In Rural India, Relational Approaches to Poverty: Social, Ecological, and Technical Dynamics

Shafida Akhter[1] and Dr. Yogesh Singh[2]
Research Scholar, Department of Sociology[1]
Research Guide, Department of Sociology[2]
Shri JJT University, Jhunjhunu, Rajasthan, India

Abstract: *Nowadays, it is commonly acknowledged that poverty has multiple dimensions, with indicators such as housing, healthcare, and sanitation. However, in policy discourses, relational methods that emphasise political-cultural processes continue to be neglected. We examine a broad spectrum of relational approaches to rural poverty with an emphasis on India. We study new relational methods created in the previous two decades, starting with early approaches that focus on the structural reproduction of class, caste, and to a lesser extent gender inequality. The new methods look at various experiences of poverty and how that influences movements against injustice. They highlight the various definitions of well-being and the ways in which the impoverished articulate their particular forms of deprivation. They also demonstrate how political movements and governance practises are shaped by the intersections of class, caste, and gender inequality. The new relational methods give little consideration to the role that ecologies and technologies play in determining how poverty is experienced, despite these significant contributions. After reviewing research on the Green Revolution and broader agrarian changes in India, we provide an overview of a hybrid relational approach to poverty that integrates ecological and socio-technical factors. We contend that this kind of approach is essential for breaking through the policy silos between (environmentally) sustainable development and poverty alleviation, as well as for challenging limited economicizing discourses on poverty.*

Keywords: Rural poverty; sustainability; green revolution; technological innovation; agrarian change

I. INTRODUCTION

The definition of poverty in India and how it affects planning and development strategy have been hotly debated over the past 20 years (Deaton and Kozel 2005). Nowadays, most people acknowledge that poverty is multifaceted and complex, emphasising the necessity to go beyond wages and consumption expenditures (Hulme 2014). Research document a variety of deprivations associated with poverty, such as the inability of an individual (or household) to obtain prospects for meaningful employment as well as access to housing, healthcare, education, and sanitation (e.g. Alkire and Seth 2015).

There has been a noticeable overall decrease in poverty in India since the 1990s. Since the early 2000s, when growth surged, this loss has been more pronounced (Panagariya and Mukim 2014; Alkire, Oldiges, and Kanagaratnam 2018). Ironically, small farmers and rural labourers in India are going through a worsening agrarian crisis at the same time (Reddy and Mishra 2010; Vasavi 2012; Chand, Srivastava, and Singh 2017). Recent years have seen an increase in rural protests and mobilisations, which have brought attention to issues such as persistent debt, unpaid farming, ecological degradation, resource dispossession, and insufficient job creation in non-agricultural industries (Suthar 2018). Taking these processes into account emphasises that although poverty indicators have grown to include a wider range of deprivations, they are unable to account for the political and historical processes that have shaped people's actual experiences of deprivation (Mosse 2010; Breman 2010). Thus, the social, ecological, and technological processes by which people enter and exit poverty might be hidden by indicators.

Relational methods, on the other hand, focus on the "wider system of class and power relations" that underpins actual poverty (Gooptu and Parry 2014; Mosse 2010; Harriss 2009; Rao 2017; Shah et al. 2018). Mosse (2010) argues that relational conceptualizations do more than just characterise the impoverishing consequences of exploitative social

relations, which in turn create cultures (via caste and gender, for example) and economic dominance (via control over markets and production processes). Following a long tradition of Marxist explanations of "the agrarian question," which explains rural poverty as a result of both capitalist development in predominately agrarian cultures and "semi-feudal" production relations, is a new relational turn in poverty studies. The new relational literature, in contrast to Marxist theories, views gender and caste as critical relations of power in and of themselves, rather than as secondary axes of oppression that can potentially thwart class-based collective mobilisation. According to Lerche and Shah (2018), class, caste, and gender are not viewed as reified categories but rather as overlapping social interactions that jointly form practises of dominance, resistance, and governance.

Furthermore, the recent relational turn in India is indicative of a change in governmental policy during the 1980s in rural poverty reduction. In an era dominated by neoliberal governance, attention is focused on the connections between workers and the non-farm sector as well as the growth of social security nets, going beyond agricultural productivism, incomes, and livelihoods (Drèze and Khera 2017; Walker 2008). Then, conflicts and negotiations by oppressed groups for access to welfare entitlements are taken into consideration significantly when discussing rural poverty politics (Roy 2014; Carswell and De Neve 2014; Pattenden 2018). The new relational models highlight the political agency of the poor, but they give less consideration to how individuals use ecologies and technology to preserve or transform (unequal) social interactions. This downplays the influence of ecologies and technologies on political agency and poverty.

After evaluating numerous relational approaches to rural poverty in India, we have concluded that two factors need more focus. First, although the new relational approaches highlight people's contextualised notions of poverty and well-being, more work has to be done to clarify how impoverished people create and modify shared visions of a better life at various spatiotemporal intersections. Expanding challenges to dominant top-down agendas for poverty reduction need such understandings. Second, human persons or groups are usually at the focus of agency. However, it is made up of a diverse network of relationships involving human interaction with agricultural ecologies, such as soils and groundwater, as well as technological artefacts, such as agricultural machinery and seeds (Latour 2005). Such relational webs are essential to comprehending the construction of paths into and out of poverty.

Mapping relational webs of agency can assist in seeing people's interactions with technologies and ecologies as uncertain processes, moving beyond deterministic impact/risk evaluations of technological and ecological change on poverty. This suggests that new knowledge, technologies, and related ecological changes are more than merely objective tools for development. Furthermore, technologies are not just the powerful's tool of dominance, reproducing the unequal social connections that already exist. Certain technologies (and knowledges) have unexpected or institutionally concealed impacts in intricately intertwined webs of social, technological, and ecological change. Understanding these implications necessitates closely observing the various ways that rural populations interact with technology and ecological advancements. These interactions can take many different forms, ranging from reconfiguration and rejection to acceptance and learning. They draw attention to important opportunities for achieving sustainable development (SD) by eschewing harmful ecological exploitation and repressive social interactions.

Marxist Approaches to Rural Poverty

Marxist approaches investigate the unequal control and distribution of productive assets (particularly land) as well as the potential investment of agricultural surpluses in the non-agricultural economy through the lens of the "agrarian question" (Thorner 1982; Harriss 1982; Bernstein 1996; Lerche 2013). A stable system of socioeconomic ties within the agrarian economy is frequently referred to in studies as the "agrarian structure."

The two main questions that Marxist agrarian studies address are (a) how land and labour are combined to create the agrarian production and distribution arrangements that perpetuate inequality and (b) how these arrangements are stabilised to prevent them from empowering landless labourers and sharecropper/tenant farmers. According to Bernstein (1996), these can be divided into the following specific questions: What land and/or other means of production are under the control or accessibility of whom? In the rural social division of labour, who does what? Regarding the distribution of money, who receives what? And what are the various ways that people spend and accumulate their income?

Marxist perspectives focus on the interactions between two groups of people: landowners (and other resource owners) and those who use the land as tenants or agricultural labourers. Due to the incredibly unequal distribution of land in rural India, the landowner classes have the power to either exclude others from accessing their properties or impose monopoly rates on sharecroppers and renters (Sau 1979). Thus, it is believed that unequal land and labour relations keep agricultural workers and tenants in poverty while providing little opportunity to comprehend the political opportunities that can arise from the agency of these workers and renters. According to Bhaduri 1973 and Chandra 1974, unequal land and labour relations are also seen as intensifying output market and credit dominance relations, which perpetuates "semi-feudal" production relations. Therefore, a second "agrarian question" is put forth: What needs to be done and what stops rural capitalism from growing?

There is a claim that oppressive labour (and land) relations prevent farmers from adopting new productivity-boosting technology, which in turn prevents rural capitalism from growing. The investment of surplus in capitalist development, both inside and outside of agriculture, is constrained by the same relations. Thus, they serve as "structural bottlenecks" for the general economic growth that is assumed to be dependent upon: (a) the surpluses produced through capital accumulation in agriculture; and (b) the migration of labour from agricultural to urban industrial employment (Lerche 2013). It is believed that once industrialization and progress are allowed to run amok, a class of capitalist farmers will eventually emerge. Their excess is reinvested in agriculture, increasing production through the use of new technologies, for example. The rise of competitive marketplaces has led to a process of differentiation in agriculture, which is a crucial part of the development of rural capitalism. Small farmers who are unable to compete are compelled to sell their land and take jobs as wage labourers. Larger farmers benefit from this by consolidating their landholdings. It is believed that competition-driven consolidation leads to more productive agriculture, provided that major farmers spend their surplus in productivity-enhancing activities (Mohanty 2016). This approach is thought to increase the landlords' monopolistic (and monopsonistic) clout in the rural labour, loan, and agricultural markets. In general, rural capitalism exploits certain groups of landed peasants, portraying them as passive participants in the process due to their entanglement in capitalist wage and surplus systems.

Beyond Class: Structuring Caste and Gender

Whether capitalism entered Indian agriculture in the wake of the Green Revolution is the main topic of discussion in the 1970s and early 1980s. The need of public investment in creating home markets is also mentioned by Patnaik (1986) and Omvedt (1981), who predict that this will lead to a move towards capitalist agriculture. The quasi-feudal rule of 'upper' caste landlords is seen as being sustained by the post-colonial state, which is being pushed by a class of landlords working in tandem with large corporations outside of agriculture. Peasants' agency is acknowledged in this dynamic through their collective mobilisation against credit relationships and exploitative tenancy, as well as for land reforms. Studies by Mencher (1978), Beteille (1972), and Rao (1994), for instance, demonstrate how mobilisation resulted in redistribution of certain assets and incomes, improved terms of employment for agricultural workers, and tenancy changes in Kerala and Bengal. They come to the conclusion that peasant mobilisation based on class may combat poverty. It is believed that this kind of mobilisation has the additional benefit of subverting non-capitalist forms of power and control, such as those based on gender and caste, without explicitly attacking them. Therefore, the agency of peasants and workers is largely understood in terms of class-based collective mobilisation, of which caste- and gender-based emancipations are secondary outcomes.

Actually, caste-based relationships are frequently seen as obstacles to class-based mobilisation (Mencher 1974; Beteille 1972). Caste allegiances are conceptualised by scholars as impeding the creation of class allegiances between landless workers and small/marginal farmers. This lessens the strength of group demands for improved output shares and greater salaries (for tenants). Scholars like Rudra (1981) and Omvedt (1981) also highlight the part caste relations play in sustaining an ideology that permits the continuation of semi-feudal relations: Tenants may fail to assert their claims to land because they internalise the norm that their "natural" low-caste status denies them the right to own it.

Emerging farmer movements are viewed as populist mobilisations against the alleged "urban bias" of state policy in the 1970s and 1980s (Lipton 1977). These movements, which accentuate caste and class divides in rural areas, are presented as expressing the concerns of the rural populace as a whole. The Green Revolution (GR) is thought to have betrayed the latter interests. Due to unfavourable terms of trade between agriculture and the non-agricultural urban

sectors, the GR is perceived as a failed attempt to ensure sufficient returns for farmers, even though it did produce some surpluses (Omvedt 1995). Balagopal (2011) challenges this interpretation of rural-urban conflict, contending that the GR did facilitate capital accumulation by a wealthy and middle-class farmer class. These farmers reinvested their excess in a variety of (urban) ventures, including trade, real estate, education, movies, politics, and agri-cultural marketing. Therefore, it is noticed that the commercialization of agriculture helps dominant land-owning castes accumulate across the rural-urban divide and strengthen their class interests (cf. Brass 1995; Corbridge 1997).

Explanations of rural poverty and agricultural change, which aim to transcend class differences, rely on more comprehensive comparative studies of differences in (regional) state capacities, electoral politics, and the relationships between various levels of government. The sociocultural constituencies of various state administrations and political parties are highlighted in these studies. Additionally, they emphasise the establishment of alliances and interest groups, as well as intra-elite conflicts (between urban middle class bureaucrats, industrial capitalists, and agrarian landowner classes) (Rudolph and Rudolph 1987; Kohli 1987; Varshney 1998). Allegiances and interest groupings are nevertheless, nevertheless, deduced from fixed structural positions of caste and class. Furthermore, by portraying "subalterns" as homogeneous masses that may be "mobilised, controlled, manipulated, organised, led, betrayed, handed resources, given incentives, and provided supplies," agency is denied to these people (Gupta 1989, 796).

Agarwal (1994, 2003), concentrating on gender, highlights the foundational role of patriarchal dominance in the rural economy. She makes note of the connections between gender relations and unemployment and economic inequality, which result in women having less power over household spending. She contends that under patriarchy, granting women the right to own property is a more effective way to combat rural poverty. Agarwal challenges certain Marxist academics who believe that gender serves as a diversion from class-based activism for land redistribution. She argues that in the event that "land reforms" do not guarantee women's land ownership, they will not have a significant impact on impoverished rural women. She contends that land ownership has an impact on women's access to high-quality non-farm livelihoods as well as their ability to negotiate access to social programmes with state authorities. The ability of individuals to own land contributes to women's collective bargaining strength. It is believed that women's affiliation with property titles represents their agency in creating means of escaping poverty.

Policies addressing gendered disparities, according to Rao (2017), frequently consider women as individuals and assets (like land) as separate, static entities. Such initiatives, she contends, are unlikely to succeed. For example, the methodologically individualist paradigm used in policy interventions to obtain land titles for women ignores the relational construction of gender and land through networks with others. These networks are the result of both "structural inequalities" and "local and situated notions of legitimacy" (Rao 2017, 44–45). Rao contends, therefore, that women's individualised land claims can actually drive them into conflictual relationships with supportive family members, perhaps increasing their vulnerability to neoliberal governance.

Pattenden (2016), drawing on studies on gender and caste, criticises inflexible structuralist theories of class relations for failing to take into consideration the complexity of "actually existing" forms of exploitation and dominance. Gender, caste, and class relations interact and influence one another. Pattenden develops the idea of "dominant classes," who own property and are net purchasers of other people's labour. He contends that these classes' dominance and control are reinforced by the state and given legitimacy by local and regional caste (and gender) relations. Furthermore, he presents a classification of waged work groups, with individuals in the formal sector holding permanent contracts at the top and those in neo-bondage at the bottom. According to Pattenden, the only way to comprehend the relationship between different labour groups is to examine how capital connects them in order to extract surplus. Crucially, he emphasises that under patriarchy, women's "invisiblised" and unpaid employment in households reproduces all these types of labour. Consequently, the perpetuation of all labour classes depends on unequal gender relations. More recently, Pattenden (2018) shows how the social reproduction zones that fragmented labouring classes move through influence their collective action. He demonstrates how the sociopolitical configuration of "living spaces" and "working spaces" on both sides of the rural-urban split can influence the nature of struggles.

According to Shah et al. (2018), who also note that there hasn't been a fair trajectory for economic development, Dalits and Adivasis continue to be disproportionately represented among the poor. In order to comprehend the "conjugated oppressions" of gender, caste, and class, they emphasise the significance of examining the lives and struggles of labouring classes across agrarian and non-agrarian boundaries as well as rural-urban areas. Breman's (2007, 2016)

ethnographic research in Gujarat, which spans pre- and post-liberalization periods, demonstrates the relationship between the politics of exclusion in the urban informal sector and the expulsion of landless workers from the rural economy. As Breman (2010) argues, in the post-liberalization era (since the 1990s), the government ceased intervening to protect the interests of labour, even though the majority of landless workers may be better off than they were in the 1960s in terms of access to food, housing, clothes, education, and health. According to Breman (2016), the post-liberalization policy framework represents a significant turning point in the historical process of the dispossession of workers and landless classes. It has limited the ability of the impoverished to demand improved working conditions. This is a continuation of the previous decades' barring of access to common resources, land, and other means of production. Actually, according to Corbridge and Harriss (2000), the reforms together with the rise of Hindu nationalism are seen as a "elite revolt" against the political activism of the lower castes. These interpretations depart from claiming that caste or class is the main pillar supporting agrarian interactions. Rather, their goal is to comprehend how caste, class, and gender are combined to form broader political processes that strive to incorporate calls for redistributive justice into the mobilisation of dominant religious identity.

From Structures to Networks

Poverty studies have taken a relational turn since the 1990s, during the post-liberalization era. In poverty studies, the relational method that is arguably most extensively used focuses on the social networks of the impoverished, as these networks may provide avenues for escaping poverty (Krishna 2010; Narayan 1999). These networks are thought to spread knowledge about opportunities and resources that can change ambitions and support the development of livelihoods. Studies emphasise the significance of decentralised and participatory approaches (such as community-driven development and self-help groups) in reducing poverty (Woolcock and Narayanan 2000; Mansuri and Rao 2004). Nevertheless, research frequently treats the advantages of networking as a person's social capital, solidifying the advantages of involvement in networks. Thus, through processes of "adverse incorporation" and "social exclu- sion," they can draw attention away from the hierarchical structures and uneven (power) connections that maintain individuals in poverty (Harriss 2001; Hackett and du Toit 2007; Mosse 2007).

Social capital approaches ultimately remove politics from poverty and its alleviation by ignoring processes that exclude specific groups of people from social networks (and how such networks are formed/reproduced) and processes that result in adversity rather than well-being from network participation (Harriss 2001; Cleaver 2005). A more political approach would view social capital as an uncertain byproduct of intricate power-shaped relational dynamics. Furthermore, certain networks have the potential to be "downward levelling" (Portes, 1998), meaning that the poor individuals who belong to them may not receive much helpful information about opportunities, which contributes to the continuation of poverty.

Particularly, Krishna (2008, 2010) has made significant contributions by conducting diachronic examinations of people entering and leaving poverty. He draws attention to different paths taken by households, even in the same hamlet, even when their resource endowments are similar. Krishna claims that while social networks in urban areas can help some impoverished homes escape poverty, illness, death, and the consequent inability to pay off debt drive some households farther into poverty. As a result, he highlights a series of "ordinary events" that fall outside the purview of policy formulation but are crucial in explaining (the variety of) routes into and out of poverty. Certain common occurrences, like getting a good harvest or joining a boom crop circuit, can have favourable effects for a while. Negative events include things like illness or death. While there are structural correlates to events, such as the demise of public healthcare systems and social norms that justify exorbitant costs for weddings and funerals, Krishna contends that understanding the behavior—or lack thereof—of individuals and households is crucial to comprehending the dynamics of poverty.

Krishna, however, views people and households as autonomous entities attempting to deal with occasionally macro-structural shocks and developments by emphasising agency. Other incidents could be quite specific to a home or verylocalised. An explanation of the relational webs that humans are embedded in that have been developed historically is marginalised by such a framing. In addition to the overlapping patterns of gender, caste, and class, these relational webs are also made up of the ecologies and technology that individuals use to try to support themselves.

Copyright to IJARSCT
www.ijarsct.co.in

ISSN
2581-9429
IJARSCT

611

Krishna employs a helpful methodological tool in his analysis of the processes that lead individuals into and out of poverty: event histories. It falls short, though, in explaining how families or people are relationally rooted and react differentially to the same shocks. He highlights the absence of knowledge as a primary barrier to the creation of stronger institutions, but he ignores the ways in which households interact with technology and the environment when information is lacking, which may play a critical role in determining the paths that lead into and out of poverty. For instance, Krishna (2008, 56) describes how a hamlet in Andhra Pradesh experienced hardship as a result of illnesses that affected both the residents and their cattle. Krishna acknowledges the significance of these context-specific occurrences, but he does not discuss the history of the socio-ecological-technical processes (agrarian) that increase salinity or the reasons why people were unable to perceive the hazards of such salinity and take appropriate action.

Similar to this, other longitudinal studies provide a mixed picture that combines rising inequality and changing caste dynamics with a trend of declining poverty since the 1960s. Himanshu, Lanjouw, and Stern (2018), for instance, chart the evolution of a single north Indian village over a period of seven decades. They demonstrate how, in the previous thirty years, off-farm informal employment has played a significant role in boosting living standards, especially for disadvantaged groups. Nonetheless, off-farm employment is associated with less intergenerational mobility concurrently (see S. Kumar 2016). Himanshu, Lanjouw, and Stern (2018) also demonstrate how access to caste and family-based networks strongly influences one's ability to find non-farm work, while specific events like a major illness, the death of the head of the household, alcoholism, and gambling addiction serve as triggers for downward mobility. Nevertheless, these longitudinal studies, like Krishna's research, fall short in explaining the relational webs (of power) that impoverished people are a part of. They don't look at how shifting local ecologies or technologies that people have been pushed to use in their daily lives form the relational webs. It is critical to understand that evolving ecologies and technological advancements are more than just passive, neutral "objects" that humans might manipulate and use to their advantage. Rather, people's agency—their ability to take action in response to events like heavy rains or depleting groundwater resources—is shaped over time by shifting ecologies and technological advancements, which contribute to the formation of paths into and out of poverty.

New Relational Approaches to Poverty

Since the early 2000s, a new discipline of related studies to poverty has emerged. The standardised management approaches to poverty alleviation are criticised in these research. Managerial techniques that rely on quantitative indicators may include targeted social protection in the context of a neoliberal decentralised participation framework with the goal of "inciting activeness in the otherwise docile poor" (Chakrabarti and Dhar 2013, 1036). Managerial approaches may also create interventions based on asset- and capability-based causal explanations of poverty, which marginalise individuals' own definitions of a happy living as well as the larger social interactions in which they are enmeshed. The political agenda is thus circumscribed by these approaches to poverty governance (and development expertise) because they largely define the impoverished in terms of their "deficiencies" and predetermine their requirements. The new relational studies, on the other hand, centre on how hegemonic development practises continue to produce subjectivities and how those subjectivities are contested (Elwood, Lawson, and Sheppard 2017). The political agency of the impoverished is highlighted in these works through stories and coordinated movements. Political agency offers alternative concepts of well-being that deviate from popular poverty alleviation strategies in addition to protesting against causes of impoverishment. However, people's interaction with ecological and technological processes continues to be underestimated in its contribution to the development of political agency.

Coleman et al. (2018) create a framework for relational understandings of poverty by bringing feminist and postcolonial theory into dialogue with Marxist and other structural analyses. What they refer to as thinkable and inconceivable types of politics are outlined in this framework. Thinkable politics' domain is defined by prevailing development and poverty alleviation programmes, which are predicated on separating 'deserving' individuals from 'undeserving' ones through indicator-based measurements of poverty (cf. Breman 2016). However, in reality, participation in these initiatives may be restricted due to systemic injustices based on caste, class, and gender connections. Furthermore, systematising bureaucratic procedures in the middle of several unsuccessful development interventions might normalise and make persistent poverty invisible (Gupta 2012). Hence, it is acknowledged that the potential for a more radical and

Copyright to IJARSCT
www.ijarsct.co.in

ISSN
2581-9429
IJARSCT

612

transformational politics is impeded by the inequities perpetuated by development schemes and projects (e.g., Sampat 2018). However, opposition to mainstream development initiatives can also give rise to liberating opportunities.

These options suggest "unthinkable politics" that have the power to reframe conceptions of poverty and what it means to live a meaningful life (Da Costa and Nagar 2018). This extends beyond opposition to prevailing interpretations of poverty (such as those based on indicators) and notions of "development" as modernization (Borges 2018). It highlights different conceptions of growth (and well-being) that arise from actualized experiences of deprivation. The production of knowledge cannot be restricted to recording poverty as defined by prevailing conceptualizations and "thinkable politics," which just associate poverty with "the lack of something that is abundant elsewhere" (Borges 2018, 185). This is a major implication for poverty studies. Poverty studies can create alternative conceptualizations of well-being based on people's actual lived experiences, knowledges, and movements by concentrating on "unthinkable politics" as opposed to merely theorising about them (see, for instance, Singh 2015). However, there are still few conceptualizations of this kind in the literature.

Some scholars point out that many social security entitlements are actually governmental responses to civil society mobilisations, even while the overall focus of the new relational methods is on various mechanisms that constitute pathways into poverty (Khera and Nayak 2011; Drèze and Khera 2017). Scholars emphasise the latter political agency, arguing that development interventions become arenas for contesting oppressive social relations like caste and gender, as well as the dominant meanings of poverty and well-being (discussed above) for the rural poor (Jakimow 2015; Roy 2014). For instance, Roy (2014) examines MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) and proposes that, because of the declining influence of landowning castes facing an agrarian crisis (which is linked to widespread indebtedness among farmers), rural workers should actively challenge caste and class norms in the village. It is unclear if these difficulties will encourage the formation of alternative development narratives founded on "unthinkable politics," which have the capacity to radically alter political and policy discourses in order to realise comprehensive social justice. Furthermore, it is unclear how agricultural livelihoods fit into these imaginary worlds.

Overall, there are several ways in which the more recent relational approaches to poverty differ from the earlier Marxist and structuralist literatures on agrarian relations and poverty. Firstly, they steer clear of the teleological presumptions present in the initial Marxist interpretations, which aimed to assess real-world developments using a normative framework of the "agrarian transition" from pre-capitalist or semi-feudal production relations to capitalist relationships that facilitate the creation of surplus.

Secondly, the novel relational methodologies acknowledge various power gradients more explicitly, which are not encompassed by class relations. Rather than being just corollaries of class relations or sources of fragmentation that can impede class-based collective mobilisation, gender and caste are seen as crucial to understanding power relations in rural areas. For instance, political agency through caste-based mobilisation might result in politics of redistribution by staking claims against the government (cf. Witsoe 2011).

Third, the new relational approaches give more weight to institutional elements that contribute to the social exclusion of particular groups, including the elderly, the disabled, women in the workforce, and jobless people. They concentrate on the mechanisms of exclusion that perpetuate inequality by fusing Weberian and Marxist theories. For instance, Mosse (2010) draws attention to the capacity of a social group to seize opportunities or resources while denying others access. When labour markets are formed by caste or gender, preventing the underprivileged from accessing specific possibilities, this phenomenon known as "opportunity hoarding" is most evident.

Fourth, the new relational understandings focus more on how social groupings have the ability to establish agendas (Mosse 2010), which affects how poverty is conceptualised and treated. For instance, "neoliberal common sense" ignores the possibility that neoliberal reforms themselves may force people into poverty by presuming that poverty endures because impoverished people refuse to take advantage of possibilities made available by markets (Gupta 2012).

Fifth, relational conceptualizations of poverty may include the exchange of goods and ideas between the Global South and North, as Roy (2016) contends. These circulations indicate linked geographic patterns that generate poverty in the South in order to maintain privilege and the accumulation of riches in the North. The majority of the literature on poverty governance in India that focuses on local and national scales obscures this perspective on "global" circulation.

The new relational movement in poverty studies, while providing many helpful insights, is nonetheless restricted in its investigation of intricate networks of diverse ecological and technical interactions between individuals and their social

relationships. Therefore, in order to understand how socio-technical and -ecological interactions can aid in the clarification of poverty politics, we explore a few studies of India's agrarian transformation.

Relating with Ecology and Technology

As reviewed above, poverty studies have paid limited attention to ecological and technological change playing active roles in shaping people's sense of well-being and their agency to build path- ways out of poverty. Even when ecology and technology are brought into the picture, they are rep- resented in one of two following ways: (a) they are treated as resources that poor people struggle to access, for generating impact on poverty measured through income or other indicators; (b) they appear as ahistorical events in poor people's lives and livelihood processes, but how they shape people's capacity to act remains unclear (Krishna 2010). As a result of this focus on impacts and events, accounts of interactions between social, technological and ecological changes are left largely out of the picture. This oversight of hybridising socio-ecological-technical changes, and the ongoing formation of agency and power within them, is also reflected in policy frameworks on poverty alleviation in India. The latter have largely remained disconnected from debates on (ecolo- gically) sustainable development. This critically undermines possibilities of addressing the UN's (2015) Sustainable Development Goals (SDGs) in the country.

Rural people's pathways in and out of poverty are constituted not only by unequal social relations of class, caste and gender, but also by the ways in which agency is afforded/constrained by everyday engagement with ecological and technological developments (Arora and Glover 2017). Even though the latter developments are shaped by social relations of class, caste and gender (Shah 2003; Bijker 2007), they cannot be subsumed by the workings of social relations. The making of technological artefacts and (knowledge-based) ecological transformations (e.g. of groundwater extraction, depletion and salination), is always only partially determined by the social relations that shape them (Latour 1988; Haraway 1991).

This social shaping is partial because: (a) human collectives developing technologies and trans- forming ecologies, cannot fully control and mould material reality in accordance with their expec- tations of maintaining or transforming extant social relations (Joerges 1999); (b) the knowledges driving technological and ecological developments are always incomplete and uncertain (Wynne 1992; Callon, Lascoumes, and Barthe 2009), which means that the full range of their social and eco- logical effects cannot be predicted. These effects are also often obscured by power, particularly around those actors who expect to benefit from the widespread use of their technologies and knowl- edges (Arora 2019). Many potentially harmful ecological and social effects of technologies and knowl- edges are therefore suppressed or simply unanticipated. In order to do justice to such effects, it is critical that technologies and ecologies are approached as material 'mediators' (Latour 2005). Mediators do not just serve as predictable instruments of social reproduction (or of desired trans- formation). Instead, (social) inputs into the design and development of mediators are 'never a good predictor of their output' (Latour 2005, 39).

Arguably, it is as mediators that technologies and ecologies have come to play a critical role in the agrarian crisis of the last two decades in India. Unanticipated and suppressed ecological effects such as soil depletion, excessive groundwater extraction and the use of expensive farm-inputs have forced farmers into indebtedness and landlessness (see e.g. Vasavi 2012; Arora 2012). These changes have been shaped by the use of technologies such as bore-wells, water-guzzling crops and chemical fer- tilisers promoted by India's formal agricultural research system and agro-industrial firms since the Green Revolution (GR). These ecological and technical changes in turn shape social relations of class, caste and gender, for example by reinforcing power in the form of dispossession of land and exploitation of labour (Levien 2012; Vijayabaskar and Menon 2018; Thakur 2019). It is therefore imperative that relational understandings of rural poverty account for farmers' and farmworkers' diverse practical encounters with entangled ecologies and technologies, situated in and around farms.

Some ecological concerns associated with GR technologies were identified already in the 1970s (Farmer 1977), but they were either dismissed or marginalised by institutional proponents of the GR. Similarly, the effects of GR technologies on socioeconomic inequality were mapped by some early studies (e.g. Chinnappa 1977). However, the mainstream discourse on the GR privileged positive accounts of GR technologies' effects on productivity and poverty. Unwilling to foresee negative socio- ecological effects of GR technologies, mainstream accounts crafted and celebrated heroes of the Indian GR, most emblematically in 'the father of the Indian GR', M.S. Swaminathan. Challenging claims

of positive impacts of the GR, Bardhan (1985) highlighted that agricultural growth (as pro- moted during the GR) can also generate poverty. For example, the use of agricultural machinery dis- placed labour, and growing reliance on purchased inputs pushed small and marginal farmers into debt. Extraction of groundwater using bore-wells and electric pumps lowered water tables and reduced availability of communal water, which disproportionately immiserated poorer farmers (Jana- karajan 2004).

Even within theoretically diverse critical accounts of the GR, which highlight ecological conse- quences (e.g. Shiva 1988; Pingali 2012), everyday interactions of technologies with people doing farm-work, such as landless workers and smallholders, are largely left out of the picture. Similarly mar- ginalised are people's ways of relating with (degrading) ecologies (R. Kumar 2016; Sharma 2019; for a review of GR scholarship, see Patel 2013). Going beyond pro- and anti- GR accounts of impacts, some qualitative studies provide a nuanced understanding of how the GR's technological package was not uniformly imposed but rather enacted through complex negotiations between farmers, local eco- system dynamics and cultural food preferences, within specific regional geographies (e.g. Frankel 2015; Farmer 1977). Gupta's (1998) ethnography in Western Uttar Pradesh, is exceptional in being attentive to embodied labour practices. Detailing how farmers interpreted and modified the GR technological packages based on their material conditions and social constraints in practice, he examines the GR's implications for broader political dynamics and postcolonial state-formation.

Beyond the GR, studies on agrarian transformations have drawn attention to how social and eco- logical relations constitute each other. They explore interactions between seasonality, crop diversifi- cation, new technologies, and ecological degradation, which re-shape labour practices and can reconfigure social hierarchies (Pandian 1987; Kapadia 1993; Mitra and Rao 2019). For example, Breman (1989) shows how crop diversification may alter relations of power between landless workers and farmer-employers. A shift from labour-intensive paddy to sugarcane and mango cultiva- tion which require less labour, dampens the ability of workers to negotiate with landlords. Similarly, Karanth (1987) demonstrates how the introduction of new technologies such as sericulture can modify Jajmani relations to some extent. And, Arora (2012) shows how an ostensibly participatory intervention, promoting the adoption of new agroecological techniques, can fail to transform caste- and land-based relations of power in a south Indian village.

Literature on globally conditioned and locally situated agrarian transformations also engages with farmers' and workers' practices to understand how they challenge and reconfigure technologies (such as genetically modified seeds) in conjunction with socio-political hierarchies (Shah 2005; Stone 2010; Flachs 2016; Birkenholtz 2008; Arora et al. 2013; R. Kumar 2016). Although these studies do not directly focus on poverty, they carry insights useful for advancing policy and academic discourses on poverty. For example, Singh (2003) outlines how irrigation technologies such as tanks can help reproduce hierarchical orders of caste (and class), by providing preferential access to water for irrigation to larger upper caste farmers. Such reproduction of social orders, however, can be accompanied with the use of technologies and knowledges to subvert caste hierarchies. Shah (2003) documents how tail-end farmers used hydrological arguments about seepage (into farms at the head and the middle of a canal), to make the case for irrigation canals bringing water first to tail-end farmers.

Birkenholtz (2008) studies how power relations between the state and farmers (as local users/man- agers of groundwater resources) are mediated by 'environmental knowledges'. While the state pro- motes (regulatory) interventions based on the knowledge of its groundwater engineers, farmers rely on a range of alternate knowledges including those of traditional water diviners and private firms drilling tube-wells. This highlights the politics of plural knowledges and diverse development pathways (cf. Arora et al. 2019), of which only the dominant ones are generally promoted by the state and modernising experts in firms and research institutions.

The foregoing highlights the rethinking of poverty by mapping changes in social relations inter- acting with dynamic rural ecologies and technologies as material mediators. This mapping of hybrid socio-material relations must go beyond the impact of ecological and technological changes on smallholders' and farm-workers' incomes (or other indicators of poverty). It focuses on how poor people's relations around caste, gender, class and the state, are mediated by ecologies and technol- ogies. Focusing on such mediation helps reveal how social relations are reworked in and through (agricultural) practices. Such practice-based politicisation of pathways in and out of poverty, may be crucial for enlarging space for multiple context-sensitive pathways of sustainable development (cf. Leach, Scoones, and Stirling 2010; Arora et al. 2019). Complementing social welfare policies, pro- motion of diverse SD pathways may be necessary

for addressing persistent social, ecological and technological vulnerabilities confronting small farmers and landless workers.

II. CONCLUDING REMARKS

Reviewing a wide range of relational approaches to rural poverty, we have highlighted the different ways in which they conceptualise social relations of class, gender and caste, while also paying atten- tion to institutional interventions. Unlike technocratic emphases on the measurement of poverty and identification of 'the poor', relational approaches seek to explain the historical-political processes that involve the reproduction and contestation of social inequalities (see Table 1 for a summary). Specifi- cally, new relational approaches focus on lived experiences to draw attention to poor people's own articulations of deprivation and of well-being. They also highlight collective action and struggles against dispossession. Rather than reducing people to economistic individual subjects defined by deprivation, new relational approaches highlight agency through enactments and conceptualisations of diverse ways of living a 'good life', amidst contexts of manufactured scarcity and dispossession (Singh 2015). In such understandings of relational agency, greater attention is required for people's diverse engagements with ecological and technological developments. We suggest that by reviewing processes of agrarian transformation (also examined in early Marxist approaches and in studies on the green revolution), we can move towards grasping how social, eco- logical and technical relations together constitute agency. Such a socio-technical-ecological approach might be crucial for understanding how pathways in and out of poverty are constructed. Socio-technical and -ecological relations matter beyond agrarian transformations. They cut across agricultural and non-agricultural sectors. For example, in the era of neoliberal governance since the 1990s, they can help us better understand how infrastructural developments have afforded people's mobilisations around welfare entitlements and social security. Similarly, people's participation in the non-farm economy is clearly contingent on industrial-technological and ecological developments. Overall, in understanding poverty pathways, conceptual and methodological attention to socio-tech- nical and -ecological relational dynamics can connect the agrarian sphere to non-farm sectors. Such attention can also help us productively rethink poverty alleviation through the lens of sustainable development.

Going beyond impact assessments of ecological and technological change on poor people's liveli- hoods, mapping people's relations with ecological and technical developments in practice reveals adverse effects that might have been suppressed or unanticipated earlier. Such an appreciation is critical for resisting the entrenchment of a dominant development pathway as the only possible way forward (Stirling 2009). In agriculture, such a dominant pathway is structured around toxic tech- nologies that industrialise agriculture at the expense of biodiversity and smallholders' livelihoods. To move beyond such dominant pathways, and to realise sustainability, it is critical to struggle for plural development pathways in each field of activity. These plural pathways can be based on alternate con- ceptions of well-being (as mapped by the new relational approaches to poverty) and people's diverse knowledges. Critical in this struggle is the levelling of cognitive hierarchies that situate people's diverse knowledges and techniques as inferior to the knowledge and technology of modernising experts who design poverty alleviation policy agendas. Clearly, the tackling of such hierarchies is no easy task. Multiple tactics might be necessary, including research approaches that foreground poor people's own conceptions of well-being and intersecting socio-technical-ecological relations that constitute their agency.

REFERENCES

[1]. Agarwal, B. 1994. A Field of One's Own: Gender and Land Rights in South Asia. Cambridge: Cambridge University Press.

[2]. Agarwal, B. 2003. "Gender and Land Rights Revisited: Exploring New Prospects via the State, Family and Market." Journal of Agrarian Change 3 (1–2): 184–224.

[3]. Arora, S., M. Vijayabaskar, D. Sharma, and A. Stirling. 2019. "Sustainable Development Through Diversifying Pathways in India." Economic & Political Weekly 54 (46): 33.

[4]. Balagopal, K. 2011. Ear to the Ground: Selected Writings on Class and Caste. Delhi: Navayana.

[5]. Bardhan, P. K. 1985. "Poverty and 'Trickle-Down' in Rural India: A Quantitative Analysis." In Agricultural Change and Rural Poverty: Variations on a Theme, edited by DharmNarain, 76–95. Baltimore: John Hopkins University Press.

[6]. Bernstein, H. 1996. "Agrarian Questions Then and Now." Journal of Peasant Studies 24 (1–2): 22–59.

[7]. Beteille, Andre. 1972. "Agrarian Relations in Tanjore District, South India." Sociological Bulletin 21 (2): 122–151. Bhaduri, A. 1973. "A Study in Agricultural Backwardness Under Semi-Feudalism." The Economic Journal 83 (329): 120–137. Bijker, W. 2007. "Dikes and Dams: Thick with Politics." Isis 98: 109–123.

[8]. Birkenholtz, T. 2008. "Contesting Expertise: The Politics of Environmental Knowledge in Northern Indian Groundwater Practices." Geoforum 39 (1): 466–482.

[9]. Breman, J. 2010. "A Poor Deal." Indian Journal of Human Development 4 (1): 133–142. Breman, J. 2016. On Pauperism in Present and Past. New Delhi: Oxford University Press.

[10]. Callon, M., P. Lascoumes, and Y. Barthe, eds. 2009. Acting in an Uncertain World: An Essay on Technical Democracy.

[11]. Cambridge: The MIT Press.

[12]. Carswell, G., and G. De Neve. 2014. "MGNREGA in Tamil Nadu: A Story of Success and Transformation?" Journal of Agrarian Change 14 (4): 564–585.

[13]. Chakrabarti, A., and A. Dhar. 2013. "Social Funds, Poverty Management and Subjectification: Beyond the World Bank Approach." Cambridge Journal of Economics 37 (5): 1035–1055.

[14]. Chand, R., S. K. Srivastava, and J. Singh. 2017. "Changes in Rural Economy of India, 1971 to 2012." Economic & Political Weekly 52 (52): 65.

[15]. Chandra, N. K. 1974. "Farm Efficiency Under Semi-Feudalism; A Critique of Marginalist Theories and Some Marxist Formulations." Economic and Political Weekly 9 (32–34): 1309–1331.

[16]. Chinnappa, N. 1977. "Adoption of the New Technology in North Arcot District." In Green Revolution? Technology and Change in Rice-growing Areas of Tamil Nadu, edited by B. H. Farmer, 92–123. London: The Macmillan Press.

[17]. Global Environmental Change 2: 111–127.

[18]. Gupta, A. 1998. Postcolonial Developments: Agriculture in the Making of Modern India. Durham, NC: Duke University Press. Gupta, A. 2012. Red Tape: Bureaucracy, Structural Violence, and Poverty in India. Durham, NC: Duke University Press.

[19]. Haraway, D. 1991. Simians, Cyborgs and Women: The Reinvention of Nature. New York: Routledge.

[20]. Harriss, J. 1982. Capitalism and Peasant Farming: Agrarian Structure and Ideology in Northern Tamil Nadu. New Delhi: Oxford University Press.

[21]. Harriss, J. 2001. Depoliticizing Development: The World Bank and Social Capital. New Delhi: Leftword Books.

[22]. Harriss, J. 2009. "Bringing Politics Back Into Poverty Analysis: Why Understanding of Social Relations Matters More for Policy on Chronic Poverty Than Measurement." In Poverty Dynamics: Interdisciplinary Perspectives, edited by Tony Addison, David Hulme, and Ravi Kanbur, 205–224. Oxford: Oxford University Press.

[23]. Hickey, S., and A. du Toit. 2007. Adverse Incorporation, Social Exclusion and Chronic Poverty. CPRC Working Paper 81.

[24]. Kohli, A. 1987. The State and Poverty in India: the Politics of Reform. Cambridge: Cambridge University Press. Krishna, A., ed. 2008. Poverty, Participation, and Democracy. Cambridge: Cambridge University Press.

[25]. Krishna, A. 2010. One Illness Away: Why People Become Poor and How They Escape Poverty. Oxford: Oxford University Press. Kumar, S. 2016. "Agrarian Transformation and the New Rurality in Western Uttar Pradesh." Economic and Political Weekly

[26]. Manchester:

[27]. Mencher, Joan. 1978. "Agrarian Relations in Two Rice Regions of Kerala." Economic and Political Weekly 13 (6/7): 349–366. Mitra, A., and N. Rao. 2019. "Contract Farming, Ecological Change and the Transformations of Reciprocal Gendered Social

[28]. Mohanty, B. B., ed. 2016. Critical Perspectives in Agrarian Transition: India in the Global Debate. New Delhi: Routledge. Mosse, D. 2007. Power and the Durability of Poverty: A Critical Exploration of the Links between Culture, Marginality and

[29]. Rao, Nitya. 2017. "Assets, Agency and Legitimacy: Towards a Relational Understanding of Gender Equality Policy and Practice." World Development 95: 43–54.

[30]. Reddy, D. N., and S. Mishra, eds. 2010. Agrarian Crisis in India. New Delhi: Oxford University Press.

[31]. Relations in Eastern India." The Journal of Peasant Studies. doi:10.1080/03066150.2019.1683000.

[32]. Roy, I. 2014. "Reserve Labour, Unreserved Politics: Dignified Encroachments Under India's National Rural Employment Guarantee Act." Journal of Peasant Studies 41 (4): 1–29.

[33]. Roy, I. 2016. "Emancipation as Social Equality: Subaltern Politics in Contemporary India." Focaal 76: 15–30.

[34]. Rudolph, L. I., and S. Hoeber Rudolph. 1987. In Pursuit of Lakshmi: The Political Economy of the Indian State. Chicago, IL: University of Chicago Press.

[35]. Singh, B. 2015. Poverty and the Quest for Life: Spiritual and Material Striving in Rural India. Chicago: University of Chicago Press.

[36]. STEPS Working Paper 32. Brighton.

[37]. Stirling, A. 2009. Direction, Distribution and Diversity! Pluralising Progress in Innovation, Sustainability and Development.

[38]. Stone, G. 2010. "The Anthropology of Genetically Modified Crops." Annual Review of Anthropology 39: 381–400. Suthar, S. K. 2018. "Contemporary Farmers' Protests and the 'New Rural–Agrarian' in India." Economic and Political Weekly

[39]. Varshney, A. 1998. Democracy, Development, and the Countryside: Urban-Rural Struggles in India. Cambridge: Cambridge University Press.

[40]. Vasavi, A. R. 2012. Shadow Space: Suicides and the Predicament of Rural India. New Delhi: Three Essays Collective. Vijayabaskar, M. 2017. "The Agrarian Question Amidst Popular Welfare: Interpreting Tamil Nadu's Emerging Rural

Copyright to IJARSCT
www.ijarsct.co.in

ISSN
2581-9429
IJARSCT

618