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KEYNOTE PAPER

Rural Transformation and Inclusive Development in India: Dynamics, Experience and Policy Issues

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ABSTRACT

The changing nature of the rural economy and society is increasingly being examined as large sections of the population are still rural residents, and growing urbanisation, which is more about the rural-urban continuum, makes it imperative to make the process more inclusive, less painful, and sustainable. This paper examines the extent and nature of rural transformation and its dynamics at the national, regional, local, and household levels in India. It analyses the role of the corporate sector, state, and producer collectives in rural transformation, and explores policy ways forward for more inclusive and equitable rural transformation.

Keywords: Rural transformation, inclusive development, non-farm employment, agrarian change, producer collectives

JEL codes: D63, J43, O13, Q18, R11

I
INTRODUCTION

Rural areas remain central to transformative policies and action to achieve global food security. Rural transformation (hereafter RT) can help reduce deprivation and poverty and lead to better human wellbeing (Wang et al., 2023). RT refers to processes and dynamics of economic, social, and political or organisational changes and development in rural communities in the local, national, and global context. It includes economic and social sector changes and infrastructural development, occupational and consumption changes, as well as inter-and intra-community relations and their dynamics, and is more than just rural development or structural transformation. It need not always be a positive change, unlike rural development (Majumdar, 2020). RT within the process of structural economic transformation refers to the processes by which rural economies and livelihoods transition from subsistence-oriented food production and low incomes to more productive and diversified economic activities that are part of national and global markets. The major determinants of RT include institutional improvement, markets, infrastructure, and services, which, in turn, depend on the expansion of input and output markets and crop diversification, along with better market linkage and access to improved nonfarm employment opportunities, including migration (Editorial, 2025). Major indicators of RT include: labour productivity, commercialisation, diversification, inclusiveness, and sustainability (Wang et al, 2023).

The process and outcomes of RT can be examined from various perspectives, such as Food systems, Political economy and Institutional perspectives. There are

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also issues in the measurement of RT, agricultural transformation, or agrarian transformation (AT). Depending on the perspective chosen, the process of RT can be termed positive, negative, or stunted. It is now known that RT via growth in the agricultural sector is more effective at reducing poverty compared with growth in other sectors, though it alone is not sufficient to ensure transformative poverty reduction because it is subject to the nature of the growth process (Lipper and Cavatassi 2024). However, it is essential to examine the relevance of the agricultural productivity-led model of RT, as agriculture plays heterogeneous roles and inclusion is not automatically integrated into it. Agricultural productivity growth is still necessary for small-scale farmers as a primary or complementary source of income and for enhancing food security and healthy diets.

Most of the world's poor still depend on agriculture-based livelihoods, and they account for 70 per cent of food supply in low- and middle-income countries without contributing to greenhouse gas emissions (Davis et al, 2024). The traditional link between agricultural productivity growth and farmer income, lower food prices, and enhancement of the non-farm economy due to agricultural growth varies across different contexts, which include the level of trade openness, mobility of labour, and the changing nature of food and fibre markets. The exclusionary and unequal governance of the agrifood system[i] has also reduced the efficacy of agricultural growth-based models in promoting inclusive RT. Furthermore, the negative externalities of the traditional agricultural productivity growth model on the climate and environment, including reduced crop diversity and the use of certain inputs and practices, have raised questions about its relevance. In fact, in many contexts like Africa, agricultural productivity growth led to de-industrialisation and 'urbanisation without industrialisation' because the process is driven by labour-saving technologies across sectors. The inequitable outcomes of agricultural productivity-based models are also an outcome of unequal access to resources and power in societies in the absence of proactive policies and investments for inclusive RT. Due to the increasing significance of consumption in both climate change and health-related issues, the agrifood system transformation[ii] calls for rethinking the different elements of the system to address climate change, nutritional challenges, and make it beneficial for the marginalised and more vulnerable segment of society. Further, growth in the non-farm sector is an essential characteristic of RT, especially when on-farm opportunities are limited due to agricultural specialisation, though it may remain the primary driver of such non-farm development (Davis et al, 2024).

One of the major concerns in Agricultural and Rural Transformation (ART) from an inclusion[iii] perspective is the place of smallholders. Average farm sizes are declining across the developing world, and smallholders struggle to earn a viable livelihood from farming activities, becoming increasingly pluri-active households. It is important to consider the viability of smallholders from a broader perspective, which includes the role of smallholder farming in a diversified household, risk

mitigation strategy, and their social and environmental contribution, such as ecosystem services. Smallholders, despite cultivating only 11 per cent of farmland globally, produce 30 per cent of the world's food, and have been neglected in terms of policy and public investment. As against the trend of land consolidation in the developed world leading to increasing average farm size, in the developing world, the average farm sizes have only declined over time[iv] It is important to recognise that 'small' is a relative concept and not the same globally. This happens due to the different levels of engagement of smallholders with the agricultural markets and diversification of rural livelihoods, which makes some small farmers commercially successful while others remain subsistent. There may be others in between who participate in the market occasionally. In fact, 70 per cent of the world's marginal farmers (< one hectare of land) are mostly non-commercial, semi-subsistence, poor farmers compared with 20 per cent large farmers (with 1-20 hectares) who are more successful commercially. Therefore, the smallholder viability needs to be accessed not from commercial perspective but also livelihood portfolio and landscape perspective where livelihood portfolio recognizes pluri-activity of households with significant focus on diversification of income sources as well as for risk mitigation, and the landscape viability approach questions the single crop yield-based measurement of productivity and considers small farmers role in delivering ecosystem services and promotion of nutritious diets besides the value in nurturing family and cultural heritage. In fact, some of the reasons for the endurance of smallholders in the global south are cultural in terms of a connection to land, farming as a source of identity, and living a more secure life in the countryside, besides serving as a safety net for various shocks. Despite this, it is essential to recognise that the non-farm sector is just as important and both sectors have 'push' and 'pull' forces on labour (Lowder et al., 2025).

This paper examines the process and experience of RT in terms of its components, including the Rural Non-Farm Sector (RNFS), and its dynamics. It analyses the role of the corporate sector, the state, and producer collectives in facilitating RT and its implications for marginalised sections of rural communities through their interface with the local context of caste, gender, and resource and power positions, which can be both economic and political. Section 2 reviews evidence on and experience of RT based on village studies. Section 3 examines the role of the corporate sector, and Section 4 examines the role of producer collectives in such an RT. Section 5 analyses the role of the state and its policies in facilitating RT. Section 6 concludes the paper with some policy pointers towards more inclusive and effective RT.

II

RT AND RNFS: EVIDENCE FROM VILLAGE STUDIES

Village studies have been conducted across India to assess the nature and extent of transformation and agrarian changes in rural areas, including the role of urbanisation (Choithani *et al.,* 2021; Judit *et al.,* 2017; Datta et al., 2014; Jodhka, 2014; Himanshu *et al*., 2013). Agrarian structure determines many aspects of RT, and land is still central to it, though not necessarily its ownership (Singh, 2020).

The process of agrarian transformation (AT) in India has been examined at the state level, regional level, and through village studies. Some of the widely witnessed aspects of transformation include the end of the *jajmani* system and its replacement by more temporary and contractual relations in agricultural work, and pluri-active rural households. This has also meant that the caste system has given way to more commercial engagement of rural households with each other, and caste has emerged more as a cultural difference at the local level and a part of identity. The marginalised castes and communities have moved out of traditional exploitative economic and social relations. At the same time, in many parts of India, the dominance of the land-owning caste has been reduced economically and politically, as in western Uttar Pradesh. This has led the upper and dominant castes to seek new avenues for employment and political power (Kumar, 2018). Even access to agricultural credit was determined by the caste and class differences manifest in lower asset holdings of the lower caste households and social discrimination against the marginalised castes and classes (Rao, 2018). Access to water for farming was also determined by the caste context, where *Dalit-dominated* villages had higher yields due to better access to water from their own caste farmers. In other input and output markets as well, this was the case, aside from the non-market effects of caste on development, such as in public welfare programs like Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), which led to more competitive wages and bargaining power. However, this sometimes led to tensions within the caste system. But, public services like the mid-day meal scheme in schools also suffered from caste discrimination due to untouchability being practised at the local level (Mosse, 2018). Caste dynamics in RT at the local level still manifest spatially in terms of 'who lives where', wherein separate colonies based on caste are still a reality, which has been termed as 'living together separately' in one context (Singh, 2016).

In a banana-growing village in Maharashtra, changes in the relations of production and their distributional consequences, in the form of agrarian differentiation, intensified alongside migration. Landlessness in the village increased at the same time as operational holdings became more concentrated within the dominant caste group. The new irrigated crops of banana, onion, and sugarcane, which replaced traditional food crops, meant high-cost investment in tube irrigation, mostly by large farmers, and others leasing out their land to such resourceful farmers

in the form of 'reverse tenancy'. The top 5 per cent of the households in the village owned 32 per cent of the owned area, while the bottom 50 per cent of the households were landless. The dominance of the upper caste continued, with most of the land owned by it. The operated holdings were mainly in the hands of the top 5 per cent of the households, with a 70 per cent share in the area, while the landless continued to be landless, accounting for 50 per cent of the total households. In fact, 59 per cent of the operated area was with those who had more than 10 acres of land, and they accounted for less than 4 per cent share of the total households in the village. Those leasing-in land, not original residents of the village, were also involved in banana trading and moneylending besides being large landholders. It was banana cultivation that promoted the practice of *reverse tenancy* because it was a technology- and machine-intensive crop, and small farmers could not afford to engage in such cultivation. The tenancy has also become a more cash-based fixed rent contract, as against the share-cropping arrangement practised earlier. In 2010, 90 per cent of the total area leased out was under fixed rent contracts. Farmers belonging to a single caste operated 99 per cent of the total land by 2009-10, and most of the land leased-in that year was leased by these caste farmers. On the other hand, the number of cultivators decreased to just 27 per cent in 2010, from 48 per cent in 1961, while the proportion of farm workers increased to 60 per cent from 40 per cent during the same period. Interestingly, the share of female farm workers increased to 70 per cent compared with 48 per cent in 1961. The share of male agricultural workers also increased from 34 per cent to 54 per cent but the share of cultivators came down from 48 per cent to 38 per cent. In fact, the share of cultivators in the total workers in the village was only 12 per cent by 2012 (Ramakumar and Raut, 2024).

Tenancy arrangements across villages in Andhra Pradesh also changed, with the number of non-cultivating households growing and 10 per cent to 50 per cent land being leased-in, with the average being 15 per cent of the operated area across land categories and villages. The non-cultivating households, though numbered only 0.5 per cent of the total, had more than 20 per cent of the total owned land. The poor peasants had more than half of their operated land leased-in, as compared with 29 per cent by middle peasants and 15 per cent by rich peasants. However, the access to credit for such tenant households remained poor even though the state had enacted an Act to provide such credit access, with tenants being given Licensed Cultivator Cards since 2011, which was replaced by the Crop Cultivator Rights Act in 2019. After three years (2014), only 39 per cent applied for such cards, and only 29 per cent of total tenants in the state received such cards. Further, only 15 per cent received any such loans, which was only 13 per cent of the total loans availed by tenants from all sources. Even in 2015, it was only 21 per cent who were issued such loan cards, and of those, only 15 per cent were sanctioned loans, while only 7.8 per cent in the case of Telangana were issued such cards under the same Act, and 18 per cent of them availed of loans. The reasons for such lower coverage were a lack of awareness

among tenants and the reluctance of landowners to give proof of tenancy (Murthy and Reddy, 2017).

The share of fixed-kind rent grew over time, accounting for 58 per cent of all tenancy contracts, followed by fixed cash (25%) and share cropping (17%) (Vijay and Srinivasulu, 2013). In the Madhya Pradesh (MP) village, too, the system of leasing shifted towards fixed rent contracts rather than sharecropping. However, 87 per cent of the leased-in land was held by medium and large category farmers (Arora, 2024).

The system of wage payment in Maharashtra's banana village also moved to piece rate from daily wages, especially for banana, while other crops still managed with daily wage contracts. However, all wage payments were in cash, and the system of attached workers had almost disappeared. On the other hand, the annual labour contract system was replaced by shorter period – monthly, quarterly, or six-monthly hiring arrangements. There was an interesting new system of *Didi* (sister) workers wherein female agricultural workers worked for 1.5 days with additional hours considered a half-day during the same long day of work and paid accordingly. This was the result of high demand for labour in commercial crops and competition among farmers to access labour. As a result of these changes in the farm sector, income inequality increased, wherein the richest 10 per cent of the households had 60 per cent of the total income, and the top 20 per cent had 75 per cent of the total income. Most of the income was with the only upper caste in the village, which had a 57 per cent share of total households. The upper caste and resourceful households also accounted for 38 per cent of the total wealth in the village. It was inequality in landholding that led to an increase in income and wealth inequality across class and caste groups. There was also higher out-migration as well as in-migration, which led to slower growth in the number of households over the decades. Despite this, the share of landless households increased (Ramakumar and Raut, 2024).

Similarly, in MP village, land was concentrated in the hands of the upper caste to the extent that one caste owned 61 per cent of the total land and the second, another 14 per cent. Further, 30 per cent of the households in the village were landless, and among the landless, 100 per cent of the Scheduled Tribe (ST) and 88 per cent of the Scheduled Caste (SC) households were landless, and they accounted for 10 per cent of the total households. On the other hand, in terms of operational holdings, the medium and large category had 72 per cent of the total land, with 29 per cent of the operational holdings being leased-in by 21 per cent of the households. The only caste that bought land during the last 20 years was the upper caste. The inequality in terms of the quality and value of land compared to the area owned was even higher. In fact, the most expensive land in the village was accumulated in the hands of richer households as an investment activity (Arora, 2024).

Land ownership also determines households' livelihood pathways in the form of staying put in agriculture (hanging in) due to adverse circumstances like tenancy;

investing more in farming to earn better to improve livelihood (stepping up); and diversifying out of farming into other sources of income, mostly non-farm (stepping out). This can lead to rural social differentiation (Prtichard et al, 2017).

In Tamil Nadu, the share of cultivators and agricultural workers came down over more than two decades in a relative sense, and the total workforce in the farm sector also declined substantially in two study villages. However, the yield and prices did not increase, and the value of paddy output was lower in 2018 compared with that in 1994 at 1994 prices, and gross margins were only half of what they were in 1994. Thus, cultivation had become unremunerative for most small farmers. The casual worker percentage in the villages as nonfarm workers was as high as 50 per cent in one of the villages, and MGNREGS work accounted for 11 per cent and 20 per cent across the two villages. In fact, 2/3rd and 55 per cent of the households in the two villages were engaged in migration-based jobs outside the village, which were mainly in the construction and service sectors. There was also an overlaying of caste and gender as major determinants of the nature of migration and the kind of opportunities for work available outside the village (Yadu and Mehra, 2024).

Within agriculture, the share of crop production in employment has declined while that of allied activities has increased. In fact, the share of crops in total employment decreased from 93 per cent at the end of the last century to 74.7 per cent by 2023-24, while those of animal husbandry and mixed farming grew from a very small share to a high of 13.8 per cent and 9.8 per cent respectively. In fact, the gross value added in livestock, forestry, and fisheries in the last two decades has grown at a much higher rate than that in agriculture and allied activities. Over the last few years, while the earnings of self-employed have seen a decline in growth rate, the casual wages have seen decent growth, even compared with regular wage employees (Abraham, 2024). In fact, at the All-India level, crop production lost its relative share in agricultural household income from 45.8 per cent in 2002-03 to 37 per cent in 2018-19, while that of livestock increased. Interestingly, by 2018-19, wages had a higher share (48.7%) in agricultural household income than that of crop production (37%) (Table 1).

TABLE 1: SOURCE OF AGRICULTURAL HOUSEHOLD INCOME OVER THE YEARS

Source	2002-03	2012-13	2018-19#
Crop production	45.8	47.9	37* (36.7)**
Animal farming	4.3	11.9	15.5(5.3)
Wages	38.7	32.2	39.8(48.7)
Leasing out of land	-	-	1.3(1.6)
Non-farm business	11.2	8	6(7.7)
All	100	100	100 (100)

*Nominal income (after only paid out costs deducted).
**Net income after all costs, including imputed, deducted.
Source: Singh, 2022

The inequality in rural consumption, income, and wealth over the two decades (1993-94 to 2011-12) increased, especially in wealth, though consumption and wealth inequality were lower than that in urban India. In Andhra Pradesh, Kerala, Bihar, and Tamil Nadu, the per capita income equality among agricultural households was higher than the All-India average (Dev, 2019). A panel study of a village over the past 50 years revealed that income and consumption poverty declined substantially. However, average income and consumption were still low, not very different from each other, and the level of inequality in individual income had increased. It was despite the fact that nonfarm employment played a role in the distribution of income as its share in total income had risen to 45 per cent from just 13 per cent five decades earlier (Elbers and Lamjouw, 2023).

Rural non-farm employment (RNFE), which is seen as a crucial determinant of RT, accounted for 42.2 per cent of rural employment in 2018-19, increasing from a low of 18.6 per cent in 1983 but came down to 38.4 per cent by 2019-20. During 2011-12 to 2017-18, there was a deceleration in the growth of non-farm employment. This, along with a decline in agricultural employment, resulted in an absolute decline of 1.5 per cent in the rural workforce during the period. On the other hand, the surge in non-farm employment after that has been more distress-driven, with a shift towards self-employment and declining real earnings. This decline in employment was more widespread across worker categories and not just female employment. However, overall nonfarm employment as a percentage of total employment continued to rise for rural male workers, going up to 49 per cent in 2021-22, as against a decline in the case of rural female workers to 24.1 per cent in 2021-22 from 26.8 per cent in 2017-18 as a proportion of total rural female employment. Besides this, the quality of RNFE also suffered due to the high prevalence of low-grade self-employment and the prevalence of highly labour-intensive and low productivity activities. Earnings were the lowest among females engaged in self-employment in the nonfarm sector, unlike rural male regular workers, whose real earnings contracted during this period. The determinants of RNFS include not just agricultural growth but also public spending in rural areas (Goel, 2024).

The RNFS has also moved from pure non-farm-based households to mixed households due to the decline in the share of construction and agro-based industries and trade. This has led to households adopting a risk mitigation strategy of mixed employment, especially if they are lower-income households. As against only around 10 per cent of households being mixed activity households during the last decade, 25 per cent households were in this category by 2023-24. On the other hand, the share of non-agricultural households also came down to 25 per cent compared with 35 per cent during the previous decade. This can be seen as a reversal of RT in terms of movement from nonfarm to mixed households, compared with agriculture to non-agricultural activities earlier (Abraham 2024). In fact, the share of RNFS has stagnated around 40 per cent for the last decade after two decades of secular increase

from 23 per cent in 1993-94 to 40 per cent in 2011-12. RNFS is also an important livelihood diversification and risk management strategy for rural households when their agricultural holdings do not produce enough to engage in market activities. Due to the dampening of RNFS, the ratio of rural wages to agricultural wages has decreased significantly for all workers, especially for both male and female regular workers. Even construction sector wages have become more comparable with agricultural sector wages. In fact, the wages of the rural manufacturing sector were lower than those in the agricultural sector. In fact, real rural wages stagnated and even declined during the last decade, compared with the growth in non-agricultural wages (Das and Gulati, 2025).

III
CORPORATE INTERFACE AND RT

Due to the growing influence of global value chains and the opening up of agricultural markets over the last few decades, corporate players, both domestic and international, are penetrating the agribusiness sector, which has implications for ART. These corporate interfaces happen through food supermarkets and large private buyers (direct purchase), contract farming (CF), private wholesale markets, and digital platforms and have issues of exclusion/inclusion and the outcomes of such interfaces in terms of farmer income, rural livelihoods, and resource use (Singh, 2012; Dutta, 2019; Sutradhar and Das, 2020). It is essential to ask whether corporate agencies can play a transformational role in rural people's livelihoods, or if they are only transactional in their operations and relationships, leaving behind an unchanged or worse context.

The role of corporate agribusiness, especially modern food supermarkets, is important to examine, as such new interfaces potentially also determine the level and nature of RT due to their aim to transform existing supply chains in India (Cohen, 2013). The benefits of such market linkages are not evenly spread, as only some farmers can become suppliers to such buyers, and differentiating practices include the size of the farm and facilities like irrigation, which were found to be higher in the case of participating farmers. The participating farmers were more intensive growers of vegetable crops, which led to higher inequality in income and land distribution because the supermarket supplying farmers also had higher leased-in area compared with the nonparticipating farmers (Singh, 2020; Sutradhar and Das, 2020). Even organic fruit and vegetable farmers supplying supermarkets in Karnataka had higher landholding and longer experience in farming, besides being more resourceful in terms of transport and non-farm income, and their relative proximity to the market (Nandi et al, 2017). In fact, the inclusion/exclusion of small farmers in such channels was dependent on farm size, intensity of vegetable engagement of farmers, and irrigation assets, which led to weak inclusion of small farmers. However, it led to somewhat higher net income for participant farmers compared with those selling to traditional market channels. Further, supermarkets bought only 50 per cent of

farmers' produce on average or even less (Sutradhar and Das, 2020; Nuthalapati et al, 2024). Supermarket procurement also led to higher income inequality among farmers compared with that by sales in the traditional channel (Sutradhar and Das, 2020).

There is evidence to suggest that modern market channels, such as CF, offer better prices to supplying farmers compared to conventional wholesale market channels. Such channels reduce distress selling and minimise losses even though CF is a situation of monopsony compared with the more competitive discovery of price in a regulated wholesale market (Agricultural Produce Market Committee (APMC) market). The average prices realised by farmers in the case of tomato were found to be much higher in the CF channel compared with the APMC channel, which could, of course, be partly explained by higher quality produce bought by these players as opposed to that in the *mandi* (APMC), where the farmers can sell all grades of produce. The CF channel yielded higher net returns, despite a lower yield, and the farmer's total farming experience was also lower, as was the diversity of crops grown. However, lower cost along with higher price led to higher income from the crop under this arrangement (Bhanot et al. 2021). Even in seed CF, contract growers in Haryana were larger landholders and more educated, younger, and more mechanised, had higher input costs, and higher social capital than their non-contract counterparts (Saroj and Paltasingh, 2023).

However, it is not that all non-*mandi* channels offer better prices to farmers. In fact, the experience of CF across spaces and crops has been diverse, as farmers were better off in some crops but worse off in others. In the crops of papaya and broiler chicken, farmers earned higher profits compared with noncontract farmers, while in marigold and gherkins, they were worse off than the noncontract growers. (Narayanan 2014). CF is also prone to discriminatory practices, uneven benefit capture, and socio-ecological tradeoffs, primarily when they work on a scale. CF practices are rarely found to be pro-poor and contribute to social differentiation and land concentration, exploitation, distrust, environmental degradation, and lower smallholder autonomy. In fact, such agencies lack the flexibility to innovate and differentiate their business models. Over time, CF moved to engage market intermediaries, which led to a disconnect in terms of inclusive agribusiness[v]. Therefore, even in smallholder-dominated economies, CF remains more accessible to relatively affluent, educated, and/or land-rich farmers. Hence, the CF model of inclusive transformation has had mixed success, although it remains part of the development agenda, which can be likened to an old wine in new bottles (Schoneveld, 2022).

In another context, it was found that local farmers received 13-77 per cent higher prices in the *mandi* (APMC) compared with that from private traders for local produce, and the farmers of high-value export crops received 19 per cent lower prices in the mandis (APMC) compared with selling to private traders (Villacis et al, 2024). The Electronic National Agricultural Market (E-NAM) channel offered 3.75 per cent

higher prices than those received in the local APMC and other channels; however, it was plagued by numerous infrastructural issues in its functioning (Nuthalapati et al., 2022).

Information and communication technology (ICT) is crucial in determining the nature and level of RT. In India, by 2021, 45 per cent rural people were aware of mobile banking, which went up from 30 per cent in 2018, but only 30 per cent used it, which increased from 15 per cent in 2018. Compared with this, the e-commerce penetration was much higher both in terms of awareness, going up from 60 per cent in 2018 to 75 per cent in 2021, and use, going up from 35 per cent to 50 per cent (Sindakis and Showkat, 2024).

ICT can lead to new and better coordination in the food and agribusiness sector and promote efficiency and competitiveness (Streeter et al, 1991). It can also enable better access for resource-constrained producers and thus, lead to higher income, better healthcare, and new investments, and can be gender equal and pro-poor. However, the relationship between RT and ICT is two-way in that not only does ICT facilitate RT, but it also gets influenced by RT as the latter promotes adoption and use of ICT due to a shift from farm to non-farm activity, infrastructure, and education facilities, besides the spread of agricultural technology (Fahmi and Mendrofa, 2023). Further, development outcomes in terms of RT due to ICT interventions depend on supply and demand factors and the institutional forces that also determine such factors (Kaushik and Singh, 2004).

There have been many interventions by the private sector over the last few decades to bring ICT to farmers for better production and market linkages which include ITC's e-choupal in many states (Kumar, 2004; Singh, 2004), and EID Parry's Indiagriline (Gollakota, 2008), and many local agencies (public and private) to other rural stakeholders for better delivery of public services (Kaushik and Singh, 2004) as one stop solutions to their information needs like farming practices, market prices of agricultural commodities, weather information, and input sources and their availability besides other goods and services. However, most of them could not scale up and were also not adequately taken up by potential users for various reasons, especially because information alone is not good enough. For it to be put to good use, rural people need other resources like credit, infrastructure, literacy, and the like (Gollakota, 2008). Most of them, like ITC's e-choupal, were not very inclusive as they were set up in more prosperous and larger villages, and their reach into poorer and remote parts of rural areas was not adequate (Kumar, 2004). Even different models of providing this service, like company-owned and company-operated (COCO), franchised, or multipartite arrangements, did not work in most situations in terms of a very small number of local farmers and others visiting these outlets. Further, such interventions do not benefit everyone, e.g., in the case of e-choupal, the *mandi* (APMC) workers and farmers selling in APMC *mandi,* and others selling to farmers lost (Annamalai and Rao, 2003).

IV

PRODUCER COLLECTIVES AND RT

The role of collectives like co-operatives and producer companies (PCs) can be significant in RT in terms of giving voice to marginalised producers and workers (Singh, 2023) and in terms of their input and output market interfaces (Dev, 2019; Mundle, 2019). They can also play a role in transition to a more sustainable agricultural production system through good and sustainable agricultural practices, enabling better market access, value addition, capital support, and institutional support in the form of policy influence and community development as transition intermediaries (Saxena and Prasad, 2023; Pallavi et al, 2024). However, producer collectives can also have negative externalities for other stakeholders, e.g., for landless farm workers (Breman, 1978, 1990; Ebrahim, 2000; Visaria and Joshi, 2021).

Cooperatives, which were initially seen as mechanisms to correct rural market failures and productive inefficiencies, were co-opted mainly by the state and faced internal governance challenges, inefficiencies, and poor leadership. The cooperatives promoted by external agencies generally remain dependent on such agencies to sustain their operations and lack member ownership (Singh, 2024). Further, open membership in traditional cooperatives leads to free riding and favouritism, which stifles their ability to scale up, innovate, or adapt to changed market conditions (Schoneveld, 2022). Despite this, cooperatives remain integral to rural and agricultural policies, and many subsidies and incentives are offered by the state even though it may not be directly involved in such institutions. Autonomy for cooperatives has also led to the emergence of closed membership cooperatives, such as New Generation Co-operatives (NGCs), which makes them less accessible to under-resourced farmers. However, they may be more competitive and innovative, as was the case in China and many other countries. Although cooperatives in some other Asian countries have scaled up, leading to better competitiveness and impact, they have not been very inclusive (Schoneveld, 2022; Singh, 2024).

That collectives like co-operatives can offer higher prices to farmers was evident in the Situation Assessment Survey (SAS) of 2018-19, where in the co-operative channel, the price was much higher than that offered by the local trader and the APMC price. However, it was not much different from CF prices (Das and Gulati, 2025). Further, in India, various types of collectives like co-operatives or Farmer Producer Organisations (FPOs) (read PCs) have been unable to impact farmers in terms of handling their output and offering better prices, as seen in Table 2, where they altogether accounted for only a very small percentage of farmer produce sales across crops in 2018-19.

The transformational impact of PCs in India has not been widespread because a very small percentage of all PCs (100) were high performing, even financially and

physically (13%). In comparison, others were medium performing or low performing (39% and 48%, respectively) in one context (Tamil Nadu) (Mohanasundari et al, 2023). Even across states, studies have found that most PCs either struggled to be viable or were non-viable or even non-functional (Singh, 2024). In such a situation, they can't add much to the tangible RT. However, in specific cases, with the support of the promoter and the state, some PCs, especially all-women member PCs, were able to improve farmer livelihoods, make the open market/other market channels offer more competitive prices to other farmers, create farmer owned value chains of value added products, and contribute to social transformation in terms of women empowerment (Narayanan et al, 2023; Joshi and Shastry, 2023).

TABLE 2. CHANNEL AND CROP-WISE SALES PATTERN OF FARMERS AND PRODUCE SOLD 2018-19

Channel> Crop#	Local market	APMC	Govt. agency	Co-op	FPO	Private processor	CF agency
Paddy	70-75*	1.7-3.2	7.3-13.3	3.4-5.4	0-0.1	3.6-5.7	0.4-0.5
	(62)**	(2.7-8.4)	(13.9-18.4)	(3.6-7.8)	(0-0.1)	(2.7-8)	(0.7-1)
Arhar	65.4-76	12.4-24.6	1.2-1.7	0-0.2	1.2-1.7	1-4.3	0
	(68-78)	(18.7-22.1)	(1.3-1.7)	(0-01)	(0-0.3)	(0.9-6.8)	(0)
Sugarcane	15.6-25.3	1.3-2.2	10.1-15.2	14.1-20.7	0	29.4-37.6	3.4-5.7
	(12.6-15.8)	(2.7-3.4)	(6.8-15.9)	(16.7-25.3)	(0)	(27-33.8)	(7.12.1)
Groundnut	73.5	11.9	1.1	0.6	0	6.9	0
	(54.7)	(18.6)	(0.6)		(0)	(11.8)	(0)
Cotton	59.5-71.8	8.9-13.9	2.4-10.6	0.3-1.1	0-0.1	6.4-8.8	0-0.1
	(53.6-69)	(9.7-19.7)	(0.1-2.3)	(0.4-0.6)	(0.1)	(5.2-9.9)	(0-0.2)
Soyabean	70.6	19.6	3.4	0.6	0	4.8	0
	(63.1)	(21.6)	(6.7)	(1.0)	(0)	(7)	(0.1)
Coconut	88.1	1.6	0.1	0.3	0	1.3	0
	(78.8-83.6)	(3-4.5)	(0)	(0.1-0.4)	(0.1)	(1.5-1.7)	(0)
Jowar	75.3-86.5	4.3-11.5	0.7-1.9	0.4-0.9	0	1.9-4.4	0.1-0.2
	(80.7-92.7)	(2.7-7.1)	(0.7-3.3)	(0.4-1.7)	(0)	(0.6-3.9)	(0.1-0.2)
Maize	87.5-88.9	1.2-5	1-1.9	0.3-0.6	0	1.9-3.3	0
	(83.3-89.8)	(2.7-6.7)	(1.6-2)	(0.1-1.4)	(0.1)	(1.6-3.2)	(0)
Wheat	81	5.7	4	1.8	0	2.5	0
	(66.1)	(12.7)	(13.5)	(3.3)	(0)	(1.6)	(0)
Gram	79.7	9.2	1.9	1.5	0.1	3.1	0
	(70.1)	(15.1)	(3.1)	(3.8)	(0.1)	(5.1)	(0)
Moong	82.9-87.4	7.1-8.5	0.3-1.4	0-0.4	0	0.5-0.7	0
	(76.4-92.9)	(4.5-19.1)	(0.3-1.3)	(0-0.4)	(0)	(01.-0.3)	(0)
Potato	90-93.2	1.7-3.5	0-0.1 (0-0.6)	0(0)	0(0)	3.6-4.6	0
	(81.8-89.8)	(3-7.5)				(4.2-6)	(0)
Onion	86.4	5.8	0	0.2	0	2.1	0
	(87.5)	(5.2)	(0)	(0)	(0)	(1.5)	(0)

Note: # only those crops where >50% households reported selling the crop *% of farmers selling through a channel; **%age of total quantity sold by all agricultural households
Source: Created by the author based on NSO, 2021

Self-Help Groups (SHGs), Joint Liability Groups (JLGs), federations at local levels and/or at higher levels, and, in some cases, even apex specialised organisations

covering only women or predominantly women have been important potential vehicles for RT. But most SHGs in India are financial or non-financial associations of 10-20 poor women for financial services, autonomous, self-managed, and are mostly part of some federation of such groups. The SHG-Bank Linkage Program (SHGBLP) launched by NABARD in 1992 is the most distinctive aspect of the Indian SHG model (Singh, 2019). By 2018-19, the number of SHGs had exceeded 10 million, with 40 per cent located in the southern region alone, and another 25 per cent in the Eastern region. Additionally, 38 per cent and 34 per cent of these SHGs in these regions had availed of loans, with an all-India average of 27 per cent. 55 per cent and 26 per cent of the SHG savings also came from southern and eastern regions, respectively (Sinha and Navin, 2021).

The SHGs led to enhancing the political role of women members by involving them in local politics like Panchayat bodies, where in one out of four SHGs, there was a woman member who ran for the political office of panchayat, and in one out of every five groups, a woman member was elected as well, and 50 per cent were active as office bearers. But, most were not dealing with issues of social justice, especially with regard to women, though one-third did deal with community services like water, health, and infrastructure, though these were one-off actions. Unlike co-operatives, there is no elite capture in SHGs. The repayment rate was 95 per cent in the Bank Linked (BL) SHGs. But these groups were financially unprofitable in this linkage (Singh, 2019).

Further, Non-Performing Assets (NPAs) of SHGs had increased to 7.4 per cent in 2014-15 and remained at 5.2 per cent even in 2018-19. In some states like Uttar Pradesh (U.P.) and Haryana, NPAs were as high as 50 per cent and in others like Uttarakhand (UK) and Assam, NPAs were 33 per cent in 2018-19. The north and central regions had very high NPAs (>30%), and the south and east India (<13%) very low NPAs. The credit multiplier of SHGs was around 4 (Sinha and Navin, 2021). Participation in SHGs and access to micro credit led to women ‘s economic (increase in individual and family income) and social freedom and decision-making power within the family and outside, compared with the situation when they were not members of the SHG. The empowerment aspects encompassed the social, economic, health, psychological, and political domains of their lives (Basak and Chowdhury, 2024; Pandhare et al., 2024). The engagement in off-farm and non-farm entrepreneurial activities was the primary source of such empowerment (Pandhare et al, 2024).

There were problems of a lack of capacity building of SHGs, their members, and the NGOs organising them. Major issues in the functioning and performance of the SHGs included: idle funds with groups, lack of micro credit plans, high transaction cost involved in linking with the bank, demand for collateral by banks despite the Reserve Bank of India (RBI) mandate to lend without collateral upto a

limit, and lack of awareness about cash credit limit (CCL) among SHGs. Further, there were issues of regional imbalance in their spread, low average loan size, lack of monitoring and training support, impounding of SHG savings by banks as collateral, and increasing NPAs of bank SHG loans (Singh, 2019). NPAs or loan defaults were mainly due to group level appropriation of funds, poor record keeping, promoting institution level inadequate monitoring, misappropriation and target oriented approach, and lack of dedication for SHG lending and poor monitoring by lending banks besides external factors like multiple loans by different Micro-Finance Institutions (MFIs), subsides, and lack of credit data sharing among lenders (Sinha and Navin, 2021). In fact, it was social capital that played a role in making the delivery of development possible through the SHGs, wherein social capital within the SHG, as well as between the SHGs and the implementing agency, was equally crucial (Nichols, 2021).

The Kudumbashree[vi] JLG groups in Kerala also led to higher and active participation in planning for MGNREGS and its uptake. As a result, 110,000 poor women participated in this programme, and Kerala ranked first in India in terms of women's participation in MGNREGS, with women's days accounting for 93 per cent of total person-days in 2011-12. Furthermore, over 11,000 women from these groups contested village council (panchayat) elections in 2011, and 50 per cent of them were successful. As a result, while only 50 per cent of seats are reserved for women, 60 per cent of all women elected in the Gram Panchayat were members of Kudumbashree. The group farming initiative under Kudumbashree brought over 3,50,000 women into farming with 61000 small collectives (JLGs) whose members cultivated more than 53000 hectares across the state (Gayathri, 2024). However, in 2013, only 6 per cent group members were into agricultural and allied activities, with more group members being in other agribusinesses like grocery and snack shop (17%) and textile and weaving shop (30%). The benefits of Kudumbashree include: greater social inclusion, especially for women, transformation of wage labour into independent producers, and higher production of food crops to promote food sovereignty. About 23 per cent of the female population were members of the Kudumbashree groups, with 66 per cent groups involved in micro finance, and 80 per cent groups had formal institutional linkage for credit. 41 per cent of the sample groups were more than five years old, 77 per cent were composed of SC/ST and Other Backward Classes (OBC), while 20 per cent were mixed caste, with 75 per cent of the groups having at least 50 per cent members with a Below Poverty Line (BPL) status. The share of BPL members positively influenced the sustainability of the groups, the amount of loans availed, and the amount outstanding. The nature and level of state agencies in the promotion of SHGs is also important, and this varied across states (Singh, 2019).

However, a performance audit of the program in 2017 for the period 2012-17 pointed to the deficiencies in the governance and management of the Kudumbasree program which included: 35 per cent micro enterprises being inactive going up to >50

per cent in some districts, target of brining certain amount of land under cultivation under the *Mahila Kisan Sashakthikaran Pariyojana* (MKSP) not achieved, and poor financial management and underutilisation of funds over the years (Audit report, 2017).

V

ROLE OF STATE AND PUBLIC POLICY

Public action in rural economies and societies is also about RT (Bhattarai et al., 2018; Murty and Reddy, 2017) and needs to be assessed for its effectiveness and impact at both national and state levels. The role of the state is very crucial to RT in terms of creating social capabilities[vii] and promoting innovations. The stability of government and its effectiveness in setting and enforcing rules that support economic growth, and building such capabilities, require resources like infrastructure, transport, and communication, which can build absorptive capacity to adopt innovations for RT. The state's role in mobilising and reallocating resources to provide incentives for the use of science, technology, and innovations is crucial for moving towards RT. The East Asian experience shows that the success in RT was not the result of the working of the free market but an outcome of state intervention. The state in such economies governed markets and directed resources to favour champions for rapid industrialisation, but allowed inequality to go unchecked. Similarly, land redistribution, agricultural innovation, and transfer of agricultural surplus by the state played a crucial role in the transformation of the economy, for example, in South Korea. The role of the state can include fostering innovation to enhance social cohesion, reduce poverty and inequality, redistribute wealth, create jobs, protect the environment, ensure safety and security, and improve education and health care (Habiyaremye et al. 2020).

5.1 MGNREGS[viii]

The rationale for the MGNREGS as a rights framework measure for poverty and unemployment reduction - comes from the fact that employment (workfare) is needed as a social protection mechanism for the most vulnerable, addressing their deprivation**.** Self-targeting nature of program (design and implementation), floor wage and political mobilisation (rights-based approach), and transformative politics are other major features of the program (Shah, 2016).

It is argued that the MGNREGS harms agriculture, curtails migration - a development-led process - and is a high-cost, corruption-ridden scheme for the state with high transaction costs, yielding poor outcomes. It is also pointed out that the poorest states don't benefit, asset creation is of poor quality, payments are delayed, and the legal unemployment allowance has not been paid (Shah, 2016). In defence of MGNREGS, it is argued that it is a self-selecting, demand-driven programme with bottom-up planning and implementation, promoting democracy, having social audit oversight, and supporting ecological improvement. Besides, it complements private

investments, has multiplier and accelerator impacts, as most rural poor are pro-sumers (both producers and consumers). Further, the program is gender focussed (women workers and no gender wage gap), too small to impact agricultural wages (5% increase in wage levels and only 50 days' work in a year, 2/3 in off-season). In fact, it leads to much-needed tightening of the labour market, promotes mechanisation, raises yields and productivity of small farms, and halts only distress migration (Shah, 2016). In fact, there is a political economy of MGNREGS which explains its decline, e.g., in Rajasthan during the last decade compared with the first decade, as it was more about supply-side problems and unwillingness of the bureaucracy and local institutions and their capacity to implement the program rather than lack of demand (Chopra, 2014).

The MGNREGS is pro-poor (more of SC/ST-40% and pro-gender-52% workers were women against 1/3 mandate, and in 20% households, only women worked in MGNREGS). The outcomes of this scheme include: reduced short-term (seasonal) migration, especially distress[ix], financial inclusion due to bank account payment of wages, raised floor wages in the agricultural and rural sector (fair wage and bargaining power, gender equal wages), and higher farm mechanisation due to higher wages. Even farmers benefited from it as they worked as MGNREGS workers in free time. MGNREGS works supported agriculture like water, road and land projects, including private lands[x] Even houses and toilets built under MGNREGS, has led to climate change mitigation and more importantly, much needed women empowerment as women controlled their wage income and used it well, helped credit worthiness, dented class and caste biases and discrimination, and led to transformative politics besides democratising panchayat functioning (Shah, 2016).

In fact, by 2020-21, MGNREGS employed 44.8 per cent of rural households, going up to 90 per cent in some states, with the majority being women, despite the MGNREGS calendar being negotiated to avoid labour shortages in agriculture (Turangi, 2022). The transformational impact of MGNREGS also depends on the local context, including caste, class, and local institutions (Veeraraghavan, 2017), as well as the degree of convergence between policies such as the Panchayati Raj Institutions (PRI) Act and the MGNREGA Act (Fischer and Ali, 2019). There is no doubt that improvements such as human resource support to panchayats, real-time payments, recording of demand, mobilising workers for demanding work, and even a higher focus on gender can lead to more enhanced benefits from MGNREGS (Shah, 2016).

5.2 SHGs

The state has enrolled women in SHGs under the National Rural Livelihoods Mission (NRLM) with 60 million women members in six million SHGs by 2019 to deliver rural development through the SHGs (Nichols, 2021). By 2023, the scheme had reached 8.982 million SHGs and 90.89 million women. A total of Rs. 78510

million from the Revolving Fund and Community Investment Fund (CIF) has been disbursed to the SHGs, unlocking Rs. 76,80000 million in bank credit, which is 25 times the funds disbursed from the RF and CIF as of November 2023 (PIB, 2023). The increasing flow of funds in the rural sector through this scheme has also led to competition, which has led to *informal lenders* and moneylenders charging lower interest rates on loans and higher efficiency of Micro Finance Institutions (MFIs) in processing the loan applications (reduced to 3-4 days).

In India, the state has also been participating in promoting community organisations in some parts of India. For example, Kudumbashree- a Kerala government project, involves four million women below the poverty line as a government-run programme initiated in 1998 as part of its poverty eradication programme aimed at tackling social exclusion, especially of women. The programme integrates itself into the three-level (group, area, and community) decentralised planning process in the state, allowing local communities greater opportunity to determine their own priorities and implement their own solutions. The basic premise of Kudumbashree was that the poor needed to be active agents in their own development. The programme has also been able to leverage some of the union government-funded rights-based public programmes like MGNREGS, wherein the mates (supervisors) are appointed from among the Kudumbashree Area Development Societies (ADSs), making Kerala the only state in India with 100 per cent women mates (Singh, 2019).

Even in ICT interventions, the enabling role of the state can be powerful if implementing agencies of such projects participate actively and are open to innovation (Kaushik and Singh, 2004). The state support to PCs in West Bengal through supermarket (*Sufal Bangla*) franchising played a role in their scaling up and becoming viable and impactful (Singh, 2023; Dutta and Saha, 2023). There are many union government and state-specific schemes for Farmer Producer Organisations (FPOs; mostly PCs) since the last decade, including the 10000 FPO scheme since 2019 (Singh, 2024).

VI

CONCLUSIONS: POLICIES FOR RT

The very understanding of (structural) transformation in a country like India needs to be approached differently because the shift of the labour force from agriculture has not been driven by higher land productivity, nor has it led to an improvement in the same. The transformation is also not complete because the same household engages in multiple livelihood activities, and most of the shift out of agriculture is distress-driven. The share of rural households in the non-agricultural sector has been stagnant in the last decade in the case of self-employed and casual labour. Even those who have moved out are not into decent work, as more than 90

per cent of the workforce in the construction sector is informally employed (Yadu and Mehra, 2024).

The agricultural sector has been diversifying away from field crops and from farming towards high-value crops and high-value activities like dairying and livestock (Dev, 2019). This is a welcome change, but the emergence of modern commercial dairy farms in many states, like Punjab, with state support, is a cause of concern, as such large farms will displace the small dairy farmers due to their bargaining power and adoption of technology. Most of such farms had very large herd size (70-700 averaging 168 animals compared with traditional herd size of 3.5-19 animals), had mostly cross bed cows, higher yields (almost double of traditional small scale milk producers), large land holdings (average of 20 acres), modern machines and equipment (milking machines, bulk milk chillers) and were suppliers to large milk processors with or without contract which was not even regulated (Burkitbayeva et al, 2023).

Land concentration and its fragmentation at the same time are leading to land scarcity for the rural poor. Therefore, policies for access to land, including its redistribution and tenurial security, are more relevant for inclusive RT. Fair access to land not only determines the minimum food security level and human dignity but also contributes to higher productivity and the fostering of backward and forward linkages throughout the agrifood systems. It is widely believed that land reforms can create agrarian structures to unleash the development potential of a large number of landless and tenant farmers when coupled with agricultural policies and infrastructure. In fact, this can promote *accumulation from below*[xi] instead of *accumulation from above*. This has occurred in several contexts in the Global South, especially when the dominant agrifood system fails to generate enough jobs due to its high capital and technology intensity at all levels. In such contexts, the rationale for redistributive land reform-based transformation becomes even more relevant (Pierre et al., 2025).

Landleasing is going to play a leading role in determining the nature of RT in terms of access to and control over livelihoods. Though it has been argued that semi-feudalism does not exist anymore in India, it is acknowledged that landed power remains a major source of political and social power in rural India (Harriss 2013). Therefore, the policies aiming at freeing land and the land lease market at the state level, and the emergence of reverse tenancy in many parts of India, will alter the way land is cultivated and the flow of benefits out of such access and control of it. What needs to be watched to promote rural equity and the reduction of poverty and vulnerability is to tread carefully on this matter and not open up land markets, including land leasing, without restrictions. The draft land leasing Bill of Niti (2016) and many state-specific land leasing bills are not very pro-small farmer and pro-landless (Singh, 2021). The access to land for women in rural India is a very crucial determinant of RT as an inclusive and sustainable transformation, which needs to be addressed by policy and civic action[xii]. Though gender aspects of access to land can

be attended to some extent with land leasing reforms but given that *Dalits* own only 9 per cent of total land (Stickler and Choudhury, 2021), they may face even higher competition in legalised land lease markets from other categories of farmers due to resource constraints as seen in the case of access to panchayat lands in Punjab wherein despite the legalised provision of 1/3 of such lands being reserved for *Dalits* for leasing under the Panchayat Act, they have been unable to access it (Khatri and Jha, 2025). Further, securing women's land rights is crucial for inclusive RT.

Water scarcity exacerbates land scarcity, and investment in land is driven by access to water. Landscape approaches, such as water management, have been questioned for their effectiveness, as the conflicting objectives of different actors and stakeholders, along with their power disparities, can make it challenging to adopt such an approach. Collective management systems like community management empower local communities and promote inclusiveness, and there are many examples of it across the developing world. However, for realising the potential of the landscape approach for inclusive Natural Resource Management (NRM), the governance of institutions involved in such an intervention should be carefully considered (Meybeck et al. 2024). Therefore, resource use efficiency, diversity, and an integrated production system, as well as sustainable bioeconomy and landscape approaches, are necessary in designing and executing RT programs. Institutional innovations can drive more desirable ART, e.g., groundwater sharing and the role of community in it, and formal local institutions, as in AP (Raina and Longino, 2025), and West Bengal (Singh, 2019).

There is a need for innovation beyond the farm, such as financial products to facilitate smallholder investments to improve productivity and resilience. Institutional innovations like CF need to be positioned within a sustainable food system framework to contribute to RT. Many innovations are not adopted on a large scale due to barriers at the farm, regional, and national levels. Productivity increases remain important, but in a qualitatively different way, which acknowledges the model's shortcomings in the past and broadens the concepts beyond staples and single crops, clearly recognising tradeoffs and synergies across the core objectives of agrifood systems. Therefore, what is needed is more efficient use of limited resources through productivity gains with the use of innovations, development of the off-farm segment of agrifood systems, and explicitly addressing exclusion – class, gender, ethnicity, and age as a central concern. In addition, changing dynamics of inclusion is important as it happens within existing social, economic, and political relations, which leads to distributional implications (Davis et al., 2024).

Market arrangements like CF-based RT interventions need fundamental change in personal, practical, and political domains, which is about values and ideals (personal), actions (practical), and ecosystems (political)[xiii]. In fact, the 13 principles of agro-ecology, which relate to resource efficiency, resilience, and social equity, are needed to bring about inclusive and sustainable RT. Such interventions would require

creating net value for marginalised groups without value destruction, reinvesting surpluses to deepen impact, providing solutions to problems, and not favouring specific social groups. Such interventions require cross-sectional partnerships, creating value network building blocks, attempting ecosystem transformations, coordination role separation, and targeting strategies (Schoneveld, 2022).

The livelihoods of rural poor are intricately tied to natural resources, and the concept of *GDP of the poor* has emerged, which emphasises the significant contribution ecosystems make to rural livelihoods (52-90%) compared with their modest contribution to national GDP (10-15%) (Meybeck et al, 2024). In India, communities like pastoralists belonging to 50 distinct communities manage India's almost entire sheep and camel population and 50 per cent of the goat population and contribute to sheep and goat meat, wool, dairy, dung, and leather economy in a significant way. They face issues of declining grazing lands, due to diversion of land and 'so-called' wastelands being put to other uses like solar energy (Sheth et al, 2025). The RT process should also be moderated with a policy to include and protect the interests of communities at the margins.

Social protection[xiv] can also make RT more inclusive by improving human capital through better nutrition, improved resource allocation, and risk management. However, it is crucial to improve coverage and delivery of social protection benefits by ensuring timeliness, reliability, and adequacy, which by themselves can be quite transformative[xv] There are also complementary measures like the mid-day meal scheme to support other social protection policies and achieve more inclusive outcomes. However, social protection alone cannot change the fundamental forces driving RT, though it can contribute to shaping them towards more inclusive RT (Kangasniemi et al. 2025).

Policies and programs for RT need to address the underlying social institutions that reproduce gender inequalities and disempower women, which have serious implications for overall RT. Policies and programs that promote women's livelihoods need to reduce women's time for unpaid and care work, and ensure more equitable sharing of domestic responsibilities. There are also gender norms in terms of how food is distributed within the household, with women generally eating less, last, and less nutritious food, affecting their nutritional status. Therefore, engaging couples, rather than mothers alone, in nutrition and parenting programs can more effectively transform gender power relations and better distribution of care work and decision-making powers (Slavchevska et al., 2024).

There has been an increasing civil society response to the crisis of the unsustainable food system in terms of environmental damage and nutritional challenges. Such responses include alternative food system governance, movements for justice, food as cultural identity, protest, and advocacy in terms of education and

lifestyle. But this response and the state's approach towards it have been hardly studied with a few exceptions (Rao et al, 2023; Kuruganti et al, 2024).

Finally, issues of landless women farm workers are very serious as seen in case of high value crops like sugarcane (Breman, 2019; Visaria and Joshi, 2021), and cotton (Singh, 2017) in the form of exploitation of women workers both in work conditions and wages and even in their reproductive health and rights (removal of uteruses[xvi] (Shukla and Kulkarni, 2019) but such studies are scantly to attract policy attention.

ENDNOTES

i. A food system includes environment, people inputs, processes, infrastructure, institutions and other such elements and activities relating to production, processing, distribution and consumption of food and the outcomes of such activities including socioeconomic and environmental outcomes (Rao et al, 2025).

ii. A key difference between RT and agrifood system transformation is that the latter uses food system approach which includes production through consumption and the interlinkage between biophysical and human systems (Davis et al, 2024).

iii. Inclusive RT refers to system wide change in agricultural and rural sector to achieve decent livelihoods for the poor. It recognizes a development process that values and empowers poor and marginalized people in cocreating the broad process of agri-food system transformation aimed at improving the environmental nutritional and livelihood outcomes (Lipper and Cavatassi, 2024).

iv. It is only in China that average farm size has increased in the last two decades due to movement of smallholders out of agriculture. Still the largest share of small farm is found in China (41%) followed by India (25%) (Lowder et al, 2025).

v. Inclusive business is one which integrates low-income groups into the value chain at scale and has high development impact to achieve more inclusive ART (Schoneveld, 2022).

vi. Kudumbasree is a registered society under the Travancore societies registration Act 1955 since 1998 and was set up to eradicate poverty in Kerala and is a collaborative project between NABBARD and the Government of Kerala (Gayathri, 2024)

vii. Social capabilities refer to technical competence, experience in the organization and management of large-scale enterprises, financial institutions and market capable of mobilizing capital on a large scale (Habiyaremye et al, 2020).

viii. Under the MGNREGA, the entitlement is: 100 days per year per rural household at the minimum wage for unskilled manual work for adult workers. Work is to be provided on demand and within 15 days and within 5 kms. from location of worker and wages are to be paid within 15 days (Nandy et al, 2021).

ix. However, in some contexts, MGNREGS participation, its extent and income from it also increased the propensity to out-migrate (Nandy et al, 2021).

x. 87 per cent assets created under MGNREGS in Maharashtra were found to exist and were being used and these assets included land development on private lands and water work on common land (35% and 30% each), and 90 per cent workers found works very useful/somewhat useful (Ranaware et al, 2015).

xi. This refers to processes of social differentiation and land consolidation within equitable agrarian structure leading to formation of rural labour and capital classes and expansion of domestic markets (Pierre et al, 2025).

xii. Only 13.3 per cent land titles were in the name of women and 5.4 per cent predominantly women owned and another 6.4 per cent jointly with one man. Infact, women land ownership (single or joint) was only 34 per cent of all sample women compared with 92.4 per cent in case of all men surveyed. Further, women owned landholdings were less irrigated than those owned by men across farmer categories, and single women owned holdings were smaller than those owned by single men as owners (Jain et al, 2023).

xiii. The values and ideas are more about non-discrimination and impact values, while ecosystem inclusiveness is more about social differentiation, societal fragmentation, land concentration and environmental degradation (Schoneveld, 2022).

xiv. Social protection refers to a set of policies and programs aimed at preventing and protecting all people against poverty, vulnerability and social exclusions throughout their life cycle (Kangasniemi et al. 2025).

xv. The social protection can be of three types – social assistance in the food and employment domain, social insurance to protect against risk and labour market arrangement to improve employability and earning potentiality of individuals (Kangasniemi et al, 2025).

xvi. In Beed district alone, 4605 hysterectomies were performed 2016-17 to 2018-19 and in 2018, 36 per cent of women cane harvesters had undergone a hysterectomy (Oxfam India, 2020).

REFERENCES

Abraham, V. (2024). Ruptured rural transformation: From non-farm to mixed households in rural India. *Economic and Political Weekly, 59*(50), 84–92.

Annamalai, K., & Ro, S. (2003). *What works: ITC's E-Choupal and profitable rural transformation—Web-based information and procurement tool for Indian farmers.* University of Michigan Case Study, August.

Arora, S. (2024). Ownership, accumulation and the land question: Insights from a village in central India. *Economic and Political Weekly, 59*(43), 48–53.

Audit Report. (2017). *Audit report (general and social sector) for the year ended March 2017* (Ch. 3, pp. 43–71).

Bhanot, D., Kathuria, V., & Das, D. (2021). Can institutional innovations in agri-marketing channels alleviate distress selling? Evidence from India. *World Development, 137*, 105202. https://doi.org/10.1016/j.worlddev.2020.105202

Basak, D., & Chowdhury, I. R. (2024). Role of self-help groups in socio-economic development and the achievement of Sustainable Development Goals (SDGs) among rural women in Cooch Behar district, India. *Regional Sustainability, 5*(2), 100140. https://doi.org/10.1016/j.regsus.2024.100140

Bhattarai, M., Viswanathan, P. K., Mishra, R. N., & Bantilan, C. (2018). *Employment guarantee programme and dynamics of rural transformation in India: Challenges and opportunities.* Springer.

Breman, J. (1978). Seasonal migration and co-operative capitalism: The crushing of cane and of labour by the sugar factories of Bardoli. *Economic and Political Weekly, 13*(31–33), 1317–1360.

Breman, J. (1990). Even dogs are better off: The ongoing battle between capital and labour in the cane-fields of Gujarat. *The Journal of Peasant Studies, 17*(4), 546–608.

Breman, J. (2019). *Capitalism, inequality, and labour in India.* Cambridge University Press.

Burkitbayeva, S., Janssen, E., & Swinnen, J. (2023). Hiding in plain sight: The emergence of modern dairy farms in India. *Journal of Agribusiness in Developing and Emerging Economies, 13*(2), 194–210.

Choithani, C., Jan V. Duijne, R., & Nizman, J. (2021). Changing livelihoods at India's rural-urban transition. *World Development, 146*, 105621. https://doi.org/10.1016/j.worlddev.2021.105621

Chopra, D. (2014). 'They don't want to work' versus 'They don't want to provide work': Seeking explanations of the decline of MGNREGA in Rajasthan (ESID Working Paper No. 31). University of Manchester.

Cohen, A. (2013). Supermarkets in India: Struggles over the organisation of agricultural markets and food supply chains. *University of Miami Law Review, 68*(1), 19–86.

Das, R., & Gulati, A. (2025). *Crop diversification for farmers and agricultural labourers* (ICRIER Policy Brief No. 34, January). Indian Council for Research on International Economic Relations (ICRIER).

Datta, A., Rodgers, G., Rodgers, J., & Singh, B. K. N. (2014). Contrasts in development in Bihar: A tale of two villages. *The Journal of Development Studies, 50*(9), 1197–1208. https://doi.org/10.1080/00220388.2014.921613

Davis, B., de la O Campos, A. P., Farrae, M., & Winters, P. (2024). Whither the agricultural productivity-led model? Reconsidering resilient and inclusive rural transformation in the context of agri-food systems. *Global Food Security, 43*, 100812. https://doi.org/10.1016/j.gfs.2024.100812

Dev, M. (2019). Transformation of Indian agriculture? Growth, inclusiveness, and sustainability. *Indian Journal of Agricultural Economics, 74*(1), 9–61.

Dutta, D., & Saha, S. (2023). Leveraging institutional arrangements in accessing markets: The case of Bhangar Vegetable Producer Company Ltd. In C. S. Prasad, A. Kanitkar, & D. Dutta (Eds.), *Farming futures: Reimagining producer organisations in India* (pp. 69–81). Routledge.

Dutta, S. (2019). Capitalist development and rural livelihoods. *Economic and Political Weekly, 54*(26–27).

Ebrahim, A. (2000). Agricultural co-operatives in Gujarat, India: Agents of equity or differentiation? *Development in Practice, 10*(2), 178–188. https://doi.org/10.1080/09614520050010227

Editorial. (2025). Resilient and inclusive rural transformation: Exploring pathways for sustainable development. *Global Food Security, 46*, 100868. https://doi.org/10.1016/j.gfs.2025.100868

Elbers, C., & Lanjouw, P. (2023). The distributional impact of structural transformation in rural India: Case-study evidence and model-based simulation. *The Journal of Economic Inequality, 21*(4), 703–722. https://doi.org/10.1007/s10888-023-09572-1

Fahmi, F. Z., & Mendrofa, M. J. S. (2023). Rural transformation and the development of information and communication technologies: Evidence from Indonesia. *Technology in Society, 75*, 102349. https://doi.org/10.1016/j.techsoc.2023.102349

Fischer, H. W., & Ali, S. S. (2019). Reshaping the public domain: Decentralisation, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and trajectories of local democracy in rural India. *World Development, 120*, 147–158. https://doi.org/10.1016/j.worlddev.2018.02.014

Gayathri, S. (2024). Resilience in action: The impact of Kudumbashree on women and society in Kerala. *Feminism in India.* http://feminisminindia.com/2024/11/04

Goel, V. (2024). Trends and determinants of rural non-farm employment in India. *Economic and Political Weekly, 59*(43), 33–39.

Gollakota, K. (2008). ICT use by businesses in rural India: The case of EID Parry's Indiagriline. *International Journal of Information Management, 28*(4), 336–341. https://doi.org/10.1016/j.ijinfomgt.2008.01.010

Habiyaremye, A., Kruss, G., & Booyens, I. (2020). Innovation for inclusive rural transformation: The role of the state. *Innovation and Development, 10*(2), 155–168. https://doi.org/10.1080/2157930X.2020.1730109

Harriss, J. (2013). Does 'landlordism' still matter? Reflections on agrarian change in India. *Journal of Agrarian Change, 13*(3), 351–364. https://doi.org/10.1111/joac.12008

Himanshu, Lanjouw, P., & Murgan, R. (2013). Non-farm diversification, poverty, economic mobility, and income inequality: A case study in village India. *Agricultural Economics, 44*(4-5), 461–473. https://doi.org/10.1111/agec.12024

Jain, C., Saxena, D., Sen, S., & Sanan, D. (2023). Women's land ownership in India: Evidence from digital land records. *Land Use Policy, 133*, 106835. https://doi.org/10.1016/j.landusepol.2023.106835

Jodhka, S. S. (2014). Emergent ruralities: Revisiting village life and agrarian change in Haryana. *Economic and Political Weekly, 49*(26–27), 7–17.

Joshi, N., & Shastry, N. (2023). Sustaining value chains of non-timber forest produce: The Mahanadi Producer Company in Chhattisgarh. In C. S. Prasad, A. Kanitkar, & D. Dutta (Eds.), *Farming futures: Reimagining producer organisations in India* (pp. 99–113). Routledge.

Judit, J., Wichmann, B., & Brent, M. S. (2017). Characterising social networks and their effects on income diversification in rural Kerala, India. *World Development, 94*, 375–392. https://doi.org/10.1016/j.worlddev.2017.02.004

Kangasniemi, M., Bhalla, G., Knowles, M., Pereira, K. C., & Gentilini, U. (2025). The role of social protection in achieving resilient and inclusive rural transformation. *Global Food Security, 44*, 100836. https://doi.org/10.1016/j.gfs.2025.100836

Kaushik, P. D., & Singh, N. (2004). Information technology and broad-based development: Preliminary lessons from North India. *World Development, 32*(4), 591–607. https://doi.org/10.1016/j.worlddev.2003.10.009

Khatri, R., & Jha, M. K. (2025). United front, divided lives: Caste, land, and labour contestations in rural Punjab. *Sikh Formations.* https://doi.org/10.1080/17448727.2025.2537545

Kumar, R. (2004). e-Choupals: A study on the financial sustainability of village internet centres in rural Madhya Pradesh. *Information Technologies and International Development, 2*(1), 45–73. https://doi.org/10.1162/154475204773863478

Kumar, S. (2018). Agrarian transformation and new sociality in western Uttar Pradesh. *Economic and Political Weekly, 53*(27), 39–47.

Kuruganti, K., Prasad, C. S., & Shah, K. (2024). Balancing collaboration with autonomy: Civil society and the agroecology movement in India. *International Journal of Rural Management.* https://doi.org/10.1177/097300522413001501

Lipper, L., & Cavatassi, R. (2024). The challenge climate change poses to achieving resilient and inclusive rural transformation. *Global Food Security, 43*, 100811. https://doi.org/10.1016/j.gfs.2024.100811

Lowder, S. K., Bhalla, G., & Davis, B. (2025). Decreasing farm sizes and the viability of smallholder farmers: Implications for resilient and inclusive rural transformation. *Global Food Security, 45*, 100854. https://doi.org/10.1016/j.gfs.2025.100854

Majumdar, K. (2020). Rural transformation in India: Deagrarianisation and the transition from a farming to a non-farming economy. *Journal of Developing Societies, 36*(2), 182–205. https://doi.org/10.1177/0169796X20912979

Meybeck, A., Cintori, L., Cavatassi, R., Gitz, V., Gordes, A., Albinelli, I., Opio, C., Bahri, T., Berrahmouni, N., & Li, Y. (2024). Natural resources management for resilient inclusive rural transformation. *Global Food Security, 42*, 100794. https://doi.org/10.1016/j.gfs.2023.100794

Mohanasundari, T., Khangar, N. S., & Das, A. (2023). Effectiveness of farmer producer organisations: Credit performance evaluation of farmer producer companies in Tamil Nadu. *International Journal of Rural Management.* https://doi.org/10.1177/097300522311205387

Mosse, D. (2018). Caste and development: Contemporary perspectives on a structure of discrimination and advantage. *World Development, 110*, 422–436. https://doi.org/10.1016/j.worlddev.2018.06.019

Mundle, S. (2019). Towards a manifesto for reorganising agriculture. *Indian Journal of Agricultural Economics, 74*(1), 62–77.

Murty, C. S., & Reddy, M. S. (2017). Andhra Pradesh Licensed Cultivators Act in retrospect and prospect. *Journal of Land and Rural Studies, 5*(1), 1–11.

Nandi, R., Gowdru, N. V., & Bokelmann, W. (2017). Factors influencing smallholder farmers in supplying organic fruits and vegetables to supermarket supply chains in Karnataka, India: A transaction-cost approach. *International Journal of Rural Management, 13*(1), 85–107. https://doi.org/10.1177/0973005216681208

Nandy, A., Tiwari, C., & Kundu, S. (2021). India's rural employment scheme: How does it influence seasonal rural outmigration decisions? *Journal of Policy Modeling, 43*(5), 1181–1203. https://doi.org/10.1016/j.jpolmod.2021.05.009

Narayanan, S. (2014). Profit from participation in high-value agriculture: Evidence of heterogeneous benefits in contract-farming schemes in southern India. *Food Policy, 44*, 142–157. https://doi.org/10.1016/j.foodpol.2013.10.010

Narayanan, S., Parmar, M., & Pandey, R. (2023). Jeevika Women Agri Producer Company Limited. In C. S. Prasad, A. Kanitkar, & D. Dutta (Eds.), *Farming futures: Reimagining producer organisations in India* (pp. 51–68). Routledge.

Nichols, C. (2021). Self-help groups as platforms for development: The role of social capital. *World Development, 146*, 105575. https://doi.org/10.1016/j.worlddev.2021.105575

Nuthalapati, C. S., et al. (2024). Determinants and income effects of small farmers selling to supermarkets versus traditional market channels in four regions of India. *Economic and Political Weekly, 49*(44–45), 60–67.

Nuthalapati, C. S., Bhat, Y., & Beero, S. K. (2022). Is the electronic market the way forward to overcome market failures in agriculture? *Economic and Political Weekly, 57*(41), 52–59.

Oxfam India. (2020). *Human cost of sugar: Living and working conditions of migrant cane-cutters in Maharashtra.* Discussion Paper, February. Oxfam India.

Pallavi, G. L., Saxena, A., Pastakia, A., & Ojha, S. (2024). Farmer producer organisations (FPOs) as sustainable-transition intermediaries: Insights from India. *International Journal of Rural Management.* https://doi.org/10.1177/09730052240292979

Pandhare, A., Bellampalli, P. K., & Yadava, N. (2024). Transforming rural women's lives in India: The impact of microfinance and entrepreneurship on empowerment in self-help groups. *Journal of Innovation and Entrepreneurship, 13*, 62. https://doi.org/10.1186/s13731-024-00362-0

Pierri, F., Anseeuw, W., & Campolina, A. (2025). Land tenure for resilient and inclusive rural transformation. *Global Food Security, 44*, 100835. https://doi.org/10.1016/j.gfs.2025.100835

Pritchard, B., Vicol, M., & Jones, R. (2017). How does the ownership of land affect household livelihood pathways under conditions of deagrarianisation? Hanging in, stepping up and stepping out in two north India villages. *Singapore Journal of Tropical Geography, 38*(1), 41–57. https://doi.org/10.1111/sjtg.12166

Raina, R. S., & Longino, H. (2025). Community-led institutional innovation: Groundwater sharing, values, and relationships in India's rainfed farming systems. *Studies in History and Philosophy of Science, 112*, 102–111. https://doi.org/10.1016/j.shpsa.2024.102111

Ramakumar, R., & Raut, K. (2024). Agrarian transformation and commercialization: An overview of changes in banana-growing villages in Maharashtra. *Economic and Political Weekly, 59*(43), 80–88.

Ranaware, K., Das, U., Kulkarni, A., & Narayanan, S. (2015). MGNREGA works and their impacts: A study of Maharashtra. *Economic and Political Weekly, 50*(13), 53–61.

Rao, C. S. (2018). Class-caste differences in access to agricultural credit in India. *Economic and Political Weekly, 53*(1), 15–17.

Rao, N., Marzi, E., Baudish, I., Laila, A., Conti, C., & Hicks, C. C. (2025). Citizen voice and state response in the context of food system transformation. *Food Policy, 134*, 102879. https://doi.org/10.1016/j.foodpol.2024.102879

Saroj, & Paltasingh, K. R. (2023). What promotes production contract in Indian agriculture? Managing market risk versus profit orientation. *Agricultural Economics.* https://doi.org/10.1111/age.12791

Saxena, A., & Prasad, S. C. (2023). Managing sustainable transition through farmer-owned enterprises: The case of Ram Rahim Pragati Producer Company. *Journal of Indian Business Research.* https://doi.org/10.1108/JIBR-05-2023-0148

Saxena, A., Tomar, R., & Mondal, A. (2023). Connecting tribal women to markets through promotion of sustainable agriculture. In C. S. Prasad, A. Kanitkar, & D. Dutta (Eds.), *Farming futures: Reimagining producer organisations in India* (pp. 83–98). Routledge.

Schoneveld, G. C. (2022). Transforming food systems through inclusive agribusiness. *World Development, 158*, 105970. https://doi.org/10.1016/j.worlddev.2022.105970

Shah, M. (2016). Should India do away with the NREGA? *Indian Journal of Labour Economics, 59*(1), 125–153. https://doi.org/10.1007/s41027-016-0022-5

Sheth, A., Kohli, M., Ratnam, J., Saberwal, V., & Sankaran, M. (2025). Towards greener pastures: An overview of pastoral economics, policies, and ecologies in India. *Economic and Political Weekly, 60*(24), 57–65.

Shukla, A., & Kulkarni, S. (2019). Harvest of uteruses. *Economic and Political Weekly, 54*(29), 10–13.

Sindakis, S., & Showkat, G. (2024). The digital revolution in India: Bridging the gap in rural technology adoption. *Journal of Innovation and Entrepreneurship, 13*(29). https://doi.org/10.1186/s13731-024-00380-w

Singh, J. (2020). Small farmers and organised retail chains in India. *Economic and Political Weekly, 55*(26–27), 13–20.

Singh, S. B. (2016). Living together separately: Dalits in an emergent collectivity in a Rajasthan village. *Economic and Political Weekly, 51*(33), 66–72.

Singh, S. (2004). Leveraging ICTs for agricultural development: A case study of e-Choupals of ITC. *Paradigm, 8*(1), 1–15.

Singh, S. (2012). New markets for smallholders in India: Exclusion, policy, and mechanisms. *Economic and Political Weekly, 47*(52).

Singh, S. (2017). "White gold" for whom? A study of institutional aspects of work and wages in cotton global production networks in India. In E. Noronha & P. D'Cruz (Eds.), *Critical perspectives on work and employment in globalising India* (pp. 15–36). Springer.

Singh, S. (2019). Community and collective organisations for sustainable agricultural development in India: Experience, challenges, and policy. *Indian Journal of Agricultural Economics, 74*(1), 96–122.

Singh, S. (2020). Ownership versus control: The changing dynamics of land use in the liberalised agricultural context of India. In D. K. Mishra & P. Nayak (Eds.), *Land and livelihoods in neoliberal India* (pp. 57–70). Palgrave Macmillan.

Singh, S. (2021). Punjab's Draft Land Leasing Bill: An open invite to corporate farming. *Economic and Political Weekly, 56*(31), 23–25.

Singh, S. (2022). Contextualising the repealed 2020 Union Agricultural Market Acts in farmer income (policy) debate: A smallholder perspective. *V. S. Vyas Memorial Lecture, Institute of Development Studies, Jaipur*, July.

Singh, S. (2023). (Farmer) producer companies in India as new generation co-operatives: Case studies of performance and impact from West Bengal. *Annals of Public and Cooperative Economics.* https://doi.org/10.1111/apce.12436

Singh, S. (2024). *India's producer companies and small farmers: Performance and impact.* Springer.

Sinha, P., & Navin, N. (2021). Performance of self-help groups in India. *Economic and Political Weekly, 56*(5), 36–43.

Slavchevska, V., Acosta, M., Ndiaye, T., & Park, C. M. Y. (2024). Gendered pathways for resilient and inclusive rural transformation. *Global Food Security, 42*, 100818. https://doi.org/10.1016/j.gfs.2024.100818

Stickler, M., & Choudhury, P. R. (2021). Agricultural land leasing reform in India: Strategies to increase poor farmers' access to land and related benefits. *World Bank Group*, June.

Streeter, D. H., Sonka, S. T., & Hudson, M. A. (1991). Information technology, coordination, and competitiveness in the food and agribusiness sector. *American Journal of Agricultural Economics, 73*(5), 1465–1471.

Sutradhar, R., & Das, A. (2020). Supermarkets and rural inequality in India: A case study of Reliance Fresh. *International Journal of Rural Management, 16*(1), 81–104. https://doi.org/10.1177/0973005219889028

Turangi, S. (2022). MGNREGS performance (2006–2021): An inter-state analysis. *South Asian Research, 42*(2), 208–232. https://doi.org/10.1177/09731741221093029

Veeraraghavan, R. (2017). Strategies for synergy in a high modernist project: Two community responses to India's NREGA rural works program. *World Development, 99*, 203–213. https://doi.org/10.1016/j.worlddev.2017.05.014

Vijay, R., & Sreenivasalu, Y. (2013). Agrarian structures and land lease agreements: An investigation in nine villages in Andhra Pradesh. *Economic and Political Weekly, 48*(26–27), 42–49.

Villacis, A. H., Kopp, T., & Mishra, A. K. (2024). Agricultural marketing channels and market prices: Evidence from high-value crop produce in India. *Economic Analysis and Policy, 81*, 1308–1321. https://doi.org/10.1016/j.eap.2023.12.008

Visaria, L., & Joshi, H. (2021). Seasonal sugarcane harvesters of Gujarat: Trapped in a cycle of poverty. *Journal of Social and Economic Development, 23*(Suppl 1), S113–S130. https://doi.org/10.1007/s40847-021-00156-2

Wang, D., et al. (2023). A review of rural transformation studies: Definition, measurement, and indicators. *Journal of Integrative Agriculture, 22*(12), 3568–3581. https://doi.org/10.1016/S2095-3119(23)60377-9

Yadu, C. R., & Mishra, S. (2024). Re-examining the narrative of structural transformation: Insights from India's development experience. *Forum for Social Economics.* https://doi.org/10.1080/07360932.2024.2413507