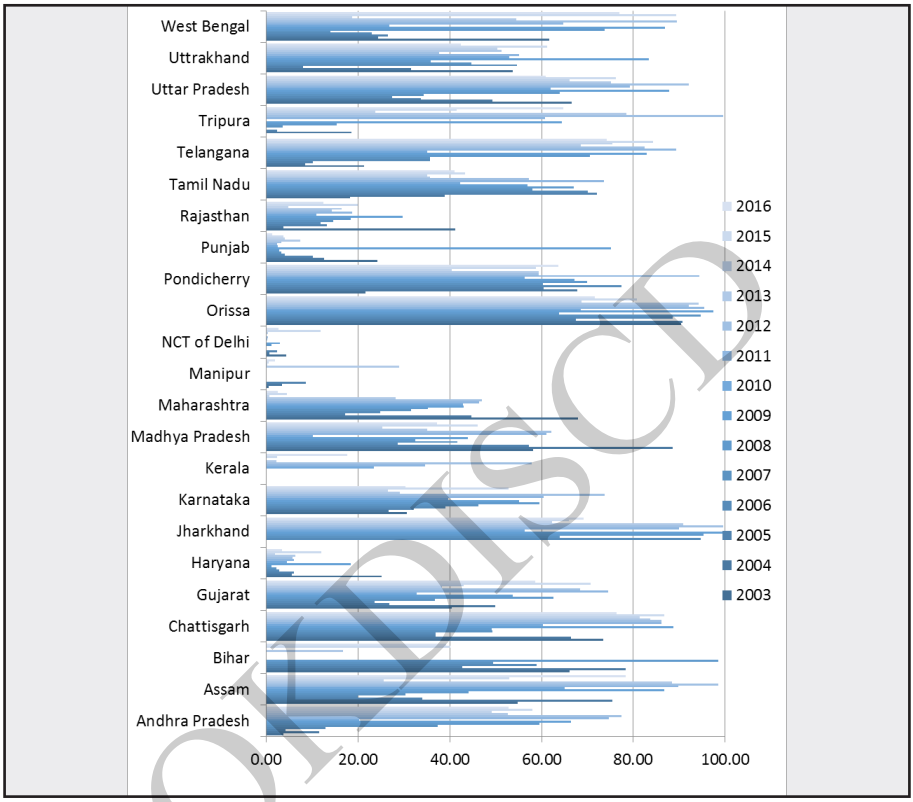
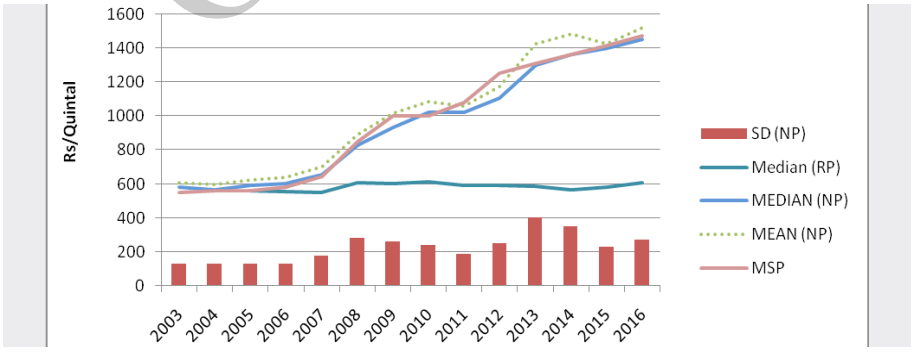
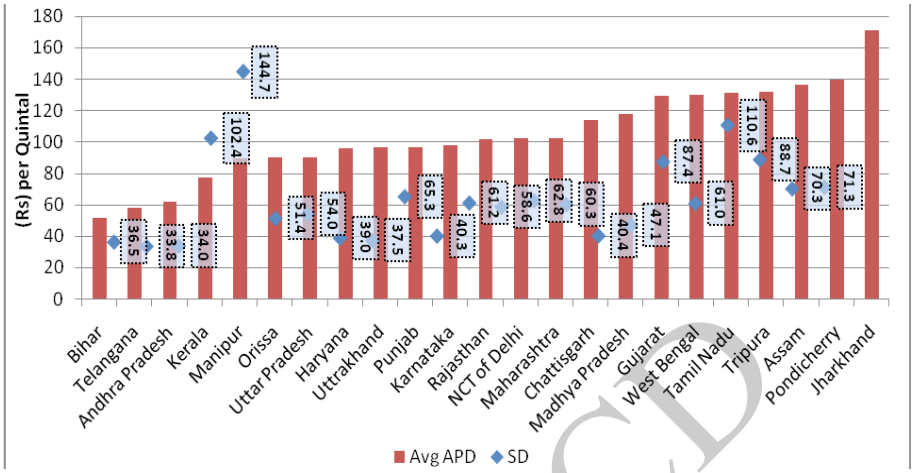


Figure 2: Proportion of Below-MSP Prices across States of India from 2003 – 2016



Source: Author's calculations using data from DMI, GoI.

Figure 3: Average Price Deficiency (APD) in Below-MSP Prices across States of India averaged over the period from 2005 to 2016



Source: Author's calculations using data from DMI, GoI.

a measure of the 'price-deficiency' (i.e. gap between the MSP and the reported below-MSP prices). The higher the APD in a State, the larger is the average gap between MSP and realised below MSP prices. Figure3 presents the state-wise ADP averaged out for the years from 2005 to 2016[7].

The figure provides clear evidence of high price-deficiencies in most States. In as many as ten States, the below-MSP prices have, on an average, fallen short by more than Rs 100 per quintal. Here too Jharkhand, Pondicherry, Assam, and West Bengal come out among those having the largest deficiencies. Some of the other States reporting very high price deficiency are Tripura, Gujarat and Madhya Pradesh. Thus, it is quite apparent that MSP has not acted as an effective 'floor' to paddy prices in many States.

4.2. Linking the inequalities: land, procurement and realized prices

The discussion in section 4.1 brought forth the fact that even if an MSP is announced; it does not ensure that a farmer in India will receive, at least, an equivalent price on their produce. Simple reasoning will tell us that MSP can act as a floor only when farmers are able to sell their produce to a procurement agency whenever prices fall low in the open market. Table1 and Figure 4 give us a picture of how procurement levels differ substantially across India.Uttarakhand, Punjab, Telangana, Chhattisgarh and Orissa have reported high to average proportions of paddy procurement out of total production. Gujarat, Jharkhand, Assam, Karnataka, Maharashtra, West Bengal and Uttar Pradesh are some of the Sates reporting very low procurement levels in all years. The latter set of States has also been found to have some of the highest magnitudes of 'price deficiencies'. Thus, a link between procurement levels and price support benefits become apparent but a crude level.

[7] The initial two years are excluded in the calculation due to inconsistent data reporting in several States.

Table1: Proportion of Paddy Production procured in States 2013-14 to 2015-16

State/ Union Territory	2013-14	2014-15	2015-16	Average (GM of 3 years)
Uttrakhand	80.10	76.99	94.92	83.65
Punjab	71.94	70.10	79.08	73.61
Kerala	70.53	66.55	68.46	68.49
Telangana		78.90	53.38	64.90
Haryana	60.18	50.30	69.02	59.34
Chhattisgarh	63.88	54.14	56.48	58.02
Odhisa	36.78	40.46	57.32	44.02
Andhra Pradesh	29.38	49.71	57.76	43.85
Madhya Pradesh	36.73	22.26	23.72	26.87
Bihar	17.11	25.39	18.88	20.17
Tamil Nadu	12.79	18.35	14.92	15.18
Uttar Pradesh	7.70	13.95	23.26	13.57
West Bengal	8.84	13.84	9.96	10.68
J&K		1.16	49.52	7.58
Maharashtra	5.16	6.75	8.76	6.73
Karnataka		2.49	2.00	2.23
Assam		0.29	0.82	0.48
Jharkhand			0.24	0.24
Gujrat			0.06	0.06

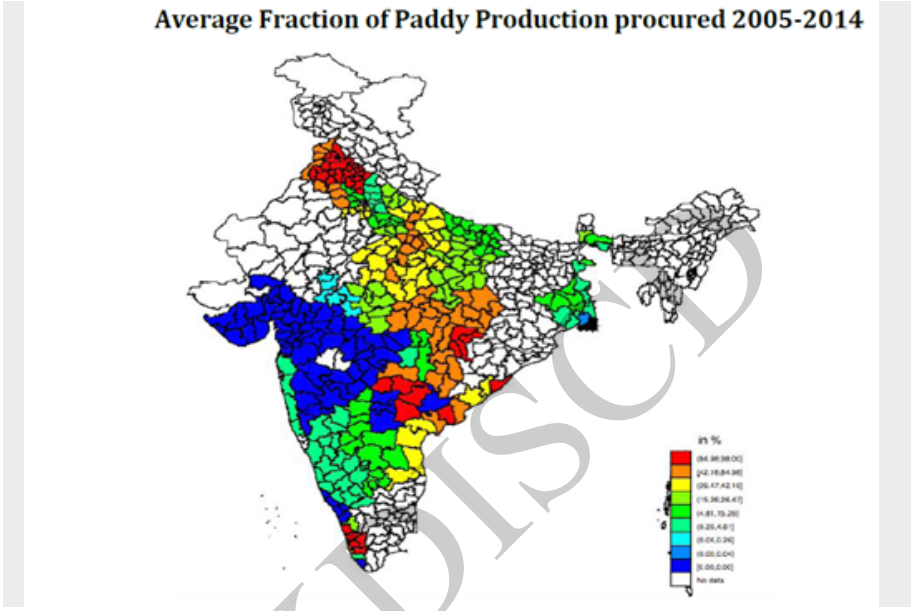
Source: Department of Food and Public Distribution, Ministry of Consumer Affairs, Food and Public Distribution, Government of India. http://dfpd.nic.in/procurement-figures.htm

Figure 4 shows average paddy procurements at the district level for the period from 2005-2014. Red, orange and yellow shaded districts have high procurement, while the blue shaded ones have the least. The white ones are those for which data was not available. The figure shows that procurement levels are uneven even within the States. UP, Andhra Pradesh, Telangana and Kerala report a lot of inter-district differences in paddy procurement levels. Punjab, Chhattisgarh, WB, Karnataka and Maharashtra, on the other hand show relatively even levels of procurement within them, with the first two reporting high fractions of paddy procurement, the next two relatively lower, while Maharashtra shows the lowest.

To get a more detailed picture of differences in realized mandi prices, we identify the most reported varieties of paddy from a few important markets of Chhattisgarh, Jharkhand, Orissa, West Bengal, Punjab and Telangana. The monthly average of the nominal modal price in these mandisis plotted in Figure5 in separate panels for each State. The MSP is also plotted for reference. In States with relatively better procurement (Punjab, Chhattisgarh, Telangana, Orissa) the lowest prices have remained around the MSP. In fact, several varieties have reported prices much above the MSP in Punjab and

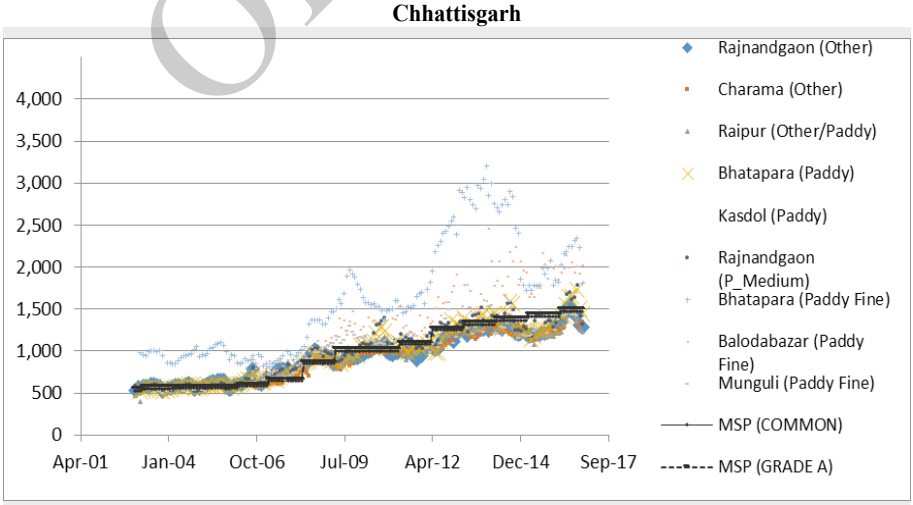
Chhattisgarh.On the other hand, Jharkhand and West Bengal has reported sharp price-drops of large from the MSP-level. These States are also those with some of the low procurement levels, even when their production volumes are among the highest in the country in absolute terms.

Figure 4: Disparities in Paddy Procurement across districts of India

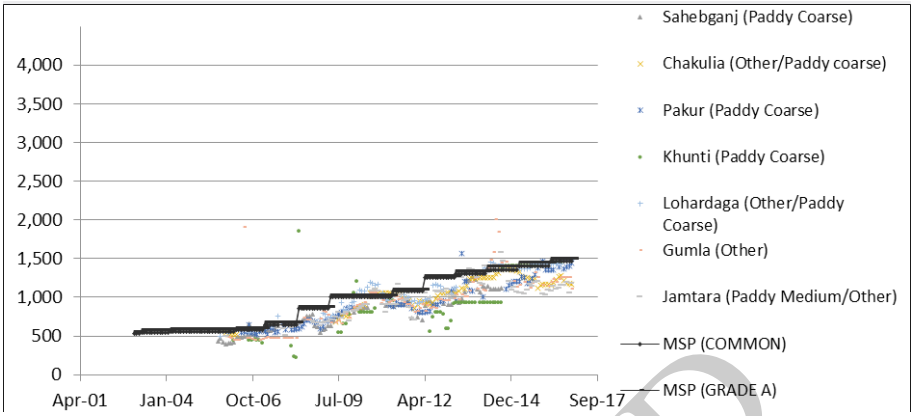


Source: Reproduced from Chatterjee and Kapur's (2016) work conducted using FCI data.

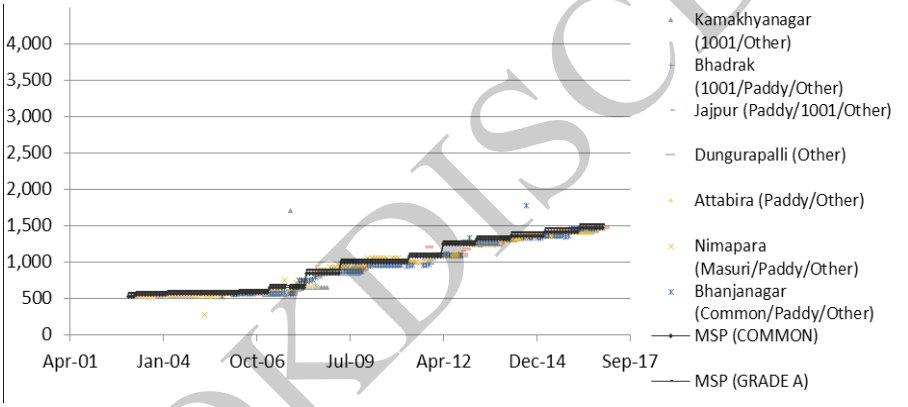
Fgure 5: Nominal Price of Paddy in mandis of selected States and MSP from 2003-16 (Rs/ Quintal)



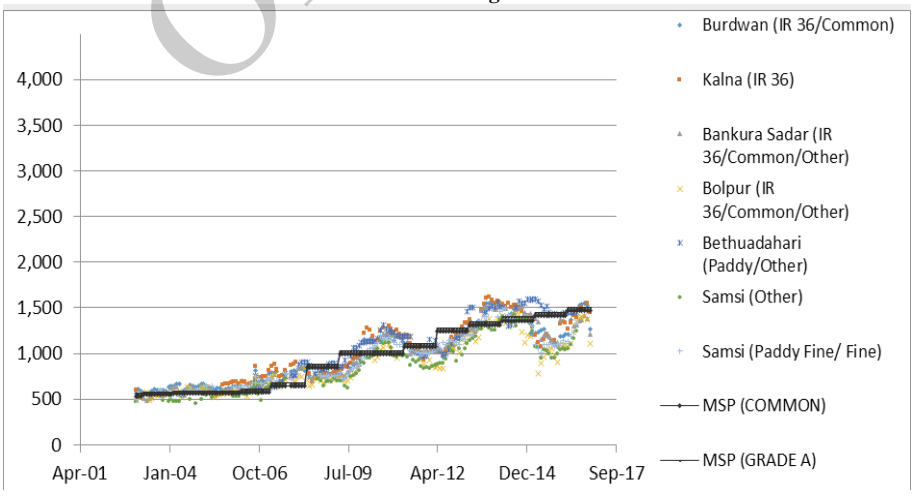
Jharkhand

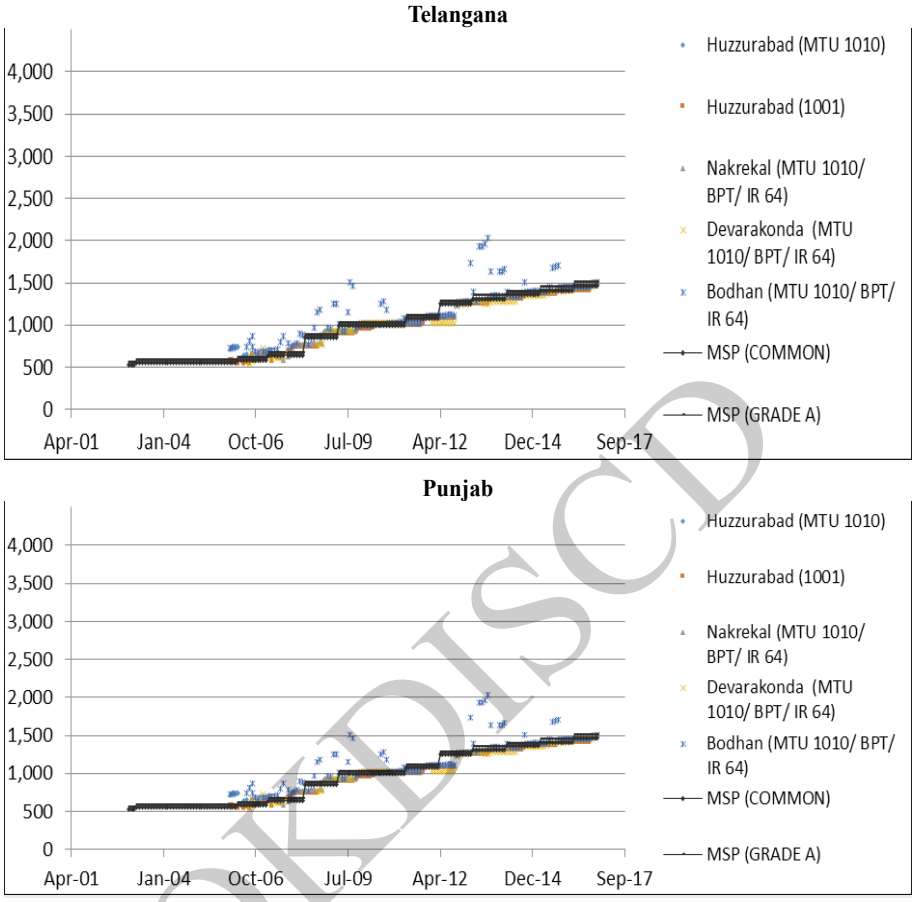


Orissa



West Bengal





These findings become important if we recognize the fact that the low procurement regions are also those which score relatively lower on economic indicators of development. When procurement bias makes some other regions better-off in terms of price support, these existing inequalities will worsen.

Now, why is procurement low in some regions? Let us evaluate the existing possibilities:

Case A: The *mandi* price usually remains above the declared MSP, thus negating the need to sell to procurement agencies.

Case B: Even when the *mandi* price falls below MSP, farmers do not (cannot) sell to procurement agencies because:

1. Their produce do not qualify the quality norms for procurement
2. There are no procurement agencies present in their region
3. They are not aware of the MSP (and procurement) scheme

The examination of mandi level paddy prices conducted in Section4.1 clearly shows that Case A is not relevant in low procurement States like Jharkhand, Assam, WB and Karnataka. Thus, Case B has to hold here. The most relevant question therefore is: why does Case B hold? Drawing from the theoretical framework of Kaleki(1971) andMitra(1977), we look into a some operational land holding statistics in the States with low, high and uneven procurement levels. The aim is to draw inferences about the extent of class inequalities in these States. The findings are reported in Table 2.

Table 2: Indicators of landholding distribution in some paddy-producing States of India

State	Procurement level (procurement as share of production)	Inequality in land ownership (GiniCoeff.)	Average size of operational holdings*			Average size of leased-in holding *
			(in hectares)			
	2013 to 2015	2013	1992	2003	2013	2013
West Bengal	Low	Low	Low			Low
	(8-13%)	(0.2)	0.52	0.314	0.186	(0.2)
Uttar Pradesh	Low	Average	Average			Low
	(7-23%)	(0.4)	0.87	0.643	0.51	(0.3)
Jharkhand	Low	Average	Low			Low
	(20-25%)	(0.35)		0.588	0.495	(0.18)
Andhra Pradesh	Average	Average	Average			High
	(30-58%)	(0.5)	0.88	0.724	0.583	(0.7)
Orissa	Average	Average	Above average			Medium
	(35-58%)	(0.3)	0.86	0.534	0.86	(0.403)
Chhattisgarh	Above Average	Average				Medium
	(50-65%)	(0.4)				(0.54)
Punjab	High	High	High			High
	(70-80%)	(0.6)	1.17	0.878	0.679	(above 1)
Haryana	High	High	High			High
	(50-70%)	(0.6)	1.46	0.917	0.772	(1)
Kerala	High	Average	Low			Low
	(65-70%)	(0.3)	0.33	0.246	0.23	(0.1)
Telangana	High	Average	Above average			High
	(50-80%)	(0.44)			0.752	(0.7)

Source: Compiled from various publications of the Food Corporation of India (FCI) and the NSSO 70th Round Reports.

If we relate the figures in Table 2 to the differences in paddy procurement reported previously, we observe that it is the States with higher inequalities in land ownership pattern (Punjab, Haryana, Telangana) that have higher procurement levels, while States with apparently lower inequality (WB, Jharkhand and UP) have lower procurement. This observation can be linked up to the possibility of differences in relative bargaining

strengths of the farmer classes across regions differing in terms of land relations.

5. Conclusion

The aim of this work has been to assess the effectiveness of one of India's most important agricultural policies – the scheme of MSP to provide a floor to the price farmers receive. What we find is that since the access to MSP is contingent on the availability of state procurement agencies, the benefit from MSP remains limited to just a few regions. More importantly, the availability of procurement facilities across the country shows apparent associations with the nature of class inequalities in regions. The analysis of the data shows that in states like Punjab, Haryana, Telangana and Chhattisgarh prices mostly remain above the stipulated floor. Even when they fall, they do not fall much below the MSP. These States also have more of the high priced varieties in their markets, and the prices commanded by the most important varieties are also higher than those commanded in WB and Jharkhand. The fact that prices often fall below the MSP in markets where procurement is low is a serious issue.MSP is announced taking cost of cultivation into account. Thus, farmers trading at prices below the MSP could actually be engaging in 'distress sale', which does not even cover the cost of cultivation.

The findings of this paper thus present a worrying phenomenon. We find that although MSP in intended to provide a floor to paddy prices across India, it has only been effective in doing so in regions already marked by high inequality. These are also regions that are already better-off in terms of agricultural performance. Thus, the state of inter-regional inequalities is bound to worsen over time. In a State like Punjab, cultivation is concentrated mostly in the hands of relatively larger farmers. Even within Punjab, the higher prices in mandis may not benefit the small and marginal farmers because most of them do not come to the market to sell. APMC mandis are often located far from villages (where farms are located) and hence it is difficult (and often not viable) for the SMFs to bring their produce to these mandis. As a result, larger farmers often act as middlemen against some commission. If the gap between Farm Harvest Prices and mandi prices is large, the findings of this study indicate that class inequalities within Punjab itself would only worsen over time. These are avenues for further research.

The present government's response to farmer distress has been overtly in terms of raising the MSP. A higher MSP would make no sense unless there is proper procurement facility available to farmers in States like UP, West Bengal, Assam and others. It needs to be noted here that there are many factors that may lead to low procurement in a specific location. These include, inter alia, climatic conditions and moisture content of commodities. But if these factors are favourable, the government should take steps to improve the institutional arrangements, provide basic infrastructure and take steps to reduce problems of asymmetric information among the farmers. Unless the procurement of paddy (and for that matter, all other crops) is made more even across India, the over-reliance on the policy of support prices is only going to worsen both inter-regional and intra-regional inequalities.

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Change of Resource Use and Livelihood Empowerment through Integrated Risk Management in Agriculture: Instances from Three Indian States

Sarada Prasanna Das[1]

Abstract

Integrated Risk Management in agriculture (IRM-A) has gained new ground amidst rising concerns about food security, sustainable livelihood and climate change nationally as well as internationally. For a country like India, where the majority of its population depends on agriculture, it becomes more important than any other nation. The declining agricultural productivity, climate change and rising resource intensity in Indian agriculture posed a serious threat to future food production. Therefore, a real paradigm shift is necessary in order to manage these threats and risks. In this context, this paper discusses and analyzes the issues around IRM-A taking evidences from three Indian states (Telangana/Gujarat/Maharashtra). The results of the study reveal that implementation of IRM-A has empowered farmers in these three regions by improving their technical and business knowledge in agriculture. It has also helped farmers to change their farming method (from a traditional resource intensive farming method to an eco-friendly method). The changed method/strategy has significantly reduced resource use, which has increased profit. An overall analysis of data suggests that the implementation of IRM-A creates an opportunity for farmers in these three states to make agriculture economically viable in a comprehensive term.

1. Introduction

In India, agriculture and economy is intricately intertwined. It is a major source of income of more than 58 per cent of the country's population. Although its contribution to the Gross Domestic Product is slowly declining but still the contribution to the Indian economy is quite significant (Arjun, 2013; Das, 2005; Lall et al., 2011; Price et al., 2016; Dev, 2012). However, rising resource intensity in Indian agriculture sector is amatter of great concern. It also has serious implications for agricultural sustainability, productivity and future food production of the country (Lele et al., 2013; Sekhar and Bhatt, 2012; Lal, 2013; Price et al., 2016). As the population grows in the coming decades, more and more crop production will be needed for consumption. This will escalate the pressure on land and water. It will further be affected by rapid industrialization and climate change

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(Das, 2016; Das and Swain, 2016; IARI, 2015; Dev, 2012). Although India has made some progress in food production during the green revolution, recently that dynamic growth has been lost (MOA, 2007; Price et al., 2016). In addition to the declining agricultural productivity, degradation of the resource like increasing soil salinity, land quality, depleting water resources as well as expanding biotic and a-biotic stresses will add more to the problem (IARI, 2015; MOA, 2007).

In this context, the government as well as the private sector has planned and applied various measures to mitigate the adversities associated with agriculture.[2] Despite that, farmers in countries like India stay vulnerable to various risks (Demeke et al., 2016).[3] Without the presence of effective risk management strategies,it is difficult for the most of the small and marginal farmers[4] to manage their finances in the disastrous situations (Demeke et al., 2016; Miller, 2008; Price et al., 2016). A real paradigm shift is necessary in order to manage risks efficiently and to eliminate hunger, reduce poverty and achieve food security. In this backdrop, this paper would like to focus on the prospects and possibilities of Integrated Risk Management in Agriculture (IRM-A) taking instances from three Indian states. The paper would also analyze the importance of the IRM-A in the context of agricultural resource use and livelihood security.

2. Data and Approach

The study was conducted to assess the impact of risk management practices and economic participation of agricultural/horticultural households in the selected districts of Telangana, Gujarat and Maharashtra. For the primary data collection, a mix-method strategy (both quantitative and qualitative) was used to measure the impact and sustainability of the initiative. During the study, the entire ecosystems around IRM-A in the study areas were investigated to have a holistic picture. The quantitative data were collected from the farmer/beneficiaries through a structure questionnaire and qualitative data through key respondent interviews from implementing organizations. The evaluative study has collected both quantitative and qualitative information from the stakeholders in the post intervention period. The information was obtained through a recall[5] and real-time survey. Farmers or beneficiaries were asked to answer structured closed ended questions and the responses were recorded on paper instantly.

The study has employed a purposive sampling method for selection of samples. From each intervention states 40 farmers/producers were selected for the study. All the sample farmers have already availed the IRM-A training and practicing IRM in their agricultural farms. In Maharashtra, the samples were chosen from the Nasik district.

[2] Government has launched several schemes on agricultural insurance, credit and price support, input subsidy etc. Recently government has also launched several irrigation related schemes to with several other agencieslike National Bank of Rural Development. PM-KUSUM schemes is a very recently launched as one of solar irrigation schemes to provide reliable and quality power supply to the famers.

[3] The risk is mainly two-fold i.e weather related risk as well as market related risk.

[4] More than 70% of production in our country coming from smallholders and half of agriculture rain-fed. Several studies states that in the disastrous situation small and marginal farmers fail to recover from the production losses as mostly, they do not have any other sources of income.

[5] The recall period was two years for the survey. Respondents were also asked to compare the before and after intervention situation to assess the post-intervention changes in different areas.

However, in Gujarat samples were chosen from Amreli and Gir Somnath district and in Telangana the samples were chosen from Medak and Karim Nagar districts. In addition, officials of local NGOs who are acting as resource persons were also interviewed to gather qualitative information regarding the intervention. The finding of the study is based on a combination of data, literature, and stakeholder perspectives of the three states.

3. Livelihood Security and Integrated Risk Management in Agriculture

With rising concern at the national and international level for food security and climate change, Integrated Risk Management in agriculture (IRM-A) has gained new ground. Integrated Risk Management (IRM) refers to the establishment of organized and well plan mechanisms (both formal as well as informal mechanism) for handling the possibilities of an uncertain future. It is considered that effective agricultural risk management strategies would play a vital role in fostering productive and sustainable investment across the food and agricultural value chain in order to ensure food and livelihood security. In a country like India, agricultural risks are among the major reasons for poverty traps and unmanaged risks leads to a cycle of shock (both production and price shocks) which affect the livelihood and food security of the small and marginal farmers (Demeke et al., 2016). As far as food and agricultural market is concerned, it is very prone to macro-economic disturbances as well as adverse weather events.[6] These changes coupled with unexpected institutional and policy changes and personal risks strongly influence farmers decision pertaining to input use, investment and technology adoption in this sector (Demeke et al., 2016).

Indian agricultural sector has witnessed several policy reforms to strengthen the sector to eradicate poverty in last 70 years. The pre-green revolution period (1950) till the mid-60s, the sector has experienced several reforms such as institutional changes, development of irrigation projects, land reform and imposition of land celling acts, etc. During the Green Revolution, the reform took a back seat and more emphasis was given on credit, price support, marketing, input supply, research, extension, and technology support to attain the food security (Dhoot, 2006; Dev, 2012). However, in recent years specifically after the economic reform Indian agriculture have been susceptible to global market as transnational corporations try to dominate the seed market, which is seen in the case of BT cotton, and rice. Further, several policy changes like removal of input subsidy as well as unusual weather events due to climate changes created a worrying situation for the resource poor farmers (Das, 2005).

Therefore, the risk in the sector has multiplied and it seems that agricultural risk management is critical for national food security and livelihood in this point of time. Recognizing the importance of risk management in this sector National Agricultural Policy, Vision document 2020 and 12th Plan document has emphasized on integrated risk management in the sector. As part of the plan, the government has time and again

[6]Adverse weather events are one of major risk to the Indian agriculture. In the time of filed work most of the sample famers reported that hailstorm, high wind and unseasonal rain are the major risks they face very frequently and highest number of respondents incurred financial losses due to these events in last one year.

come up with various schemes and policies including crop insurance schemes, with recent culmination in Pradhan Mantri FasalBima Yojanaand irrigation schemes like Pradhan Mantri KisanUrja Suraksha EvemUtthanMahabhiyan (PM-KUSUM). These schemes, and its predecessors, tends to focus on one aspect of the agricultural risks, i.e. crop failure due to bad weather. Further, these schemes were not applicable for all parts of the country given the local context of agriculture in India. Apart from that, this partial risk transfer does not help large proportion of the small and medium farmers who are not aware about the products and terms and conditions (NSS, 2005; Lall et al., 2011; Ghosh and Yadav, 2008).[7]

Nearly 80 per cent of farmers and 85 per cent of farm holdings in India are small and marginal but they contribute more than 60 per cent of the farm produce. Several studies in India and abroad reveled that small and marginal farmers are always unable to avail the schemes due to their small landholdings and high cost of insurance premiums (Giné et al., 2007; Giné et al., 2008; Sarris et al., 2006; McCarthy, 2003; Daninga and Qiao, 2014; Panda, 2013; Sundar and Ramakrishnan, 2015; Gaurav et al., 2011). Apart from that, they face several other challenges like lack of capital to invest to improve farm input, farm equipment and infrastructure. They are also seen as risky clients by the formal financial institutions as they do not have a lot to offer as collateral. Therefore, extra-formal mechanism is necessary to support these types of farmers.

4. IRM in Agriculture: Instance from three Indian states

As mentioned earlier, while providing employment and livelihood to a larger share of population, agriculture in India remains one of the most vulnerable economic activities. As the present government schemes fail to provide a holistic approach to agricultural risks, different non-government organizations and multilateral agencies are trying to fill the gap with a strategy for IRM-A. The recent pilot initiative of the German Development Corporation with several other local Non-governmental organizations in three Indian states (Telangana/Gujarat/Maharashtra) provides a new light to risk management in the agriculture sector. At the pilot stage, the initiative was implemented for selected horticulture produces like mango, pomegranate, vegetables and groundnuts, in these three states.

Recently, providing assistance and creating awareness about end-to-end management of agricultural risk has been one of the primary goals of different agricultural development agencies of the government. National agricultural policy also gives importance to spreading awareness among farmers about risk management in agriculture as it could have significant impact on the small and marginal farmers livelihood and food security.

The study reveals that the implementation of integrated risk management approaches in agriculture, in rural areas of Telengana, Maharashtra and Gujarat have empowered

[7]In a recent study in Karnataka we have seen that agri-insurance largely beneficial for the big farmers. Small and marginal farmers are not willing to take the insurance because they think the present insurance scheme is not beneficial for them.Same as in the case of solar pump scheme under PM-KUSUM. Although the scheme has attached with a good amount of subsidy but due to high initial investment cost in the solar pump installation, marginal and small farmers are not able to access the scheme.

small and marginal farmers[8] by increasing their knowledge about agricultural risk management tools and strategies like insurance, financial services, market linkages, post-harvest management. The informants stated that due the training and awareness they have been able to take right decision in right time, which proves to be economically beneficial for them. It was also found that the productivity of different produces has increased because of the knowledge and awareness about risk management in the pre and post-harvest stage.[9] The producers showed confidence in their agricultural practices due to training and awareness about IRM by different resource/supporting organizations. These resource/supporting organizations become the 'one stop knowledge source' for all agricultural needs. Overall it has been found that the risk management knowledge has been proven extremely beneficial for the farmers in all the study areas.

Post intervention data analysis (Figure 1) reveals that, apart from the knowledge and awareness, the access to good quality agricultural inputs in a better price from the Agri-malls[10]has economically empowered famers in these regions.The participation of the farmers in the Farmers Producer Organizations (FPOs) has also created a network among the farmers, which help small and marginal famers sell their produces. The FPOs have helped farmers in marketing of their produces and creating a direct link to consumers. Different FPOs have also triedto brand and market local produces with a premium price. Data also shows that post-harvest management training (grading, sorting, packaging) and awareness has minimized production and transportation loss for several farmers.An overall analysis of post intervention data reveals that knowledge, advisory and access to better agricultural input has socio-economically empowered farmers of studied region.

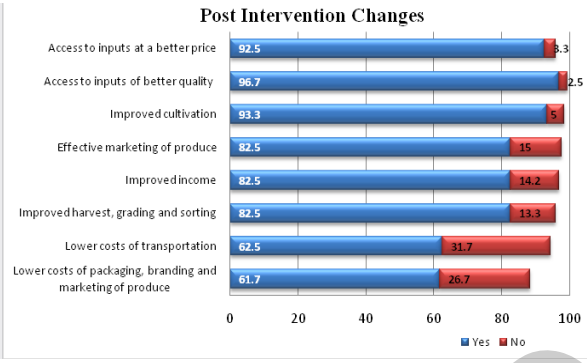
With regard to the perception of the farmers on variables such as knowledge about risk management tools and other strategies to convert their produce into better income-generating pursuit (Figure 2). The study reveals that most of the farmers are aware and using various risk management strategies and tools at different stages of the agricultural process to minimize the production as well as market risks. Both quantitative and qualitative data analysis shows that farmers in all the studied regions has improved their agricultural practices due to the awareness. Most of the respondents/farmers also anticipate better livelihood in the future due to better market linkages as well as advance risk management plans. Due to training and awareness, producers are quite confident about their agricultural practices and there is a perception that livelihood condition of farming community of the region has improved because of the implementation of the IRM.

[8]Around 77 percent of the sample famers are small and medium famers having 0-5 acres of land holding and for 97 percent famers agriculture is their primary source of income. The annual income of more than 80 percent of the sample farmers are below three lakhs.

[9]The productivity varies from produce to produce, which is discussed later part of the paper.

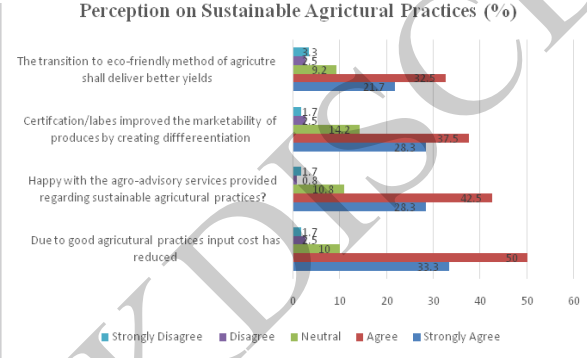
[10]Agri-Malls are small shopping centres for all agricultural inputs like seed, fertilizer, pesticide, agricultural equipments etc. These Agri-Malls are local initiates of the 'Farmer Producer Organizations (FPOs) and financially supported by local NOGs and funding agencies like GIZ, TATA trust etc. The malls offer good quality agricultural inputs in a subsidies rate. These shopping centres also provide agro-advisory for eco-friendly farming methods.

Figure 1:



Source: Primary field data analysis

Figure 2:



Source: Primary field data analysis

5. Eco-friendly Framing[11]:Decreasinginput cost and resource use

The study reveals that the farmers in these regions have significantly changed their farming methods and strategy for agriculture as well as horticulture produces (Figure-3). More than 60 percent of sample farmers in all the three states, mentioned that the eco-friendly method delivered better yield and pesticide free certification and labeling of their produces giving them more economic advantages over other products in the market. Apart from that, the new farming method (eco-friendly method) and strategy has lower their input cost which has increased the share in the profit.It was also found that input cost has decreased significantly because chemical pesticides and fertilizer use has also gone down. For instance, in Telangana and Gujarat 60-70 percent of the growers are not using any chemical fertilizer, which reduces their fertilizer cost by 70-80 percent and those who are practicing Non-Pesticide Management (NPM) they reduce their expenditure by 95 percent (using organic pesticide which they buy from

[11]Eco-friendly faming does not exactly mean organic farming. It starts with the crop selection in a certain area looking at the agro-climatic zone and using different method to minimize the input use, soil protection, minimizing water use through different micro-irrigation methods etc. there by reducing greenhouse gas emission.

farmers cooperatives). Due to proper agroadvisory the water use has also gone down in several areas, which also resulted lower electricity consumption (Table:1).

Table 1: Input cost Pre and Post intervention

Items	Pre-intervention	Post-intervention	Remarks
Seed	Buying seed from the market	Reduced by 10-20 %	Some of seeds buying from FPO and Agri. malls in lower cost.
Labor	Hire lobour during sowingand harvesting	No change	In fact, in some areas lobourcosthas increased.
Fertilizer	100%	Reduced by 70-80%	Because of NPM and organic farming the fertilizer use has reduced significantly. (More famers using NPM than organic)
Pesticide	100%	Reduced by 90-95 %	Due to NPM method. 5% cost is still there because they buy natural pesticides line Nim oil etc.
Electrici-ty/water	100%	Reduced by 60-75%	Due different types of technical advisory/ agro advisory

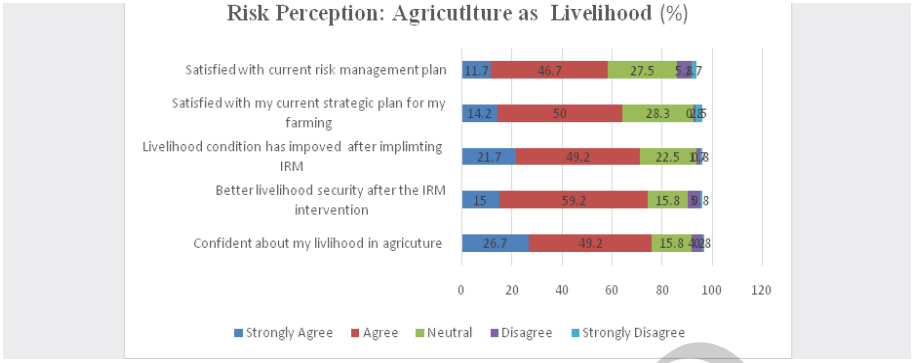
Source: Collaboration of field data

However, it is also noted during the fieldworkthat the drip irrigation system, which was generally,suggested in the agro advisory is not used by several the farmers because of cost factor.Very few farmers in Gujarat have used drip irrigation, which showed spectacular result in terms of the water use in vegetable and peanut farming. Most of the studied farmers have strong perceptions regarding eco-friendly agricultural practices and they are confident that certification/labels of their produces will improve their profit in the long run. It seems that technical and business knowledge has strengthened livelihood of the sample farmers in the study regions.

6. Strengthening Income by Increasing Profit

The knowledge and support of resource/supporting organizations also helped growers to develop a network of producer-consumer, which has extended their relevant geographical market without middleman. The 'producer-consumer' network and knowledge in post-harvest management has helped farmers to increase their profit in the market. The profit varies based on produces, values ranging upwards of 25 percent to as low as 10 percent. In addition, several farmers/producers also get premium pricefor their produces due to good agricultural practice like NPM and organic farming, which further increases their profit as well confidence in the eco-friendly farming methods. The study found that profit is twofold for the grower. The first part of profit comes from the lower input cost and the second part of the profit is due to the premium price that they get because of the new branding, grading and marketing practices (producer to consumer marketing method).Apart from that, it is also evident from the fieldwork that when growers sell their produce to the farmers' cooperatives they get better price. In addition, they do not have to bear certain costs like transportation, commission to the agent, cost of weight loss etc. It is evident from the collaborative facts that there is a significant gain in the farmers' income due to their participation in the risk management interventions in these three states.

Figure 3:



Source: Primary field data analysis

As far as livelihood security is concerned, overall data analysis suggests that the IRM initiative has strengthened the livelihood of the small and marginal farmers in the study area. As data reveals the farmers income has increased due to proper management of all kinds of risks and adoption of eco-friendly farming method. The pre and post-harvest knowledge like sorting, grading, marketing links provided by the supporting organizationshas empowered farmers and strengthened their livelihood by creating awareness about formal risk management mechanisms. It has also reduced farmers financial burden in a significant manner due to easy access to agricultural credit as crop insurance. However, access to financial resources is still marginal as compared to other factors. Therefore, it shows that more intervention and advocacy is required to create a good investment climate in the agricultural sector.

7. Prospects and Possibilities

Integrated risk management in agriculture confronts several challenges related to scalability, efficiency and sustainability in addition to public and private investment. However, these challenges can be seen as opportunities in order to ensure food and livelihood security, reduce resource use in agriculture and achieve the target of sustainable development. As we have witnessed from the findings of the study, risk management could pull producers from out of the poverty trap by insulating farming communities from income shocks and by ensuring that a fair share of the price goes to the producers. The challenge for the present risk management strategies, which are focused primarily on micro-credit, crop insurance and other price risk management instruments do not work due to high geographical dispersion, limited awareness and poor collective organization.

The study results reveal that, absence of formal risk management mechanisms discourage most of the small and medium farmers to invest less because they are worried about the loss. They generally show less willingness to adopt modern eco-friendly cultivation techniques and chose to go for the same method/strategies to avoid production risks. Therefore, agricultural transformation requires substantial governmental and financial sector interventions. However, the challenge is public investment in the sector has

been declining and private investment is very slow. Thus, there is a strong need to encourage both private as well as public investment in this sector. Apart from that there is also a need for institutional and credit support especially for small and poor farmers. Improved institutional support can create opportunity for several young people looking for employment in the agro-processing and agro-industry. There is a great opportunity to create an agriculture based rural agro-industry, which will help producers as well as consumers. The study in three states shows that creating a producer-consumer linkage proved to be economical and beneficial for both. It is evident from the study that small agro businesses are very much willing to carry out their agro business as they could see lot of market potential.

However, without external support it is not possible for them to scale up their business because most of them are struggling for the working capital and other resources. They need at least 3-5yearsof constant support from government as well as non-government agencies. The challenge to create the effective agro market is lack of investment, access to information and infrastructure. The sustenance and scalability of the IRM in agriculture depends on the public and private investment as well as building new intermediary institutions and regulatory mechanisms. It is also reveled in the study that participation of the farmers in the IRM-A training programme is not very encouraging due to low level of encouragement and support. In this context, voluntary organizations can play a vital role to minimize that challenge and bridge the gap between awareness and implementation. Therefore, it is necessary to strengthen those organizations by providing them financial support as well as capacity building training to their employees. The participation of these organizations will be helpful to change the attitude and perceptions of the farming community regarding new farming method and resource use. In other words, these organizations help implement the IRM practice in the ground. In the long run it would help farmers, consumers and environment.

This not only ensures livelihood and food security of the farming community but also generates savings and investments in this grossly underfunded sector. In addition, if we look at the inter-sectoral linkages, IRM-A creates an opportunity for water and energy security point of view. It could have a significantly positive impact on resources used in agriculture. Therefore, IRM-A creates a great opportunity for both economy and environment by improving food security as well as assuring sustainability in the use of natural resources.

8. Conclusion

It is well evident from the instance of the three states that IRM in agriculture has a potential to transform agriculture by reducing the vulnerability in the sector. It could also improve farm income by addressing the issues related to institutional and market failure. IRM-A creates an opportunity to strengthen rural economy as well as environment. It would also have a significant impact on livelihood security as well as sustainability in the use of natural resources. As risk in agriculture has been multiplied due to emergent climate change, IRM-A as an approach could be used to empower farming community of the country.

However, the full-scale implementation all over the country and sustainability of programme needs more of public as well as private spending in the sector. There is a strong need to include and encourage civil society organization to create awareness among the farmers. In addition, there should be some emphasis on building of new intermediary institutions, which would provide support to farmers to enhance their technical as well as business knowledge. For an all-round development and economic viability of the agriculture, policies need to focus on the holistic risk management combined with greater awareness and information.

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Dependency on Common Property Forest Resources: Evidences from Few Villages of East Siang District of Arunachal Pradesh

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Abstract

Forest resources are life supporting in rural North-East India. Culture, tradition, ethos and indigenous knowledge of people of the region to a great extent are influence by forest; hence conservation and sustainable use of forest has become the priority. Based on household level primary data from few villages of East Siang district, this study attempts to bring out the importance of the Common Property Forest Resources (CPRs) in the rural economy in spite of gradual commercialization of forest economy in the state of Arunachal Pradesh. However, there is diversity in degree and nature of forest dependency among different socio-economic groups. The present analysis deals on the forest dependency among different economic categories poor and non-poor. In addition an attempt is also made to determine the significant socio-economic variables determining the forest dependency. It is found that the household's characteristics such as size of landholdings, education, livestock and distance from market significantly affect the dependency on community forests.

1. Introduction

There is a spectrum of property right regimes of natural resources namely, private, state, common and open access regime. The most commonly known property rights regime is private property holding. Under this regime, individual households or even groups (corporate bodies and firms etc.) can own resources with exclusive rights to use them, rights to exclude others from using them and rights to sell them or all of them or buy more of them (Bromley, 1991). Neoclassical economists propose that resources under private property regimes are effectively manageable under a competitive market condition (Varin, 1984). In reality, such market situations do not exist for a large number of resources such as land, forests, water or fishery. Apart from lack of proper markets,

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these resources such as water bodies, forests, meadows are not easy to make into fraction or divide or sell. Resources like water, fishery, terrestrial wildlife, and forest resources, would have different enforcement features and thereby generate varied incentives for collective action. These goods are often characterized by non-excludability and non-rivalry in consumption causes free rider problem (Agrawal and Chhatre, 2006).

Common property resources (CPRs) are those "resources which are collectively used by a group of people" (Pasha, 1992). Alternatively they can be defined as 'those (non-exclusive resources) in which a group of people have co-equal use rights. Membership in the group of co-owners is typically conferred by membership in some other group generally a group whose central purpose is not the use or administration of the resource (per se) such as village, a tribe etc. (Jodha, 1990). More precisely "a property on which well defined collective claims by an exclusive group are established, the use of the resource is subtractive, having the characteristics of a public good such as indivisibility shall be termed as common property resources" (Kadekodi, 2004).

In India, the National Sample survey Organization (NSSO, 1999) has defined common property resources (CPRs) as those resources which are accessible to and collectively owned/held/ managed by an identifiable community or group and on which no individual claims exclusive property rights. The first, is common village land or commons which lie within the boundary of the village and are held by village community or village panchayat. Second, is the un-classed forests as well as protected forests. The third is the common water resources. Over the years, significant economic growth has been accomplished in India and the same has percolated at least partially into the country side in terms of proliferation of alternative livelihood system. Along with this development, men-environment relationship might have changed considerably particularly in rural areas, impacting on people's dependence on common resource systems, adoption of resource management practices and sustainability of the resource base to cater to the needs of future generations.

Arunachal Pradesh, with its abundance of forest covers (79. 6 percent forest cover as per satellite based imaginary data, 2017) is home to communities who have a direct dependence on the forest resources for their livelihood. The state is reported to have one of the highest collection as well dependence on CPRs for supply of fuel wood (NSS 50th and 54th round). As per the data (DCH, 2014), highest source of fuel consumption is from firewood (68.7 percent) which is higher the all India average of 49.0 percent. The village communities look after and take care of its boundaries and disputes besides controlling the natural resources.

The importance of the communitarian resource ownership was recognized when the Sadiya Frontier Tract Jhum land Regulation, 1947 was enacted to define the rights and liabilities in relation to jhum land over which a community had a customary right in Arunachal Pradesh. However, the tradition of land ownership varies across tribes and has been followed to tribe and they over the years, a tradition that is integral to the community way of life in the state. Given this backdrop, the present study makes an

attempt to understand the inter-related issues of dependence, heterogeneity, livelihood opportunities and the sustainability of common property forest resources in the context of Arunachal Pradesh.

In Arunachal Pradesh, CPRs are important sources for household income, livestock sustenance, domestic fuel use etc. However, over the years there has been changes in the structure of property rights as well as natural resource base (Mishra, 2006). Earlier in most parts of the State, forests were owned by the community (Mitra, 1998) and studies (Mitra and Mishra, 2011 and Singh, 2010) found that contribution of community forests to the households economies was quite significant. However, there has been a change and individual ownership of forests has been growing. Rapid monetisation of the economy, sudden exposure to the material comforts of life, commercialisation of forest products and market exposure and its penetration in the state are major factors responsible for conversion of common property resources to private property resources (Mitra 1998; Kuri, 2011). In our present analysis, we make an attempt to examine the importance of CPRs in rural household economies and also the nature of consumption of different types of forest products from CPRs under condition of declining dense forest cover and change of property right regime. The paper has four sections. The first section deals with introduction, the second section covers objectives, methodology and limitations and third section deals with results and discussion and last section discusses summary and conclusion.

2. Objectives, Methodology and Limitations

The study primarily begins with two major objectives which are summarized below:

1. An analysis of the relationship between CPR dependency and household's socio-economic characteristics.
2. Study the nature of consumption that accrues to relatively poor and non-poor households from community forests resources.

The Study is premised on two hypotheses. The first hypothesis states that: *the socio-economic heterogeneity in rural community is expected to determine the different level of consumption from the community forests,* And the second hypotheis is – *access to market may reduce the dependency of households on the community forest since the community members may have some opportunities of earning outside the village*.

Since the hypotheses aim to understand the dynamics of CPR, livelihood and market one district of the State i.e. East Siang was selected purposively on the basis of forest coverage as well as existence of various forms of property right structure. A multi-stage sampling technique was adopted. In the first stage the district was selected, in the second stage four circles were selected from the district to represent the overall situatedness of the district. At third stage, two villages from each circle were selected considering the information on common property forest coverage. At the final stage, attempt was made to include all households in small villages and 30 to 40 percent of the households in relatively bigger villages. A household was taken as the preliminary unit of study. Finally, 110 households were selected randomly from four villages..In addition to it, a

village level questionnaire was prepared for collection of village level data. Since most of the households in the study areas were subsistence farmers, they were categorized into relatively poor and relatively non-poor households. This was done by compiling the census of village households with Participatory Rural Appraisal (PRA) techniques.

The participants in PRA exercise were asked to categories all the households into two different household groups in the criteria as what the villages consider as important like having a number of Mithuns (a semi domesticated animals), type of dwelling house etc. which villages consider are important for assessing an individual's socio-economic position in the village. Finally, the relationship between forest dependency and the socio-economic determinants were studied on the basis of an econometric model. The details are discussed in subsequent sections.

2.1 Limitations

The present study has certain limitations. There is no traditional standard measure of land as it is considered to be one of the most productive assets of rural Arunachal Pradesh. Many people in the villages, especially in the remote areas are not well acquainted with the modern quantitative measurements. For example, in the measurement of agricultural output, the volume and not the standard weights are used. Still today the common practice at the surveyed villages in the measurement of agricultural output such as paddy, millets, maize, soyabean, large cardamom, kodo, etc. by baskets while fruits, eatable roots, pumpkin, gourds etc. by numbers and size of the items and firewood by bundles. The level of literacy is very low in the study area. It was not possible to get the reliable income data at the household level. Hence, proxy variable was used by taking household level consumption value from community forest.

3. Results and Discussions

The extractions of forest product from Common Forest Resources depend on a host of factors relating to households and village characteristics. A host factors like demographic features, based on geographical location, economic position and some are institutional like customary extraction rule etc. (Jodha, 1990, 1986) are important determinants. The extent of forest dependency is measured on the basis of the share of total forest products collected in total consumption expenditures by the households. The CPR based collections for which data was collected included timber, firewood, bamboo, wild leafy vegetables, edible roots, bamboo, herbs and other wild animals hunted for consumption following the 54th round of NSS data, 1999. The study was based on the hypothesis that household level benefits from common property forests would be associated with household and community attributes. In this context, a conceptual framework was developed to understand the relationship between the variation in dependency on community forests among the surveyed households and the socio-economic status of the user-households. In order to understand this relationship the study focused on few socio economic variables which have strong influence. These include total consumption expenditure, family size, size of land holding, education, average distance from the market and road connectivity.

As already mentioned, estimation of household income derived from community forest poses difficulty in rural Arunachal Pradesh because of low market transaction. Hence to overcome this difficulty, it was decided to take a proxy variable of *household consumption expenditure* value derived from the community forests. The *size of the family* is an important factor in determining the extraction of products from community forests. In the absence of wage labour market, family labour is the main sources of labour supply for agricultural operation, collection of forest products etc. Hence, it is likely that larger the family size, the larger is the extraction of forest products from the community forest. It may be noted that collection and gathering from community forests is found to be associated with the ownership of private property of the household specially the land. In times of need, mainly in times of jungle clearance, sowing, harvesting etc. an alternative source of labour is provided by community labour (Kuri and Laha, 2011). It has been observed that the households who take support of the community labour have to bear the expenses for providing food, drinks etc to all members of the group. Therefore, it is obvious that there is a close relationship between land size and forest extraction; the ownership of large cultivable land was found to be consistent with large quantity of extraction of forest products from CPRs. Studies have shown education is one of the foremost factors that affects the decision making process, perception of various phenomenons and adoption of new ideas and ways of living and sustenance. Therefore *a priori,* education is expected to be negatively correlated with extraction of forest products from CPRs. Attainment of higher educational level may be associated with greater opportunity cost of labour. In fact, opening up of better earning opportunities beyond the boundaries of village commons is likely to see lesser preference for forest extraction activities. People tend to seek for alternatives if such opportunities are associated with higher educational attainment. Another important factor is the access for households. The households located in isolated areas with limited access to external markets and infrastructure facilities are likely to continue their dependence on community resources. On the other hand, communities closer to urban areas have access to wide range of opportunities such as employment in temporary or permanent jobs, contracts, small business, etc Therefore, closer market access for the village or rural households is likely to wean them away from forest dependent activities. Rather access to market opens up opportunities for engaging in other gainful activities. Together with access connectivity is an important factor in diversification of livelihood opportunities for village households. Remotely located households are likely to be more engaged in forest dependent activities unlike the village households where connectivity is better. The survey findings show similar results for Arunachal Pradesh. Villages which are less connected and remotely located have more households that are associated with extraction of forest products from community forest. Villages with better connectivity to semi-urban and markets areas show lesser dependence on community forests as a source of livelihood and sustenance. The expected sign for the explanatory variables are summarized and given in Table1.

Table 1: Description of Explanatory variables

Variable	Description	Expected Sign
CONEX	Total consumption expenditure of households (in 000 rupee)	+
FSIZE	Size of family member (in Numbers)	+
OWNLAND	Size of landholding(in hectare)	+
EDU	Average year of schooling of the households	–
DMKT	Average distance from the market	+
CONECTY	Road connectivity	-

The relationship between household consumption from forest extraction can be represented by the equation expressed as:

Yi = f (CONEX, HSIZE, LANDHO, EDU, VIDMKT, CONECTY)

Where,

Yi = Household-level consumption value from the community forest (a proxy for household's income from community forests in 000 rupee)
CONEX = Total consumption expenditure of households (a proxy for the income status of households) in 000 rupee
FSIZE = Size of household i.e., number of family members in a households
OWNLAND = Size of landholding in hectare
EDU = Average year of schooling of the households
DMKT = Average distance (a dummy variable for a village nearest to the market i.e 5 km (above = 1 and below 5 km = 0)
CONECTY = Road connectivity between surveyed village and a constructed road (in km)

To analyze this hypothesized relation double-log model has been used since the relationship is found to be non-linear. It is based on a similar model used by Di Falco and Ferrings (2003) to understand the effect of cooperative production on inter-specific crop genetic diversity.

By taking log on both sides, the standard equation can be written as:

$$\sum_{i=1}^{N} Yij \sum_{i=1}^{N} Yij = \beta o + \beta 1 CONEXi + \beta 2 FSIZEi + \beta 3 OWNLANDi + \beta 4 EDUi + \beta 5 ADFMKTi + \beta 6 CONECTYi$$

Where,
'j'= Forest products (timber, firewood, bamboo, leafy vegetables, roots, wild animals etc.)
'i' = (1,2,3….,N) observations.

The household income derived from community forest is taken as dependent variables. However, there were inherent difficulties associated with collecting income data in a partially monetized economy in Arunachal Pradesh. Though the quantities of different items gathered from community forest are dependable, but the problem lies in the

non-existence of their village level prices.. A significant portion of community forest products were used for self – consumption and that is why these were non-tradable in the local context. Some of these forest products are no doubt, locally bartered but do not provide the absolute prices which is necessary to arrive at the value. Since, obtaining reliable household income data from sample households an alternative measure was used where the value of total household level consumption of community forest goods as well as total consumption expenditure of household was taken as proxy for income from forests. The result of regression for determinants of household consumption value (Y) derived from Common Property Resources is given in Table 2.

Table 2: Determinants of Consumption from Community Forests

Variables	Unstandardized Coefficients		Standardized Coefficients	t
	B	Std. Error	Beta	
COSTAN	11.689	1.442		8.108
CONEX	-.349	.147	-.246	-2.372
FSIZE	1.236	.220	.533	5.626
OWNLAND	.128	.060	.197	2.128
EDUCATION	.019	.109	.014	.171
ADFMKT	.256	.059	.734	4.337
CONECTY	-.217	.093	-.368	-2.328

The result of estimated equation for determinants of household consumption value (y) derived from common property forest resources is :

In In = 11.689*** – .349** InCONEXi + 1.236*** InFSIZEi + .128** InOWNLANDi

(8.108) (-2.372) (5.626) (2.128)

+ .019 InEDUi + .256*** InADFMKTi – .217** InCONECTYi

(.171) (4.337) (-2.328)

R2 = 0.85 Ajj. R2 = 0.73 F= 17.665** N = 110

*(Note: 1. Figure in Parantheses are t – values 2. The asterisk symbol ***and ** denote significant at 0.01 and 0.05 level respectively).*

It is evident from the results of the estimated equation that most of the estimated values of explanatory variables were significant with the expected sign and significant at one percent or five percent level of significance. In particular, household-level consumption from community forests was significantly influenced by the family size, size of land holdings and distance to nearest market. The R-square and adjusted R-square (R^2) for the estimation was as high as 85 percent and 73 percent respectively. The F-test for overall goodness of fit of the model is 17.665 which was highly significant at μ =0.000. The estimates indicate the robustness of the estimated equation and significance of the explanatory variables. The variable 'FSIZE' was found to be significant at 0.01 levels;

this may be due to the fact that in the absence of wage labour market, family labour is the main source of labour supply for agricultural operation as well as for the collection of common forest resources. The household members are required to spend substantial time and labour for their forest collections. The larger the family size, the higher is the labour and time available to collect the forest resources. The other explanatory variables like 'OWNLAND' i.e the size of land holdings was found to be positive and statistically significant. Due to the prevalence of the system of community labour, the larger ownership of cultivable land was found consistent with larger quantity of extraction of forest products from community forest.

It is interesting to observe that the variable 'EDU' though was found to be positively associated with CPR collection, but it was not statistically significant. In earlier study (Mitra and Mishra, 2011) education was found to be negatively and significantly related to community forest consumption. The present study shows there has been significant changes over the years and it education did not matter much on extraction of community resources. There may be two possible explanation, either education assists to explore the market of CPR products or in the absence of alternative employment despite educational attainment, people continue to be engaged in forest extraction.

The dummy variable 'VIDMKT' was positively related to consumption from community forests and it was found to be a very factor. The results indicate that the availability of market close to the village may divert rural communities from forest dependent activities and engage in other gainful activities due to alternative earning opportunities. At the same time, the rural communities living far away from market may have to depend more on community forests in order to sustain their livelihoods.

With regard to the road connectivity, it was observed that it is negatively but significantly related with the consumption of community resources. It was found that the villages having better connectivity have to depend less on community forests and vice-versa. Possibly dependence on community forest resources is reduced with better accessibility and thereby alternative livelihood options become available for the villagers. The analysis thus highlights that most of the explanatory variables had the expected results and were statistically significant.

4. CPR and the Contribution to Consumption Expenditure relative to Poor and Non Poor

In order to get better insights and to examine the distributional implications of CPRs, all the surveyed households were classified into two groups namely relatively poor and non-poor. However, it is very difficult to identify the households as poor or not. The commonly used classification of poor and non-poor in terms of land ownership does not reflect the reality in Arunachal Pradesh because of problem of measuring land especially in remote areas. Hence, in order to get a rough idea of relatively poor and non poor, the households were classified on the basis of owing the mithuns (a semi domesticated animals), types of houses, types of asset ownership. Based on these criteria, sample of 110 surveyed households were classified where 20 households were identified as

relatively non poor and remaining 90 households were identified as relatively poor. This helped in making a comparative analysis of the income from community forests that accrued to relatively poor and non poor households.

Table 3: CPRs and its Contribution to Total Consumption Expenditure

Village	Category of household	Percentage of consumption of Forest Production CPRs to total consumption expenditure	Difference Non-poor and Poor
Sigar	Poor	28.51	+ 14.57
	Non Poor	13.94	
	Total	23.25	
Sakuand Loglu	Poor	41.34	-9.09
	NonPoor	50.43	
	Total	42.40	
Namey	Poor	33.17	+ 16.3
	Non Poor	16.87	
	Total	29.85	
Seren	Poor	29.97	+ 10.64
	Non Poor	19.33	
	Total	26.64	
Total	Poor	33.45	+13.55
	Non Poor	19.90	
	Total	29.93	

Source: Field Survey, 2017-18

Table 3 shows that contribution of CPRs to the household economy was significant in surveyed villages. On an average, 29.93 percent of the consumption expenditure of the households of the surveyed villages was derived from community forests. However, there were variations among the different villages and across the two categories. For example in Saku and Loglu village, it was as high as 42.40 percent. This may be due to high altitude and extensive use of forest for heating purposes. Among the two categories it was found that the relatively poor households depend more on community forest for their livelihood. It was found that around one-third of their consumption expenditure was derived from community forests. However, there were variations among the villages. It was interesting to observe that in Saku and Loglu Village, the dependence on CPRs was relatively high both among the poor and non-poor households. Also, the consumption of non-poor households was relatively high compared to other villages. This may be due to the fact that the village is located in remote hilly area and is far away from the main town. It is also less accessible due to poor road communication and is surrounded by dense community forests where people have high dependence on community forest resources. Also, non-poor households from this village extracted more quantity of timber and firewood from forests. The distribution of CPR collection is shown in Table 4.

Table 4: Annual Consumption of Different Types of Common Forest Resources in the Surveyed Villages (in Percentage)

Name of Village	Economic criteria	Bamboo	Timber	Firewood	Animal Hunted	Fish and-Prawn	Vegetables, Roots & Fruits
Sigar	Poor	0.77	2.88	45.06	6.06	15.31	29.92
	Non-poor	1.54	5.73	61.84	4.01	13.23	13.65
Saku and-Loglu	Poor	1.32	5.47	43.24	3.72	10.73	35.52
	Non-poor	0.19	17.42	31.53	4.06	20.9	25.9
Namey	Poor	0.72	8.42	51.7	3.03	4.31	31.82
	Non-poor	0.53	25.9	49.22	0	2.33	22.02
Seren	Poor	0.67	3.84	44.72	2.3	12.5	35.97
	Non-poor	0.17	4.24	40.35	0.84	13.63	40.77

Source: Field Survey, 2017-18

It was found that firewood consumption was the most significant contribution to total consumption expenditure of the surveyed households, followed by vegetables roots and fruits. In a traditional tribal society, firewood is the only fuel used for cooking and heating purpose. In spite of availability of alternative fuel like gas in a few accessible areas, the local people hardly use it since they are not accustomed to it. Further it was revealed by the households during survey that they preferred the taste of the food prepared from the firewood. Thus taste of food after preparation was an important determinant in choice of fuel for cooking. The consumption of firewood was relatively high in Sigar village as compared to other villages among the poor and non-poor households. This may be due to availability of more firewood, within a radius of 2 km which is considered to be common property resources by the village council and hence opportunity cost of collecting firewood is low. However, a comparative analysis of firewood consumption among the poor households across sample villages showed that it was highest in Namey village (51.7 percent) and Sigar village (45.06 percent). In case of non-poor households, the villages which had high dependence were Sigar village (61.84 percent), Namey village (49.22 percent) while Siku and Loglu village of Koyu Circle had the lowest share (31.53 percent). The consumption of timber products among the non-poor households had higher variation as compared to the poor households. Among the non poor households, Namey villages of Nari circle had the highest timber consumption while Seren Village of Seren circle had lowest consumption. From the study area it found that accessibility and usability are the main reason for the extraction of timber product which varies from village to village. However, the rural non-poor households extracted relatively more timber since they had the resources to extract timber from deep within the community forests.

Edible roots and fruits emerged as the second highest contributor to consumption from community forests. Among the poor households, Saku and Loglu village (35.52 percent) and Namey Village (31.82 percent) both contribute the highest consumption in the surveyed villages. It may be noted that animal hunting was found to contribute significantly to total consumption expenditure in surveyed villages among the poor and

non-poor households except in one village Namey. During survey, it was revealed by households that in Namey village strict legal enforcement was implemented by the Village Council against the hunters due to deforestation and rapid extinction of wild animals and birds. The enforcement had therefore reduced dependence on hunting of animals for consumption.

In so far as consumption of aquatic lives was concerned, the survey findings showed that fish was the most preferred item. There were however wide variations among the village households. Namey village accounted for lowest consumption of acquatic animals among poor (4.31 percent) and non poor (2.33 percent) households. Among the non poor households, highest consumption of fish was observed among households in Saku and Loglu (20.9 percent) village. In Sigar village too, both poor (15.31 percent) and non poor (13.23 percent) households consumed fish and prawn due to their proximity to river Siang.

5. Conclusion

The study reiterates the importance and role played by Common Property Resources (CPRs) in the rural economy of Arunachal Pradesh. CPRs have been significant sources of food and fodder, materials for construction of houses, medicinal leaves and edible roots, timbers and other consumption needs like fuel wood etc for forest dependent communities and also communities living in hilly areas. However, over the years there has been a decline in dependence on CPRs as evident from studies (Mitra and Mishra, 2011, and Singh, 2010) yet about 30 percent of the consumption expenditures of the households of the surveyed villages were derived from community forests. The study shows that there is a strong relationship between socio-economic characteristics of households, connectivity of road etc. and dependency on community forests. In other words, heterogeneity of household characteristics, as discussed in this study affects the variation of use and consumption from common property resources.

The point of discussion is that relatively poor households depend more on community forests for basic needs and essentials than the relatively non-poor households. The relatively non-poor households depend on community forests mainly for timber and firewood extraction. The variations in use may call for interventions, considering the sustainability factor. The interventions on conservation and to facilitate use for the weaker section of households are of further importance in this ecologically fragile and relatively underdeveloped state. This calls for detailed assessment on the status and uses of common property resource in the state. The assessment and conservation is of immense importance so that economically weaker section of households could derive continuous support from CPRs for their consumption and wellbeing. Conservation and regulated (institutionally – both by traditional bodies and supported by the state) use of CPR would, as revealed by survey findings would to a large extent complement the provisioning made by the state, which is constrained at this time.

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Even after extensive survey, the income data suffered from a lot of error, as respondents normally were both reluctant and incapable to response their income

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Women's Work, "Bargaining" and Household Decision-Making among Tribes: A Case Study of the Reangs of Tripura

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Abstract

Given the changing socio-economic milieu in India's hinterlands, it is critical to understand the role of women's work as it influences her decision-making power within the household. This is especially so in the case of India's tribal community as their traditional socio-economic systems are being gradually replaced. While on the one hand, the culturally determined status of women among tribes is being gradually corroded due to social and economic changes, new sources of prestige and empowerment including salaried employment is somewhat beyond the reach of a large proportion of tribal women. This has resulted in women being pushed out or opting out of work in rural areas. This study takes a critical look at the relationship between tribal women's work and decision-making power within the family using primary data on the Reang tribe of Tripura. Findings suggest women's productive employment in relatively high paying jobs as solution to retaining high status that grants decision-making power in crucial areas. This necessitates a continuous focus on higher education and vocational training of tribal women that would enable them to enter high productivity sectors in the job market.

1. Introduction

That women's empowerment is a catalyst for economic development is hardly debatable. In addition to the productive contribution through which it stimulates development, the part played by empowered women in shaping and strengthening the future generations is well documented (see for instance, Behrman and Duvisac, 2017; Brunson, Shell-Duncan and Steele, 2009; Desai, 2000; Desai and Johnson, 2005). A primary means through which women gain empowerment is through gainful work, which has been found to grant economic autonomy and elevate women's status within the household. This in turn has been found to enable decisions, which have a direct bearing on the welfare of women and her dependents, arguably independently of the other members of the household.

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Literature on the relationship between women's access to financial resources, through gainful employment, and decision-making power within the household is relatively recent in economics (see for instance Dema-Moreno, 2002; Lyngstad, et al, 2011), and studies in the context of India's tribes are virtually non-existent, even though one could hardly deny the importance of such studies, especially from a gender perspective.[2] Essentially, recognizing the role of gender in determining the consequences of work on women's household decision-making is an explicit recognition of the effect of specific gender ideology and cultural environment on the relationship between work and household decision-making (more on this in the next section). In fact, the expansion of the horizons of research that led to greater prominence of the role of gender, largely owes itself to assimilation of theoretical constructs of sociology though the influence of other disciplines, especially economics, can hardly be overlooked. Arguably, while sociology has improved collective understanding of the role of social and cultural context in determining the relationship between women's work and autonomy, economics has had a stronger influence at the way we approach the role of individual resources, endowments and entitlements on these processes.

Given the changing socio-economic milieu in India's hinterlands, it is especially critical to understand the role played by women's work outside home as it influences her decision-making power within the household. This is especially so in the case of India's tribal community as they undergo a period of sociocultural and economic transition, with the traditional systems being gradually replaced by new ones. While on the one hand, the culturally determined status of women among tribes is being gradually corroded due to social and economic changes, viz., Sanskritization, changing agricultural system and work opportunities for women (see for instance, Maharatna, 2005; Sinha, 2015) new sources of prestige and empowerment including salaried employment is somewhat beyond the reach of a large proportion of tribal women. This has resulted in many women being either pushed out or opting out of work in rural areas.

The social consequences of such trends in terms of a possible diminution in women's autonomy and status both in the private and the public sphere can hardly be ignored. That women's work and economic contribution to the family in tribal societies is (or rather has been till recently) indispensible to their survival is widely recognized. However, what also needs to be recognized is the profound connection between women's work and bargaining power within the household. In fact, the relatively higher status and autonomy of women in tribal societies is arguably rooted in their economic role in the family and society. Bardhan's thesis (Bardhan, 1974) regarding difference in

[2] It is pertinent to mention here that gender, as understood here, refers to the social construction of identities and the relative position of men and women that bears upon and shapes interactions between them in various settings. It is a structuring element of all relationships in societies (Scott, 1988). Scholars working in the area of gender, largely define it as comprising of two distinct, albeit interrelated, components – one that largely resides in the attitudinal/ideological sphere about gender role and gender identity, and the other in the material sphere, determining the allocation of resources and entitlements between women and men. For instance, Barriteau (2001) defines it as, "comprising a network of power relations with two principal dimensions: one ideological and the other material. The material dimension exposes how women and men gain access to, or is allocated, the material and non-material resources within a state and society... The social expectations and the personal constructions of gender identities form the core of gender ideologies within a particular society" (Barriteau, 2001: 29-30, italics added).

agricultural technology between North India and South India, with the former offering a relatively minor role to women in cultivation vis-à-vis the latter as a possible reason for the lower status of women in North India can possibly be extended to tribal and non-tribal societies. Specifically, since agricultural technology among tribes has been largely dominated by the slash-and-burn method (or shifting cultivation) in India (as well as elsewhere) till recently, which affords a significant role to women in the cultivation process, the economic value of women in such societies is considerable, which can account in large part for the culturally relatively high status of women among tribes. Given this, the critical importance of work and women's relative earnings as compared to men, in the social and economic lives of tribal women can hardly be overemphasized.[3]

It is in this context that the present study takes a critical look at the relationship between tribal women's work in the public sphere and her decision-making power within the family, particularly among the Reang tribe of Tripura. The present research could prove to be significant from the point of view of informing policy aimed at the empowerment of tribal women, especially as it relates to the provision of employment opportunities to women in rural areas.

2. Theoretical Perspectives: A Brief Review

Literature in household economics considers women's access to financial resources through employment and economic assets as a critical component of bargaining power in the individual allocation of household resources and responsibilities (see for instance, Bradshaw, 2013 and the literature cited therein). Recent developments in the field on intra-household decision-making have increasingly moved away from the neoclassical 'unitary' household model, most notable in the work of Becker (1981), which looks upon the decision-making process within the household as maximization of a single joint utility function by an "altruistic" household head (usually the male) and begun to incorporate the complexities in the intra-household decision-making process in terms of non-congruent preferences of members and the recognition of the relation between individual contributions (real and perceived) and entitlements.

The non-unitary or bargaining power models explicitly recognize the role of individual "bargaining" power in determining outcomes, in an atmosphere of non-congruence in preferences and separate utility functions of individual members within households, thus distinguishing command over household resources established by social norms and those through the bargaining process (Schneebaum and Mader, 2013). Even though these models, aside from emphasizing the role of access to economic resources (through employment and wealth), note the function of gender role ideology in shaping the final outcome of bargaining (i.e. recognize the female disadvantage due to existing gender stereotypes that place a negative premium to women's work and entitlements),

[3] In this context, it is pertinent to mention that as compared to work, relative earnings of women as compared to that of their husbands is expected to be a stronger determinant of relative bargaining power within the household as a sizeable quantity of research suggests that women who participate in the labour force, justify it as arising from the economic necessities and obligations towards the family (see for instance, (Nawar et al., 1994; Rugh, 1984) and hence cannot be expected to influence bargaining power in household decision-making in any meaningful way due to the motive of the decision to work.

critiques have pointed out that the models fundamentally overlook the role of "gender" in determining what is essentially a "gendered" outcome in resource allocation within the household (Agarwal, 1997; Carter and Katz, 1997), thus calling for a more nuanced/ qualitative approach towards understanding the determinants of household decision-making power.

Sen's cooperative conflict model can be considered one of the first "feminist" models of intra-household decision-making in that it actually examines the role of gender in affecting both "endowments" and "entitlements" within the household. The importance of gendered social norms and opportunities inside and outside the home finds importance in women's perceived contribution to the household as well as perceived individual well-being (Sen, 1990). The upshot of Sen's argument is that while recognizing the role of economic contribution of women as enhancing bargaining power within the household, the role of perceptions of her own economic contribution has to be factored in, and that social norms that shape the "fallback" position of women (if cooperation within marriage ends including the possibility of divorce) including perceived economic opportunities as well as social stigma need to be analyzed to understand the outcome for women in the case of intra-household bargaining.

In this context, it is perhaps pertinent to mention that while gender stratification systems are universal and cut across cultures, its manifestations and ramifications cannot be assumed to be common across varied cultures and societies. Indeed, as pointed out by Keller (1989), the critical contribution of feminist theory to the discourse on gender has been the recognition of gender as a social or cultural construct. Indeed, "women's place in social life is not in any direct sense a product of the things she does, but of the meaning her activities acquire through concrete social action" (Rosaldo, 1980, quoted in Riley, 1999). Even though the aforesaid characterization of gender is very strict in the sense that it leaves very little room for individual characteristics in determining outcomes, it nevertheless drives home the critical importance of social context in the analysis of gender and its impact on other outcomes. This is especially important in the case of research on the role of gender as it affects household decision-making of women as the trend has been to arrive at conclusions on the usefulness of increasing women's autonomy based on research in culturally distinct populations (see for instance, Das and Tarai, 2011; Mason, 1998). Though cross-cultural comparisons are unavoidable and even necessary in the sense of advancement of understanding of the way gender affects women's choices, the crucial point is to move beyond an inflexible understanding of gender (and an imposed uniformity of measures of gender) to a more nuanced understanding of the pathways through which it affects women's choices.

Overall, while most models of household decision-making have emphasized the key role of economic resources equated with income and assets, other less tangible factors have also come forth as crucial determinants of the outcome of bargaining within households such as social capital and kinship ties and the overall gender ideology of particular societies. In fact, many consider gender ideology to be more important in relation to economic resources in this regard (see for instance, Grasmuck and Espinal, 2000; Kanbur, 2002).

At the level of empirical testing of the relationships, and in line with research in this field (Doss, 2012; Dito, 2011; Sen, 1990) we incorporate factors found to influence the bargaining power of women including income, educational attainment, assets owned (land and/or house), age, assets brought to marriage (dowry payments) and gender role attitude.Specifically, we test the hypotheses that, first, in relatively gender egalitarian tribal societies, such as those of the Reangs of Tripura, women's relative earnings and economic resources in general, are crucial determinants of women's bargaining power and her status within the household. And second, even after controlling for a host of other factors including income, gender ideology and social/kinship norms plays a crucial role in shaping favourable outcomes for women in the bargaining process.

3. Data and Methods of Analysis

This study is based on primary data gathered over a period of one year (June, 2017 – August, 2018) from fieldwork in villages inhabited by the Reang tribe residing in the Gomati and South Tripura districts in the Indian state of Tripura,. The latest Reang census conducted during the year 2015 constituted the sampling frame for the study. Detailed information has been collected from 240 Reang women using semi structured interview schedule (that included both open ended and pre-coded responses). The schedule and interviews with individual respondents lasted on average for 90 minutes (few extending to 120 minutes), and were mostly conducted at the residences of the respondents. The interviews were conducted with the assistance of an interpreter, who speaks both the Reang dialect Kau-Bru and Bengali, even though many Reang respondents have a basic knowledge of the local (Bengali) vernacular. Data has been collected on all relevant aspects e.g. kind of work performed by women, percentage of total household income and various indicators that show the domestic decision making voice of women. The schedules have included questions such as primacy of male breadwinner role, as well as data on consanguinity in marriage as indicators for measures of gender role attitudes. We have also collected data on contextual factors including facilities available during childhood for the women, occupation of the parents of the women, age of woman and her spouse, educational attainment of woman and husband, occupation of husband, women's ownership of land and/or house, age at marriage, and the socioeconomic status of the household, that are found to independently influence women's decision-making power within the household.

3.1 Basic Description of the Sample

Table 1 presents basic descriptive statistics relating to the variables in the analysis. The average age of the women in the sample is around 30 years and that of the men is slightly higher at around 34 years, and the maximum age of women is 48 years and that of men is nearly 52 years in the sample (Table 1A)., The average years of schooling are higher for Reang men (around 8 years) as compared to that of Reang women (around 6 years). However, it is quite distressing to note that even Reangs who reside in relatively developed areas of the State are yet to embark on the journey to education. In fact, less than 10 per cent of women and men have been educated beyond the secondary level among Reangs. It is not surprising that given this situation, the minimum age of marriage among the Reangs has actually decreased overtime, and is around 13 years

in the sample, as against 17 years reported in earlier studies (for instance, Acharyya, 1995). This may also be an influence from the assimilation of non-tribal social norms among them (Table 1A).

Table 1A: Basic Demographic Statistics of Respondents

Variable	Minimum	Maximum	Mean
Age of Woman	17	48	30.0
Woman's Education (years)	0	17	6.2
Husband's Age	19	52	33.6
Husband's Education (years)	0	17	7.7
Age at First Marriage	13	35	19.1

Source: Field survey

Table 1B: Socio-Economic Characteristics of Reang Women Respondents

Sl. No.	Variable	Percentage of Respondents
1.	Parents Occupation	
	Settled Cultivation	56.3
	Shifting Cultivation	12.6
	Salaried	10.1
	Daily labourer	20.2
2.	Developed neighbourhood during childhood	38.7
3.	Dowry payment	18.1
4.	Owns house/land	18.6
5.	Consanguineous marriage	32.5
6.	Economic condition of household	
	Easy financial condition	42.4
	Difficult financial condition	57.6
7.	Relative earnings as compared to husband	
	Equal to husband	20.3
	Less than husband	40.9
	More than husband	11.8
8.	Younger than husband	74.4
9.	Educational difference with husband	
	More or equally educated	55.0
	Less educated	45.0
10.	High autonomy in household decision-making	
	Large purchases	57.8
	Daily purchases	68.8
	Total income of household	59.9

Source: Authors' calculation from primary survey data

Table 1B presents the socio-economic characteristics of the respondents in the study.

The findings for survey showed that majority (around 41 per cent) of the women earn less than their husbands while half that proportion (20 percent) earned at least as much as their husbands. A considerably smaller proportion (around 12 per cent), who are mainly employed in the services sector and earn a salary, are found to earn more than their husbands, the remaining 27 percent women in the sample remain unemployed.[4] It is also interesting to note that more than half of the women in the sample have fairly high household decision – making autonomy in the three selected domains viz. decisions regarding (a) large/expensive purchases (b) daily/regular purchases and (c) total monthly expenditure.

It needs to be mentioned that among the Reangs, women were found to either leave decisions to their husbands or make decisions jointly with their husbands, with almost none reporting taking decisions alone. Nearly three-quarters of the Reang women are found to make decisions jointly with their husbands in the purchase of regular items. Similarly, we find that almost 60 per cent jointly decide on the total monthly expenditure of the household. However, a slightly lower proportion of women are found to have high autonomy where expensive purchases are concerned. Overall, Reang women have a considerable role to play in decision-making within the household, they have a voice and enjoy certain amount of power in voicing their choice.

In fact, in nearly every account of tribes of India [see for instance, Elwin 1961(Nagas); Furer-Haimendorf, 1933 (Nagas); Hutton, 1921(*Sema Nagas)*, the authors have remarked on the high position enjoyed by women in these societies in terms of autonomy in choosing husbands, personal freedom, mobility and lack of gendered division of labour between men and women. However, more recently, scholars working on tribes in India, have found that there are evidences on the erosion of certain facets of tribal culture, especially those pertaining to the social and cultural status of women among tribes, in the course of economic development and inevitable exposure to mainstream/ non-tribal culture and ideology, through its influence on the fundamental institutions of marriage, family, religion, kinship and socio-political organization, often referred to in the literature as the Sanskritization/Hinduisation of tribes (Mann, 1987; Maharatna, 2005; Roy Burman, 1988; Sachchidananda, 1988); the tribes of Northeast India being no exception (see for instance, Maharatna and Sinha, 2011; Nongbri, 2000; Ray and Athparia, 2006; Sinha, 2015a, 2015b)[5]. It is remarkable that probably by virtue of their relative isolation from the mainstream (in terms of sociocultural assimilation and

[4] It should be mentioned here that instead of relative access to material resources, we measure relative earnings in the present study. It is possible that the husband or wife has greater access to material resources in kind. While this can be considered as one of the drawbacks of the study, the selection of money income as a measure of relative earnings can be justified on at least two grounds – (i) It is difficult to collect information on access to resources in kind as their valuation is difficult and subject to frequent fluctuations and (ii) it has been found during the course of fieldwork that access to liquidity (cash income) is a crucial factor that confers autonomy in household decision-making to both women and men, since most of the Reangs, like other particularly vulnerable tribal communities, lack access to cash income.

[5] These terms denote the process of acculturation of tribes, first employed in the context of India's tribes by M.N. Srinivas in '*Religion and Society among the Coorgs of South India'*, published in 1952. A discussion/ debate on the appropriateness of the particular vocabulary to describe and explain the ongoing socio-cultural changes among Indian tribes and its implications can be found, for instance, in Munshi (1979), Srinivas (1952, 1966), Xaxa (2008) and the literature cited therein.

economic organization) Reang women still enjoy considerable decision-making power within the household.

In so far as the background characteristics of the Reang women are concerned, it was found that parents of more than half of the women are cultivators, and among them approximately 13 percent either practice (or practiced) shifting cultivation. Almost 10 per cent of the women have parents who work for a salary, which indicate that the process of economic transition from shifting to settled agriculture and further to services sectors has started among this particularly vulnerable tribal group. This is perhaps also supported by the observation that a substantial proportion of women (around 39 per cent) grew up in neighborhoods that were relatively developed in terms of availability of basic public goods.[6] It has been observed by many research findings, that societies that practiced shifting cultivation evinced high labour force participation of women, which resulted in high autonomy of women in these societies (see for instance, Debi, 1994). Thus, it can be expected that, to the extent that there is intergenerational transmission of gender ideology, Reang women whose parents practiced shifting cultivation would exhibit less adherence to gender ideologies favouring male dominance.

Social changes taking place among the Reangs are perhaps also revealed by the fact that nearly 18 per cent of the women (mostly from the present generation) report having made dowry payments. However, around 33 per cent of the women also report consanguineous marriage reflecting the continuity of cultural tradition among them even though socio-cultural changes are seeping into their society. Also a sizeable proportion of women (around 19 per cent) reported single or joint ownership of property.. Majority of the households were found to be in financial constraints and difficulties. This is largely due to the fact that as members of tribal communities still lag behind in terms of economic development and are employed in sectors with low productivity and low remuneration.[7] In so far as the age between husband and wife among the Reangs it was found that like many other societies majority (more than 70 per cent) married women were younger than their husbands, and a quarter reported being either of the same age or slightly older than their husbands a feature which is unlikely to be found in other mainstream Indian culture). This reflects the fact that tribal societies have elements of gender egalitarianism vis-à-vis non-tribal ones. This is also corroborated by the observation that more than half of the women in the sample are found to have at least as much or more schooling as compared to their husbands.

3.2 Method of Analysis

In order to understand the women and her voice/power in household decision making a binary logistic regression has been attempted. The dependent variable in the analyses

[6] We have included the availability of 10 public goods to gauge the development of the neighbourhood – electricity, water supply, school, newspaper, health centre, bus service, bank, cooperative, market place and police station. Neighbourhoods with at least 6 or more of the facilities have been classified as developed in this table, even though it is treated as a continuous variable in the regression analyses.

[7] The relative financial position of the household has been calculated from data collected on items to calculate per capita monthly consumption expenditure for a mixed reference period following the methodology of the NSSO. Households whose income falls below the sample average have been classified as being in a difficult financial condition and easy financial condition otherwise.

is a dichotomous variable that assumes the value of 1 if the woman has high autonomy or bargaining power (i.e. makes decisions jointly with husband) in a particular aspect of household decision-making and 0 otherwise. Three binary logistic regressions were estimated, for three separate cases defined by the type of decision–(a) large/expensive purchases (b) daily/regular purchases and (c) total monthly expenditure. However, the set of explanatory (independent) variables were same in all the regressions. The explanatory variables used in the regressions, except for age of woman, facilities during childhood (neighbourhood development) and age at marriage are categorical in nature. In most cases, the categories of the independent variables have been collapsed into fewer ones (mostly limited to two or three) for ease of analysis and exposition.

Women's "bargaining" power that is hypothesized to influence household decision-making is captured through both economic and "socio-cultural" resources. Specifically the indicators included are relative earnings compared to husband (which is our variable of primary interest), age difference with husband, difference in educational attainment between wife and husband, single or joint ownership of house/land, dowry payment and consanguineous marriage. It should be mentioned here that strictly speaking the latter three indicators, viz., single or joint ownership of house/land, dowry payment and consanguineous marriage do not represent "relative" bargaining power in comparison with husband along the particular dimension, but overall augments "resources" available to women during negotiation over household decision-making, which has been considered important in models of household bargaining such as Sen's cooperative conflict model, as indicated earlier.

Also, based on the theoretical perspective presented earlier, we include an index that captures attitude of women to male breadwinner role norm. The index is based on two questions that measure attitude towards the aforesaid norm-Regarding the relation between you and your husband, who do you think should (a) Be the breadwinner (b) Buy provisions for the household. The index has been constructed through factor analysis on the two items in the questionnaire. It is pertinent to mention here that the items to be included or excluded from the index was decided on the basis of theory, and validated by exploratory factor analysis (EFA). Regression scores from factor analysis are used for the construction of the index. After obtaining the factor scores for each woman, we recode using it in *binary* form, with positive values representing higher scores and indicating higher autonomy, coded as 1 and, negative values depicting lower scores and therefore lower autonomy, coded as 0.

Finally, we also control for the age of the woman, age at first marriage, parents occupation, and economic condition of household and neighbourhood development during childhood – factors which have been suggested in literature to have an independent influence of the probability of women possessing autonomy in household decision-making.

Binary logistic regressions are carried out to assess the impact of women's bargaining power, with a focus on the role of women's work as it affects the relative earnings as

compared to the husband, on the power to make household decisions, after carefully controlling for various socio-demographic, socio-economic status and socio-cultural factors. The basic form of the logistic regression used is:

$$\log\left(\frac{p}{1-p}\right) = b_0 + b_1x_1 + b_2x_2 + \ldots\ldots\ldots + b_kx_k$$

Where b_0 is constant, $b_1, b_2, \ldots\ldots\ldots\ldots, b_k$ are the coefficients of $x_1, x_2 \ldots\ldots\ldots x_k$

p is the estimated probability of joint decision-making in the instance of large purchases, regular purchases or total monthly expenditure, as the case may be.

4. Results and Discussions

The results from the binary logistic regression analyses are presented in Table 2. Column I presents the determinants of decision-making by Reang women in the case of large purchases. As can be seen from the table, relative earnings have a significant effect on the probability that women will make decisions jointly with the husband. Hence, we find that as compared to women who do not work and hence have no earning, women who earn have a higher probability of decision making. Women who earn less than their husbands are nearly three times more likely to make a decision regarding an expensive item as compared to women who donot work. Likewise, women who earn almost as much as their husbands are around thrice as likely to make a decision vis-à-vis those who do not earn. Not surprisingly perhaps, women who report earning more than their husbands have the highest probability of making such decisions and are nearly 5 times likely to decide on a costly purchase as compared to their non-working counterparts.

However, in the case of the Reang women, we find that neither age difference with husband, nor difference in educational attainment have any significant effect on the probability of decision-making on large purchases. It is perhaps interesting to note that as pointed out by Kishor (1995) age can impact decision-making autonomy within the household, since it places the young bride at the lowest rung of the power ladder, especially in joint families. Thus, newly married women in such families have the least capacity to express individual freedom, even in matters of personal choice. The fact that age has not been found to have a significant association with decision-making autonomy could be essentially due to the fact that virtually most of the Reang women surveyed live in nuclear families and therefore the question of suppression of individual will by elder relatives in the family does not arise. Also, it has been found that a considerable proportion of women (nearly a quarter) report being of the same age or older than their husbands. Also, as observed earlier there is hardly any significant difference between men and women in educational attainment. Thus, it does not come as a surprise that we do not find any significant association between differences in either educational attainment or age and decision-making autonomy in this sphere.

Table2: Binary Logistic Model Estimating the Probability of Various Dimensions of Household Decision-Making among Reang Women

Variable	Large Purchases I.		Regular Purchases II.		Monthly Expediture III.	
	Exp (β)	Sig.	Exp (β)	Sig.	Exp (β)	Sig.
Age	1.05	0.107	1.061	0.113	1.04	0.200
Age at marriage	0.87**	0.018	0.88**	0.033	0.86***	0.006
Facilities childhood	1.24	0.125	1.04	0.774	1.17	0.254
Owns house/land (Ref category: No ownership)	1.36	0.591	1.83	0.359	2.98*	0.081
Dowry payment (Ref Category: No Dowry)	3.24**	0.040	2.44	0.142	3.03*	0.059
Kinship by marriage (Ref Category: Consanguineous marriage)	0.43**	0.041	0.41*	0.051	0.44*	0.052
Husband older in age (Ref Category: not older)	0.69	0.477	0.934	0.907	0.66	0.434
Easy financial condition (Ref Category: Difficult fin. condition)	1.48	0.354	0.918	0.850	1.54	0.332
Non-conservative gender role attitude (Ref Category:- Conservative)	2.24**	0.045	3.66***	0.003	2.33**	0.040
Difference in years of schooling (Ref Category: Equal years of education)						
Wife more educated	0.85	0.757	0.84	0.775	1.11	0.839
Husband more educated	0.66	0.479	0.91	0.898	1.07	0.899
Relative earnings as compared to husband (Ref Category: No earnings/No Working)						
Lower earnings	2.67**	0.039	4.21***	0.004	4.11***	0.004
Equal earnings	3.004**	0.043	4.04**	0.014	3.79**	0.017
Higher earnings	4.697**	0.031	23.8***	0.007	6.13**	0.012
Parents occupation (Ref Category: Daily labourer)						
Shifting cultivation	2.19	0.332	2.80	0.303	1.07	0.926
Settled cultivation	0.62	0.361	0.49	0.214	0.63	0.393
Salaried/Service sector	0.35	0.228	0.49	0.432	0.54	0.502
Nagelkerke R Square (Cox & Snell R Square)	0.30 (0.23)		0.40 (0.29)		0.36 (0.25)	

*Note: *** 1 %< p ** 5 %< p * 10% < p*

Nevertheless, we find that higher age at marriage actually reduces the probability of household decision-making among the Reangs. This is perhaps unexpected since higher age at marriage has been found to be associated with greater autonomy in literature by virtue of its association with higher educational attainment and/or economic independence (see for instance, (Cochrane, 1983; Mason, 1987; Safilios-Rothschild,

1985; Standing, 1983). Therefore, the reason for this finding is not entirely clear and the possibility of misreporting cannot be ruled out.

Interestingly, dowry payment was found to be an important factor that increases the probability of decision-making regarding large purchases among the sample households. Nonetheless, it needs to be noted that payment of dowry is till date not obligatory as revealed during interaction with Reang men and women..Families that are relatively better-off have adopted the custom of providing dowry to their daughters during marriage. This in a way indicates that women whose natal families are relatively rich have a greater power in decision-making in the affinal family too.

Among other indicators hypothesized to increase the bargaining power of women, it was found that women in non-consanguineous marriage are around two times *less* likely to make a joint decision with husband. It is interesting to note here that in fact, there are opposing views on the effect of consanguinity on women's autonomy. While some researchers have argued that consanguinity, due to its correlation with being married very young, with low education and being married to a person not selected by the woman, results in lower autonomy (Moghadam, 1992; Nawar et. al., 1994), others argue that familiar environment and greater retention of family ties in the case of such marriages means greater autonomy for women (Dyson and Moore, 1983; Karve, 1965; Sopher, 1980). In this context, the findings support the latter argument in the case of the Reangs.

Also, women who expressed a less conservative gender role attitude and rejected the idea of male as the primary breadwinner and provider for the family, are found to be twice as likely to engage in joint decision-making regarding large purchases as compared to those who expressed a more conservative attitude. However, background characteristics of respondents in terms of parents' occupation or neighbourhood development during childhood do not seem to have a significant effect on decision-making power within marriage. We also do not find support for difference in decision-making by financial condition of household.

Column II presents the results for household decision-making on regular/daily purchases. While the results broadly reflect those for the large purchases, we find a stronger effect of non-conservative gender role attitude as well as relatively higher earnings as compared to husband, but do not find any association with dowry payment. In fact, among all the variables considered, relative earnings of women, and specifically higher earnings as compared to husband has the largest significant effect on the probability of joint decision-making regarding daily purchases.

Column III provides estimates for decision-making regarding total monthly expenditure. Interestingly, we find that relative earnings have a significant effect again and as compared to women who do not work, women who earn and report relatively higher income as compared to husband have the highest probability and are around 6 times as likely to make a joint decision regarding total monthly expenditure. Similarly, we

find that dowry payment increases the odds of making a joint decision and so does a non-conservative gender role attitude among women. Age difference and difference in educational attainment again turn out to be insignificant. Interestingly, ownership of house/land is found to be significant and women who own either a house or land singly or jointly are two times as likely to jointly decide on monthly expenditure along with their husbands. Finally, age at marriage and consanguinity also turn out to have a significant effect on the power to make household decisions reflecting the importance of cultural "resources" in increasing the bargaining power of women within tribal societies.

Overall, our results support the hypothesis that women's employment and hence women's income is a decisive factor in determining bargaining power among the Reangs. As compared to non-working women, women employed in any form of work have much greater autonomy in household decision-making. Also, it is important to note that even decisions in the traditionally "female sphere" viz., decisions regarding regular purchases are determined in large part by the economic contribution of women. Needless to say, our findings suggest that women who earn more than their husbands and work for a salary in our sample have the highest bargaining power within the household. The findings also point towards the protective role of egalitarian gender role ideology in strengthening the relative bargaining position of women vis-à-vis their husbands as shown by the significance of the consanguinity and gender role index variables.

5. Discussion and Conclusion

Development efforts in India have in the recent past been greatly concerned with women's work and their role in the economy in the face of persisting challenges in absorbing women in high productivity sectors, with the worrisome trend being a decline in female labour force participation. The social consequences of such trends in terms of a possible diminution in women's autonomy and status both in the private and the public sphere can hardly be ignored. That women's work and economic contribution to the family in tribal societies is (or rather has been till recently) indispensible to their survival is widely recognized. However, what also needs to be recognized is the profound connection between women's work and bargaining power within the household. In fact, the relatively higher status and autonomy of women in tribal societies is arguably rooted in their economic role in the family and society.

Agricultural technology among tribes had been traditionally dominated by the slash-and-burn method or shifting cultivation, which affords a much more significant role to women in the cultivation process as against settled cultivation. Hence, the economic value of women in such societies is considerable, which accounts in large part for the culturally high status of women among tribes. Given this, the critical importance of work in the social and economic lives of tribal women can hardly be overemphasized.

Remarkably, received wisdom from research on the topic suggests that women's earnings cannot be presumed to bring about an increase in bargaining power within the household straight away, as it depends critically on gender ideology. In highly gender inegalitarian societies that uphold male domination very severely, the importance of

woman's economic contribution is significantly diluted, and thus one may not expect any significant effect of woman's work and economic contribution on her decision-making autonomy. In other words, gender inegalitarian ideologies that are biased against women can alter the perception of men *and* women about women's economic contribution. Thus, in gender inegalitarian societies, unless the economic contribution reaches a certain '*gender threshold'*, earnings would not influence autonomy (Grasmuck and Espinal, 2000).

Our study corroborates the results from earlier research that finds a positive relationship between women's work and autonomy (Acharya and Bennet, 1983; Hashemi et. Al., 1996; Malhotra and Mather, 1997; Mason, 1998). Thus, we find that employment *matters* for women's autonomy and that women's work and earnings are indeed crucial determinants of bargaining power and status within the household among the Reangs. As hypothesized, among the Reangs, whose society can be considered relatively gender egalitarian, earnings of women have been found to considerably improve their bargaining power in intra-household decision-making. However, unemployed Reang women have been placed at an insecure position with little say in decision-making in matters of consequence.Thus, it is important to note that the key to continuing high status of women both within the family and in the public sphere lies in providing gainful employment to the Reang women.

Apropos the issue, it should be remembered that in this study we found that empowered women make household decisions jointly with their husbands and in substantial number of cases the husbands alone are the sole decision-makers. Discussions with the Reang couples during the course of fieldwork, and also the data collected suggests that joint decision-making is largely the sociocultural norm among the tribe. This is arguably rooted in the practice of shifting cultivation, among other possible influences. Even though joint decision-making reveals substantial autonomy among Reang women, it cannot be forgotten that, as noted by several scholars (see for instance, Grasmuck and Espinal, 2000), it largely upholds the traditional gender ideology among them and therefore does not necessarily imply an increase in autonomy by virtue of their work However, what it does imply is that if women choose not to work due to the factors mentioned in the preceding paragraphs, there is the distinct possibility of losing decision-making autonomy and bargaining power within the household. In this regard, it is not difficult to see that *empowerment* of Reang women, in terms of sole decision-making in areas such as own health care and those of their dependents cannot be expected to come until there is substantial improvement in their education and skills from the prevailing levels.

While cultural factors such as consanguinity still offer protection to the autonomy of Reang women, and along with earnings remain a crucial determinant of bargaining power, it is impossible to imagine that sweeping cultural changes that would make tribal societies akin to non-tribal ones in terms of social norms could be arrested. It is also perhaps not out of place to mention here that the non-conservative gender role ideology (i.e. the belief among Reang women that both men and women are supposed to be

breadwinners for the family) has its historical roots in the tribal way of life that grants an almost equally central economic role to women within the family.

Therefore, women's productive employment in relatively high paying jobs holds the solution to not just retaining the relatively high status that grants decision-making power in crucial areas of their lives, but also to provide voice in areas that have been traditionally under men's purview This of course entails a continuing focus on education of tribal women, and not just primary but higher education and vocational training that would make it possible for them to enter the high productivity sectors of the job market.

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Book Review

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[*Global Governance and India's North-East:Logistics,Infrastructure and Society* Edited by Ranabir Samaddar and Anita Sengupta, Routledge, 2019.]

Contemporary academic engagement with the process of globalization encompasses multitude of themes ranging from international division of labour to the visible changes in the nature of states, civil society, citizenship, democracy, nationalism, political identities etc. drawing attention to social production of space and its historical transformation. It has been recognized that social relations are becoming increasingly interconnected on a global scale and space, and no longer appears as a static platform. It is historically produced, reconfigured, and transformed. The current wave of globalization, as argued by Neil Brenner (1999), is leading to (1) the transcendence of the state-centric configuration of capitalist territorial organization that prevailed throughout much of the twentieth century; and (2) the production of new configurations of territoriality on both sub – and supra – national geographical scales. For him, globalization is a dialectical process through which: (1) the movement of commodities, capital, money, people, images, and information through geographical space is continually expanded and accelerated; and (2) relatively fixed and immobile socioterritorial infrastructures are produced, reconfigured, redifferentiated, and transformed to enable such expanded, accelerated movement. As Henri Lefebvre (1991) argues, it is only in the wake of this epochal transformation "from the production of things in space to the production of space" that the geographical foundations for each successive wave of capitalist industrialization have been themselves continually produced, recognized, and transformed through capital's own contradictory developmental dynamics.

Setting the agenda for an intense academic discourse in the specific context of Asia, Ranabir Samaddar and Anita Sengupta have raised some very crucial questions related to reimagination and reconfiguration of space in the Introduction of this book. The questions are pertinent to the processes of re-constitution of the contours of societies, economies and historical geographies, and more importantly about the implications of the processes. How do the people of the reconstituted borders and frontiers negotiate with the changes and what new forms of governance do they entail? The book, therefore, is primarily engaged with the projected transition, especially, of the North East frontier

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of the Indian nation, consequent upon the much talked about Look and Act East Policy. The policy essentially attempts at fostering trade relations between India and Southeast Asia with the former's North East as an intermediary, increasingly transforming the troubled periphery into an economic corridor. The periphery of the Indian nation state that became crucial for logistical expansion has been envisaged as a natural bridge between Southeast Asia and India, and attempts are being made to seamlessly integrate the region with a new paradigm of statist development. The envisaged network of connectivity, communication and trade has been projected as the panacea for historic deprivation, consequent underdevelopment and insurgency. Therefore, this volume essentially questions, whether this projected paradigm of infrastructural governance can be operated independently of social governance.

With a much broader framework, this volume seeks convergence of myriad elements of India's policy paradigm, especially of the Look and Act East Policy, formulating the concept of 'logistical governance' to imply (a) the imperative of governing logistical transformation of society, economy and space; (b) the relation between material infrastructure and social infrastructure building; and (c) understanding the imperatives of governance in the light of logistical planning. The chapters in this volume have, implicitly or explicitly, tried to encapsulate the implications of logistics and infrastructure building.

The first part of the volume 'Imagining Space through Mobility' incorporating the contributions of Priya Singh, Anita Sengupta and Iman Mitra attempts to relocate China with its renewed concerns for emerging as the 'infrastructure epicentre' of Asia in the broad canvas of emerging connectivity and capital driven global governance. With an in-depth analysis covering various dimensions and political implications of China's expansionist initiatives, Priya Singh has demonstrated how the contemporary phase of globalization creates potential for China to be the epicenter of regional economics and geopolitics. Anita Sengupta provides a detailed account of the Sino-Indian dynamics in re-imagination space by the Asian 'regional' organizations. Iman Mitra has focused on the intrinsic relations between finance capital and infrastructure-led developmentalism in the context of India's Look and Act East Policy and the idea of 'Seamless Asia'. The first part of the volume emanating from the larger context of the shift in the axis of the contemporary phase of globalization provides a framework for analyzing the specificities, the inevitable implications at the micro level and the interconnectedness between global and the locals.

The second part of the volume, with the chapter by Subir Bhaumik and the next chapter which is a join contribution of Iman Mitra and Mithilesh Kumar, has essentially been architectured for locating the relations of global logistics and governance with India's Look East Policy. Focusing on historical interdependencies embodied in India-Bangladesh 'love-hate' bilateral relations, Subir Bhaumik has emphasized on how crucial is integration of economies and infrastructure between the two nations in the present context. The chapter contributed by Iman Mitra and Mithilesh Kumar has analyzed the process of making Kolkata a logistical hub in envisaging India's

Look East Policy especially considering its locational advantages in the historicity of infrastructural accumulation.

The third section of this volume 'Governing connectivity: logistics, infrastructure and society in the North-East' with four contributions is crucial for understanding the social, political and economic nuances of the region, often perceived as the troubled periphery of the Indian nation. Look East Policy with myriad connectivity projects has emerged as one of the effective measures of ideological integration of the region and hence governmetality of the nation state on one hand and as a means to end isolation of the region inflicted upon by partition and independence on the other. Mapping the resources, material and financial infrastructure available in the region, besides addressing the basic questions related to social governance, Ranabir Samaddar and Snehashish Mitra have analysed the process of evolution of the Look East Policy and its present embodiment. The contribution made by Soma Ghosal and Snehashish Mitra has focused on the areas of connectivity, commerce, cooperation and critical constraints in the context of India's Look East Policy and located three frontier towns of Moreh, Tamu and Champhai as gateways to the realization of India's Look East and ASEAN's Look West Policies. Focusing specifically on the political imbroglios of Nagaland during the period after independence, Paula Banerjee and Sucharita Sengupta analyzed how social governance becomes crucial especially in a conflict economy. Addressing one of the most contentious issues in the North East frontier of India at present, the contribution made by Sucharita Sengupta and Samir K. Purkayastha attempted to comprehend the intricacy and dynamics of migration and its implications on control of resources. As they have argued, it would be naïve to assume that development alone can resolve insurgencies and problems of identity conflicts in the region.

With a much broader framework of analysis and coverage than the multitude of existing narratives on India's Look or Act East Policy, this volume has contextualized India's emerging concerns with Southeast and East Asia. This volume has dealt with the ramifications of the renewed concerns embodied in the much discussed policy formulated within the framework of development of global logistics and governance. Attempts are being made to restructure India's North East frontier to work as a bridge or a trade corridor going beyond the traditional geo-political engagement of the nation state with the region. Despite its critical engagement with the North East frontier, this volume, as it seems, presupposes developmentalism as the determining ideological component of the people of the region at large. However, are the people marked by myriad ethnic identities of the region ready to accept the statist developmentalism as an alternative to their aspirations for cultural and political autonomy manifested through multitude of identity discourses?

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