India Studies in Business and Economics

Byasdeb Dasgupta
Prasenjit Sarkhel
Archita Ghosh
Bishakha Ghosh *Editors*

In Quest of Humane Development

Human Development, Community Networking and Public Service Delivery in India

Springer

India Studies in Business and Economics

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This book is a collective effort of many people. The collection of articles in this volume is an endeavor to examine the received notion of human development in the globalized world. We aimed to provide a pluralistic view of the issues by incorporating perspectives from both Mainstream Economics and Marxist perspectives.

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Byasdeb Dasgupta
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Archita Ghosh
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Book Blurb

In the Quest of Humane Development explores the significant issues of Human Development, Community Networking and Public Service Delivery with reference to contemporary Indian society. In one volume, heterodox economic philosophical approach is developed, which is so far unique. The uniqueness and significance of this book are that it touches upon almost all the contemporary factors shaping the quality of life in general and human development in particular. The book will be thus useful to any postgraduate students and also researchers in Social Science in general and Economics, Political Science and Sociology in particular.

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About the Editors

Prof. Byasdeb Dasgupta has been teaching Economics at University of Kalyani since 1998. He obtained his doctoral degree from Centre for Economic Studies and Planning, Jawaharlal Nehru University, Delhi in International Economics. He has held visiting fellowship posts in various social science institutes in Europe and China, apart from India. His research area is political economy of labour, development and finance. He has edited and written many books on the above subjects, the most recent of which is 'Capital' in the East – Reflections on Marx' published by Springer in 2019.

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Chapter 1
Introduction

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The outbreak of novel Coronavirus (henceforth COVID-19) pandemic in December 2019 is undoubtedly the major economic and health shock of the century. Till date the mortality from COVID infection has touched 2.63 million worldwide[1] and the case-loads are still increasing in many parts of the world. To contain infection spread in the initial period, majority of the countries initiated 'lockdown' and imposed mobility restrictions in the form of social distancing. It is now well documented that such deterrent measures have adversely impacted job security and earning potential of millions of people across the world.[2] Importantly, the random pandemic shock has also generated renewed interest in the role of public sector in an increasingly globalized world order.[3] This is because the prevalence of Coronavirus has resulted in stark failure of the market and once again brought into question the resilience of

[1] https://covid19.who.int/

[2] For the first time since the Great Depression advanced economies, emerging market and developing economies are projected to have negative growth rates (https://blogs.imf.org/2020/04/14/the-great-lockdown-worst-economic-downturn-since-the-great-depression/).

[3] In the United States, for instance, political leaders and commentators demanded larger government interventions in COVID pandemic. The movement also took the slogan "There are no libertarians in a pandemic.".

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capitalist systems. Mandated shutdown of the economy has increased the vulnerability of those in the informal sector employment and elderly as well as people with chronic illness who are not covered under social security schemes. Studies have also found that even in advanced countries gender bias aggravated during the period of COVID lockdown. All these are worrying trends for human development, particularly for populous and asset poor developing countries. In this context, identifying the strength and weakness of the existing public delivery system pre-COVID would help in understanding the adjustments that are needed to accommodate the post-COVID impact. The articles in this edited volume examine the role of state in human development and its efficacy in the provision of crucial services like education, drinking water, elderly health as well as social security in the development of backward areas in the Indian context and attempts to provide future roadmaps for adjustments with COVID shocks.

The emphasis on India is well founded as it had the highest number of COVID case-loads after United States and Brazil. India is also the country that is known to have imposed one of the stringent lockdowns amidst which almost 140 million workers were dismantled from their jobs and almost 45% households reported a drop in their income.[4] As market provisions were cut-off, the onus of providing income and health support lied on the public sector. Judging by the past records the efficacy of the public sector however seemed less obvious.

This is because despite spectacular economic growth in the recent decades a sizeable portion of Indian populace, especially in the rural areas, still suffers from severe non-income poverty in terms of inadequate access to basic services like health care and proper education. For instance, only 4 out of 8 Millennium Development Goals (MDG) in the past decade have been met by India and it continues to lag behind in checking maternal and child mortality as well as prevalence of hunger. In the fields of education though there are evidences that policies like midday meal had significantly enhanced school attendance (Jayaraman & Simroth, 2015) its impact on educational attainment and learning remains inconclusive. However, these concerns are expressed over the fact that though enrolment and attendance have increased in India in terms of skill acquisition and attainment it still remains below the global standard. Failure to meet the past development goals and the commitment towards meeting the Sustainable Development Goals by 2030 necessitates a critical investigation of the public delivery of crucial social services like health care and education in India. It is also important to note that significant reforms towards decentralization of public service delivery have been undertaken in India. As noted in the existing literature decentralization has three specific advantage over top-down approach in that it (i) entails superior information on local conditions (ii) induces greater participation of citizens and finally (iii) greater accountability of public. Unfortunately, the possibility of elite capture, political clientelism, targeting inefficiency as well as leakage has often challenged the efficacy of decentralized service provision in India. All or many of these factors point towards increasing the transaction costs arising

[4] https://scroll.in/article/959756/podcast-how-has-indias-lockdown-impacted-unemployment-rates-and-income-levels.

from information asymmetry and limiting the access to public services particularly for the poor and disadvantaged class.

The importance of public spending vis-à-vis increase in private income towards increasing quality of life has a long standing in economics. In one of the early works Anand and Ravallion (1993) there exists a spurious correlation between growth and human development indicators like life expectancy that disappears once poverty level and expenditure on public services are controlled for. However, as mentioned earlier, the virtues for decentralized public service delivery are vulnerable to imperfections like elite capture where stronger political connection or higher economic command translates into disproportionate share of public developmental works (Dasgupta and Beard, 2007). In fact, studies demonstrate that traditional system of caste and class reinforced by the pre-existing social structure hinders the active participation of the disadvantaged classes in the decision-making process (Balooni et al., 2010; Nightingale, 2002). As Wallis and Dorey (2002) notes that in such setting reliable outside networks in terms of professional groups as well as the quality of reciprocity and trust works towards substantially lowering the information and transaction costs. This might also explain why decentralized public provisioning had a mixed record in terms of its effectiveness across developing countries. In terms of health care access, Zhang et al. (2006) find that individuals living in villages with greater endowments of trust and reciprocity are more prone to community-based health insurance. Similarly, individuals with higher levels of bonding (social ties often measured as informal social control and reciprocity) social capital report higher access to health care facilities (Ahern & Hendryx, 2003; Prentice, 2006). In terms of water access cross country evidence suggests that poor state of institutions that manage interethnic relations acts as a barrier to piped water access in ethnically fragmented communities (Jackson, 2007). In case of education Muller and Ellison (2001) show that religious involvement as social capital enhances the educational aspiration among youth. In the Indian context Afridi (2011) finds that public assistance programmes like midday meal do increase girl school attendance but no significant impact on enrolment. However, it doesn't analyse the impact of the programme on the learning outcomes.

The proposed work contains 14 researched articles on the above issues pertaining to Human Development, Community Networking, and Public Service Delivery with special reference to India. We have divided the book into five sections. These include an introductory exposition to different perspectives of human development providing a heterodox perspective on the concept of human development. This discussion is accompanied by the state-of-the-art survey of methodologies and proposal of new methods to quantify dimensions of human development that aligns with the Sustainable Development Goals, 2030 (**Perspectives on Human Development**). Next we consider delivery of public services in India—the first with an exposition of issues in the Indian context and the second with an actual case of drinking water supply in rural India. In fact, the issues touched upon in the chapters apply in many ways to other countries in South Asia, for instance, deprivations in public water supply. In South Asia alone over 134 million people still lacks access to potable drinking water exposing the population to health risks from water-borne diseases (**Delivery**

of Public Services in India). In the next section we look at the issues of education, social security, and old-age health problems (**Education, Health and Social Security for Human Development**). Education is an intrinsic part of Human Development. So we include two articles where the first discusses the problem of education and human development in India in general and the second analyses the impact of rural employment programmes on school going children. Though more of a rural employment programme rather than direct educational intervention the former may still interact with school outcomes by influencing the income level of the households. Old-age health problems are becoming significant in India as the share of the elderly population (above 60 years) is projected to go up to 19.5% by 2050. The Longitudinal Ageing Survey in India (LASI) revealed that there's a rise in the number of elderly living alone or only with spouse.[5] There are studies that point towards the need of massively increasing the capacity of institutional care like old-age homes.[6] This section sheds light on old-age care in the background of COVID scenario. The other issues included involve the unorganized workers and development of backward regions. As gender equality is an integral part of human development, we include two chapters of which the first talks about underage marriage and violence against female—a recurrent phenomenon in India. The second article empirically analyse women work force participation in India (**Gender and Human Development**). Finally, the book addresses the challenges regarding mobilizing resources for public service delivery for human development. It also includes a case study that evaluates the allocation of the Backward Region Grant Fund. Besides public financing, there's ion about India's unique policy/legal initiative on Corporate Social Responsibility (CSR) funding/spending for certain identified activities to supplement the public efforts for human development (**Financing for Human Development**). The views of the proposed articles are heterodox in approach as some of them are based on mainstream neoclassical economic philosophy and some on non-mainstream political economic context especially in terms of Marxian analytics. The issues covered in the book are theoretical as well as empirical which will be helpful to postgraduate students and researchers in Social Science including Economics, Political Science, and Sociology. As far as public service delivery in India is concerned the book deals with the contemporary relevant issues of education, health care, and the associated ethics and hunger and also deals with the question of hunger and gender dimension as far as Human Development is concerned.

The very concept of Human Development as it is used today in the mainstream neoclassical economics theory and, also in practice (as it is used by UNDP to construct Human Development Index) is based upon Amartya Sen's capability approach as noted by Byasdeb Dasgupta in his paper '*Is the Notion of Human Development Capitalo-centric?'*. And hence, it also incorporates Sen's notion of Development *as* freedom. The question is which freedom. We know in a capitalistic economic space a human being is *generally* envisaged as *direct producer* that is, he/she is creator of discretionary wealth in terms of creating surplus value for the sake of

[5] https://iipsindia.ac.in/content/lasi-publications.

[6] https://www.tatatrusts.org/upload/pdf/report-on-old-age-facilities-in-india.pdf.

productive capitalists and for capital accumulation thereby. In the neoliberal space such direct producers are to be *homo economicus*—the term which was used first in the nineteenth century by some political economist in the context of the works of John Stuart Mill. To be homo economicus the economic man must be self-sufficiently efficient meaning capable of producing surplus value (the term used here in Marxian sense) given his/her level of education and skill, a certain basic quality of health and in the process he/she is supposed to be taken care of his/her well-being meaning capable of improving his/her quality of life—the 'quality' of which is erected on the basis of his/her ability to satisfy his/her own self-interest (as is propounded by Adam Smith). Here, the connotation of human development is very much based upon certain basic conditions of market economy where market is constructed as panacea of all ills in the society including the development of individual human being in the capitalist society. In this paper an attempt is made to disinter the concept of Human Development from a class-focused Marxist framework as developed by Resnick and Wolff in 1987 in their seminal work *Knowledge and Class.* In doing this there is an endeavour to have a take on Sen's concept of (human) development *as* freedom and strive to find out how the very idea of Human Development as it is today used in the official circle (UNDP and like) all over the world is guided by capitalo-centric logic.

Now if the received notion of human development is capitalo-centric, then the basic question is what about humanizing human development? The paper on *Eleven Theses on the Humanization of Development: 'Praxis Philosophy' in World of the Third* by Anup Dhar and Anjan Chakrabarti makes an attempt to answer the question. What will make development *human*; or *humane*? How does one *humanize* development? What is human about 'human development'? Do we need to move beyond the 'human development index'—beyond mere measure (this is not to deny the importance of certain measures)—to render human development, *human(e)*? This chapter makes space for eleven possible moves to humanize development. The first is of course to turn to capabilities-functionings, quality of life, and questions of well-being (in addition to 'growth'). The second is a critique of the reduction of a part of humanity to the epithet *underdeveloped* and the consequent dehumanization; is the one deemed underdeveloped, *differently developed*; developed in non-capitalo-centric, non-Orientalist paradigms? Is it a 'camel' and not an '*underdeveloped* horse'; its strength is in *sustainability* and not in spikes of productivity? The third is a disaggregation of the map of the world into those that are 'hooked to the circuits of global capital' and those that are not and are *outside* (designated as *world of the third*). The brunt of the cruelty of (capitalist) development projects is borne by the world of the third subjects. This chapter is a critique of that inhumanity and an attention to the pain inflicted upon the world of the third. The fourth is a turn to those *subject positions* that constitute the world of the third. Such post-capitalist and post-Orientalist subject positions further humanize development. The fifth is a turn to the real human being; not data; not graphs; breathing, living human beings. The sixth is to re-establish a long lost real relationship with the 'subaltern'. Not to study them; not to churn out papers on their miseries; but to relate to them and their miseries; to alleviate some of the social suffering, if possible. The seventh would be what Marx designates in the first of the Eleven Thesis as the *turn to praxis*. Development Studies can perhaps

be humanized only if it is singed in development practice, in transformative social praxis; i.e. if poverty is alleviated; not just studied. The eight would be the displacement of 'field work' with *immersion in subaltern life-worlds and worldviews*, of research with *action research*, of theories of social suffering with *practices of social healing* humanizes the extractive relationship the academia has with the participant. Does this require a ninth: i.e. a Borromean Knot of *knowing-being-doing*? Does this require a tenth: i.e. a rewriting of politics as *reconstruction* and not just critique? Does this require an eleventh: i.e. a turn to *praxis philosophy*—a philosophy of not just being intelligent but about *being good* as well—where philosophy is not just a way of knowing but a *dharma*—a *way of life* and *ethical living?*

Ever since it came into existence in 1990, the UNDP Human Development Report and the HDI has become an important tool for measuring progress of a country beyond the narrow boundary of macroeconomic growth as noted by Souvick Dey, Jhilam Ray and Rajarshi Majumder in their paper '*Measuring Human Development at Sub-National Level: Methoda & Application'*. This exercise has been replicated at country level, bringing out national and sub-national HDRs. In India, national HDR has been followed by state level and district level HDRs, bringing to fore some limitations of the current method. First, there is an acute lack of data support at necessary granular level. Second, often the global template is not sufficient to reflect the actual context and diversity of the region for which the report is being prepared and one has to adjust, innovate and modify. However, these exercises across the country have mostly been done in silos and there is no common template for preparing sub-national HDRs. As a result these reports are not comparable either across space or across time. In this paper the authors draw from the latest UNDP SDG framework and recent methodological advances in preparation of composite indices to propose a template that can be used for preparing SHDRs. The methodology is discussed and then sub-national field data is used to explain its application. The methodology suggested has the added advantage that being based on the SDG framework it can be used as a baseline to monitor progress against the SDGs themselves at state/district/sub-district level. It is expected that the framework will emerge as a platform for preparing HDRs across the country in coming years.

While many of the current policy papers and documents underline the role of communities in delivering public goods and services—a phenomenon officially called communitization, the paper '*Delivering to Destroy? Communities and Access to Public Goods in India'* by Samir Kumar Das takes a different course and views communitization—not so much as an efficient mechanism for delivering public goods and services—but very much as a process that has its rebound effects on the communities themselves. It argues that the use of communities for the purpose of delivering public goods and services entails significant transformations in, if not the destruction of, these communities by seeking to answer the following questions: How do the existing policy documents view the instrumentality of communities? What changes does communitization introduce to the social life of the communities that are sought to be rendered instrumental for the delivery of public goods and services? Do communities remain the same as they gear up for the task? The paper thus pushes the delivery project beyond its narrow, instrumentalist, and albeit economistic understanding with

the help of a series of ethnographic studies conducted by the author since the beginning of this new millennium in various parts of India's East and the Northeast. The ethnographies cited here were conducted in the villages of Nagaland, on mainly the poor and marginalized sections of victims displaced as a result of riverbank erosion in the northern and north-central districts of Malda and Murshidabad respectively in West Bengal, on sections of *adivasi* informal mining labour of Keonjhar and the scheduled caste villagers of Karadabani in Nayagarh—the last two in Odisha. The paper concludes by arguing that the community may be viewed as a veritable site of contest between the communitized communities on the one hand and the forces resisting it on the other.

The paper '*Delivery of Safe Drinking Water in Rural India: An Appraisal of Public Water Supply Initiatives'* by Subhalakshmi Paul and Prasenjit Sarkhel deals with the question of availability of potable water in rural India which is crucial for ensuring better quality of life. As the demand for potable water is inelastic it is mostly provided by the public agencies in countries like India. Owing to poor conservation of rainwater and lack of surface water treatment public supply of water relied on groundwater. However, due to rapid depletion of groundwater and declining water table the focus has now shifted to piped water supply. While earlier water supply policies have stressed on habitation-based water connection the recent policies and programmes have focused more on household level connection. In tune with this, delivery of water supply is now more decentralized and the capacity of the local institutions has been augmented to increase water coverage. However, recent reports suggest that a substantial portion of rural populace still lacks drinking water supply in their premises. In this paper the authors review the rural water supply programmes and the rationale for shifting the target from habitation to household via decentralization. They further investigate the coverage of piped water connection under the National Rural Drinking Water Programme (NRDWP) and attempt to identify the critical stumbling blocks that impede universal water connection. The authors superimpose groundwater level data obtained from the Central Ground Water Commission on piped water connection data and use panel regressions to estimate the influence of decentralization on the extent of water coverage controlling for groundwater availability and population demographics at the state level. The results suggest that decentralization might not have been effective in increasing water coverage even after controlling for groundwater availability. The findings suggest that along with supply side intervention demand-based management needs to be properly implemented to ensure sufficient water coverage in rural India. The paper on *Higher Education in quest of humane development: Envisaging the future in the Post-Covid era* by Saumen Chattopadhyay argues that the universities have been undergoing transformation since long. The speed of changes got expedited in the wake of the Pandemic. Given the role of higher education in creating conditions for development, this chapter looks at how the possible linkages between university and development are changing and what implications these changes have for the nature and content of development. While the reduction in public funding appears certain world over, the introduction of digital technology in the classroom is turning out to be a game changer with the changing concept of time and space associated with the university as the classroom

can now become global with the possibility of asynchronous teaching learning. This chapter seeks to argue that public good character of higher education is to be upheld notwithstanding these changes. In fact, with increasing cross-border mobility, higher education is now a global public good. Higher education plays a unique role in the formation of the self and the society. However, given the increasing reliance on online education, growing university-industry collaboration, increasing reliance on market to achieve efficiency in the context of internationalization, it is doubtful whether higher education can contribute towards development which is humane. Under the influence of world ranking of universities, the top universities are getting disembedded from the local and national context within a system which is getting more and more differentiated. These developments undermine the objectives of access and equity. The concept of quality is being redefined too with changing demand for skill and acceptance of life-long learning to remain relevant in the job market. While the ivory tower image of the traditional university is no longer tenable, it is important to ensure how the university space can be protected from interference from outside and universities remain both intellectually and morally independent to serve the society better.

The paper by Tushar Kanti Nandi is on '*The Effect of Employment Guarantee Scheme on School Attendance in Rural India'*. The National Rural Employment Guarantee Act in India guarantees 100 days of wage employment per year to rural households. A burgeoning literature documents how the employment guarantee scheme has affected different aspects of rural economy like poverty alleviation, rural asset creation, and rural-urban migration. This paper contributes to this literature by studying the effect of the scheme on educational outcomes of households who work in under the scheme. The paper estimates the effect of employment guarantee scheme on school attendance of 14–17 years old boys in India. Using data from a nationally representative household survey, the author compared the educational outcomes of two types of rural households (1) households that applied for work under the scheme and obtained work and (2) households that applied for work under the scheme but didn't obtain work. It is found that a household's work in the scheme reduces the probability that a 14–17 years old male household member attends school by 14%. Estimation using an older subsample of boys who attended school before the implementation of the scheme shows that the negative effect is not driven by unobserved household heterogeneity that affects both school attendance and work in the scheme. The results indicate that a well-intended employment guarantee scheme can have perverse effect with long-term consequence for the beneficiaries and the economy as a whole.

India's size of elderly population is on the rise. The paper '*Health and Well-being of the Elderly People Before & After COVID-19 Outbreak: A Survival Challenge in West Bengal, India'* by Priya Biswas, Sanchita Roy and Debaprasad Sarkar delves into the question of health care of the elderly population in the contemporary West Bengal in India contextualizing it in the backdrop of the ongoing Covid-19 pandemic. In the last century India has witnessed a rapid increase in the elderly population with the significant interstate disparity depending upon the pace of demographic transition. The unprecedented COVID-19 pandemic might create a finite change in economic

health and multidimensional uneasiness by the death toll of experienced human capital from the large proportion of elderly people, with co-morbidities. The present study systematically assesses the relative importance of socio-economic factors and other factors related to health and well-being of elderly people residing inside and outside old-age home, before and during COVID-19 lockdown. The health and well-being of elderly people have been derived through overall Health Utility Index (HUI) method using primary information on different physical and mental attributes from 458 elderly respondents in and around Kolkata (265 residing outside and 193 residing inside). During COVID-19 lockdown and unlock process (April–June,' 20) a cross-sectional phone call survey has been conducted on health and well-being from 98 elderly (20% from the previous sample). A comparative picture of health and well-being between elderly people residing inside and outside old-age home in West Bengal, India, has shown that the socio–economic factors have been of the highest importance. The financial insecurity, social isolation, abuse, problem with assets, loneliness, frustration, and insufficiency of essentials including medical needs have been predominating factors for survival challenges in their present life of elderly. Elderly who stay at old-age home is suffering more in terms of survival before and during COVID-19 pandemic lockdown in absence or insufficiency of social security measures compared to elderly, who stay with their family. The health and well-being of elderly has sacrificed a lot during COVID-19, compared to pre-pandemic situation mainly due to inaccessibility of healthcare, prescribed food and supplements, problem in receiving pension/remittance, social distancing protocol. Better social relations with suitable social pension, door to door ration and medicine supply, health check-up, etc. under public control could improve the well-being of elderly even in the COVID-19 pandemic.

The paper '*Experience of Social Security for Unorganized Workers in West Bengal'* by Arghya Kusum Mukherjee has tried to investigate the following questions: (a) employment conditions of unorganized workers of West Bengal vis-a-vis India, and social security initiatives for unorganized workers adopted by the Government of West Bengal; and (b) extent of social security measures taken by the Government of India and the Government of West Bengal during Covid-19 pandemic. Secondary data have been used to analyse these questions. This paper shows that employment condition of the unorganized workers is worse in West Bengal than that of all India averages. Government of West Bengal took several social protection measures for unorganized workers. However, number of actual beneficiaries of these programmes is very insignificant compared to eligible beneficiaries. Government of India announced several relief packages during the Covid-19 pandemic. But a tiny portion of those packages has been spent for social security purpose. Government of West Bengal also took some initiatives for returnee migrant workers during Covid-19 pandemic. However state action was not sufficient to keep migrant workers in their natives, and migrant workers have started to migrate again.

The paper by Bishakha Ghosh and Archita Ghosh on '*Backward Region Grant Fund and its Utilization: A Case Study in the District of Adilabad, erstwhile Andhra Pradesh'* disembarks upon the issue pertaining to backward regions grant fund given by Government of India to develop some selected backward districts in India.

The Backward Regions Grant Fund (BRGF) is an Indian government programme designed to 'address regional imbalances in development' in 250 backward districts of India. It was launched in 2007 and terminated in 2012. The scheme supplemented the other development programmes. Its objectives were to bridge critical gaps in local infrastructure and other development requirements that were not being adequately met through existing inflows and to strengthen the Panchayat and Municipality-level governance with more appropriate capacity building. The scheme sought to facilitate and encourage participatory planning, decision-making, implementation and monitoring at the Panchayat and Municipality levels, so as to address the local-felt needs. The paper made an attempt to evaluate the state of public service delivery in India through a case study in Kotapalle Mandal, Mancherial district of Telangana. Kotapalle Mandal was in Adilabad district of Andhra Pradesh during the BRGF period. Both secondary and primary data have been used to arrive at the conclusions on the efficacy of utilization of the fund. It has been found that paucity and irregularity of fund hindered the planning and execution of meaningful developmental works. The objective of facilitating participatory planning at the grassroot level also seems to remain unfulfilled.

Any discussion on human development remains incomplete unless it touches on the issue of gender inequality and gender-based violence. In the paper on '*Understanding costs of violence against women and the need for contextualization'* Manasi Bhattacharyya deals with the question of violence against women and girls which violates women's fundamental human rights affecting one in three women in the world at all stages of their lives. Women are subjected to physical, sexual, psychological, and economic violence across the world regardless of their age, education, or income. Violence against women has immediate and long-term health consequences for women and girls. In extreme cases, it can be lethal, resulting in death. Violence also severely impacts women's economic participation and care work. The socioeconomic impacts of violence against women and girls at the individual/household and the community levels contribute to the nation's social and economic cost. The social and economic cost of violence against women is significant. Globally, progress on the elimination of violence against women and girls has been slow. A lot needs to be done to achieve the Sustainable Development Goal (SDGs) on gender equality and the target (5.2) on eliminating violence against women and girls. Women's equality and empowerment (SDG 5) is critical for all dimensions of sustainable development, and all the SDGs depend on the achievement of Goal 5. Violence against women and girls is an outcome of complex dynamics of multiple and intersecting forms of structural injustices, including gender inequality and specific environmental risk factors. For addressing violence against women and girls, it is crucial to focus on prevention. Formulation of the preventive strategy to address violence against women and girls calls for systemic changes, which cannot be achieved at the individual level alone. Preventive strategies to eliminate violence against women and girls must assess the individual, community, organizational and societal structures, laws and policies, social norms and practices that perpetuate harmful constructions of masculinities, gender inequality, and other social injustices, which intersect with gender inequality.

For formulating effective strategies, it is also imperative to identify context-specific drivers of violence against women and girls.

In the paper '*Women's Labour Force Participation in India and Continuing Gender Inequality: A Reflection of 15 Major States in India in the Reform Era'* Anupam Hazra examines the issue of gender inequality which is still prevalent in India among the women labour force. Evidence, from the literature on the female workforce in India, shows that real agricultural wages, expenditure per capita, and gross domestic product are on downward trail. Although a number of studies suggest a U-link between women's progress and participation in the labour market. Studies also confirm the relationship between the structure of the economy and women's economic activity. Experiences in India indicate that women's participation in the labour market has been trending downward from 1993–94 to 2011–12. It is expected that such a high annual growth rate over an extended period of time would generate sufficient employment and reduce unemployment and the incidence of poverty. This paper acknowledged that the participation rate of women at both an aggregate level and in all demographic, cultural, and economic variables was declining significantly. This pattern is more marked for the less educated, married women and youth. This paper has attempted to unfold the actuality behind the recent sharp decline in female labour force participation in India, in a period of rapid economic growth, and to identify factors underpinning the long-term drifts in female participation.

The Backward Regions Grant Fund (BRGF) was an Indian government programme designed to 'address regional imbalances in development' as indicated by Archita Ghosh and Bishkha Ghosh in their paper on *Backward Region Grant Fund: Is the allocation justified?* It was launched in 2007. The scheme supplemented other development programmes. Its objectives were to bridge critical gaps in local infrastructure and other development requirements that were not being adequately met through existing inflows, and to strengthen the Panchayat- and Municipality-level governance with more appropriate capacity building. The scheme sought to facilitate and encourage participatory planning, decision-making, implementation, and monitoring at the Panchayat and Municipality levels, so as to address the local-felt needs. The authors selected a particular backward district for the study: the district of Adilabad. Adilabad was part of Andhra Pradesh during the BRGF period. It became part of the newly constructed state of Telangana in 2014. The work takes a critical look at the allocation of funds under BRGF. The analysis of allocation is done on the basis of official data. The criteria taken for the distribution of the fund are examined and an alternate criterion is suggested for any such future programmes.

While public finances are getting dried up due to fiscal consolidation the reliance on private financing of human development is gaining momentum, especially in country like India. One such source of financing is shared by the corporate—popularly known as Corporate Social Responsibility (CSR). The paper on '*Private Provision of Public Goods through Corporate Social Responsibility (CSR) in India'* by Indranil De and Sudhir Kumar Sinha discusses in terms of some case studies the problems and prospects of CSR-based financing of human development in India. CSR spend by private companies can supplement resources for public service provision. In India, the share of CSR expenses is maximum in education followed by healthcare.

These resources improve access to basic services but often without engagement with the community. Lack of community participation from the inception of the project does not build capability within the community. The projects may become unsustainable once the companies withdraw their funding. This paper critically examines the CSR models of companies and their engagement with community leading to long-term capacity building. In this regard, the authors have conducted case studies of CSR projects undertaken in different sectors: public health, education, environment, and livelihood. The companies selected are all reputed public and private sector enterprises. The study reveals that many of the projects attempt to deliver public service through very high investments. But they do not build the capability of the community. Due to lack of community engagement, they may not be able to achieve the major objective meaningfully. The existing arrangement may get stressed and conflict with project objectives. On the other hand, projects that engage community improve capability of the community with low cost systems. It may lead to innovation by community through development of local institutions. These projects educate communities to appreciate local resource for its appropriate use for livelihood generation. The recent approval of CSR contribution in PM CARES Funds may only supplement government resource to fight pandemic without entailing much desired innovation through community engagement.

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Part I
Perspectives on Human Development

Chapter 2
Is the Notion of Human Development Capitalocentric?

Byasdeb Dasgupta

Introduction

In the mainstream development literature human development as a concept replaced what was earlier simply development. Development became the buzzword in the immediate post World War II era when many countries in the South got independence from the colonial rules. International agencies like the World Bank were formed to shape the then idea of development and also, were bestowed with the task of implementing the agenda of development in the post-colonial countries. The seminal work of Lewis (1954) which is known as Lewis model shaped the theoretical contour of development as it was theorized and practiced in the mainstream neoclassical economics pertaining to development. The basic signifier of development was industrialization in the post-colonial South. It was thought modern industries once set up in the South would automatically transform the quality of life of the individuals although this initial idea of development was not individual centric. Rather, it was based on a macro-theoretic nuance in which transfer of population from "backward" rural economy predominantly agricultural to the modern industry-driven urban areas was considered as development. Once this transfer from "backward" agriculture to "modern" industries is ensured the rest would follow automatically by changing the quality of life of individuals. Development approach in this mooring was a trickle down one. Two things are discernible in this idea of development: (i) agriculture in post-colonial South is backward in the sense that it is pre-capitalistic and (ii) industry signifies modernity as it is capitalistic. Hence, the notion of development was essentially in this approach capitalistic development. And the world-wide hegemony of capitalism was welcome in the guise of so-called development of the South and its citizens as only with (capitalistic) development the quality of life could improve. Now, the moot question is what was meant by quality of life in this development approach? The quality of life meant the individual's improvement in (monetary)

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income which once on upward swing would automatically take care of all the needs of the individual. Thus, the basic connotation of development was capitalocentric as it was premised on capitalistic development which only was supposedly capable of transforming an individual to the tune of development—meaning capitalistic development. Anything pre-capitalistic is backward in this notion of development although the context of class and exploitation remained foreclosed in this deliberation of development. Post-colonial South was perceived as third world which is lacking other of the first world—the developed West. The reference to development in the third world was with respect to West as anything Western was good for the third world and its citizens!

After four decades of practice of development as delineated above a paradigm shift occurred in the decade of nineties when human development as a concept replaced the traditional concept of development. Since 1990 the buzzword is human development, not development which speaks in terms of freedom of choices that an individual is capable of making. So, the shift is now to a more individual centric concept of development from the earlier concept. Does this shift in the concept signify doing away with the capitalistic mode of development? Does this shift inaugurate a notion where class and exploitation are to be done away with? Does human development signify the doing away with West-centric conception of third world individual and does it take cognizance of the third world moorings of socio-economic making of an individual? These are some of the questions which the present paper will make an attempt to understand. But we have to keep in mind that as Human Development Report (1990) published by the United Nations Development Programme (UNDP) is in terms of the capability of an individual to make choices with freedom and hence, it is what Sen (2000) terms as *development as freedom.*

The paper is organized as follows. Section 2.1 of the paper will try to analyse the basic idea of human development followed by a summary of Sen's (2000) concept of development as freedom in the subsequent section. Section 2.3 will disembark upon a critic of the received notion of human development while making an attempt to show its capitalocentrism which is followed by a critique of Sen (2000) in the same light of capitalocentrism. The concluding section will sum up the basic arguments of the paper. The entry point of our analysis is class-focused Marxist theory which we will describe while critiquing human development as a concept of development.

2.1 Idea of Human Development as It Has Evolved Through the Contour of Development

Human development as a concept in mainstream economics displaces the traditional concept of development which saw development as modern industrialization as a means to improve the quality of life in the third world. And as such much emphasis was upon GDP growth and expansion of the GDP through the expansion of industrial production in the South. South or third world was viewed in the traditional literature

on development as lacking other of the first world—the North and hence, development as conceived was with respect to the growth and development in the Western world historically. Human development is more than about GDP growth rate. It marks a departure from the traditional concept of development as it now focuses more on freedom of the individual to make choices and as such this freedom, as claimed by the proponents of the human development, would usher in improvement of quality of life in the third world. Human Development Report (1990) asserts this in the following manner:

> This Report is about people—and about how development enlarges their choices. It is about more than GNP growth, more than income and wealth and more than producing commodities and accumulating capital. A person's access to income may be one of the choices, but it is not the sum total of human endeavour.

Now the question is how these choices are to be made? As far as the original idea of human development goes—it is development which makes people capable of making these choices. And these choices are to be made by the individuals on their own. Choices are the own concern of the individuals. Human happiness cannot be guaranteed externally or by some external agencies. However, "the process of development should at least create a conducive environment for people, individually and collectively, to develop their full potential and to have a reasonable chance of leading productive and creative lives in accord with their needs and interests." (Chandler, 2013).

The question here is does this process of development, which is perceived as means to create room for making individual choices is different from the process of development which was formulated in terms of earlier development models like the one of Lewis (1954) in 1950s? Does this conducive environment which this process of development is supposed to garner is akin to a particular path of industrial development as was originally proposed? How individual as a subject (of human development) is viewed in the context of human development? Is this individual the typical homo economicus as is enshrined in the mainstream neoclassical economics? How the needs are perceived? Does this concept of individual and her freedom to make choices according to her needs and interests go beyond the concept of rational economic man as is generally perceived in mainstream neoclassical economics? How the needs are perceived? Are they totally autonomous and rational needs of the individual?

These are some of the questions which strike us the moment we depart towards contemporary concept of human development which is claimed to be a paradigm shift from development qua industrialization and increase in per capita GDP/GNP to individual centric development qua individuals' freedom to make choices according to their needs and interests. We will try to find answer to some of these questions in this section and some in the section below on critical assessment of the concept of human development.

The received notion of human development as can be found in the several issues of Human Development Report published by UNDP is silent about the specific process of development which would usher in a 'conducive environment' for making

individual choices. Rather, what emanates from the existing literature on human development, the fundamental means to achieve capability of making choices hinges upon the Western model of development and the quality of life is as per the Western man which the latter could achieve in last three hundred years since the time of Adam Smith which marks the beginning of capitalist development and global capitalist hegemony. The viewing of every economy is in terms of this economy of the West and anything non-Western is lacking other of West. It is a binary vision of the economy and society—West and lacking other of West (p and ~p). World thus viewed in development and human development literature is a homogeneous one. What is not there or missing in some parts of the world is lacking other of the homogeneous whole and so is individual. So, there is a need to standardize third world and its individuals to bring them at par with the first world.

It is interesting to note that the notion of human development came into being when the entire world is construed in terms of neoliberalism the basic tenets of which are the following: (a) private has to replace anything public or state; (b) private investment has to replace public investment, (c) market should replace state and (d) the economic man must be homo economicus—an idea which is the portrayal of humans as economic agents who are consistently rational and narrowly self-interested, and who pursue their subjectively defined ends optimally. In the received notion of human development there is an urge to construct this homo economicus—a rational man who is capable of making his/her choices according to his/her self-interests. And the social institutions like market need to be cleared from external influences (particularly from state intervention) so that a conducive environment is created to foster human development. Free market as propounded by Adam Smith way back in 1776 is conceived as a level playing field which can provide the necessary impetus to create the conducive environment. So, the process of development as a means to achieve human development involves creation of free markets in the non-Western societies free from any outside and state intervention. This suits quite well with the basic tenets of neoliberalism as mentioned above. Hence, the received notion of human development neither challenges the traditional process of development qua modern industrialization nor does it challenge neoliberal order which till the date remains the hegemonic order in this new era of global capitalism.

Human development differs from the traditional development in one respect. In human development the focus is on individual. The ideal is to construct an autonomous individual who being guided by his/her self-interest is capable of attaining his/her own well-being. This was not the case explicitly in the traditional idea of development where the ideal was to create a society in terms of the Western industries which then automatically takes care of well-being of the citizens by expanding the per capita GDP or income. This is the only departure which is noticeable in the received notion of human development vis-à-vis that of traditional development. So, in the construction of homo economicus a society is needed to be created in line with what history has already bestowed in the North or the West. And in this respect, the idea of human development greatly converges with that of the traditional development. Therefore, human development as a concept in mainstream neoclassical economics is only a paradigm shift in the sense of being more individual

centric than macro specific. Otherwise, the nodal signifiers of human development were very much present (may be implicitly) in the traditional concept of development. Human development has rendered these nodal signifiers more explicit than ever before.

In short, human development is all about formation of human capabilities such that individuals can make free choices according to their interests and needs which are not determined externally and in that sense they are not product of the social contexts. Only thing which is externally important for formation of human capabilities is "conducive environment" which once again is a homogenized space irrespective of time, space and socio-cultural contexts. Human Development Report (1990) opined:

> Human development thus concerns more than the formation of human capabilities, such as improved health or knowledge. It also concerns the use of these capabilities, be it for work, leisure or political and cultural activities. And if the scales of human development fail to balance the formation and use of human capabilities, much human potential will be frustrated.

This implies that if capabilities qua conducive environment could not be created human potentials in the form of set of human capabilities for making free choices cannot be ensured. What is important, therefore, is to create a space where the rational economic man qua the concept of homo economicus can freely make choices guided by his/her self-interest. So, the well-being of an individual, envisaged as a rational economic man in neoclassical sense of the term, depends on his/her ability to make free choices. It is just not about education, knowledge and health; it is more than that. And this sense of making free choices would come from the inner will of the individual subject. No external requirement for facilitating him./her in this choice-making endeavour is deemed necessary. This is something which should be the case in every economic space irrespective of the level and process of contexts in which different economies are set. And in this sense, the capabilities of human beings related with their self-interests *a la* Adam Smith are absolutely ahistorical and this makes the capability approach and the associated subject formation in the form of a rational economic man is problematic for us which we will explore further in the following sections.

The analytical formation of human development to our understanding is best captured by Sen (2000) in *Development as Freedom*. We therefore propose an engagement with Sen (2000) to pose further subject formation and means and ends of development as far as human development is concerned. This we take up in the following section.

2.2 Sen's Idea of Development as Freedom

Human development is all about individual economic agent's capability of making choices with freedom according to his/her needs and self-interests. If that is the case then development is a process of creating more and more freedoms for individuals in

the society at any time. This is how Sen (2000) illustrates his notion of development as freedom analytically. According to Sen (2000):

> Development can be seen,…, as a process of expanding the real freedoms that people enjoy. Focusing on human freedoms contrasts with narrower views of development, such as identifying development with growth of gross national product, or with the rise in personal incomes, or with industrialization, or with technological advance, or with social modernization. Growth of GNP or of individual incomes can, of course, be very important as *means* to expanding freedoms enjoyed by the members of the society. But freedoms depend also on other determinants, such as social and economic arrangements (for example, the facilities for education and health care) as well as political and civil rights (for example, the liberty to participate in public discussion and scrutiny). Similarly, industrialization or technological progress or social modernization can substantially contribute to expanding human freedom, but freedom depends on other influences as well. If freedom is what development advances, then there is a major argument for concentrating on that overarching objective, rather than on some particular means, or some specially chosen list of instruments. Viewing development in terms of expanding substantive freedoms directs attention to the ends that make development important, rather than merely to some of the means that, inter alia, play a prominent part in the process.

So, if human development is all about individual choices, then the process of development is tantamount to focusing on human freedoms so that individual subject can make choices as per her self-interest and needs. Now, the question is whether this freedom is tied to some specific socio-economic-cultural context or whether this freedom is the liberal freedom of individuals as cherished by the standard neoclassical economic philosophy on which is based the present neoliberal global order.

In Sen (2000) arguments, we found that the freedom which he is speaking about is not bereft of the free-market mechanism which is cherished by the proponents of neoliberal global order. Given the changing circumstances of the global order in the early nineties which was more and more got characterized by neoliberalism Sen (2000) commented: "The intellectual climate has changed quite dramatically over the last few decades, and the tables are now turned. The virtues of the market mechanism are now standardly assumed to be so pervasive that qualifications seem unimportant. Any pointer to the defects of the market mechanism appears to be, in the present mood, strangely old-fashioned and contrary to contemporary culture (like playing an old 78 rpm record with music from the 1920s). One set of prejudices has given way to another—opposite—set of preconceptions. Yesterday's unexamined faith has become today's heresy, and yesterday's heresy is now the new superstition." (Sen, 2000: 111). So, market which is absolutely free is the new "superstition" which cannot be ignored as per him and hence, any talk about human freedom has to be envisaged in terms of the free play of the market—a market which in standard neoclassical sense is absolutely free from external intervention and being so the market is full of harmony. And now, if the individual freedom in the most liberal sense of the term can be assured individual can become homo economicus, i.e. they can act as per their self-interests and choices governed by their self-interests which would be beneficial for all the agents in the free-market money using economy. So, the individual freedom which Sen (2000) was talking about is tuned with a particular hypothetical economy governed by particular social order—a social which is formed by self-interest driven

individual freedoms of the economic agents. And hence, this is absolutely compatible with the hegemonic capitalist world order. In fact, Sen (2000) in support of his claim in favour of such a world order has told that Marx also supported capitalism as a development from previous world orders characterized by feudalism. So, in Sen (2000) the progress is linear and he stops at a particular order which is featured by global capitalism where each economic agent is free to apply his/her own choices. Only what is needed is to make a "conducive environment" for such a capitalist order where human beings as economic agents obtain freedom of all forms. This is the way a standard liberal thinking proceeds and Sen (2000) is no exception in this regard.

Do we then need any "social" to construe an individual being filled with all sorts of freedom? Oh yes! Certainly we need. "Social institutions and social competencies are critically important in determining individual capabilities because: (a) they have a direct impact on them—since most individual capabilities could not exist without social competencies; (b) societal institutions (in particular families) have a critical role in forming the character of individuals and consequently they (together with social norms) affect the choices people make within any capability set and the behaviour of individuals towards others, thus affecting other people's capabilities; (c) social institutions and competencies affect the functioning of all other societal institutions, including both state and market institutions; and (d) they affect the power and influence of particular groups (and individuals in these groups) at the macro-, meso- and micro-levels. At macro-levels, they influence the policy choices governments make, and thereby the level and distribution of capabilities. Similar effects can be observed at meso- and micro-levels. Moreover, they also influence the terms individuals experience in market activities—wages and conditions, generally." (Stewart, 2013) Hence, the formation of social is essential and that social has to be pre-given even in Sen (2000). Without that social which is compatible with a free-market mechanism and almost zero state intervention and which causes the formation of homo economicus, individual capability sets cannot be broadened and so is individual freedom.

So, to Sen (2000) the process of development is to expand human freedom which only can on its own take care of the improvement in the quality of life that an individual should enjoy. But this freedom is not hostile to the earlier approaches of development—particularly those which was pioneered by Lewis and others. "The perspective of freedom,…, must not be seen as being hostile to the large literature on social change that has enriched our understanding of the process for many centuries. While parts of the recent development literature have tended to concentrate very much on some limited indicators of development such as the growth of GNP per head, there is quite a long tradition against being imprisoned in that little box. There have indeed been many broader voices, including that of Aristotle, whose ideas are of course amongst the sources on which the present analysis draws…. It applies also to such pioneers of 'modern' economics as William Petty, the author of *Political Arithmetick* (1691), who supplemented his innovation of national income accounting with motivating discussions on much broader concerns." (Sen, 2000: 289).

In fact, as Sen (2000) claimed his "belief that the enhancement of freedom is ultimately an important motivating factor for assessing economic and social change

is not at all new. Adam Smith was explicitly concerned with crucial human freedoms. So was Karl Marx, in many of his writings, for example when he emphasized the importance of replacing the domination of circumstances and chance over individuals by the domination of individuals over chance and circumstances." (Sen, 2000: 291) Therefore, the process of development as freedom is to broaden in the liberal tradition human capabilities by enriching (human) capital and ensuring (human) capital accumulation. To quote from Sen (2000): "In contemporary economic analysis the emphasis has, to a considerable extent, shifted from seeing capital accumulation in primarily physical terms to viewing it as a process in which the productive quality of human beings is integrally involved. For example, through education, learning, and skill formation, people can become much more productive over time, and this contributes greatly to the process of economic expansion. …At the risk of oversimplification, it can be said that the literature on human capital tends to concentrate on the agency of human beings in augmenting production possibilities. The perspective of human capability focuses, on the other hand, on the ability—the substantive freedom—of people to lead the lives they have reason to value and to enhance the real choices they have. The two perspectives cannot but be related, since both are concerned with the role of human beings, and in particular with the actual abilities that they achieve and acquire. But the yardstick of assessment concentrates on different achievements." (Sen, 2000: 292–293).

In this perspective of development as freedom, which are pre-given are individual's personal characteristics, social background and economic circumstances. Given these factors, she as an individual rational agent would possess the ability to perform certain things which she has reason to value. Now, this reason for valuation may be direct or may be indirect. It is direct when, for example, being healthy the reason directly enriches her life. It may be indirect in the sense, for example, the functioning may lead to expand production and thereby, can enrich her life. The human capital perspective, as per Sen (2000) can be described in terms of both direct and indirect reason for valuation although conventionally it is based upon the indirect reason for valuation. So, here "human qualities …can be employed as 'capital' in *production* (in the way physical capital is). In this sense, the narrower view of the human capital approach fits into the more inclusive perspective of human capability, which can cover both direct and indirect consequences of human abilities." (Sen, 2000: 293).

In Sen's (2000) term, in order to have a fuller understanding of the role of human capabilities one has to take note of three things—(i) direct relevance of human capabilities for the well-being and freedom of people; (ii) indirect role in causing social change (a change towards a more capitalistic society characterized by free market); and (iii) indirect role in leading to expansion of economic production. Human capital perspective takes care of the third thing while human capability perspective takes care of all the three dimensions. So, neither human capital is bereft of human capabilities nor human capabilities are bereft of human capital.

One must note in the end, as Sen (2000) observes that freedom has diverse aspects pertaining to variety of activities and institutions. It does not "yield a view of development that translates readily into simple 'formula' of accumulation of capital, or opening up of markets, or having efficient economic planning." But these aspects too

are captured in the perspective of development as freedom which is much more than these aspects although these aspects too have crucial roles to play in formulation of human freedom for development as Sen (2000) visualizes.

2.3 Critique of Human Development in the Light of Class Focused Approach

We have argued in the first section of this paper that human development is all about making "free" choices and in that sense the focus of attention of development as a process is on human beings. But the salient question is whether one can have a visage of a human bereft of his/her involvement in the society as an economic agent. That a human being is viewed as a rational self-optimizing man has already been captured in our analysis in the first section of this paper. But the question is how a so-called rational economic agent is tagged with the social relations of production although the "social" is pre-given in the received rendition of human development.

The social is already a constructed whole before the process of human development, i.e. before the individuals can make "free" choices. Given the constructed social, progress of human well-being can be captured in terms of per capita income, level of education and life expectancy at birth as the standard Human Development Index calculated every year by the UNDP. At this level, our problematic is associated with the two aspects of the social—viz., (1) social as pre-given and (2) the pre-given social as harmonious free-market driven as should be the case with an ideal capitalistic world order. We beg to differ with these two dimensions of social at this stage and to do that we take recourse to class focused Marxist approach as propounded by Resnick and Wolff (1987).

Class focused approach defines class as a process of performance, appropriation, distribution and receipt of surplus labour where surplus labour is the labour performed by a labourer (the performer of surplus labour) beyond her necessary labour where necessary labour is the labour required to socially reproduce labour power of the labourer. Now, in this approach society is ensemble of different sites and processes including political, economic, cultural and natural. No site or process is pre-given. They are overdetermined to use the word overdetermination in Althusserian sense. So, social is not pre-given. Rather, it is getting constructed at every moment by the mutual constitutivity of political, economic, cultural and natural. No site or process is pre-given. No one site or process is more important than the other sites or processes. Looking in this manner an economy is disaggregated and decentered into several class and non-class processes. Performance and appropriation of surplus labour constitute what is called Fundamental Class Process and distribution and receipt of surplus labour constitute what is called Subsumed Class Process.

In terms of Fundamental Class Process, following Chakrabarti et al. (2012), one can disaggregate the economy into at least six different class processes as shown in Table 2.1.

Table 2.1 Class process matrix in terms of fundamental class processes

	Appropriation of Surplus Labour		
Performance of surplus labour	Directly by individual labour (A)	By non-labour (B)	By a labouring collective (C)
	AA	AB	AC
	CA	CB	CC

Source Chakrabarti, Dhar and Cullenberg (2012)

Here there are three broad types of labour. First one is direct individual labour performing surplus labour (A), Second one is the non-labour meaning non-performer of surplus labour (B). And the third one is collective labour (C)—a mass of labourers who collectively by certain division of labour perform surplus labour. In this table, the rows indicate surplus labour performed individually (A) and collectively (C). The columns indicate appropriation of surplus labour by individual labour (A), by non-labour (B) and by collective labour (C).

So, AA is the independent class process where individual labourer performs surplus labour and also, appropriates her own surplus labour. AB is class exploitative process where individual labourer (A) performs surplus labour while the latter is appropriated by non-labour (B). AC is a non-exploitative communitic class process where individual labourer (A) performs surplus labour while the latter is appropriated by the collective labour (C) of which A is a part. CA represents exploitative communitic class process where surplus labour is performed collectively (C) and it is appropriated by individual labour (A) who excludes other in C while doing appropriation CB is class exploitative process where surplus labour is performed collectively (C) but it is appropriated by non-labour (B). CC is communistic class process where performance and appropriation of surplus labour are done collectively (C).

Marx defined exploitation as the appropriation of surplus labour by non-performer of surplus labour. So, going by this definition in the above six class processes AB, CA and CB are exploitative class processes whereas AA, AC and CC are non-exploitative class processes. The class exploitative class processes AB and CB may take the form of slave, feudal and capitalist class processes depending upon the nature of social relations of production. In capitalist class processes both means of production (called constant capital c by Marx) and labour power (called variable capital v by Marx) are commodities as they are bought by the productive capitalist(s) from the market to apply them in the production process and the produced goods or services are sold in the market. Hence, in capitalist class process surplus labour takes the form of surplus value.

As we have indicated in the previous two sections, the ideal form of society which the proponents of human development talks about is characterized by global capitalism and hence, in terms of our class focused rendition individual performer of surplus value is subject to exploitation. An individual labourer in capitalism is

free to sell her labour power to any capitalists she chooses but that does not ensure non-exploitation. Rather, she is always exploited as the surplus value produced by her does not become part of her wealth and this surplus is the source of discretionary wealth in the society. So, the very notion of human development which rests on the notion of human capital and capabilities remains in terms of this class focused approach exploitative—the exploitation which is foreclosed in the analysis of such development. If the process of development is to expand human freedom then this received notion of human development is Capitalocentric. It is Orientalist too as this received notion like its previous notion of development views anything non-Western as lacking other of the West. And here comes the problematic.

The conducive environment or social which human development envisions is pre-given first of all and further, this conducive environment is reduced to that of exploitative capitalist and any order which is non-capitalistic as pre-capitalistic as if the history of progress is linear and so, anything pre-capitalistic is not acceptable by this human development approach. In terms of human capital and also, in terms of human capabilities what are mostly emphasized are the human ability to be more and more productive. As being more productive human produces more discretionary wealth which is never shared by the performers of surplus value in a capitalist order.

This received notion of human development not only forecloses exploitation but also different class processes which characterize economic space as heterogeneous. Although not explicit in the discussion of human development, as we have already indicated the particular ideal society which human development takes for granted is based on global capitalist hegemony where unequal increase in the share of wealth in the hands of few (both productive and unproductive capitalists *a la* Marx) is the system—not an exception.

Following Chakrabarti et al. (2012), what can be further said that camp of global capital forecloses in the name of third world what they have called world of the third (WOT) which is also a heterogeneous space comprising of several class processes some of which are exploitative and some non-exploitative. As commented by Chakrabarti et al. (2012), "The process of foreclosure is secured through a foregrounding of WOT in a substitute language—the language of third worldism." The class focused approach gives a disaggregated rendition of both the camp of hegemonic and the camp of the foreclosed. There is "no pre-given differentiation between pre-capitalist/backward third world and capitalist/developed first world." What the received notion of human development and also, other mainstream development literature attempts to do is to "reconfigure the decenteredness of the sites qua local societies into a homogeneous figure of backwardness-destitution. This figure of lack also gets represented in terms of 'community' or 'social capital' that in turn close off other understandings of local societies."

Going by the logic of human development, at least three things should matter for human capital accumulation and expansion of human capabilities. They include—(a) increase in per capita income, (b) increase in the level of education and (c) improvement in the health quality of individual. All these are supposed to increase the human productivity and thus would secure more and more capital accumulation and increase in discretionary wealth and the related wealth inequality. Therefore,

looking at human development through the lens of class focused approach one can comment that human development is all about direct and indirect increase in labour productivity which would ensure more and more capital accumulation. The subjects in the WOT are also targets of human development through different programmes of the international agencies like the World Bank and in that too the emphasis ultimately is on improvement in quality of life through improving human ability to produce more.

The homogeneity of the space of what is dubbed as backward/undeveloped third world in the language of the received notion of (human) development talks in terms of a particular type of transition in the name of development. That is transition towards a free-market capitalist society and the ultimate end of development, as if, is to reach that society and only then the human beings would be better off qualitatively! It abhors those processes in the realm of WOT where nascent possibilities may exist towards transition in favour of a society based on the principle of sharing, collectiveness and non-exploitation. The received notion of human development overlooks such possibilities of shared environment based upon the twin principles of "each according to ability" and "each according to need". It is not the radical human need which is emphasized in human development. Rather what are emphasized as basic needs signify an individual's ability to produce more. The individual may be free to sell her labour power to any capitalist employer but she is not free from class-based exploitation and as exploitation remains foreclosed while talking about human centric development so remains foreclosed the radical freedom of any individual not to be exploited. This is something which class focused rendition of economy unfurls before us—an unfurlment which helps us to envisage human development as Capitalocentric and Orientalist as was the case with the received notion of development before the advent of the concept of human development. The question therefore remains—Does an individual performer of surplus value or surplus labour really possess free choice of not to be exploited for the sake of capital accumulation and does all performers of surplus labour have free choice to make as consumers in the society?

2.4 Critique of Development as Freedom

We now offer here a critique of Sen's development as freedom through the lens of class focused Marxist approach. As we have already noted in Sect. 2.1, to Sen development is a process of expanding freedom of human beings and with these freedoms the human so to say would be able to become homo economicus—a term which suitably goes well with today's neoliberal parlance.

The expansion of various freedom (especially freedom of access to education and health care) is the process of development as envisaged by Sen (2000). The received notion of human development as we have already argued is based upon the notion of human capital and capabilities which are ratified by Sen (2000) and hence, development as expansion of freedom forms the cornerstone for the received analytical framework of human development to this date. As opined by Sen (2000),

"Seeing development in terms of the substantive freedoms of people has far-reaching implications for our understanding of the process of development and also for the ways and means of promoting it. On the evaluative side, this involves the need to assess the requirements of development in terms of removing the unfreedoms from which the members of the society may suffer. The process of development, in this view, is not essentially different from the history of overcoming these unfreedoms. While this history is not by any means unrelated to the process of economic growth and accumulation of physical and human capital, its reach and coverage go much beyond these variables." (Sen, 2000: 33).

What is the problematic in this utterance regarding the process of development as expansion of diverse freedoms of human beings? To us the problematic is the foreclosure of exploitation and class to which various unfreedoms of different producers of surplus labour (surplus value) are tagged with. And also, with the exploitative class processes which coupled with various other non-class oppressions (like gender-based oppression, caste-based oppression, racial oppression and like) deny freedom to individual performers of surplus labour. But Sen (2000) stops at particular historical juncture when the direct producers viz., the performers of surplus value in capitalist class processes obtained historically "freedom of employment" with the inauguration of such class processes hegemonically. And in this Sen (2000) found an affinity of Marxian analysis with "libertarian concentration on freedom." But the moot point is still the foreclosure of class, surplus labour (value) and exploitation in such an analysis of human (centric) development *as freedom* as envisaged by Sen (2000). Hence, as the notion of human development is Capitalocentric and so is Sen's process of development as freedom.

Sen's approach is more individual centric and the process of development thus viewed is more about inner soul of the individual with the aim of making her more and more like an autonomous agent but not exactly as a self-propelled rational individual as was the case with standard utilitarian approach in mainstream economics. We share here what Chandler (2013) opines regarding Sen's development as freedom:

> In Amartya Sen's 'agent-centred' world, there are no external universals and therefore there is no framework or yardstick for an external measurement of development. The transformative project of development is reduced down to that of enlarging individual agency understood as choice-making capacity. Freedom now becomes an internal process of empowerment, one with no fixed measure of comparison and no fixed end or goal. Where the colonial subject needed development for the fixed and universal goal of self-government as freedom, Sen's subject has an ongoing struggle for 'freedom' in which the inner life of the individual is both the means for freedom and the measure of freedom. (Chandler, 2013: 77).

Since no external universals are there for Sen's individual as economic agent the social here is pre-given and it is moulded as the capitalist hegemonic global order shaping the lives of the people in this neoliberal age of camp of global capital since, as we have already noted above, Sen's history of progress stops at an universal characterized by capitalist society in general. To decipher the process of development as undoing of various unfreedoms Sen in fact attempted to construct an individual who being empowered with diverse (liberal) freedoms would be in a position to deliver on her own for more production and accumulation of surplus and wealth for

a handful few. This is where lies the problematic in Sen's lens of individual as an economic agent.

Like a society an individual is also an ensemble of various processes and sites including economic, political, cultural and natural going by the viewpoint of overdetermination-centric class focused approach. An individual is always in the process of making and being. Various push and pull factors combined together define this being which is a continuous and dynamic process itself. As society is disaggregated and decentered so is individual. An individual does occupy several class and non-class positions at any time and space. And there is great amount of diversity between individual being and becoming. One sets of freedom thus may have conflict-ridden relation with another set of freedoms. To exemplify in terms of class focused approach we can take the notion of production surplus and social surplus as specified by Chakrabarti et al. (2012). Let us consider an individual who is poor economically. The individual as appropriator of surplus labour, say, in a non-exploitative class process may be quite serious about accumulation and distribution of production surplus for which she is empowered with necessary freedom to use Sen's term. At the same time, she may be worried about distribution of social surplus towards her as that may fulfil some of her poverty-ridden needs. She has, suppose, been empowered with freedom of seeking access to more social surplus. Now, here two different kinds of freedom are considered—one related with production surplus and the other with social surplus. Anyway the space of production surplus is contested with the space of social surplus. So, an individual seeking more and more production surplus to reproduce the conditions of existence of her class relations and processes would be in contradictory relation with another individual seeking more and more social surplus to fulfil some of her radical needs. So, one sets of freedom here is in contradiction with another sets of freedom. This contradiction can only be foregrounded by class focused approach which is not imminent in Sen's idea of freedom.

The idea of freedom as propeller of development is individual centric in Sen and that too, as opined by Chandler (2013), takes care of only inner soul making of the individual—an individual who will be model for every other individual all over the world with the pre-given external conditions viz., social which is capitalistic hegemonic.

To quote Chandler (2013): "Capitalism is naturalized and normalized at the same time as human rationality is degraded and denied. The problem is the human rather than the social relations in which the human is embedded." (Chandler, 2013: 84–85) And here lies our problematic with Sen even though he brought the question of distribution in society to fore in the mainstream economic analysis. Hence, to us, therefore, development as freedom as propounded by Sen (2000) is Capitalocentric.

Conclusion

Summing up our arguments in this paper it can be opined that the received notion of human (centric) development in mainstream neoclassical literature does mark

a departure from development as material progress of society but it fails to foreground the question of class, surplus and exploitation. And hence, the notion is Capitalocentric to our understanding in terms of class focused Marxist approach.

We have tried to delve into the process of development as expansion of diverse freedoms as propagated by Amartya Sen and there too, we find the very idea of freedom is ahistorical and is closely tied with Capitalocentrism as the ideal individual empowered with diverse freedom only acts as productive economic agent and the formation of that ideal individual is bereft of any external environment—an external which is pre-given as capitalist hegemonic world order.

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Chapter 3
Eleven Theses on the *Humanization* of Development: 'Praxis Philosophy' in World of the Third

Anup Dhar and Anjan Chakrabarti

> A camel may not have the speed of a horse, but it is a very useful and harmonious animal—well coordinated to travel long distances without food and water.
> Amartya Sen

What will make development *human*; or *humane*? How does one *humanize* development? What is human about 'human development'? Do we need to move beyond the 'human development index'—beyond mere measure (this is not to deny the importance of certain measures)—to render human development, *human(e)*? This paper makes space for eleven possible moves to humanize development. The first is of course to turn to capabilities-functionings, quality of life and questions of well-being (in addition to 'growth'). The second is a critique of the reduction of a part of humanity to the epithet *underdeveloped* and the consequent dehumanization; is the one deemed underdeveloped, *differently developed*; developed in non-capitalocentric, non-Orientalist paradigms? Is it a 'camel' and not an '*underdeveloped* horse'; its strength is in *sustainability* and not in spikes of productivity? The third is a disaggregation of the map of the world into those that are 'hooked to the circuits of global capital' and those that are not and are *outside* (designated *world of the third*). The brunt of the cruelty of (capitalist) development projects is borne by the world of the third subjects. This paper is a critique of that inhumanity and an attention to the pain inflicted upon the world of the third. The fourth is a turn to those *subject positions* that constitute the world of the third. Such post-capitalist and post-Orientalist subject positions further humanize development. The fifth is a turn to the real human being; not data; not graphs; breathing, living human beings. The sixth is to re-establish a long lost real relationship with the 'subaltern'. Not to

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study them; not to churn out papers on their miseries; but to relate to them and their miseries; to alleviate some of the social suffering, if possible. The seventh would be what Arendt designates as the 'old and short-lived Socratic urge of being in the polis'. Development Studies can perhaps be humanized only if it is singed in development practice, in transformative social praxis; i.e. if poverty is alleviated; not just studied. The eight would be in terms of what Marx designates in the first of the Eleven Thesis as 'dirtying one's hands'. It would also mean the displacement of 'field work' with *immersion in subaltern life-worlds and worldviews*, of research with *action research*, of theories of social suffering with *practices of social healing*; this humanizes the extractive relationship the academia has with the participant. Does this require a ninth: i.e. a Borromean Knot of *knowing-being-doing*? Does this require a tenth: i.e. a rewriting of politics as *reconstruction* and not just critique? Does this require an eleventh: i.e. a turn to *praxis philosophy*—a philosophy of not just being intelligent but about *being good* as well—where philosophy is not just a way of knowing but a *dharma*—a *way of life* and *ethical living?*

3.1 From Growth to *Human* Development

The limitation of much of Marxist work has been the inability to relate and connect the question of surplus with the question of *need*. Yet, there can be no denying the fact that such a lacuna in Marxist theory could have been avoided had a little more attention been paid to Marx's *Critique of the Gotha Programme* written between April and early May, 1875 and which was first published in the journal *Die Neue Zeit*, Vol. 1, No. 18 in the year 1890–91. Marx's *Critique of the Gotha Programme* is a critique of the draft program of the United Workers' Party of Germany. In this document Marx addresses the question of the transition from capitalism to communism, of the two phases of communist society, and of the production and fair distribution of social goods. It is in this text that Marx rethinks the issue of surplus distribution. Among other forms of distribution of surplus, Marx mentions, (i) the general costs of administration not belonging to production, (ii) that which is intended for the common satisfaction of needs, such as schools and health services (for Marx, from the outset, this part grows considerably in comparison with present day society, and it grows in proportion as the new society develops) and (iii) funds for those unable to work, etc., in short, for what is included under the so-called official poor relief today (Marx, 1977: 17).[1]

Amartya Sen, who is no less committed to *distribution*, has pointed to the putting aside within Marxism of Marx's emphasis on the relation of distribution with the question of need (Sen, 1997: 87–89). In this context, Sen retorts: 'while exploitation has played an important part in Marxian economics, it would be a mistake to think that deserts (roughly the created wealth) took priority over needs in the Marxian analysis

[1] This paper takes off from the Marxian roots of the capabilities approach. One can also take off from the Smithian roots, as Sen has done and Aristotelian roots, as Nussbaum does.

of distribution, or that Marx was not clear on the distinction. In fact, he made the distinction very sharply and accepted the ultimate superiority of the needs principle' (Sen, 1997: 87–88). Sen takes off from Marx's understanding of distribution and need and moves from social choice theory towards what he referred to as the *capability's approach* (Sen, 1989). We mark this moment as the first act of the humanization of development.

Sen shows how utilitarianism has hitherto shaped welfare economics. 'Bentham had pioneered the use of utilitarian calculus to obtain judgements about the social interest by aggregating the personal interests of the different individuals in the form of their respective utilities. [However, by] the 1930s the utilitarian welfare economics came under severe fire' (Sen, 1999: 352); Rawls (1971) had taken the critique forward by putting to question the utilitarian neglect of distributional issues and its concentration on utility sum-totals in a distribution blind way (Sen, 1999: 358). Rawls's 'two principles of justice' characterize the need for equality in terms of, what he has called, 'primary social goods'. These are 'things every rational man is presumed to want' including 'rights, liberties and opportunities, income and wealth, and the social bases of self-respect'. Rawls's fundamental principle is that of individual rights over primary goods that they are assumed to need: 'each person is to have an equal right to the most extensive basic liberty compatible with a similar liberty for others'. For Rawls, '*injustice … is simply inequalities* that are not to the benefit of all' (Rawls, 1971: 62). According to him, if individuals are rational and risk averse, they will choose only two principles of justice among many available (1971: 60–65). The first principle is the 'liberty principle' that calls for the individual having the right to basic liberty; which includes political liberty, freedom of speech, thought and assembly, liberty of conscience, freedom to hold private property, freedom from unrest and seizes, and freedom to live within a rule of law. The second is the 'difference principle', which applies to the distribution of wealth and income as also to the structure of social organization premised on a chain of command. Rawls himself privileges the first principle over the second; though for distributional concerns the 'difference principle' acquired importance and later became the subject of an intense debate. The main object of distribution is in terms of social primary goods that individuals are in need of. Primary goods are of two types: *natural primary goods*, which are affected by social institutions but not provided by them (vigor, health, intelligence, etc.) and *social primary goods* (income and wealth, power, rights, etc.), which are distributed by social institutions. Rawls' justice principle called for articulating principles that would provide people the best possible access to primary goods through social institutions. For Rawls, the starting point is the hypothetical situation of equal distribution of social primary goods to all the citizens. This provides a benchmark to Sen to measure the extent of equality/inequality; 'equality of what' is Sen's question in *Inequality Reexamined*.

Inequalities will be accommodated as long as it allows for superior distribution of primary goods to the worst off in society in a scenario where individuals are free to move from one position to another by virtue of equal opportunity. Thus, even if breeding inequality, the difference principle by virtue of facilitating the worse-off, by enabling them access to primary goods that they need is adjudged as fair.

Later, Rawls's primary goods approach was further displaced (perhaps extended also) towards a resource-based distributional theory by Dworkin and Roemer.

Sen (1999) shows how utilitarian welfare economics gave way from the 1940s onwards, to a so-called new welfare economics which used only one basic criterion of social improvement, Pareto comparison. In modern welfare economics, Pareto optimality evaluates the economic terrain without any consideration of equity concerns. 'If the lot of the poor cannot be made any better without cutting into the affluence of the rich, the situation would be Pareto optimal despite the disparity between the rich and the poor' (Sen, 1997: 7). Modern welfare economics is a non-starter so far as equity is concerned. In this context, Sen (1984a, 1993), based on an 'internalist evaluative inquiry', offers a rather different rendition of distribution, that also 'sees persons from … different perspectives', through the invocation of the conceptual space of *well-being* and *agency* (neither of which can subsume the other), functionings and capabilities, and freedom as against the commodity approach (an approach circumscribed by a certain 'commodity fetishism' to use Marx's term; an approach that overemphasizes goods and neglects people), the utilitarian approach (an approach that overemphasizes people's mental states and neglects other aspects of their well-being) and the Basic Needs Approach (Sen, 1985: 169–221):

> The capability approach clearly differs crucially from the more traditional approaches to individual and social evaluation, based on such variables as primary goods (as in Rawlsian evaluative system), resources (as in Dworkin's social analysis), or real analysis (as in the analyses focusing on the GNP, GDP...). These variables are all concerned with the instruments of achieving well-being and other objectives, and can be seen also as the means to freedom." (Sen, 1999: 42) … It is in asserting the need to examine the value of functionings and capabilities as opposed to confining attention to the means to these achievements and freedoms (such as resources or primary goods or incomes) that the capability approach has something to offer (Sen, 1999: 46).

Sen's (1984a, 1984b; Sen and Nussbaum, 1993) capability approach argues that at any time, a person is endowed with a combination of 'doings or beings' that is designated as functioning. *Well-being* is conceptualized as the quality of the person's living. Living is constitutive of a space of interrelated functionings that people value in doing or as being. If living is constituted by functionings then capability captures the freedom enjoyed by a person to achieve well-being. More specifically, capability captures a person's freedom to enjoy one type of living over another represented by alternative combinations of functionings (of doings and beings). The actual freedom enjoyed by a person is then represented by the person's capability to make a choice among different ways of living, that is, different combinations of doings and beings or functionings. Of this possible menu of living, a person's achieved living is a chosen combination of functionings. Clearly, in Sen's framework, a person would enjoy greater freedom if she were capable of choosing a greater range of different ways of living that she values. Sen would thus define 'development *as* freedom' in the form of an expansion of the capability of citizens to choose from a greater number of available combinations of functionings. We achieve greater development with greater freedom and reduced development if freedom is curtailed in which case we encounter 'capability truncation' or at worse 'capability deprivation' qua poverty.

Following his capability framework, Sen (1990) marks a sharp difference between ends and means in order to differentiate between his theory of distribution and other non-Marxian theories of distribution. He points out that the criteria underlying the definition of 'development theory–practice' must be particular ends and not necessarily the means; for example, the commodity approach's good idea goes bad, insofar as mere means are transformed into ends. Instead of focusing on what goods (or resources) 'can do for people, or rather, what people can do with these goods and services', the commodity approach often collapses into a valuation of goods themselves as intrinsically good. For Sen, a concept of well-being that focuses on goods rather than on persons neglects the 'variable conversion' of goods into valuable human functionings and capabilities; that is, what the person succeeds in *doing* with the commodities. The justice connotation of distribution lies in the connection of the perceived virtues of distribution to the needs of society that, in Sen's approach, unlike most of the other discourses, cannot be simply rooted in income or commodities or goods. Sen critiques three particular types of equality—(i) utilitarian equality, (ii) total utility equality and (iii) Rawlsian equality to arrive at the 'basic capability equality … as extension of the Rawlsian approach in a non-fetishist direction' keeping intact the culture-dependent nature of Rawlsian equality. 'The main departure is in focusing on a magnitude different from utility as well as the primary goods approach' (Sen, 1979).

> ... the appropriate "space" is neither that of utilities (as claimed by welfarists), nor that of primary goods (as demanded by Rawls), but that of the substantive freedoms - the capabilities - to choose a life one has reason to value. If the object is to concentrate on the individual's real opportunity to pursue her objectives (as Rawls explicitly recommends), then account would have to be taken not only of the primary goods the persons respectively hold, but also of the relevant personal characteristics that govern the conversion of primary goods into the person's ability to promote her ends. For example, a person who is disabled may have a larger basket of primary goods and yet have less chance to lead a normal life (or to pursue her objectives) than an able-bodied person with a smaller basket of primary goods. Similarly, an older person or a person more prone to illness can be more disadvantaged in a generally accepted sense even with a larger bundle of primary goods.
>
> The concept of "functionings," which has distinctly Aristotelian roots, reflects the various things a person may value doing or being. The valued functionings may vary from elementary ones, such as being adequately nourished and being free from avoidable disease, to very complex activities or personal states, such as being able to take part in the life of the community and having self-respect.
>
> A person's "capability" refers to the alternative combinations of functionings that are feasible for her to achieve. Capability is thus a kind of freedom: the substantive freedom to achieve alternative functioning combinations (or, less formally put, the freedom to achieve various lifestyles). For example, an affluent person who fasts may have the same functioning achievement in terms of eating or nourishment as a destitute person who is forced to starve, but the first person does have a different "capability set" than the second (the first can choose to eat well and be well nourished in a way the second cannot).

Of the three approaches—(a) the objectivism of the commodity approach, (b) the subjectivism of the utilitarian approach and (c) the Basic Needs Approach, Sen positions himself strongly against the first two and builds on the third to offer a fourth

approach that could perhaps be represented as (iv) the capabilities approach. The fourth (i.e. Sen's approach) definitely puts into question the first two approaches and extends the third in philosophically informed directions. For Sen, '"Needs" is a more passive concept than 'capability', and it is arguable that the perspective of positive freedom links naturally with capabilities (*what can the person do?*) rather than the fulfillment of their needs (*what can be done for the person*? [like what the World Bank can do for the third world woman/poor victim]) (Sen, 1984b: 514). For Sen, the Basic Needs Approach (BNA) lacks adequate foundation: 'what, among conflicting interpretations, should be meant by an appeal to needs. Is need satisfaction important because of the mental state of satisfaction? This would fall back into welfarism [or utility subjectivism]. Is meeting needs reducible to providing people with certain amounts of commodities? If so, the BNA becomes a new version of commodity fetishism' (Crocker, 1992: 603). Thus, for Sen, commodities, 'even Rawlsian social primary goods, are necessary but insufficient either for positive freedom or for human flourishing. Utility at best captures part of the good life but at worst justifies severe deprivation and inequality. A basic human needs approach is concerned that development benefits human beings in ways that go beyond the subjective preferences and satisfy certain fundamental needs. This perspective, however, either falls back on commodities or utilities' (Crocker, 1992: 607). Sen offers the normative foundation of a new paradigm for development—the capability ethic; we have designated this as the 'first act of the humanization of development'. Sen's foundationalism, however, is not premised on some metaphysics of (human) nature; it is not an 'externalist' account of a transhistorical human essence; it is not 'scientific realism'; it is 'not a knock-down proof of something from some fixed area of external fact'; it is not a God's eye view of the way human beings are. It is 'an "internalist" foundationalism that aims to surmount the dichotomy of absolutism and relativism' (Crocker, 1992: 588), of objectivism and subjectivism. Nussbaum extends Sen's approach in two purportedly contradictory directions; on the one hand, a necessary component of Nussbaum's capability approach is the (purportedly objective) list of basic capabilities she offers. Taking off from a few Aristotelian questions, like 'what activities characteristically performed by human beings are so central that they seem definitive of a life that is truly human?', … 'which changes or transitions are compatible with the continued existence of a being as a member of the human kind and which are not?' … and 'what kinds of activity must be there if we are going to acknowledge that a given life is human?', she offers a list of universal human capabilities so as to include issues such as being able to express 'justified anger' and have 'opportunities for sexual satisfaction'. On the other, her objective list houses subjective states; it houses emotions; this she does because Nussbaum thinks that 'emotions cannot be sidelined in accounts of ethical judgement'; emotions must 'form part of our system of ethical reasoning'; we must grapple with the material of 'grief and love, anger and fear' and see 'what role these tumultuous experiences play in our thinking about the good and the just'; for her, 'there can be no adequate ethical theory without an adequate theory of emotions' (Nussbaum, 2001).

Building on the 'first act of humanization' and on the distinction Sen marks between 'what can the person *do*?' and 'what can be *done* for the person?' we now

move to the critique of the reduction of a part of humanity to the epithet *underdeveloped* and the consequent dehumanization. We ask: is the one deemed underdeveloped, *differently developed*; developed in non-capitalocentric, non-Orientalist paradigms? Is it a 'camel' and not an '*underdeveloped* horse'; its strength is in *sustainability* and not in spikes of productivity? This takes us to the second act of humanization.

3.2 From *Under*-Developed to *Differently* Developed

Our critique of (mainstream) development is premised on its not-so-secret capitalocentrism (Gibson-Graham, 1996) and Orientalism (Said, 1978). Capitalocentrism is unconscious; it is like an internalized gaze of capital; it is also a kind of unconscious identification with the logic of capital. Capitalocentrism is to look at the world and at reality in terms of the gaze, perspective and standpoint of capital. It is to divide the world into capital and *pre*-capital; where pre-capital is that which is *not-yet-capital* but would soon need to become one. It is to divide the world into developed and *under*developed, first world and *third* world; where the underdeveloped third world poor is in need of 'relief' and 'aid'. The approach is centered on 'what can be *done* for the [poor] person?' and not on 'what can the person *do*?'; or on 'what the person has been doing all along'; living like a camel perhaps; living *differently*; and not like an underdeveloped horse. Orientalism reduces the same space and the same subject to a *pre*-modern relic; in need of modernization. The second act of humanization will require a learning to understand and engage with 'Other worlds' or the 'world of the Other' in terms other than the capitalocentric-Orientalist ones. How does one make sense of a space and subject that is not underdeveloped but differently developed? How does one make sense of a space and subject that is not pre-capitalist but *non-capitalist*; that is not pre-modern but *non-modern*? This takes us to the third act of humanization.

3.3 From Third World to World of the Third

The third act of humanization is premised on a disaggregation of the 'hitherto underdeveloped' (and which has now been designated by us as *different*) into an *originary multiplicity of* those *class sets* that are 'hooked to the circuits of global capital' and those that are not and are *outside* of the circuits (designated *world of the third*). In this remapping of familiar worlds, world of the third is presented as conceptually different and distinct from the given underdevelopment of the third world. World of the third is that which is *outside* the 'circuits of (global) capital'; whereas third world as produced out of an Orientalist understanding of the South is that which is the *lacking underside* of Western modern industrial capitalism.

One is the *outside*; the other is the *lacking underside.*

In the hegemonic discourse of development, third world comes to stand in for the category of the retrograde Southern 'local'; and the hegemonic can then define development in terms of a certain transition of third world. Once hemmed in by the category third world, once incarcerated within its infinite reiteration, one loses sight of an outside; one loses sight of the world of the third. Enslaved cognitively within the category third world, one does not get to appreciate the possibility of an outside to the circuits of global capital, where the world of the third is such an outside. Instead, what awaits us as third world is a devalued space, a lacking underside that needs to be transgressed–transformed–mutilated in the name of development.

World of the Third is thus the *inappropriate(d) Other*. Third world is the *appropriate(d) other*.

The third act of humanization shall mean a turn to that which has been deemed *inappropriate* and has remained *inappropriated* in the discourse of development. How does one conceptualize capabilities-functionings in such a space?

This is important because the brunt of the cruelty of capitalist development projects has been borne by the world of the third subjects. This paper is a critique of that inhumanity and an attention to the *pain* inflicted upon the world of the third in the name of 'development'. The humanization of development needs to be premised on a 'theory of emotions' (Nussbaum, 2001). In development studies literature such a process of violence is designated 'development-induced displacement'. Marx designated it 'original accumulation' (not 'primitive accumulation'). Such infliction of pain on the subaltern commons is *originary* for capitalist accumulation to take form; originary in the sense that each time a process of capitalist accumulation is put in place, there is at its birth, violent *originary accumulation.* The logic of capitalist development thus has its origin in originary accumulation. Capitalist development is constitutively constituted by the violence of expropriation and appropriation in world of the third contexts. How does one think well-being, quality of life and development as freedom in such contexts? Isn't development antithetical to well-being, quality of life and freedom in such contexts? The humanization of development—the turn to human development—would hence mean an end to this violence.

3.4 World of the Third *Subject*

The fourth act of humanization would mean a turn to the *subject* in general and *world of the third subject* in particular. The world of the third subject is about a 'third subject position' that is neither the 'first world' subject position nor the 'third world' subject position, but who exists alongside first and third world subject positions; who is both present and absent, present in terms of 'forms of life', but absent in discourse: the discourse of developmentalism in the Southern hemisphere, a discourse marked by both capitalocentrism and Orientalism. It is about a *third* world (not 'third world'), a world beyond what are known as first worlds and third worlds. It is about a *third* perspective, a perspective beyond capitalocentrism and Orientalism. It is about a *third*

kind of experience, an experience that is neither capitalist nor pre-capitalist, but *non*-capitalist. It is about a *third* location, a location that is neither *within* the circuits of global capital nor at the *margins* of global capitalism in need of either benevolence (i.e. inclusive development) or annihilation (i.e. original accumulation), but *outside*, marking outsided-ness to global capitalism, in terms of its language-logic-experience-ethos. How does one work one's way through the experience-occluding concept 'third world' and reach this outside; this form of life and possibilities of living that thrive outside and beyond the circuits of global capital, that throw up principles different from capitalism's internal principles and its associated bio-political social life. The fourth act of humanization is to turn to those *subject positions* that constitute the world of the third. Would a turn to such post-capitalist and post-Orientalist subject positions further humanize development? This is of course not to suggest that all the world of the third subject positions are ethical. World of the third subject could be exploitative as also non-exploitative. Those world of the third subject positions that are non-exploitative could be the ground for post-capitalist subject formation (Gibson-Graham, 2006) and 'a politics of emplacement'; not a politics of identity per se, but a 'politics of the co-production of subjects and places. A politics of becoming in place' (Gibson-Graham, 2016: 288).

3.5 From Data to Experience

This paper is not just on the violence of capitalist development; which undeniably is the main problem. This paper is also on the violence of our own efforts at 'doing good'—which more often than not takes the form 'what can be *done* for the person'. Is the root of the violence also in the *form* of our own efforts at ushering in development—even if of forms other than capitalist development? For example, if in the human development approach one turns to questions of health and education, one would still need to engage with the question: *which* paradigm of health; *which* paradigm of education. Would the approach to health be premised on modern western medicine? Would it be through modern western institutions of education? Or would we need to rethink the paradigms of health and education in tune with the life-worlds and worldviews of communities and subjects where human development efforts are being put in place as also philosophies of healing and philosophies of learning that are always already in place? For example, what would be the perspective to education and pedagogy in indigenous contexts? Would we need to *indigenize* the process of education and pedagogy? Would we need to write textbooks in tune with the life-world and worldview of the indigenous community in question? Perhaps one will also have to indigenize oneself, one's standard theories, and standard practices of doing good, doing politics and ushering in transformation. The fifth act of humanization is premised on a turn to the real human being; not data; not graphs; but breathing, living human beings. It would also mean a *culturalization* of development. It would also mean a turn to the *know-how* in/of the 'world of the third'; the assumption: world of the third is the space where the 'know-how' of what Lacan (2007) calls 'slave'

and what we call the *adivasi* and the Dalit reside. 'The recovery of the other selves of cultures and communities, selves not defined by the dominant global consciousness' is perhaps 'the first task of social criticism and political activism and the first responsibility of intellectual stock-taking' (Nandy, 1989: 265). However, one would also have to look at the culture of violence *within* what is designated as the 'local'.

3.6 Learning to Learn from Below

The sixth act of humanization is to re-establish a long lost real relationship with the 'subaltern'. Not to study them; not to churn out papers on their miseries; but to relate to them and their miseries; to alleviate some of the social suffering, if possible. It is about being in touch with the enigma of subaltern life and culture (Aind, 2009) and generating one's own philosophical investigations not from philosophical scriptures but from the subaltern way of life or subaltern modes of being-in-the-world (Davidson, 1995; Ganeri, 2013). It is, as Spivak (2013) suggests, learning to learn from below; through what Spivak calls a 'no holds barred self-suspending leap into the Other's sea', as in immersion?

3.7 Being in the Polis

The seventh act of humanization would be what Arendt in *The Promise of Politics* designates as the old and short-lived Socratic urge to be in the polis; to lead a life of philosophical enquiry tied to the polis and not far removed or detached from the polis (Arendt, 2005). In that sense, Socrates marks the beginning of practical philosophy: practical in being concerned with questions of what one ought to do as an occupant of some social role, or more generally with how one ought to live as a human being; Development Studies can perhaps be humanized only if it is singed in development practice, in transformative social praxis; i.e. if poverty is alleviated; not just studied. Do our studies in development then need to come closer to the Socratic urge of being in the polis, or at least being close to the polis? Is being in or being closer to the polis and perhaps the life-world/worldview of the 'Other' an alternative to how we have hitherto conducted studies in development?

3.8 Philosophers Have Hitherto Only *Interpreted* the World in Various Ways; The Point is to *Change* It

The eighth act of humanization would be in terms of what Marx designates in the first of the Eleven Thesis as 'dirtying one's hands' (Marx, 2016). It would in turn mean the

displacement of 'field work' with *immersion in subaltern life-worlds and worldviews*, of research with *action research*, of theories of social suffering with *practices of social healing*. We at the Centre for Development Practice (CDP) argue for three departure points in our rewriting of fieldwork as immersion. One, for us, the 'field' is prior to the research question; in other words, the research question emanates from the 'field' (akin to psychoanalysis; in psychoanalytic research it is the 'analysand'; in Development Practice it is the 'community'). Experience at large, experience of the researcher's self in particular, listening, communicating and relating with the Other hence becomes crucial in the form of action research we have undertaken and developed. Two, the focus is not just on knowledge-production. The focus is also on transformation. Knowledge production (i.e. standard forms of research) is ground for the identification of the problematic on which one shall initiate the process of transformative social praxis. Three, 'community', through the catalytic action of the action researcher, takes hold of the process of self and social transformation; the community is not a passive recipient of development; it is a co-participant in action research; hence the need to also understand communities, groups or collectives psychoanalytically.

The nascent *idea* of Development Practice (*not* Development Studies), which at present has taken the form of an 'immersion' and 'action research'-based MPhil program at Ambedkar University, Delhi, tries to 'span the gap between the academy and activism, engaging in place-based action research involving both university and community-based researchers/activists' and inaugurate in the 'beehive' of the University (Derrida, 2003) the foreclosed question of praxis and of the 'slave's know-how'. The idea of Development Practice—inspired by the reflection of Tagore's (2009: 137–160) *Sriniketan* in the rearview mirror and Gibson-Graham's (2016: 289) 'a politics of becoming in place' in the windscreen view—is an attempt at also 'breaking the silo' and at *integrating* (development) studies and practice (see www.cdp.res.in). Our action research projects have aimed to 'recognize and value' the distinctive economic, political, cultural and nature-nurturing 'capabilities of localities' or 'world of the third' (Chakrabarti & Dhar, 2010), and have tried to build upon the know-how and the ethics of practices within, through nourishing extant communal practices, as also constructing alternative economic, political and cultural institutions.

3.9 Knowing-Being-Doing

Does this require a ninth act of humanization in terms of setting up the Borromean Knot of *knowing-being-doing*? It is however not easy to inhabit a Borromean Knot; all the more because both knowing/theory and doing/practice have their own idiosyncrasies. Theory has its own high handedness; one thinks one 'knows'; one thinks one can judge practice. Practice, on the other hand, has a kind of moral high ground; one is 'good because one is engaged in 'doing-s'. Practice at times critiques theory

for being 'arm-chair', distant, detached. Theory looks down upon practice for being 'interventionist' or 'activist'. How to work through the mutual mistrust?

While, as 'academics' we were setting up a deconstructive relationship with developmental theories, our relationship with practice was somewhat naïve; all the more because we, at CDP, had taken the turn to practice as sacrosanct. We were, as if, content in 'being in practice'. We had begun to see practice as the new alternative. Earlier, we would see the work of Sen or Escobar or Nandy as instituting alternatives to growth-centric development; thus alternative developmental theories were seen as alternatives; now an alternative to theory—'practice'—was seen as the alternative. We were thus not managing to interrogate practice; or disaggregate kinds of practice; or distinguish between practice and practice; say, for example, distinguish between Women in Development (WID), Women and Development (WAD) and Gender and Development (GAD) approaches when we were working with Self Help Group (SHG) women (Rathgeber, 1989). Practice also looked to have an unbearable weight of its own. It seemed to have to it a self-perpetuating character. It was difficult to reflect on practice, while in practice; the Archimedean distance was difficult to institute. We were also not managing to connect specific developmental theories with specific forms of developmental action; and vice versa. What were the kinds of practices that would emanate from the capabilities approach? (Sen, 1985). What kinds of practices would the postdevelopmental perspective engender? (Klein & MorreoBoada, 2019). What would the 'critique of capitalocentrism and Orientalism' (Chakrabarti & Dhar, 2010) in development give birth to in terms of practice? What is the nature of post-capitalist and post-Orientalist practice? Did we need to move from production and income-centric practices, from mere practices of 'empowerment' to a banyan of alternative practices? Could the experience of such prop root practices 'in the polis', could the 'dirtying of one's hands' engender alternative theories; or alternatives to the 'theory/practice' divide?

This is also to problematize the traditional and derivative opposition of theory and practice and begin to think anew what has come to be known as the 'theoretical' and the 'practical', where the practical, a la Heidegger (1985), is (a) rescued from the instrumental conception of action, (b) freed from the tyrannical imperative to produce effects, and (c) relieved of the manic race to exploit all resources, including human resource.

3.10 From Critique to *Reconstruction*

Does this require a tenth act of humanization: i.e. a rewriting of politics as *reconstruction* and not just critique? Five questions thus become important: (a) *doing*, not just knowing (development is not just *writing* about wrongs, but about *righting* wrongs (Spivak, 2004: 523–81), (b) doing *what*: i.e. doing *differently*, doing postdevelopmentally and not developmentally, marking economic difference (c) doing *with* and not doing on (hence immersion, hence co-researching, co-authoring transformation as in the action research program in Development Practice), (d) doing *where*, not

'third world' but 'world of the third' and (e) doing with *who*: not the underdeveloped, but the different; not the appropriate(d), but the inappropriate(d) in subaltern subject positions; not the third worldist subject of *lack*.

Tagore (1963) displaced the imagination of politics imprisoned in *theoria* (or mere contemplation, cognitivism, thinking, writing, etc.) to real and actual transformative social praxis, including self-transformation. Shantiniketan and Sriniketan remain living testimonials of such transformative social praxis. He was thus moving us from the *politics of mere critique* (which in other words is the politics of 'disease identification') to the *politics of reconstruction* (which in other words is the politics of 'social healing'); politics of reconstruction is for Tagore, in turn, a politics of setting up a *relationship* with the rural poor and working one's way towards *ethical being-in-commons*.

3.11 Praxis Philosophy

Does this require an eleventh act of humanization: i.e. a turn to *praxis philosophy*—a philosophy of not just being intelligent but about *being good* as well—where philosophy is not just a way of knowing but a *dharma*—a *way of life* and *ethical living?* Does one need to redefine Philosophy itself, where philosophy is not an academic discipline but a 'way of life/living' (Ganeri, 2007, 2013; Hadot, 1999), an 'art of living counter to all forms of fascism' (Foucault, 2000), where the practice of philosophy is a way of becoming; where philosophical activity was not a form of accumulating knowledge but an exercise in self-transformation, an *askesis* (Foucault, 2005). Where philosophy was to form, and transform, and not to just to inform. Where philosophical practice was to transform oneself and the way one sees, to regard otherwise the same things. Where philosophy was the practice of a certain way of living, a certain way of being with oneself and with others; and where philosophy is an exercise in self-transformation and world-transformation.

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Chapter 4
Measuring Human Development at Sub-National Level: Methods and Application

Souvik Dey, Jhilam Ray, and Rajarshi Majumder

4.1 Introduction

Born in 1990, the Human Development Index (HDI) has gained immense acceptance across the globe and spawned more than 1000 global, regional, national, and sub-national Human Development Reports (HDR) in its young life of 30 years. The idea is rooted in a long chain of discussion centred around what comprises development of the human society and how to measure it. The index, once formulated and regularly recorded and published by UNDP, has undergone transformations as well as horizontal branching out into related dimensions of gender development, gender parity, multidimensional poverty, inequality adjusted HDI, and the likes. However, its global usage and acceptance has also been its Achilles' heel in a sense that it relies on a uniform template—applied to all countries (or regions/sub-regions) without contextualising their geography or social history. Also, large and heterogeneous countries like India have sub-national regions that are at diverse stages of progress and so examining and comparing human development levels of these smaller administrative regions also becomes crucial. This is of utmost importance for two reasons. First, many of the Indian sub-regions are large enough to be countries by themselves.[1] Second, given the federal structural of Indian polity and the plurality of society, it

[1] The largest Indian province in terms of area, Rajasthan, is slightly larger than Republic of Congo, the 65th largest country. If we look at population, Uttar Pradesh has a population almost equal to that of Brazil. Top 10 states of India in terms of area would have come within top 100 countries of the world. Going further down the administrative hierarchy, the largest Indian district, Kuchh district of Gujarat, is slightly larger than Denmark and The Netherlands! In fact, top 10 districts of India are larger than Kuwait and come within top 150 countries by area.

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is needful to explore the interlinkage between policy regime of different regions and their human development levels. Though some recent works have tried to build up Sub-national Human development Reports (SHDR) and Sub-national Human Development Indices (SHDI), the efforts have swayed from one extreme to other. Either they are too specific for the region concerned and are therefore not comparable across time and space (see, for example, the methodological diversity observed across GoWB, 2011a, 2011b; GoG, 2016; Ray & Majumder, 2016). Or, they lack local context and use limited non-comparable database from various sources and time points (for example, Foster et al., 2005; Permanyer & Smits, 2020; Permanyer et al., 2015; Smits, 2016, etc. at the global level, and; Chatterjee et al., 2019; Dholakia, 2003; IAMR, 2011; Majumder, 2005; Mohanty & Ram, 2004; Mohanty & Dehury, 2012; Suryanarayana et al., 2011, 2017; in the Indian context). Against this backdrop, the present paper tries to devise a methodology to construct SHDI for regions across India that may form a template and can be replicated across time and space. The paper has five sections. In the next section we discuss the basic concept of 'development' in general and human development in particular and methodologies for their construction in a historical context. In the third section we apply the existing UNDP methodology to construct SHDI for a region of India. In the fourth section we discuss the drawbacks of this methodology in the particular context and suggest a new methodology. We also provide an application of our proposed methodology using survey data in this section. The fifth section concludes the paper.

4.2 Measuring Development

4.2.1 The Concept of Development

The term *development*, as used by social scientists, emerged during the post-2nd WW era in the 1950s as a buzzword signalling the then global scenario. A few countries, the powerhouses of mainly Western Europe and North America, had just emerged stronger economically, politically and militarily. This, it was thought, was possible because of a process spanning the previous hundred years in these countries. This process of change was marked by three factors—rapid industrialisation, increasing national and per capita income, and sustained urbanisation. These markers were taken as the template of 'development' by the newly independent countries of the third world, a pathway to richness and economic independence.

But the word *development* has a longer history, stretching back to at least Aristotle, according to whom development is actualisation of potency. The etymology of the word tells us that it means some kind of unwrapping or uncovering—*develop* as opposed to *envelop* which means wrapping. Thus, it is a process of bringing out something which is inside. The process would therefore require an existing resource that is transformed to something else in stages, for example, a seed becoming a banyan tree, or a spawn becoming a frog. This is a bit different from *growth*, which

is more like inflating of a balloon or a football where simply the size increases without changing the basic characteristics. Development therefore requires not only quantitative increment but qualitative changes too. These characteristics have been nicely put together by Wouter van Haften in the following words:

> "development" means(a) a process of (b) more or less gradual (c) change, (d) resulting in (what can be reconstructed as) one or more qualitatively different stages for which (e) the prior stages are necessary conditions (van Haaften, 1997).

Notwithstanding such broad and qualitative features of 'development', during the three decades following the 2nd WW, development increasingly came to be seen with the prism of economic and material progress—the bigger the better. Countries after countries started to imitate the 'developed' North and quickly macroeconomic growth became not only the sine-qua-non of development, but also its only indicator. Apart from the *Per Capita GDP* (and its growth rate), Consumption level (Beckerman & Bacon, 1966; Bennett, 1951) and Industrialisation level (Schumpeter, Rostow) were also taken as measure of a country's progress towards being developed. This reductionist approach viewed development as an evolutionary process which is natural, and therefore would accompany economic growth and maturity automatically. *Development* came to be synonymous with *economic* development, and economic development with economic *growth.* However, by late 1960s this view came to be criticised as it was observed that newly independent colonial countries were unable to break the low level equilibrium trap and remained underdeveloped. Apart from drawing attention towards the importance of socioeconomic history in determining development pathway (Furtado, 1964; Frank, 1966a, 1966b), researchers also wanted a broad-based measure of development.

4.2.2 Indicators of Development

Throughout the second half of the twentieth century, Per Capita GDP gained ascendency as the most important measure of development. It is preferred by academicians for its ready quantifiability and decomposability into sectoral contributions. The mainstream media find a single marker easy to highlight and compare, and politicians can deflect all attention from their other failures to rise of a magic number. By mid-sixties, researchers were toying with the idea of a wider measure of development. The first attempt was by the United Nations Research Institute for Social Development which came out with several measures—Level of Living Index (Drewnowski & Scott, 1966), Socioeconomic Development Index (UNRISD, 1970), and General Index of Development (McGranahan et al., 1972). This was followed by the Physical Quality of Life Index or PQLI that combined Literacy, Life Expectancy and Infant Mortality figures to come out with a composite index of well-being of a country (Morris & Liser, 1977; Morris, 1979). The quest for a composite indicator of human development continued during the next decade—mention may be made of the Basic Needs Approach of Streeten et al. (1981) and the Composite Basic Needs Indices (Ram,

1982), Index of Social Progress (Estes, 1984), Quality of Life Rankings (Slottje, 1991) and Combined Quality of Life Indices (Diener, 1995). However, what captured the attention of researchers and policymakers worldwide and got a permanent place was the Human Development Index, put forward by UNDP in its global Human Development Report (UNDP, 1990).

4.2.3 The Human Development Index

UNDP Human Development Index was first published along with the Human Development Report in 1990 wherein it commented: Human development is a process of enlarging people's choices. The most critical ones are to lead a long and healthy life, to be educated and to enjoy a decent standard of living (UNDP, 1990).

It built on the three decades of work, as mentioned earlier, and sought to conceptualise (human) development as an end with money income only serving as a means towards that end. What then would be the end, or the target, of a development process? Building on a framework ranging from Aristotle and Rawls, UNDP-HDR focussed on enhancing people's capabilities and choices as a measure of well-being and human development, brought into limelight by the works of Sen (1985) and others (Desai et al., 1990). The background is better understandable with the 'Four Pillars of Human Development' as depicted in Fig. 4.1.

At the fundamental level, HDI is based on three broad dimensions—health and longevity; knowledge; and, material well-being or income. The methodologies have evolved over time (Haq, 1996; Ranis, 2004; Sen, 1992, 1999; UNDP, 2010) but the fundamental principle has remained unchanged—HDI scores are relative scores that only describe the relative position of a spatial unit (country/state/district) vis-à-vis its peers with respect to certain stated goals (goalposts if you may), the worst

Fig. 4.1 Pillars of human development. *Source* Authors' representation

performer and the best performer; and, the weightage and computational schemes are pretty simple and straightforward. From 1990 to 2009, Health dimension was captured by Life Expectancy at Birth; Knowledge and education by Adult Literacy Rate and Combined Enrolment Ratio; and, Standard of Living by GDP per capita (at PPP). These were expressed as indices ranging from 0 to 1. The final index was an additive mean of the three sub-indices. The most recent methodology (HDR 2018 onwards) has retained Life Expectancy at Birth as the indicator of Healthy and long life but made changes elsewhere. Knowledge domain is now captured as an average of Mean Years of Schooling (MYS—goalpost 15 years) and Expected Years of Schooling (EYS—goalpost 18 years). Standard of Living is now captured by Gross National Income Per Capita (at PPP) with lower and upper bounds at 100PPP$ and 75,000PPP$ respectively. The final HDI is now Geometric Mean of the three domain indices (UNDP, 2018).

4.3 Human Development at Sub-National Level—Application

4.3.1 Backdrop and Database

As mentioned earlier, in this paper we try to apply the existing UNDP methodology to construct SHDI for a region in India and then explore possible means to improve upon it. As the first application, we try to construct HDI for the Districts of West Bengal, a province in the eastern part of India. To provide a backdrop, West Bengal is the fourth most populous state of India as per the Census of India 2011, with close to 100 million people and the second most densely populated state of the country. Its Per Capita GSDP is Rs. 115,748 in 2019–20 (at current prices), 13th among 33 states (MOSPI, 2020), and its HDI rank is 28 with a HDI score just below the national average (GDL, 2020). To construct the UNDP-HDI for districts of West Bengal we use data from several published and unpublished sources. Life Expectancy at Birth are from Takuria (2019) but relates to data from 2011 Census of India. Expected and Mean Years of Schooling are from Chatterjee and Mishra (2019) but are derived from 2011 Census of India and NFHS 4 (2015–16). Per capita income figures have been proxied by Per capita District Domestic Product at constant 2011–12 prices and are taken from GoWB (2016) but refer to 2013–14.

For the next part where we have tried to apply our proposed modified methodology, we have used Survey Data. These were collected as part of course curriculum by the PG students of Department of Economics, The University of Burdwan during 2018–19 under supervision of two of the co-authors. Sample households from both rural and urban areas were surveyed using purposive sampling method (details provided later).

4.3.2 SHDI Using UNDP Method—District Level Study of West Bengal

We have used the current UNDP methodology to construct SHDI for the districts of West Bengal. The raw indicators are provided in Table 4.1. The domain indices and the SHDI are provided in Table 4.2 and a diagrammatic view is given in Fig. 4.2. It is observed that among the domains, performance is better in Health dimension,

Table 4.1 Human development components in districts of Bengal

Districts	Life expectancy at birth (Years)	Mean years of schooling (Years)	Expected years of schooling (Years)	Per capita district domestic product (Rs.)
Bankura	69.88	5.6	10.7	30,814
Birbhum	66.69	5.4	10.2	27,261
Burdwan	67.94	5.8	10.9	47,264
Cooch Behar	67.49	5.5	11.7	26,595
Dakshin Dinajpur	66.15	5.5	11.6	25,121
Darjeeling	67.74	6.7	12.9	49,593
Hooghly	69.73	6.2	11.3	39,619
Howrah	68.15	7.8	10.8	44,389
Jalpaiguri	66.91	5.5	11.8	32,155
Kolkata	64.55	6.6	12.3	74,771
Malda	64.50	4.8	10.0	27,052
Murshidabad	65.96	5.1	10.3	27,151
Nadia	68.65	5.8	11.6	31,024
North 24-Parganas	67.87	7.3	11.5	40,724
Paschim Mednipur	68.88	5.8	10.9	29,878
Purba Mednipur	68.27	6.3	11.1	50,593
Purulia	68.44	4.8	10.5	27,513
South 24-Parganas	66.77	5.8	10.2	32,731
Uttar Dinajpur	64.74	4.2	9.8	19,890
State	67.33	5.9	10.9	40,241

Source Takuria (2019) for Life Expectancy; Chatterjee and Mishra (2019) for Years of Schooling; GoWB (2015) for District Domestic Product

Note LEB for males and females have been converted to LEB (all) using gender ratios in population, figures are based on 2011 Census of India; Years of Schooling based on Census of India 2011 and NFHS-4 (2015–16); DDP refers to 2014–15 and measured at constant 2004–05 prices

Table 4.2 Human development index in districts of Bengal

Districts	Healthy living index	Education index	Standard of living index	Human development index	HDI rank
Bankura	0.767	0.484	0.538	0.585	10
Birbhum	0.718	0.463	0.519	0.557	16
Burdwan	0.738	0.496	0.603	0.604	7
Cooch Behar	0.731	0.508	0.516	0.576	12
Dakshin Dinajpur	0.710	0.506	0.507	0.567	14
Darjeeling	0.734	0.582	0.610	0.639	1
Hooghly	0.765	0.521	0.576	0.612	6
Howrah	0.741	0.560	0.593	0.627	3
Jalpaiguri	0.722	0.511	0.544	0.586	9
Kolkata	0.685	0.562	0.672	0.637	2
Malda	0.685	0.438	0.518	0.538	18
Murshidabad	0.707	0.456	0.519	0.551	17
Nadia	0.748	0.516	0.539	0.592	8
North 24-Parganas	0.737	0.563	0.580	0.622	4
Paschim Mednipur	0.752	0.496	0.533	0.584	11
Purba Mednipur	0.743	0.518	0.613	0.618	5
Purulia	0.745	0.452	0.521	0.560	15
South 24-Parganas	0.720	0.477	0.547	0.572	13
Uttar Dinajpur	0.688	0.412	0.472	0.512	19
State	0.728	0.499	0.578	0.595	

Source Authors' calculation based on Table 4.1 following latest UNDP methodology (UNDP 2019)
Note Goalposts for LEB are 20 and 85 respectively as followed by UNDP; Goalposts for Mean Years of schooling and Expected Years of schooling are 15 and 18 years respectively; Goalposts for income are 100 and 75,000 PPP (2011) $, which converted to Indian currency are Rs. 875 and Rs. 656585 respectively at 2004–05 constant prices

where the average domain score for the state is 0.73 and the district score ranges between 0.68 and 0.77. Performance in the other two domains lag behind, especially in Education where the average score is 0.50 and district score ranges between 0.41 and 0.58. The final SHDI score for the state is 0.595, indicating a long way ahead for the state in terms of human development. SHDI is highest for Darjeeling followed by Kolkata and Howrah. SHDI is lowest in Uttar Dinajpur, preceded by Malda and Murshidabad. Closer look at the raw indicators reveal that the performance of the state and the districts have been dragged down mainly by a very low Mean Years

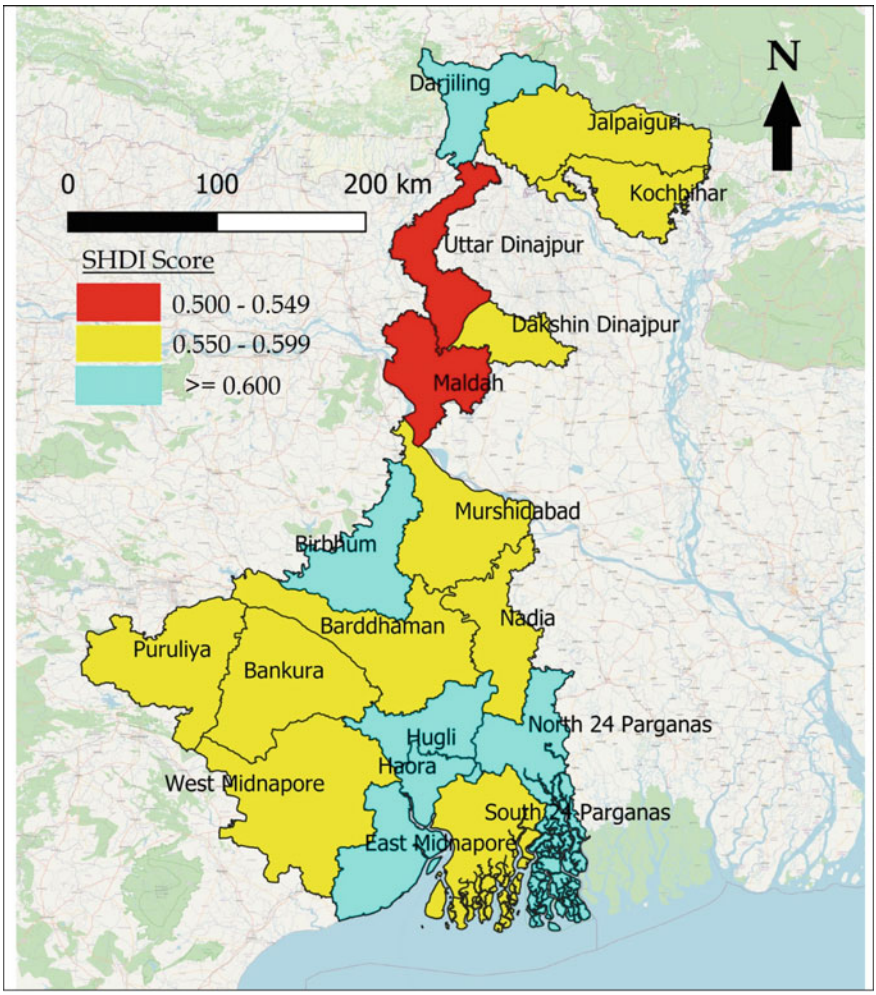

Fig. 4.2 Human development in Districts of West Bengal. *Source* Authors' calculation based on Table 4.2

of Schooling (state average 5.9 years only) indicating a high Drop-Out rate in the region. An approximate method suggests that the final SHDI is dominated by the Health index, followed by the Livelihood and Education indices (Table 4.3).

Table 4.3 Contributions of components to human development in Districts of Bengal

Districts	Percentage contribution of		
	Health index	Education index	Standard of living index
Bankura	38.5	29.8	31.8
Birbhum	38.3	29.8	32.0
Burdwan	37.0	29.7	33.3
Cooch Behar	37.8	30.9	31.2
Dakshin Dinajpur	37.7	31.1	31.2
Darjeeling	35.8	31.7	32.5
Hooghly	37.4	30.4	32.2
Howrah	36.4	31.3	32.3
Jalpaiguri	37.3	30.8	32.0
Kolkata	34.6	31.1	34.3
Malda	38.1	29.3	32.6
Murshidabad	38.2	29.6	32.2
Nadia	37.7	30.7	31.6
North 24-Parganas	36.4	31.5	32.1
Paschim Mednipur	38.1	30.3	31.6
Purba Mednipur	36.7	30.1	33.2
Purulia	38.9	29.2	31.9
South 24-Parganas	37.7	29.8	32.5
Uttar Dinajpur	39.4	28.9	31.7
State	37.1	30.1	32.8

Source Authors' calculation based on Table 4.3
Note Contributions are only indicative as Multiplicative Aggregate Index is not additively decomposable, but its *logarithm* is. Since $HDI = \sqrt[3]{H * E * S}$, $\ln(\text{HDI}) = 3[\ln(H) + \ln(E) + \ln(S)]$. This property can be used to approximately estimate contribution of H, E, and S in HDI. See Anand (2018) for elaborate discussion on this

4.4 Limitations of Traditional Methodology

What are the problems with the UNDP methodology for SHDI? The first relates to the availability of comparable data at regular intervals. For example, to have LEB we need either a complete life table or SRS-based birth and death statistics. However, in the Indian context, these statistics are available only for the 15 major states and that

too at almost decadal intervals. This makes this indicator non-usable to estimate HDI for small administrative regions and track its movement over time. Similarly, MYS and EYS statistics are also not available for small administrative regions like districts or *talukas* on a regular basis. The data we have used in the application earlier relates to the 2011 Census of India! The second issue relates to efficacy of the indicators in capturing the concept that we want to measure. For example, human development as a concept should include the income of the people of the region concerned. But the only variable that is available—Per Capita DDP—which we have used earlier is not a good reflector of that. DDP captures the economic value of all goods and services produced in the region, but the link between this and income generated in the region is neither direct nor automatic. A high DDP from a high value industrial sector or mines may coexist with widespread unemployment and poverty.[2] Similarly, even a relatively smaller DDP may be well spread out among the people, or there may be inward remittances so that incomes of the residents of the region are at a decent level.[3] So we have to devise some other variables that would realistically capture the living standard of the people of the region.

The third issue relates not to the choice of variables/indicators but to the method of combining them into a single index. There are two sub-issues here. First one is the issue of inter-domain variance and the second is of decomposability. It has often been argued that composite indices suppress the variation within and across variables and therefore does not encourage balanced development (Stewart, 1985; Streeten, 1995; Townsend, 1971). Regions can improve their score and ranking by concentrating on one domain only while their performance in other domains remain unsatisfactory. Thus a penalty for unbalance across the domains would be a nice improvement. The second sub-issue of decomposability has been widely discussed, especially by Anand (2018), one of the pioneering authors of the concept and measurement of HDI. It has been argued that the recent UNDP method of using geometric mean (GM) as the method of aggregation robs the final HDI of an important and desirable property—that of additive decomposability—without adding much value in terms of non-substitutability. The GM, it may be recalled, is preferred over the Arithmetic Mean (AM) since the latter allows a positive final index value even when some of the sub-indices are zero, while the former does not allow that. But leaving apart this extreme case of zero scores, a geometrically aggregated index also allows limited substitutability—for example, two regions with domain indices of (0.9, 0.6, 0.4) and (0.6, 0.6, 0.6) respectively would have the same aggregate index, as will two regions with scores of (0.8, 0.2, 0.2) and (0.4, 0.4, 0.2), respectively. Thus there is no compelling reason to choose geometrically aggregated index over the arithmetically aggregated index. There are thus three 'limitations' of the traditional

[2] This is quite common in several districts of Jharkhand and Madhya Pradesh where a high DDP from mineral resource or industry coexists with high incidence of poverty.

[3] In West Bengal, districts like Darjeeling have high per capita DDP (possibly from the Tea gardens) but high poverty as well. On other hand, districts like Coochbehar and Paschim Medinipur have relatively lower per capita DDP but lower poverty as well.

methodology—(a) selection of variables/indicators, (b) methods of normalisation and creating domain indices, and, (c) method of aggregation.

In light of these issues, let us now present our proposed methodology.

4.5 In Quest for an Alternate Methodology

4.5.1 Selection of Indicators

Our main departure is regarding selection of indicators. The broad concept of development has come a long way since the 1990s through the acceptance of first the MDGs and then the SDGs. Countries and regions now look at the SDGs as the template for their development management and planning and to track their progress. In this scenario, a convergence between the SDGs and the HDI, without sacrificing the three basic pillars of human development—Health, Education, and Livelihood—would be a welcome step. Of the 17 identified SDGs, 9 are directly related to the core Human Development framework. These are:

- Goal 1: No Poverty
- Goal 2: Zero Hunger
- Goal 3: Good Health and Well-being
- Goal 4: Quality Education
- Goal 5: Gender Equality
- Goal 6: Clean Water and Sanitation
- Goal 7: Affordable and Clean Energy
- Goal 8: Decent Work and Economic Growth
- Goal 10: Reduced Inequalities.

The objectives of each of these SDGs have been transformed to local context to come up with following measurable indicators of Human Development:

Health

- % children suffering from Malnutrition/Anaemia (Goal 2)
- % of children immunised (Goal 3)
- % of pregnant women receiving RCH facilities (Goal 3)
- Infant Mortality Rate (Goal 3)
- Maternal Mortality Rate (Goal 3)
- % covered by Health Insurance (Goal 3)
- % having access to Safe Drinking Water & Improved Sanitation (Goal 6).

Education

- % literate (Goal 4)
- % of 6–14 year age-group children in school (Goal 4)
- % of 15–18 year age-group children in school (Goal 4)

- % of 19–24 year age-group youth in education/training (Goal 4)
- % of enrolled completing 12 years of schooling (Goal 4)
- Learning Proficiency in Class 8—Language (Goal 4)
- Learning Proficiency in Class 8—Mathematics (Goal 4).

Income, Employment and Livelihood

- % of people employed throughout the year within locality (Goal 8)
- % of people who are not BPL (Goal 1)
- % of people enjoying food security throughout the year (Goal 2)
- Agricultural Productivity (Goal 2)
- % having access to Clean Cooking Fuel (Goal 7)
- % having access to Electricity (Goal 7)
- % of 15–29 age-group youth in Education-Employment-Training (Goal 8).

The negative indicators like incidence of malnutrition/anaemia, IMR, MMR have been suitably transformed to reflect positive dimensions.

4.5.2 Method of Normalisation and Computing Domain Indices

After selecting the indicators, we must first normalise them to make them free from units of measurement. Several methods of normalisation exists—conversion to z-scores, division by mean, UNDP Goalpost method—are some of them. We have used a modified goalpost method proposed by Mazziotta and Pareto (2018) where the normalised domain index is obtained as

$$\mathbf{S_{ij}} = \frac{\mathbf{s_{ij}} - \mathbf{GP1_{ij}}}{\mathbf{GP2_{ij}} - \mathbf{GP1_{ij}}} * \mathbf{60} + \mathbf{70}$$

$$\text{where, } GP1_{ij} = Ref_j - \left(\frac{\text{Max } s_{ij} - \text{Min } s_{ij}}{2}\right)$$

$$\text{and, } GP2_{ij} = Ref_j + \left(\frac{\text{Max } s_{ij} - \text{Min } s_{ij}}{2}\right)$$

Ref_j would be a reference value for the jth indicator (for example, country mean) against which we can measure the relative performance of any administrative unit. Such a normalised score would vary from 70 to 130 (loosely and not strictly), the country average or the reference value would have a score of 100, and the Standard Deviation would be close to 10 (again, not strictly).

4.5.3 Method of Aggregation

Once the domain indices are prepared, we have to combine them to get the aggregated index or the final HDI. Here. As mentioned earlier, we would like to introduce a penalty for unbalanced development across the sub-indices or domains. Adjusted Mean method and the most recent version of it—the Adjusted Mazziotta-Pareto Index (see Mazziotta & Pareto, 2019; and also de Muro et al, 2011 for a discussion on this)—uses the following general form:

$$\text{Composite Index for } i\text{th observation or unit} = \text{AM}_i - (\text{CV}_i)^2$$

where AM_i is the Arithmetic Mean for ith unit over the individual indicators, while CV_i is the horizontal disparity or Coefficient of Variation for the ith unit across the individual indicators.

In this method, a region which suffers from disparity across domains will have a lower composite score than one with overall balance across domains. At the same time, the additive decomposability property is maintained. We have used this method of aggregation to obtain the domain indices from the set of domain indicators, and the final HDI score from the domain indices.

4.5.4 Application

We have used the methodology highlighted above to derive HDI for two districts of West Bengal—Bardhaman and Hooghly—using data sources as mentioned earlier. Our survey covered 285 households and 1125 persons (Table 4.4). The results show that the relative ranking of the districts has changed from the UNDP-HDI method reported earlier—Bardhaman has a marginally higher SHDI score than Hooghly (Table 4.5). What is also evident that the SHDI of both the districts are higher than 100, indicating that they are better placed compared to the national scenario (which is taken as the reference in our computation and has a score of 100). It is also observed that apart from inter-district differences, there are locational differences between rural and urban areas with the latter having slightly higher SHDI than the

Table 4.4 Survey coverage

	Households			Population		
District	Rural	Urban	Total	Rural	Urban	Total
Hooghly	70	45	115	271	172	443
Bardhaman	100	40	140	474	208	682
All	170	85	285	745	380	1125

Source Field data

Table 4.5 SHDI in select districts of West Bengal 2018–19

Region		Dimension scores			SHDI
		Health	Education	Livelihood	
Hooghly	Rural	130.5	157.3	205.4	164.3
	Urban	130.1	185.2	180.2	165.1
Bardhaman	Rural	140.2	131.9	185.2	152.3
	Urban	131.6	192.3	213.0	178.7
Hooghly		139.8	150.1	192.9	160.7
Bardhaman		134.4	175.6	190.5	166.7
Rural		135.5	144.8	196.3	158.7
Urban		131.9	180.9	194.9	169.0
All		132.6	165.9	195.6	164.5

Source Authors' computation based on Field Data 2018-9-19 and methodology described in text
Note Scores are normalised scores with reference to National Average which is fixed at 100

former. Though Hooghly has a comparatively higher score in Education and Livelihood, Bardhaman scores substantially higher in Education. The same story is true for the Rural/Urban comparison also—though Livelihood and Health situation are marginally better in rural areas, education situation is better in urban areas. This is in contrast to popular perception, where we always think of rural areas as the lagging region. One explanation may be that over the last 10 years most of the economic and health policies of the state have been targeted towards improvement of the rural scenario and the results are a reflection of improving ground conditions. Educational scenario however remains biased towards the urban areas.

Since our SHDI is additively decomposable, we can find the contribution of the domains in the final SHDI, as also the Unbalance penalty (Table 4.6 and Fig. 4.3). It is

Table 4.6 Contribution of domain indices and unbalance penalty

Region		% Contribution of domains			Unbalance penalty (−)
		Health	Education	Livelihood	
Hooghly	Rural	26.5	31.9	41.7	0.23
	Urban	26.3	37.4	36.4	0.18
Bardhaman	Rural	30.6	28.9	40.5	0.19
	Urban	24.5	35.8	39.7	0.24
Hooghly		29.0	31.1	40.0	0.17
Bardhaman		26.9	35.1	38.1	0.18
Rural		28.4	30.4	41.2	0.21
Urban		26.0	35.6	38.4	0.20
All		26.8	33.6	39.6	0.19

Source Authors' computation based on Table 4.5

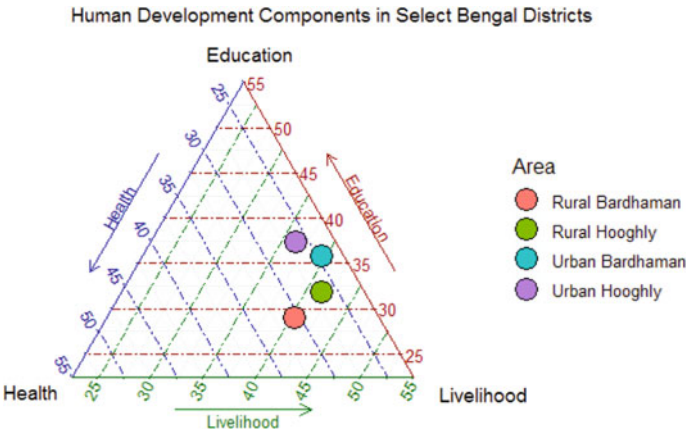

Fig. 4.3 Human development components in select Bengal Districts. *Source* Authors' computation based on Table 4.6

observed that the highest contribution comes from Livelihood followed by Education, except in rural Bardhaman where Health has a relatively higher contribution to the final SHDI compared to Education. The Unbalance Penalty is small, deducting 0.1–0.3 from the average score, and is marginally higher in Bardhaman compared to Hooghly. Thus our proposed methodology brings out the locational pattern as well as the slight unevenness of the human development situation in the region.

4.6 Conclusion

4.6.1 Comparing the Two Methodologies

If we compare the traditional and our proposed alternative methodology, certain things become clear. When the relative ranks are compared, it is seen that rural Hooghly ranks higher than urban Hooghly if we follow the UNDP methodology. But since rural Hooghly shows a more uneven development pattern with very high Livelihood score and relatively poorer scores in the Health and Education dimensions, it ranks below urban Hooghly when we follow our proposed methodology. Similar changes among the four regions (rural and urban Hooghly and Bardhaman, respectively) are observed for the sub-indices of Health and Livelihood also where the UNDP methodology, by ignoring the uneven development, gives a higher rank to regions with few extremely high scores. Our methodology therefore accounts for unevenness of development process and presents a truer picture of the regional hierarchy.

4.6.2 Policy Issues

Our proposed methodology converges HDI with the SDGs without sacrificing the basic tenets of human development as a discourse. This has three major advantages. First, it allows policymakers to monitor human development as an integral part of SDG while maintaining the unique identity of the former. It makes administrative management of data collection, aggregation, monitoring and tracking easier by cutting down the need to have a separate exercise for preparing HDRs and HDI. Since SDGs and the associated indicators are tracked in real time, HDI would also be obtained on a fairly regular basis with real-time data. Second, this will enable comparability across time and space. A common template would provide a common and comparable set of HDI from the Panchayat/Municipality level to the country level, extendible across countries. Third, because of the additive decomposability, contribution of each sub-domain as well as the penalty factor due to unbalance across domains can be easily computed and monitored. This would help in identifying strength and weakness of regions and help focus policy measures.

Another important advantage of the proposed methodology is that since this template depends on regular and real-time data, effects of shocks and hazards on the society (for example biological shocks like the current COVID-19 pandemic, or environmental shocks like tropical cyclones) will be captured by the SHDI, which is not possible with the existing methodology that is more a long run statistics and provides us a secular trend in human development situation of a region. Taken together, the UNDP methodology and our proposed one would serve both the long run and short run monitoring and planning purposes.

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Part II
Delivery of Public Services in India

Chapter 5
Deliver and Destroy? Communities and Access to Public Goods in India

Samir Kumar Das

Achyut Madhav Gokhale joined the Indian Administrative Service (IAS) in 1968 from the Nagaland cadre and served various government offices till his retirement in January 2006. During his tenure with the Government of Nagaland, he is known to have launched a people's programme, viz., *Nagaland: Empowerment of People through Economic Development* (NEPED), which, as he puts it, 'had reported success in getting the involvement of the people of Nagaland'. An intricate network of Village Development Boards (VDB) was formed as the nucleus with his initiative in all villages of Nagaland between 1976 and 1982. This institution—conceived as an extension of 'traditional' village councils of the male elders—was the main vehicle for delivering public goods and services under various governmental schemes and programmes of rural development. The traditional institution of village councils—consisting of the male village elders—takes all decisions that affect them through a deliberative mechanism and is cited by a section of Naga scholars—as the mainspring of the democratic nature of their society. As per the available reports, the Boards succeeded remarkably in surviving the onslaughts of both the state-level[1] politics that was hitherto encroaching on village autonomy and of the lingering insurgency. It may be noted in this context that insurgency in the erstwhile Naga Hills—initially a district of Greater Assam and subsequently reorganized into a state in 1963—is

[1] We use the term 'state' with 's' in lower case to refer to the constituent states of the Indian union and the term 'State' with 'S' in capital is reserved to refer to the Indian State or for that matter any other member State of the United Nations.

This chapter draws from the author's previous work (Das, 2011a) especially in Sects. 5.2 and 5.3. Portions have been re-used with permission from copyright holder.

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widely considered as the oldest surviving one in Asia that began in the early 1950s with the sole demand for Naga sovereignty and complete independence from India.

While communitization is usually cited in policy circles as a model to be followed by the rest of India, this paper takes an altogether different path by seeking to problematize the concept. Our objective here is not so much to measure the degree of efficiency of the process in delivering public goods and services through the instrumentality of Village Development Boards as much as to assess the rebound effects of delivery on the communities themselves. We will argue that the use of communities for the purpose of delivering public goods and services entails significant transformations in, if not the destruction of, these communities. The paper thus raises the following questions: What does communitization mean? How do the existing policy documents view the instrumentality of the communities? What impact does it have on the communities themselves? What changes does communitization introduce to the social life of the communities that are sought to be rendered instrumental for the delivery of public goods and services? Do communities remain the same as they gear up for the task? How does communitization act on the communities themselves? This, however, should not lead us to assume that communities exist in their pure and pristine, pre-communitized forms before they are sought to be inducted in the process of delivering public goods and services. While much has been written primarily by the economists on the efficiency and instrumentality of the communities, community networks and village ties, correspondingly very little—if at all—has been written on the impact of communitization on communities. The paper attempts to find answers to some of these questions by way of pushing the delivery project beyond its narrow, instrumentalist and albeit patently economistic understanding with the help of a series of ethnographic studies conducted by us in various parts of India's east and the north-east. The ethnographies cited here were conducted through a wide span of time since the beginning of the new millennium on mainly the poor and marginalized sections of victims displaced as a result of riverbank erosion in the northern and north-central districts of Maldah and Murshidabad, respectively, in West Bengal, on sections of *adivasi*[2] informal mining labour of Keonjhar and the scheduled caste villagers of Karadabani in Nayagarh—both in Orissa (Odisha after it is renamed later).[3]

The Naga case, prefaced above, is not easily—if at all—translatable into other social contexts and milieus. But it serves its purpose by developing what Max Weber would have called a nearly 'ideal type' illustration of the communitization experiment in India. While this ideal type is sought to be emulated and applied to a variety of other contexts, this paper seeks precisely to deconstruct it. Accordingly, the paper is divided into three uneven sections: the first section provides a summary of how communitization has figured in a variety of policy documents and papers mainly on the northeast issued from time to time by the state authorities as well as different non-state agencies, individual think tanks, investment banks, financial institutions and so forth. The second section chronicles some of our ethnographic studies

[2] The term *adivasi*—literally meaning 'the original inhabitant'—is variously described as 'tribe', 'indigenous people' and 'scheduled tribe'—the last as per the Constitution and law of the land.

[3] I used some of these ethnographies in different contexts. See Das (2011a, 2011b, 2016).

while trying to assess the impact of communitization on the concerned communities. Our concluding section refers back to the critical distinction we implicitly make in the first two sections between communitization and community in more theoretical terms. In other words, communitization seeks to reconstruct communities in their own terms in order to suit the purpose of delivering public goods and services—of course with a varying degree of success. The distinction prompts us to raise the question: Does communitization spell complete destruction of communities? Our ethnographic studies, however, point out that it is not necessarily the end of the road for communities. There are still forces active in different parts of our study areas that do not submit to the forces of communitization—at least not as passively as they are expected to in the relevant policy papers and documents.

5.1 Communitization

Inspired by Gokhale's novel experiment, *North East Vision 2020*—the first ever authoritative policy text on the development of the region as a whole—underlined the importance of 'communitization' as the key mechanism for delivering public goods and services to the people. It is also taken for granted that unlike in the rest of India, community institutions are exceptionally strong in the region. Many of them are by no means an extension of the past, but have been reoriented, refurbished and are made to function afresh in keeping with the changing requirements of time. Besides the Village Councils, Naga Hoho—the apex body of the Nagas popularly described as 'Naga Parliament' consisting of the representatives of various Naga tribes—is perhaps the most robust among all of them. Village Development Boards were set up with the express objectives of (i) letting the villagers redesign 'on their own' the plans that affect them; (ii) creating and managing common property in an 'open, fair and transparent manner' and thus also serving as the custodian and manager of the 'village development fund'; (iii) working in a gender just manner (for instance, 25% of the village development fund earmarked for Village Development Boards is allotted for women) and (iv) distributing public goods and services to the respective villages. 'The VDB and associated modus operandi', Gokhale puts it, 'have the potential to become a major strategic thrust in the Northeast, and with some adaptation, in villages in the rest of the country, and in tribal communities in many parts of the world'. In simple terms, communitization is only the modern institutionalized expression of the erstwhile 'traditional' community institutions of the Naga society, but certainly not their continuation.

Never before has the region been subjected to such intense policy experimentation as it is now. While 'North East: Vision 2020' (MDoNER, 2005) continues to serve as the key reference point, such policies as 'Industrial and Investment Policy of the North East, 2007', 'Industrial and Investment Policy of Manipur 2013', the 'Industrial and Investment Policy of Assam 2014', 'Nagaland Vision 2030' and so forth are adopted by the respective states of the region to complement it. Besides these policies, advocacy papers such as 'PWC Report commissioned by FICCI North East

Advisory Regional Council, 2013', *North East Region-Initiatives (NER-I)* (2016) and *Emerging North-East India: Economically and Socially.*

Inclusive Strategies (2015) prepared by the investment banks, economists and consultants, think tanks and eminent individuals alike are of utmost importance. In sum, these documents appreciate the role of communities in (a) harnessing knowledge management, by evolving what 'North East: Vision 2020' calls 'resilient strategies' particularly in the two fields of flood control in the Brahmaputra Valley and indigenous (particularly herbal) medicine; (b) lending 'public good perspective' to our development initiatives—which as Mancur Olson warns us—does not emerge automatically when free and 'rational' individuals are left to make their choice and (c) endowing the villagers with capabilities that not only are prior to the delivery of public goods and services and already exist in the villages before delivery of public goods and services but play a significant role in enabling them to access these goods and services.

5.2 Destruction

While communitization calls for community mediation in delivering public goods and services, what impact does communitization have on the communities themselves? Our ethnographies suggest that the communities undergo significant transformation and at times face the threat of destruction insofar as they are pressed into service in each of the three functional areas mentioned above. The next three subsections revolve around the three functional areas, respectively, in order to develop our argument.

5.2.1 Pedagogy of Development

In this subsection, we focus on one of the most protracted of all population displacements in present-day India induced by the erosion of riverbanks that has been taking place along a little over 170 km stretch of the river Ganges (also known as the Ganga in Indian languages) in the district of Malda in northern West Bengal. This is where the river flowing from the far-off Himalayas enters the floodplains of West Bengal from the Rajmahal Hills of the present state of Jharkhand. Although various conventional anti-erosion measures are available to the policy-makers and engineers, these—according to Chaudhuri—will be of little help in the district, for the problem here has been compounded by the establishment of the Farakka Barrage (Chaudhuri, 2007: 34). This should not leave us with the impression that the Farakka alone is responsible for the erosion. This view is disputed by a section of engineers. Prasad Sen—an engineer associated with its construction—does not however blame Farakka for the erosion in Malda (Sen, 2005: 9–15). Farakka Barrage was commissioned back

in 1975 and its main purpose, as evident from the various policy papers of the Government, was to flush about 40,000 cusecs[4] of water through a feeder canal connecting a 38 km stretch of the river in Farakka with the Bhagirathi (the main channel of the river) in Jangipur in the lower riparian district of Murshidabad. With the thinning flow of the Bhagirathi, the Kolkata Port was gradually losing its navigability. The purpose was to flush water through the river so that the Port could be revived. Insofar as the water flow was slowed down by its construction, the silt that the river carried particularly from the upstream started settling in the riverbed—thereby substantially reducing its depth and water-carrying capacity.

Back in 2006, as I was waiting in the office of the district executive engineer of irrigation, Government of West Bengal, for an interview, I found a batch of about 40–50 persons approaching the office briskly walking in a procession and shouting slogans. It was intensely raining outside and reports of havoc created by flood were reaching the district headquarters in Malda from different corners as I was waiting in the office. After a while it became clear that the procession was organized by the Ganga-Bhangon Pratirodh Nagarik Action Committee (Citizens' Action Committee for Resisting Erosion of the Ganges) on the occasion of the submission of a memorandum to the then executive engineer. I became inquisitive and on inquiry found out that the memorandum they wanted to submit highlighted the 'futility' (*bekar*) of engineering measures (like construction of spurs and laying of boulders, etc.) hitherto undertaken by the department and urged on it to immediately stop all such work. While describing flood as a 'natural phenomenon', the memorandum attributed riverbank erosion to the department's exercise in controlling it by trying to keep the river within its existing narrow bed and tame in this manner its vengeful fury expressed through the sudden surge of water during monsoons by eroding the banks. Since the silt carried from the upstream is already settled in the riverbed and finds it difficult to be flushed through the barrier of Farakka Barrage, the riverbed remains heavily choked. The silt is not allowed to be carried to the sea thanks to the barrage. Sudden surge of water during monsoons only washes away the spurs and boulders which eventually settle in the already choked riverbed and further reduce its depth. This is the reason why the river refuses to remain confined to the riverbed and erodes the banks.

The shallowness of the bed—the villagers argued with the engineer—causes tremendous 'wheeling' (the term is used in English by them) of huge monsoon water from within and cuts into the soft inner crusts of the earth underneath the topsoil of the banks. This makes the banks fragile and allows them to cave in and erode. It would not have been the case had the river been allowed to overflow the banks and cause floods. This would allow the soft alluvial silt to spread into the cultivable areas and add to the fertility of the soil. These 'futile' engineering works are undertaken—the villagers continued to argue—at the instance of and in league with the 'corrupt' contractors, politicians and bureaucrats. Here was a piece of engineering knowledge—I realized—that emerged from a very unusual source—that of the nearly

[4] Cusec is the unit flow especially of water equal to one cubic foot per second.

'uneducated' and 'illiterate' villagers and victims. The executive engineer—an engineer both by training and profession—lost his cool as the 'unintelligent' victims came in a herd and got into an argument with him on a point or two about the finer aspects of complex river and civil engineering—which evidently—according to him—require specialists' knowledge. 'How far have you studied? What is your IQ?'—he thundered. All the words used above within quotes were generously showered on the villagers by this engineer. The villagers had no words to answer the question. Indeed, they belonged to a world where knowledge refuses to be metamorphosed into 'study' and accordingly does not render itself liable to be measured by 'IQs' and modern quantitative techniques. Victims have a knowledge that is of no use to the officials and professionals of the irrigation department or as in this case, challenges theirs.

Yet the knowledge of the 'unintelligent' villagers is of immense use for their own survival. No one—to my knowledge—loses life as erosion takes its toll on their homestead, cultivable land, cattle and livestock, and other critical life-bearing resources. As the huge monsoon water 'wheels' from inside with a silent roar, the villagers have the knowledge necessary to hear it and thus feel alarmed by it. The alarm reaches those for whom it is meant. They relocate themselves hours before their land gets washed away. This is a 'knowledge' that knows the inevitability of floods, that knows how to cope and live with them, that also knows that the anti-erosion measures are futile—all without the mediation of the vast engineering and technological repertoire—a knowledge that remains fiercely autonomous and is therefore relentlessly censored by the State functionaries. While their 'ignorance' saves them and positively helps them in bearing their life, the 'all-knowing' government engineers and their engineering solutions cause the destruction by dispossessing the villagers and devouring their livelihood.

Our ethnographies, in sum, point to the hierarchy that the communitized management of indigenous knowledge brings in its wake. While indigenous knowledge is indivisibly holistic, the policy in this instance attempts at managing the problem of riverbank erosion by introducing the most elementary hierarchy between the professionally trained engineers and the 'ignorant' villagers—that is otherwise alien to any indigenous knowledge system. It is this elementary hierarchy that poses the first ever threat to community solidarity by keeping those who have knowledge from those who have not. Viewed in these terms, delivering through those who have the knowledge is the opposite of democratic pedagogy. Democratic pedagogy demands what Gayatri Chakrabarty Spivak calls 'internal dissolution' (Chakrabarty Spivak, 2019), that is to say, complete submergence of the subjects of delivery in the very objects—in other words, the so-called target recipients of public goods and services, not the other way around.

5.2.2 *Public Good Perspective*

One of the key problems of public good, we are told, is that 'rational' individuals are likely to 'ride free' once they realize that the good that their action is to achieve will benefit all besides benefiting her or him. In such a situation, it is highly likely that all of them will refrain from undertaking the action and paying the cost in the first place, hoping that there will always be others who will do it. As a result, no one really pays for it and achieving public good, according to this line of thinking, always turns elusive. Mancur Olson was perhaps the first to have realized it. The individual will pay for the cost if she is either 'coerced' to do it by any superior agency like the State or made to realize that she will be benefiting in a special way that will not be available to others (Olson, 1972: 2).

Back in 2001 during an exceptionally hot summer, I had to pay several consecutive visits to the village Karadabani in the district of Nayagarh, Odisha. Nayagarh being on the other side of the ring of hills that separates Lake Chilika—world's largest brackish water lagoon—is starved of adequate rainfall as the ring of hills surrounding this lake prevents usually low hanging rainclouds from flying into the other side. As a result, it happens to be one of Odisha's most drought-prone districts. Karadabani is an exceptionally undeveloped village inhabited mostly by the people belonging to scheduled castes—'harijans'[5] or the 'people of God' as per their self-description. The poverty of the villagers is to be seen in order to believe it. The village has its nearest metal road—a good 14 kms away and the villagers have to walk the distance if they are to catch any vehicle to reach the district town of Nayagarh. Villagers are literally left without any means of livelihood. Land is too infertile to be cultivated as not a blade of grass is grown there. They do not have any special skill so that they could eke out a living cashing in on it. They depend mostly on produce in the far-off forests, collect logs, honey, berries, roots, other fruits, etc. and sell them in Nayagarh Town.

The members of Karadabani Mahila Mandal and Raghunatha Krushak Club of Karadabani (both self-help groups of women and men, respectively), for instance, knew pretty well that their dependence on the forest produce 'illegally' collected from nearby forests could not offer any permanent solution to their problem of daily living. My conversations with them made me realize that they were well aware that the forests that made them earn their living today could not continue to do so for an indefinite period of time and was unsustainable at the end of the day. Moreover, such acts on their part amounted to pilferage. But, they were left with no alternative. 'How will we live now (*Chalibe*)?' is the only single-word answer in Odiya that I could elicit when I asked them the most obvious and perhaps foolish question of what would happen tomorrow. They did not own any agricultural land. Nor was there any agricultural land around. They do not have any traditionally inherited skills (like the brass and bell metal artisans of Khandapara or the carpet-makers of Nayagarh). Their jobs as day wage labourers in the construction sites were, to say the least, irregular.

[5] The term was popularized by Mahatma Gandhi by way of branding them as God's people. The term is considered politically incorrect and is no longer used in scholarly circles.

What would they do today? Not surprisingly, the voluntary group's advocacy for immediately stopping collection of logs from the forests fell on deaf ears in this village. The question of today eternally postpones the question of tomorrow. Even when they knew that during the last 8 years preceding my visit at least six villagers had been shot dead by the forest guards, they had not stopped the practice of entering into the forest. What used to be a common property resource (CPR) for everyone's use and therefore not the exclusive property of anyone became a State property only with the reservation of the forest at that time.[6] And State forces used to protect it with zeal against any encroachment thereby preventing entry of common men and women into the forest.

People's ascendance into the higher realm of civic consciousness demands from them a longer term perspective in which more than the questions of today, people are expected to be keen on 'improving their minds' in the long run. Their preoccupation with the question of today at the same time does not enable them to think and act from a 'public good' perspective. Everyday struggles for livelihood are so grinding that more often than not peoples belonging to adjacent villages were seen to fight between them for acquiring control over vital means of survival thereby endangering the whole perspective of 'public good'. We heard of a clash that had taken place between the two villages of Mahipur and Paradhipi of Nuagaon Block of Nayagarh District in 1996–97. Ultimately, it could not come to a flashpoint thanks to the timely intervention of a voluntary group working with them and the administration. The people of Paradhipi did not allow the villagers of Mahipur to collect log from the forests adjacent to their village for they had feared that any depletion of the nearby forest would immediately cut into the sources of their livelihood more than those of the latter situated at a distance. The sense of 'public good', in sum, is yet to take shape in the minds of the poor and marginalized sections of the people.

In both Nayagarh and Keonjhar (the second I visited almost immediately after my visits to the first in the same year), I found to my utter surprise that my interlocutors found it hard to fix up any appointment with the villagers for they were too deeply tied up with their everyday struggle for survival to grant it. It was harvesting season and everybody was busy. Life of a toiler could seldom contribute to a general sense of social and political responsibility towards the environment, future of the village and most importantly public good. It may be important in this context to draw a distinction between people's everyday concern for livelihood and what is commonly described as the realm of civic consciousness informed by a sense of public good. Civic consciousness, theorists of civil society would caution us, is necessarily issued from a 'public good' perspective. But what we found from the case studies in parts of Nayagarh and Keonjhar is that the daily lives of the poor villagers are so overwhelmingly occupied by the concern for earning a livelihood that at the end of the day, they feel completely worn out and do not find just the time to interact and converse among themselves and deliberate on what could constitute public good for all of

[6] It is only in recent years that the Act has been amended in order to allow the forest dwellers to have limited access to forest resources.

them. The development of civic consciousness is a product of such daily interactions and deliberations within the community. If there is village democracy in Naga society, it is because of the complex web of deliberations that takes place within it. It is true that such deliberations are more often than not restricted to only the male elders of the village. But nevertheless, it lays down the foundation of a deliberative space that is not at all available in many other parts of India. The theoretical cue of my argument is drawn from Adam Ferguson—the leading light of Scottish Enlightenment—who was perhaps the first to have realized the incompatibility of the public with the everyday question of livelihood. 'The beggar, who depends on charity, the laborer, who toils that he may eat; the mechanic, whose art requires no exertion of genius' are, according to him, 'degraded' by what they do, their very profession and can hardly respond to 'the calls of the public' (Ferguson, 2003: 43). In other words, merely involving communities in delivering public goods and services does not necessarily promote public good.

5.2.3 Accessibility Endowments

Not all villages are equally poorly placed insofar as the knowledge of public good is concerned. In some of the villages, the level of such knowledge is albeit moderately high. Gopinathapur and Karadabani of Nayagarh could not respond in the same manner to the same strategy of communitized intervention. The Secretary of the Siddheswari Mahila Mandal—a self-help group (SHG) in Gopinathapur, for instance, pointed out to me: 'Our association with the SHG may not have increased our wealth (*dhan*) but it has certainly improved (*unnati*) our mentality (*mon*)'.

The availability of public goods and services through efficient delivery systems and mediating community institutions is not the same as the villagers' capability of accessing them in an optimal manner. Even the most efficient delivery institutions might fail if the communities do not have the capability of accessing and making use of them. Our studies indicate why strengthening capabilities of accession calls for what we may call a requisite level of social endowments that must be made available to the villagers. Any failure in reaching this level substantially cuts into a community's capability of accessing public goods and services, leave alone making use of them.

From our limited ethnographic records, we also found out that public 'information' and 'vigilance' are more a function of the level of intersectional solidarity internal to the village than the presence of the community per se. No community under present conditions is either given or homogeneous. Even the remotest of communities is found to be divided along a variety of lines of gender, caste, kinship, ethnicity, class, and so forth. It is important that we disaggregate each community and assess the level of village solidarity across these divisions. Village solidarity can assert itself only by transcending the intersectionalities within the village—not necessarily by eliminating them. We have not found any necessary correlation between lower level of intersectionalities and high village solidarity. Community solidarity must be

strong enough to offset the impact of intra-village intersectionalities on the level of information, knowledge and public vigilance insofar as delivery of public goods and services is concerned.

Even in the remotest corners of the programme villages of Odisha, people are seen to participate in voting with enthusiasm. In most cases, rural voting is cent percent. Indeed, there is reason to believe that election comes as a carnival-like moment in the otherwise uneventful life of the poor and the marginalized sections of rural people who do not have the means of accessing the otherwise available sources of entertainment. Giving lie to what theories of representation would make us believe, they do not view elections as mechanisms through which they can hold people's representatives and the public agencies accountable to them. The people of Karadabani, for instance, requested Mr. Bhagabat Behera, who later became the local MLA as well as the Minister of Mass Education, Government of Orissa, for establishing a primary school (the first of its kind) in the village on the eve of the election held in 2000. They wanted their children to become 'educated'. In spite of his reported assurances, nothing was done in this regard.

Community's helplessness in defending the civic space and public good vis-à-vis the high-handedness and crass display of power particularly by the lower rung government officials is nowhere more sharply illustrated in course of our field visits than in the *adivasi*-dominated Sayabali Village of Bhadrasahi Gram Panchayat of the Joda Block in the district of Keonjhar. At the time of my visit, this was nominated as the model village under the 'Education for all' (EFA) project supported by the Dutch consortium of Core Financing Agencies (CFA). There was only one primary school in the above-mentioned village and in early 2001 when I visited it there was only one teacher who would commute from outside the village and take charge of four classes from class one to four. He was highly irregular in his attendance. While the school timing was from 10.00 A.M. to 4.00 P.M., he usually would come (if at all) late and leave at 2.00 P.M. every day. The teacher was an old man who was also on the verge of retirement. Despite Village Education Committee's (VEC[7]) persistent persuasions, he continued to be irregular. The Secretary of the VEC confided to me: 'We have done everything we could possibly do. Yet, he has not changed his behaviour. He has actually thrown to us a challenge saying "you do whatever you can"'. The members went to the local Block Development Officer (BDO) and submitted a written deputation to him. No step had so far been taken. In course of our interviews, we could very well see the helplessness of the poor villagers. Even if their actions were informed by an acute sense of responsibility, they felt absolutely powerless.

Villages that are socially more homogeneous have shown a greater sense of public audit and vigilance than the villages that are mixed and consist of peoples belonging to heterogeneous castes and *adivasis*. While the scheduled caste people accuse the adivasis of being callous of their social responsibilities, the latter accuse the former of taking a discriminatory attitude against them. One of the most common accusations

[7] VEC was constituted to keep an eye on the performance of schools and the teachers teaching in the respective village.

against the adivasis is that they are miners by profession; most of them are informally employed without any guarantee of stable work. After an exacting day's work from the early morning in the local manganese mines, they drink the local brew (called *handiya*) and lose their head. Addiction in the village is both wide and rampant. They are so addicted that they are not in a state of mind to even think of their children's education. On the other hand, an adivasi villager told us that after so much of spending on a private tutor (he bought a kerosene lamp for his child and had to pay Rs. 30 per month as the tuition fee, which by his standard was quite high at that time for his little child), he discovered that the tutor was not very particular in his job precisely because he did not (as our interviewee felt) want 'the adivasis to be educated'. He observed with a sense of resignation: 'We are adivasis and it is certain that we will remain forever uneducated (*murkha*)'. This refers to the same village of Sayabali. The village solidarity and tolerance are still things that one does not easily come across in the socially mixed villages. While both are poor, the common poverty is no glue that could produce village solidarity between the SCs and the adivasis (officially certified as Scheduled Tribes or STs). Moreover, the formation of too many Committees (like the Self-Help Groups or SHGs, the VECs, the Gram Sabhas, Mothers' Committees, Anganwadi SHGs, etc.) in one single village was responsible for producing frictions among them. Sometimes, the same individual acted as the member of so many Committees. It often led to role confusion and a certain blurring of his or her sense of responsibility.

5.3 Contest

Not too long ago, Wendy Brown warned against using 'us' and 'our communities' as 'human capital for the firm, the state, or postnational constellation of which we are members'. As she puts it: 'A subject construed and constructed as human capital both for himself or for the firm or the state is at persistent state of risk of failure, redundancy or abandonment through no doing of its own, regardless of how savvy and responsible it is' (Brown, 2015:37). Insofar as communities are reoriented, revived and refurbished to serve as powerful instruments for leveraging delivery of public goods and services, does this mark the end of the road for communities? Is communitization then the final destiny of communities? Is there anything that is still left in the communities that has the potential of challenging and resisting the indiscriminate communitization by the state, non-state and other global multilateral agencies?

Russell Hurdin, on the other hand, makes a case for transiting from communities with enduring 'moral commitments' from their members to the 'communally enforced norms' to communities with what he calls 'encapsulated interest account'. The 'trust' that one notices among the members of a given community must be in 'mutual benefit' of one who trusts and one who is trusted. As Hurdin argues: 'It is grounded in an assumption that the potentially trusted person has an interest in maintaining a relationship with the truster, an interest that gives the potentially trusted person an incentive to be trustworthy' (Hardin, 2006: 17). The mutuality of interests

based on trust eventually defines a network and one who 'cheats' gets 'excluded' from this network. Exclusion from this is not 'devastating' as long as being excluded serves the network's interest more than including her in it. The community, viewed in this sense, is based more on an anticipated convergence of interests, than on some pre-existing moral commitments that are enforced communally if ever they are under the threat of being breached. Any breach in the second case is subject to social punishment (like ridicule and rebuff, stigmatization, ostracism etc.) with a varying degree of severity. Communities of moral commitments, according to him, either no longer exist or are dysfunctional because they are unduly 'exclusionary' often to the detriment of mutual interest. Our interests are not necessarily restricted to the immediate community of moral commitments. We have to 'learn to live in *our* world' (Hardin, 2006:14). We live through 'networks of diverse people'—'manifold, relatively open networks' and live 'much richer life' than the one in closed communities. The old communities, in short, are a stumbling block to efficient delivery. Communitization in effect means thorough reconstruction of communities. Unlike Wendy Brown, Hurdin recognizes not only the instrumentality of new community formations, but also considers them as desirable.

Let us for a moment take a pause and refer back to what 'North East: Vision 2020' has to say in this regard. In a significant echo to what Hurdin suggests, the Vision 2020 statement announces:

> The region is inhabited by diverse ethno-linguistic origins, religious beliefs, and tribal practices, cultural ethos and above all irreconcilable historical past. Their interests are often in conflict with one another and their interests are not reducible to one common denominator... a northeast political vision must precede a northeast economic vision... Governance is crucial to this. But governance could be very exclusive... In a modern democratic society, the government has to play many inclusive roles which means it has to depend on the cooperation and participation of many of the people in administering its functions (MDoNER, 2005: 277).

In sharp contrast to this, there is also community driven by the powerful imaginary of what Jean-Luc Nancy calls 'organic communion':

> ...[C]ommunity is not only intimate communication between its members, but also its organic communion with its own essence. It is constituted not only by a fair distribution of tasks and goods, or by a happy equilibrium of forces and authorities: it is made up principally of sharing, diffusion, or impregnation of an identity by a plurality wherein each member identifies through the supplementary mediation of his identification with the living body of the community (Nancy, 1991: 33).

Is there anything that still remains of this? The two imaginaries are engaged as it were in an unending series of contest thereby turning the community into a veritable site. Our ethnographies suggest such a community's twin function of contest: On the one hand, it acts as the collateral at a time when forces of perfect market competition threaten to rip the society apart and triggers 'war of all against all'.

Kumar Rana spent more than a year in an adivasi-inhabited village called Alopahari (not the real name) situated on the Bengal-Bihar (now part of Jharkhand) border. As the adivasis migrate in search of livelihood they become increasingly cut off from their village and kinship ties that always serve as support systems in times of distress.

In an anonymous urban world, they live a life without a 'society' (*samaj*). As Rana argues: 'Leave aside air and water, men require a 'society' in order to live—for persons like Rajen, it may not be at all easy to find a 'society' in Patna–Bokaro–Kolkata–Delhi' (Rana, n.d.: 160). Unmediated by community and kinship networks, they remain directly exposed to the vagaries of market economy and 'die early' if they do not have the chance of returning to their village.

The opposite is also true. The community acts as a collateral in times when instead of perfect market competition one notices market collapse or shutdown over a prolonged period of time. In a recently published paper, I made an ethnographic study of the Darjeeling hills in 2017 when life came to a complete standstill for 104 days thanks to a *bandh* (strike) called by the Gorkha Janmukti Morcha (GJM) in support of its demand for a separate Gorkhaland State within the Indian Union. It may be noted that a section of its leaders and supporters is believed to have raised the demand for a sovereign Gorkhaland State outside the Indian union. Community support and neighbourhood ties came as a big source of support that made human survival possible without any loss of human life. Community, I argued, is the basis of moral economy that helped people survive during the *bandh* period (Das, 2019: 80–84).

On the other hand, communities pushed into the margins tend to keep a *relative* strategic distance from the world of delivery of public goods and services thus rendering themselves ungovernable. If public goods and services do not come their way, they too do not let outsiders including the state agencies, deliverers and the voluntary organizations intrude into their space. Let me take an example from one of my ethnographic studies cited earlier. Article 11, Clause 2 of the West Bengal Land Revenue Act 1955 in its original form enabled the owners who lost their land due to riverbank erosion to restore ownership provided that land emerged on the river within 20 *years*' time from erosion. This provision that appears to be in keeping with what the people perceive as naturally synchronous processes of submergence and emergence of land (*shikhosthi* and *payosthi* to use locally popular terms) within a river was removed in 2000 and now any land emerging on the river, according to the new amendment, automatically becomes a vested property of the government. As the local proverb puts it, the river does not take anything; it gives back what it takes in due time. So the land lost due to submergence is bound to resurface after a while as the river changes its course and sustains shift in its channels. As a result, the amendment permanently rules out the claims of those who lose their land as a result of erosion. While frequently visiting many of these river islands particularly during the last decade of the new millennium, I have seen hundreds of people prominently displaying their erstwhile land deeds of conveyance, which have no value to them. Thus, they have deeds which hardly convey any title, for the land has been washed away long back, ration cards (under public distribution system) for which rations are unavailable, voter identity cards against which there are no votes. The government finds it impossible to collect revenue from them although they seem to be too eager to pay it for establishing their legal identity and proprietary claims. In one of my earlier papers, I preferred to describe them as 'people without shadows' (Das, 2010–11:

1–11). They are the people who are like ghosts for they hardly leave any (paper) trail behind them.

I called them the ungovernable and here we are referring to the politics—not of the 'governed' as the title of a book[8] famously suggests—but that of the ungovernable. The ungovernable sets forth the limit of what is or can be governed contains power within what Alain Badiou would have called 'a measure'. As he puts it: 'Politics puts the State at a distance, in the distance of its measure' (Badiou, 2005: 205). On the other hand, State by virtue of being a sovereign entity has the inherent tendency of overwhelming the limit.

Let me conclude the paper by way of referring to my ethnographic study conducted on 8 December 2007. We made trip to Khasmahal Char—one of then-newly emerged river islands. It was a sunny, winter day that we spent with the villagers. It was time for us to return and the sun was about to set in, in the silhouette of over 14 km-wide meandering belt of the river. The country boat (locally called *bhutbhuti*) fitted with an engine presumably discarded from a motorbike (widely in use in Indian countryside) started roaring and as all of us made our last leap out of the island into the narrow keel of the boat, we turned back one last time towards the villagers including the elderly men, women and little children who gathered in then-newly improvised *ghat* (embankment). Did they come to see us off? All of them were visibly poor and were without any woollen clothes in that punishing cold. To our surprise, we discovered that all of them were armed with whatever weapon they could lay their hands on—*lathis* (sticks), machetes, spears, sickles, etc. The eldest among them—a lean, shadowy skeleton of a man—half blind with only one hateful eye—came forward and slowly started saying something almost in an inaudible voice. He was the headman of the village and bluntly wanted to know why we had paid the visit in the first place. They were absolutely hospitable till the last minute. We were fumbling and were searching for words for we had no real answer that could be intelligible to them. Research seemed to be the creature of a distant planet. Fortunately, he broke the silence himself that was becoming excruciating for us with these words: 'You (*aapnera*) come and go. But our life remains unchanged. We are yet to figure out why outsiders come to visit us. Are we the strange animals?' Darkness was slowly setting in. The boat too started moving forward. We felt temporarily relieved.

The villagers in this instance were literally turning the table around insofar as they were insisting on keeping distance from us—the outsiders and relentlessly refused to be treated like mute objects of research, outside gaze and service delivery.

Communities of our times are locked up as it were in a site of perpetual contest—between the communitized communities being kept in readiness for efficient delivery of public goods and services under the neoliberal conditions on one hand and the 'communities with moral commitments and organic communion' on the other. While the two communities, to say the least, will never meet, neither of them exists in its pure form. It is the contest that makes communitization always incomplete as much as transforms the latter.

[8] Chatterjee (2007).

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Chapter 6
Delivery of Safe Drinking Water in Rural India: An Appraisal of Public Water Supply Initiatives

Subhalakshmi Paul and Prasenjit Sarkhel

6.1 Introduction

Provision of essential services like education, health services and water supply are often carried out by public agencies, especially in low-income areas. Making these services available are likely to reduce non-income poverty and pave the way for long term human development. However, country experiences show that progress in public service delivery is lagging in terms of quality of services and have largely excluded the poor from its access (Asian Development Bank, 2013). Studies have identified inadequate institutional structure as well as weak governance to be the major barriers towards efficient service provision. Consequently, policymakers have also made attempt to switch to decentralized mode of service provision on the grounds that sub-national bodies are better aware of the local preferences and needs of the potential beneficiaries (Azfar et al., 2004). Despite the suppositious advantages, extant studies have also pointed out that the gains from decentralization might erode away if possibilities of elite capture loom large or there's lack of training at the local provider's end that impedes service delivery (Bardhan & Mookherjee, 2000; Singh, 2014). In fact, there are counter claims that in regions with deep inequality centralized provision through state agencies would be better suited to address the problem of social justice and equity (Johnson, 2001). Thus, the benefits of decentralization are not obvious. In this paper, we examine the effectiveness of decentralized reforms in increasing coverage of drinking water in rural India.

In India, drinking water was perceived as social good especially in the context of rural areas. This is because rural people are disadvantaged in terms of human

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development indicators and even recent estimates suggest that two hundred thousand rural people die each year from water-borne diseases (Niti Ayog, 2018). In rural areas, since 1950, national and state governments have invested more than USD 40 billion to expand water coverage among communities.[1] Despite massive public expenses, the Estimates Committee of the Parliament (2015) observed that piped water supply is available to only 47% of rural habitations and only 15% of the rural household out of them have tap water connection. In the past, problems in delivery of water were relegated to the 'top-down' or the centralized water policy that was supply driven. In an effort to compensate for limited storage capacity and scant treatment facilities for surface water, government initially encouraged the use of groundwater resources (Briscoe & Malik, 2006). Even in the current times, states which are located on the north and east side of India such as Punjab, West Bengal, Uttar Pradesh, Haryana, Odisha and Madhya Pradesh are mostly dependent on the groundwater sources (tube well, hand pump, etc.) rather than government regulated tap connection. For the country as a whole, approximately 53% of the rural population rely on tube wells and borehole and about one in eight people go to get water from a river or other unprotected open sources (Biswas and Tortajada 2010). Excessive reliance on groundwater[2] often leads to quality concerns in drinking water. If extraction takes place from deep wells with depth more than 60 m, the water is likely to be contaminated by arsenic, nitrate and fluoride that is unhealthy for human consumption. As per existing estimates, almost 70,000 habitations in rural India are exposed to poor quality drinking water that threatens their health and well-being.[3] Clearly, decades of public intervention in rural water sector seems to have fallen short to achieve adequate coverage of potable water. We attempt to understand the potential deficiencies in the delivery of rural drinking water by analyzing the evolution of water supply initiatives in India over time. Our review of the public programs identifies the strengths and weaknesses of centralized and decentralized modes of water supply.

There was a gradual shift towards demand-driven approach since the late 1990s where water supply was decentralized and reforms were undertaken to strengthen local institutions for implementation of water projects (Singh, 2014). As Hutchings et al. (2017) note this period also marked a shift in emphasis from *access* through groundwater to piped water schemes embodying improved public drinking water service. The goal of the government as laid down in the strategic plan of the Ministry of Drinking Water and Sanitation—2011–2022 was to provide piped water supply to every rural household within the household premise or at a distance of not exceeding 50 m from his/her residence. Besides making water accessible to the rural poor, the other likely benefit of the program would be the inducement to shift away from

[1] https://www.wsp.org/featuresevents/features/rejuvenating-rural-water-supply-india.

[2] Satellite comparison reveals that during 2002 and 2016 despite having higher than average rainfall groundwater levels in Northern and Eastern India are depleting at an alarming rate. https://india.mongabay.com/2018/06/indias-groundwater-crisis-fueled-by-intense-pumping-needs-urgent-management/.

[3] https://jalshakti-ddws.gov.in/sites/default/files/Guidlines%20Arsenic.pdf.

groundwater. In addition to access, provision of adequate quantity of water thus becomes necessary. The revised guidelines of the National Rural Drinking Water Policy (henceforth NRDWP)—the ongoing flagship program of the government—putting emphasis on individual tap water connection manifests such initiative. Our study sheds light on these issues by identifying the correlates of NRDWP coverage in terms of decentalized government involvement and geographic characteristics like availability of groundwater.

We estimate NRDWP coverage in a panel setting using coverage data from the Integrated Management Information System (IMIS) for the period 2014–19. In the estimation exercise, we also superimpose yearly groundwater data from the database of the Central Groundwater Commission to see whether planners put higher emphasis on coverage in areas with declining water table. The set of main results indicate two important facts about rural water supply: first we find that coverage has been lower in areas with low groundwater availability, and we also observe that higher decentralization might be related to lower coverage.

We describe our findings in the following schema: Section 6.1 discusses the transition of rural water supply programs from centralized provision model to NRDWP that is demand driven. Section 6.2 outlines our data and estimation strategy. The results of the estimation are discussed in Sect. 6.3, and finally we report our concluding observations in Sect. 6.4.

6.2 Rural Drinking Water Supply in India: An Appraisal

6.2.1 Centralized Water Supply Initiatives

Early covenants regarding drinking water in India can be traced back to *Hindu Water Law* as enshrined in works of *Manu* (c.500–100 BCE) and also to the tenth century Islamic Law on water use (Cullet & Gupta, 2009). The traditional view about water being a social good continued till the colonial period though by then property rights and use of water was tagged together. Thus, landowners were granted free access to the groundwater.

However, explicit public intervention in the provision of water was visible 3 years after the Independence in 1947 and the First Five Year Plan (1951–56) allocated 1.5% of the total budget to water and sanitation (Cronin et al., 2016). That harnessing natural supply of water would be important became particularly evident after the Bihar famine in 1967 and pro-active water reforms for the rural sector were put in motion. During the period 1968 to the early 80 s—the period which Novellino et al. (2015) termed as the expansion period—Accelerated Rural Water Supply Program (ARWSP) was initiated in 1972 and using hand pump technology groundwater became the dominant source of drinking water. ARWSP was however significant because it defined different levels of coverage as benchmark; for instance, the

minimum coverage was set at 40 L per capita per day (lcpd).[4] Moreover, ARWSP was funded with a huge public outlay of INR 40,000 crores and that created a large infrastructural base for rural water supply. Yet critics claimed that its delivery remained unsatisfactory due to neglect in operation and maintenance and scant community participation (Mohanty, 2006). Global recognition about the problems of water adequacy started increasing during the 80s and United Nations launched a campaign of International Decade of Water and Sanitation during this period. This was coterminous with the formulation of first National Water Policy in 1987 and a severe drought. The need for a sustained policy intervention in the water sector became even more pressing after the natural shock induced water scarcity.

According to some view, ARWSP made significant impact in rural water supply (Cullet, 2013), however the Comptroller and Auditor General report also pointed out that slipping back of fully covered (FC)[5] habitations continued even when the program was in operation.[6]

6.2.2 Era of Decentralized Water Delivery

Increasing documentation of the failure of the centralized provision model of rural water supply led to significant changes in the outlook of rural water policy from the late 90s. In policy parlance, the 'social right' dimension of water was increasingly superseded by recognition of water as 'socio-economic' good (Cullet, 2011; Rout, 2014). The reform measures also envisaged greater community involvement in terms of active participation in operation and maintenance and sharing of capital cost. The demand-driven approach was reflected in the *Swajaldhara* guidelines and the *Swajal* project—World Bank sponsored project in 1996 (Joshi, 2004).[7] Thereafter, the rural water supply framework continuously evolved with progressive decentralization in the institutional structure.

The evaluations of *Swajaldhara* project were not encouraging—a countrywide survey revealed that slipping back problem is still persistent and have become more acute as habitation coverage has dropped from the figure of 95–65% implying poor project implementation. The piecemeal reforms culminated into an overall country model of decentralized rural water supply program in the shape of NRDWP in 2009. Following subsequent amendments in 2013, the NRDWP attempts to bring about the following changes relative to its predecessors like ARWSP (a) emphasizing on households as unit of supply to make the water supply more equitable (b) more

[4] This included 3 L for drinking, 5 L for cooking, 15 L for bathing a, 7 L for washing utensils and house and.

[5] FC denotes that 100% of the population is getting 40lpcd and /or 55lpcd.

[6] https://www.indiawaterportal.org/articles/accelerated-rural-water-supply-programme-cag-performance-audit-report-2008.

[7] The project was implemented at two levels: *Swajaldhara I* implemented at the level of the Gram Panchayat and *Swajaldhara II* where the unit of implementation is district (Rout, 2014).

decentralized operation in water supply (Chaudhuri et al., 2020). For the latter the NRDWP has the following institutional arrangement at various levels of government: (i) Village Water and Sanitation Committee (VWSC) at the village level—that deals with Gram Panchayat for planning and implementating local water infrastructure (ii) District Water and Sanitation Mission at district level, and (iii) Multiple agencies at the state level like State Water and Sanitation Mission (SWSM) and Public Health and Engineering Department (PHED). The schematic version of the water policy evolution and NRDWP institutional arrangements their and interrelationships are provided in Figs. 6.1 and 6.2.

One important aspect of NRDWP relates to its funding pattern whereby the scheme finances are shared by the state and the central government. For coverage and maintenance of NRDWP, the state and the center has equal share except for the North Eastern states where the center shares 90% of the expenditure. However, for sustainability of the scheme, the central government assumes sole responsibility. Typically, one can then view the scheme as local services funded by fiscal grant. As Bardhan & Mookherjee (2006) notes, in such cases, allocation could be more egalitarian and relative to user fee or tax financed scheme. However, due to the financial constraint, delivery of water supply services may not be responsive to local needs and service levels (coverage in our case) could be lower.

How effective has been NRDWP in terms of expanding water coverage in rural areas? Did the decentralization help in improving drinking water coverage? The Integrated Management Information System (IMIS) depicts a highly variable coverage status of tap water connection in the NRDWP. In particular, the progress has been relatively slower in states like Tamil Nadu West Bengal (one of the hotspots known for arsenic problem in groundwater) and states like Nagaland and Tripura in North-East India (See Fig. 6.3). The spatial heterogeneity in terms of coverage is also confirmed by Chaudhuri et al. (2020) who finds that there's disparity in the share of rural water supply schemes where places in the North East received less than 10% of schemes while those like Gujarat, Madhya Pradesh, Orissa, Chattishgarh, etc., garnered the major portion. They reported similar inequality of coverage where North and Central states are having better coverage compared to North-Eastern regions and Kerala. Thus, decentralization of water supply services did not seem to have an all-encompassing impact. In fact, evidence regarding the efficacy of decentralization in Indian water sector is mixed. For instance, Asthana (2008, 2012) finds that decentralization is linked with higher corruption in the short and medium run though its effect reduces over time. In presence of socio-economic disparity, decentralization is also observed to intensify inequality in water access (De, 2009).

To narrow down our investigation in rural areas, we now consider the usage of principal drinking water source at the household level from various National Sample Survey Rounds in Table 6.1.

As can be seen that the use of tap water in rural areas has not only increased slowly compared to urban areas but level of usage is also low relative to its urban counterpart. On the other hand, even after a decade of NRDWP, use of extracted groundwater remains the principal drinking water mode in rural areas with more than half of rural population relying on it and the usage has steadily increased. Thus,

Percentage of Budget Allocation on Water & Sanitation	Percentage	1.46	1.07	1.23	2.75	2.62	4.15	3.62	3.85	3.85	4.6	NA
	Five Year Plan	FYP1	FYP2	FYP3	FYP4	FYP5	FYP6	FYP7	FYP8	FYP9	FYP10	FYP11
	Year	1951-56	1956-61	1961-66	1969-74	1974-78	1980-85	1985-90	1992-97	1997-2002	2002-07	2007-12

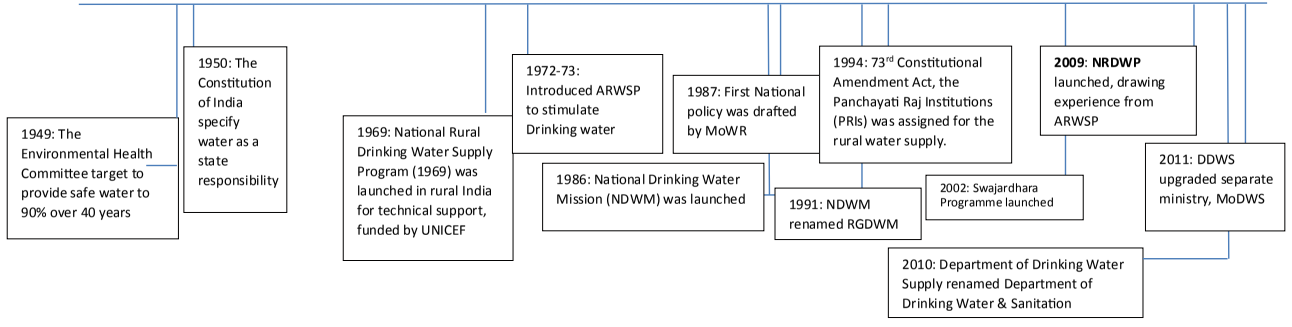

Fig. 6.1 Timeline of drinking water supply since independence. *Source* Cronin et al. (2016)

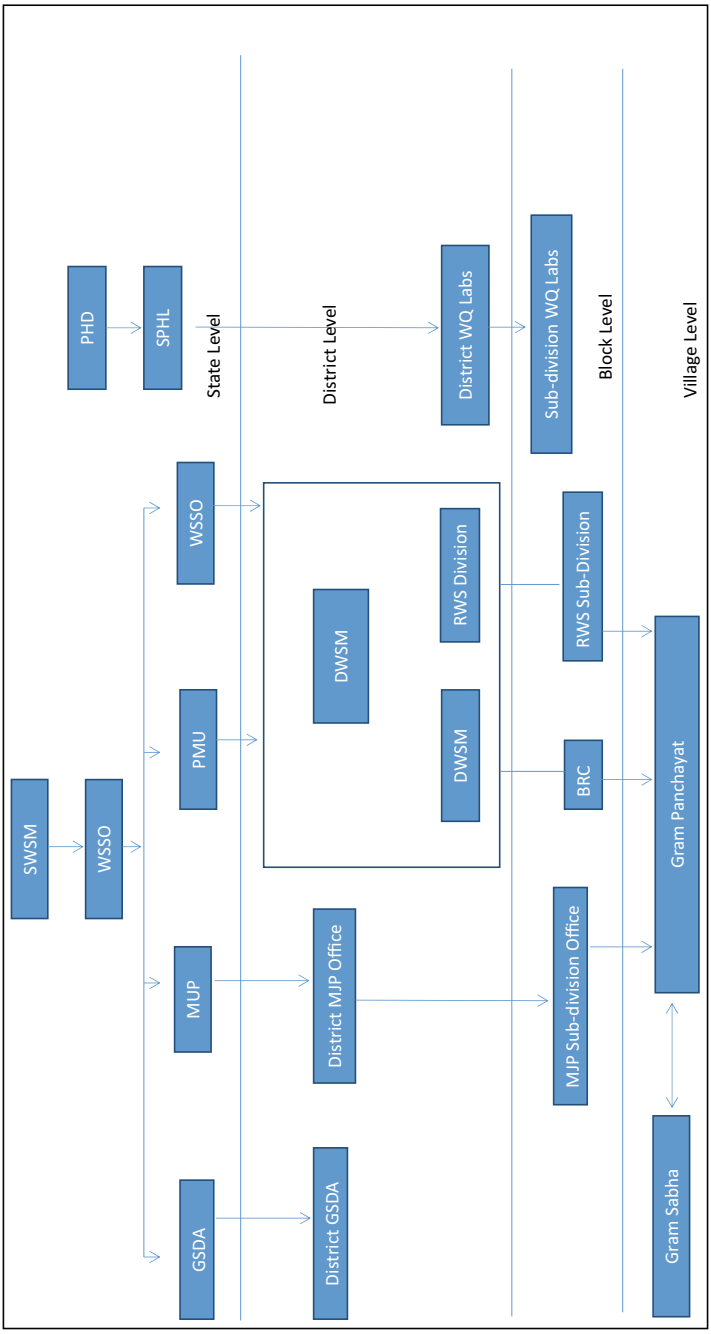

Fig. 6.2 Institutional structure of water supply and sanitation implementation in the district surveyed. *Source* Sakthivel et al. (2015)

Fig. 6.3 Pipe water coverage across Indian States 2019. *Source* https://ejalshakti.gov.in/jjmreport/JJMIndia.aspx

the extent to which aim of substituting tap-water in place of groundwater is fulfilled remains debatable. However, extant literature that analyzes NRDWP performance doesn't adequately address the issue regarding reliance on groundwater. We find that Poonia and Punia (2018) use drinking water supply index using census 2011 data and find that drinking water supply is negatively related to natural water endowment of the area. While the findings describe the differential coverage patterns of public water supply, they did not explicitly consider the state of groundwater. In India, estimation revealed that natural endowments of groundwater show high variability: groundwater decline is found to be prominent in semi-arid India (Rodell et al., 2009) while Otto and Maddock (2015) find significant changes in groundwater in western India. However, it is evident that given the level of water endowments the spread of public water supply also depends on the efficiency of government departments, and these are largely unobserved. Pipe water coverage data aggregated at the sub-national level conceals the regional factors like administrative efficacy, corruption, and institutional bottlenecks that often impede optimal pipe water connection. In

Table 6.1 Usage of different water sources for drinking water

Principal source of drinking water	Rural (% households)					Urban (% households)				
	1983 (38th rd.)	1988 (44th rd.)	1993 (49th rd.)	1998 (54th rd.)	2018 (76th rd.)	1983 (38th rd.)	1988 (44th rd.)	1993 (49th rd.)	1998 (54th rd.)	2018 (76th rd.)
Tap	8.72	15.5	18.9	18.7	32.9	70.50	72.1	70.4	70.1	65
Tube well, hand pump	27.36	39.1	44.5	50.1	53.8	14.34	17.2	18.5	21.3	41.2
Well	52.28	39.1	31.7	25.8	7.3	12.78	9.2	8.6	6.7	4.1
Tank, ponds, etc.	3.78	2.2	2.1	1.9	0.4	0.56	0.3	0.8	0.3	0.0
River/canal/lake	5.15	2.4	1.7	1.3	0.7	0.6	0.3	0.1	0.2	0.0
Spring		1.4	0.9	1.7	0.6		0.2	0.1	0.1	0.1
Other	2.71	0.6	0.3	0.4	0.9	1.20	0.8	1.4	1.1	0.0
All	100	100	100	100	100	100	100	100	100	100

Source NSS different rounds

our work, we take advantage of the short panel setting of our data that controls for unobserved time-invariant characteristics and estimate water coverage as a function of the level of decentralization and natural water endowments in rural India.

6.3 Data and Estimation Strategy

We make use of the IMIS database for the period 2013–2014 to collate the piped water supply (henceforth PWS) data.[8] We obtain this data both at the sub-national level as well as the district level. To explain the variation in water coverage the other variable we use from the IMIS database is the measure of decentralization that is indicated by the proportion of scheme each year that is handed over to the Gram Panchayat (GP) for operation and maintenance. The handing over of schemes is supposed to capture several aspects of decentralization as envisaged in the NRDWP guidelines. These include exclusive role of the GPs in managing and operating in-village drinking water projects while the state government agencies are supposed to carry out the treatment and distribution of water up to the village. To check whether the coverage is sensitive to the groundwater levels that denote regional water endowments we use data from Central Groundwater Commission. Here, the groundwater level in terms of aquifer depth is measured from observational wells at the district level. Average aquifer depth should denote the depth that must be reached to construct a tube well (Jessoe, 2013). We use groundwater level data fetched from the India WRIS portal 9 for district level. WRIS provides information for aquifer depth across districts for four seasons: Monsoon, Post-monsoon-Kharif, Post-monsoon-Rabi, and Pre-monsoon. We use the minimum aquifer depth out of these 4 recorded levels as it is likely to indicate the minimum cost incurred to extract groundwater for domestic use or drinking purposes (Sarkhel & Paul, 2019).

The other variables of interest are the government funds that are deployed by both central and the state governments for the RWSS. As Wescoat (2016) observes that in some states the water schemes are mostly funded by state-funds (for example, Gujarat) while in states like Sikkim, Nagaland, and Punjab more than 90% of the scheme expenditures are coming from national funds, we use the ratio of central to state expenditure as one of our explanatory variable (EXP). The expenditure data is available at the state level only so we use it only for the sub-national regressions. Secondly, it is our surmise that habitations that are fully covered with tap water connection are more likely to achieve higher individual tap water connection. The advantage might accrue because the government would have already committed fixed cost of establishing water supply infrastructure and so the marginal cost of individual connection might be lower in these areas. As per NRDWP guidelines 2013, the target is to move ahead of the 40 lpcd water norms fixed during ARWSP towards 70 lpcd for all rural households. As this requires almost 75% increase in supply as an interim norm the water supply is pegged at 55 lpcd. We assume that higher proportion of

[8] The data represents for each financial session starting from 2013 to 14 and so on.

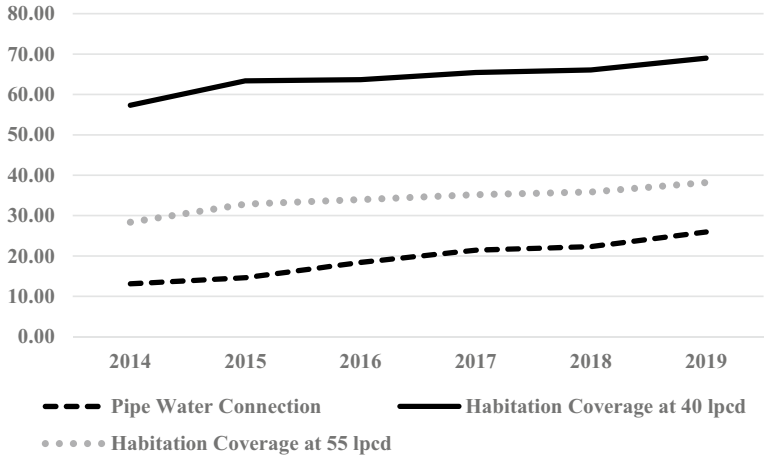

Fig. 6.4 Progress in rural water supply. *Source* IMIS data, 2013–14 to 2018–19

fully covered habitation in the interim norm reflects more efficient public agencies and this should also get reflected in the increased connection of PWS.

In Fig. 6.4, we plot the piped water connection along with coverage of habitation for the country as a whole. Both habitation coverage and tap connection have increased during the period of analysis but the rate of increase has been higher in case of the latter. For habitation coverage, those with norms of 55 lpcd have shown higher growth indicating a change in program priorities towards increasing quantity of water. Our regression framework lays bare, the extent to which coverage gains in habitation interacts with the decentralized institutional structure and regional water endowments in expanding PWS.

As argued earlier, one major obstacle in estimating PWS lies in the unobserved institutional characteristics of the local governments and agencies in rural water sector. Previous works like Wescoat (2016) and Parsai and Rokade (2016) base their work on thin samples from states like Gujarat and Madhya Pradesh and did not explicitly address the coverage issue. However, both of them stressed on lack of community coordination and government inaction in maintaining drinking water sources. Similar findings is reported in Basu et al. (2020) in West Bengal. In our work, we account for the unobserved institutional factors by using panel data estimation; due to the short nature of the panel we argue that these attributes remain largely time invariant.

6.3.1 Econometric Model

We propose the following estimation equation

$$y_{it} = \alpha + X_{it}^{'}\beta + u_{it}, i \in \{1, .., 28\}, t \in \{2013 - 14, \ldots., 2018 - 19\} \quad (6.1)$$

Here, y_{it} denotes the percentage of households with pipe water connection in the ith state/district in tth period. The set of co-variates described above is denoted by X_{it}. Further, it is assumed $u_{it} \sim N\left(0, \sigma_u^2\right)$.

The composite error component is given by: $u_{i,t} = \mu_i + \theta_t + \varepsilon_{i,t}$.

The unobserved region (state/district) specific effect is given by μ_i, θ_t denotes the unobserved time specific effect, and the remainder disturbance is $\varepsilon_{i,t}$. The two-way error component model can be estimated by using either fixed effects or random effects model. The results of Hausman test indicate that the null hypothesis of errors not being correlated with the regressors are rejected at less than 1% level of significance and so we choose to use a fixed effects model. As decentralization may not have immediate effect on piped water connection, we also estimate our model with a lagged value of the decentralization variable.

However, one area of concern is whether past levels of piped water connection influences current connection. The reason is potentially the same as extended for habitation coverage: past connection might capture the economies of scale of established water supply infrastructure. The other mechanism could be preference related; once people start getting piped water connection it might encourage others to opt for the same. One strategy to deal with such endogeneity would be to include lagged dependent variable in the model. However, for short panels where $T \ll N$, as it is in our case, fixed effects models with lagged dependent variables are biased as the covariance between the lagged dependent variable and the composite error term is non-zero (Nickell, 1981). Accounting for the correlation is problematic because y_{i-1} is unobservable and so the marginal distribution of y_{i0} is not well defined. In such context, Hsiao et al. (2002) show that Quasi-Maximum Likelihood (QML) of unconditional likelihood function without conditioning on the initial observations can evade this problem. The estimation Eq. (6.1) with lagged dependent variable can be specified as

$$y_{it} = \alpha + \lambda y_{i,-1} + X_{it}^{'}\beta + u_{it} \quad (6.1)$$

The first difference transformation is given by

$$\Delta y_{it} = \lambda \Delta y_{i,-1} + \Delta X_{it}^{'}\beta + \Delta \varepsilon_{i,t} \quad (6.2)$$

The transformed error term shows negative first-order autocorrelation $Cov\left(\Delta\varepsilon_{it}, \Delta\varepsilon_{i,t-1}\right) = -\sigma_e^2$. For this transformed model Hsiao et al. (2002) shows that the initial observation can be modeled as $\Delta y_{i1} = b + \sum_{s=1}^{T^*} \Delta X_{is}^{'}\pi_s + v_{i1}$, i.e., the initial observations are generated by identical data generating process as subsequent observations (Kripfganz, 2016). In a balanced panel we have, $T^* = T_i$ that is all observations of the right-hand side can be used in the projection.

The descriptive statistics of the variables used in estimation is reported in Table 6.2.

Table 6.2 Descriptive statistics of the estimation sample ($N = 2{,}536$)

Variables	Variable	Mean	Std. Dev	Min	Max
PWS Coverage (%)	Overall	16.72	23.02	0.00	100.00
	Between		21.74	0.00	92.77
	Within		7.59	−55.95	67.45
Decentralized Indicator: share of Scheme handed over to GP (%)	Overall	38.37	41.24	0.00	100.00
	Between		26.81	0.00	100.00
	Within		31.41	−41.84	121.70
Hydrological Indicator: log of minimum aquifer depth (in Meter)	Overall	1.35	0.88	−4.61	4.17
	Between		0.80	−1.33	4.08
	Within		0.38	−3.38	3.21
Habitation Coverage: full coverage at 55 lpcd	Overall	42.89	36.46	0.00	100
	Between		35.16	0.00	99.58
	Within		9.59	−35.61	103.86
Habitation Coverage: full coverage at 40 lpcd	Overall	74.37	27.43	0.00	100.00
	Between		25.22	3.66	100.00
	Within		10.83	−5.64	128.49

Source IMIS data, 2013–19, Central ground Water Commission

6.4 Results and Discussions

The fixed effects estimate presented in Tables 6.3 (state level) and 6.4 (district) reveals several important features of PWS in India. First, we find that decentralization activities are associated with lower coverage of piped water; we find this relation to hold both when we consider the contemporaneous as well as the past levels of decentralization in rural areas.[9] We also find that the expansion of piped water is lower in areas where groundwater levels are lower (depth of water is higher). These results hold consistently across all specifications in the district-level regression. The extent of habitant coverage did not provide any consistent effect either in the state or in the district regression.

The dynamic panel estimates in Table 6.5 shows that regions that had a high piped water connection to begin with, would have higher connections in the next periods as well. This holds both at the state level as well as in the district level. Possibly, early installation of water supply infrastructure like pumping stations and purification plants enables the regions to reap the economies of scale. In fact, as Cullet (2011) points out NRDWP has put a new emphasis on grid-based water supply that

[9] The relation between decentralization and coverage of water services might have been non-linear where decentralization is associated with an increase in coverage of water services for households up to a certain level of decentralization and is associated with decreased household water coverage. However, including square of the decentralization variable did not yield any statistically significant estimate. We thus rule out any second-order effect in our estimation sample.

Table 6.3 State-level estimates of piped water connection

	Estimate using current year decentralization					Estimate using ONE year lagged decentralization				
	Model-1	Model-2	Model-3	Model-4	Model-5	Model-1	Model-2	Model-3	Model-4	Model-5
	Coeff (SD)	Coeff (SD)	Coeff (SD)	Coeff (SD)	Coeff (SD)	Coeff (SD)	Coeff (SD)	Coeff (SD)	Coeff (SD)	Coeff (SD)
Percent of Scheme handed over to GP	−0.103***	−0.0406**	−0.0413**	−0.0308	−0.0376*	−0.0492***	−0.0236	−0.0230	−0.0173	−0.0209
	(0.0319)	(0.0191)	(0.0194)	(0.0191)	(0.0196)	(0.0177)	(0.0242)	(0.0254)	(0.0238)	(0.0257)
Log of minimum aquifer depth (in Meter)		−3.999**	−3.713**	−3.081*	−3.560*		−2.492	−2.536	−1.615	−2.562
		(1.716)	(1.782)	(1.739)	(1.784)		(1.788)	(1.850)	(1.751)	(1.857)
State by central expenditure ratio			0.535	0.437	0.530			−0.0838	0.183	−0.0344
			(0.653)	(0.632)	(0.652)			(0.721)	(0.678)	(0.726)
Full coverage at 55 lpcd				0.223***					0.445***	
				(0.0828)					(0.136)	
Full coverage at 40 lpcd					0.0780					0.0909
					(0.0686)					(0.125)
Constant	24.17***	24.80***	24.06***	14.53***	18.56***	21.63***	22.78***	21.63***	4.455	17.11*
	(1.747)	(2.506)	(2.883)	(4.501)	(5.626)	(1.009)	(2.818)	(1.009)	(6.464)	(9.140)
Sigma_u	22.19	20.49	20.33	19.62	19.71	22.79	20.47	20.50	21.95	19.97
Sigma_e	6.30	5.31	5.38	5.20	5.37	5.62	4.91	5.02	4.69	5.04
rho	0.93	0.94	0.93	0.93	0.93	0.94	0.96	0.94	0.97	0.94
Observations	167	119	167	117	117	137	95	137	93	93
R^2	0.070	0.104	0.070	0.178	0.124	0.067	0.040	0.067	0.176	0.048
Number of states	28	24	28	24	24	28	24	28	24	24

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 6.4 District-level estimates of pipe water connection Authors' Estimation

	Estimate using current year decentralization				Estimate using ONE year lagged decentralization			
	Model-1	Model-2	Model-3	Model-4	Model-1	Model-2	Model-3	Model-4
Variables	Coeff (SD)	Coeff (SD)	Coeff (SD)	Coeff (SD)	Coeff (SD)	Coeff (SD)	Coeff (SD)	Coeff (SD)
Scheme handed over to GP	−0.0289***	−0.0269***	−0.0261***	−0.0268***	−0.0207***	−0.0181***	−0.0191***	−0.0182***
	(0.00441)	(0.00478)	(0.00471)	(0.00478)	(0.00506)	(0.00535)	(0.00534)	(0.00536)
Log of minimum aquifer depth (in Meter)		−1.579***	−1.568***	−1.593***		−2.048***	−1.957***	−2.051***
		(0.383)	(0.378)	(0.383)		(0.410)	(0.410)	(0.411)
Full coverage at 55 lpcd			0.0499***				0.0782***	
			(0.0150)				(0.0223)	
Full coverage at 40 lpcd				0.0245*				0.0120
				(0.0136)				(0.0182)
Constant	17.85***	19.15***	16.91***	17.32***	18.35***	19.94***	16.38***	19.04***
	(0.218)	(0.564)	(0.884)	(1.162)	(0.255)	(0.626)	(1.193)	(1.507)
σ_u	22.06	22.59	22.61	22.51	22.57	22.92	22.93	22.88
σ_e	8.26	7.49	7.38	7.49	7.91	7.18	7.15	7.18
Rho	0.87	0.90	0.90	0.90	0.89	0.91	0.91	0.91
Observations	3,601	2,546	2,536	2,546	2,934	2,075	2,074	2,075
R^2	0.014	0.023	0.029	0.025	0.007	0.021	0.029	0.022
Number of districts	643	479	479	479	628	477	477	477

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 6.5 Quasi-maximum likelihood estimate of dynamic panel data models Authors' Estimation

Dependent variables: percentage PWS coverage	District level		State level	
	Model-1	Model-2	Model-1	Model-2
	Coeff (SD)	Coeff (SD)	Coeff (SD)	Coeff (SD)
Lag value of percentage PWS	0.645***	0.626***	0.605***	0.686***
	(0.0423)	(0.0409)	(0.133)	(0.145)
Percent of scheme handed over to GP	−0.0184***	−0.0183***	−0.0162	−0.0120
	(0.00467)	(0.00470)	(0.0176)	(0.0187)
Log of minimum aquifer depth (in Meter)	−2.049***	−2.009***	0.165	−0.199
	(0.384)	(0.386)	(1.656)	(1.780)
State by central expenditure ratio			0.279	0.136
			(0.612)	(0.653)
Full coverage at 55 lpcd	0.0262		0.315**	
	(0.0199)		(0.128)	
Full coverage at 40 lpcd		−0.0106		0.0964
		(0.0153)		(0.114)
Constant	8.903***	11.15***	−2.844	1.593
	(1.339)	(1.592)	(6.201)	(8.703)
Observations	1,991	2,005	91	91
Number of district	458	459		
Number of states			23	23

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

are fed by pipelines drawing water from major sources. However, after accounting for past water connection level, we find that even in dynamic models the result for decentralization and groundwater continues to hold. Regions with higher level of decentralization record lower progress in piped water connection and areas where groundwater depth is higher the piped water connection is lower. Interestingly in all the models (both linear and dynamic panel data) the government expenditure term remains statistically insignificant.

Identifying the factors that result in negative relation between decentralization and PWS is beyond the scope of this paper. However, we can resort to existing studies to hint at the possible channels for the inadequate effects of decentralization. Firstly, transferring the responsibility of maintaining and operating drinking water scheme to the Panchayati Raj Instituions (PRIs) has not been accompanied by concomitant augmentation of their management capability. Studies have shown that the local level institutions can face serious post-construction challenges like technical failures and capital replacement (Baby & Kurian, 2013). It is observed that as piped water systems age they require frequent repair, the technical expertise of which is often beyond the capacity of the rural community (World Bank, 2013). The other important issue in decentralized set up arises from lack of communication and understanding between

different tiers of the government. In Odisha, for example, water crisis in some areas were ascribed due to lack of coordination between Panchayats, engineers, and technicians for which tube wells and piped water projects remained defunct for a long period.[10] At the same time, complex application procedure for demanding a scheme at various tiers of the village government might dissuade the disadvantaged class from demanding piped water connection (Prasad et al., 2014).[11]

Generally, PWS is derived from either groundwater or surface water or a mix of both. While drawing from surface water sources saves on pumping water, it also involves treatment costs that are not required in case of groundwater (Asthana, 2003). The findings that scarcity of groundwater in regions inhibits pipe water connection indicate that there are lack of treatment and storage infrastructure for surface water that the planners can switch to. In fact, rural water supply schemes that involve water transfer are more likely to depend on surface water and only 15–20% of the rural population depends on such scheme (World Bank, 2013). At the same time due to lack of professional expertise the catchment management by community is often inadequate and groundwater-based scheme often becomes ineffective (World Bank, 2016). The other problem with groundwater sources is that they may not be assessed adequately. As Prasad et al. (2014) points out in many cases, the PWS is implemented without any recharge structure for the groundwater source. Lack of recruited trained professionals like geologists might also lead to initiation of the scheme without sufficient 'yield test'. A major implication of negative feedback of groundwater on PWS implies that in the longer run the scarcity of groundwater could continue to increase further.

Finally, the insignificant sign of the expenditure terms in all the regression specification indicates that financial matters aside institutional and geological factors might be crucial stumbling blocks for extending PWS in rural areas.

6.5 Concluding Observations

The strategy to provide potable drinking water to the rural populace in India has been recasted in terms of the service delivery approach (Moriarty et al., 2013). We trace the evolution of rural water policy from centralized approach as embodied in the sector reform program to the present-day NRDWP that emphasizes on decentralization. The analysis of water reform however reveals some worrying trends. First, we find that decentralization attempts are associated with declining piped water coverage. Drawing from existing studies we relegate this phenomenon to institutional deficiencies of water supply agencies. For instance, in one such study of the water utilities

[10] https://www.newindianexpress.com/states/odisha/2016/mar/28/Assembly-Discusses-Drinking-Water-Crisis-But-Only-25-MLAs-Present-917268.html.

[11] As Prasad et al. (2014) points the format for expressing demand requires mapping of available water sources, their seasonality and performance assessments of prior schemes that requires facilitation from government as well as external agencies.

of central India in the states of Madhya Pradesh and Chattishgarh, Asthana (2003) obtains that decentralized supplies have higher operating expenses and lower asset utilization ratio than centralized agencies. Besides efficiency, the issues of community participation in a decentralized setting get challenged if Panchayat officials exercise overarching influence via their position (Srivastava, 2012). Secondly, we find that piped water supply is faltering in regions where groundwater tables are declining as well. We hold that this reflects a lack of capacity to utilize surface water sources. Notably, only one-third of municipal wastewater gets treated in India (Kumar & Goyal, 2020). Together with these issues, we find no significant relation between program expenditure and spread of piped water coverage. Evidently, institutional reform and technical intervention in the water sector would be needed to sustain and expand PWS in rural areas. Our findings have important implications in the context of recently launched *Jal Jeevan Mission (JJM) or (Har Ghar Jal)* that aims to provide water to every Indian households by 2024.[12] The JJM in its mission statement hints at strengthening water supply infrastructure as well as more participatory community initiatives to ensure Functional Household Tap Connection (FHTC). Our analysis shows that without inspecting the problems of decentralization and amending the institutional bottlenecks the program may find it difficult to attain the objectives.

To comment on the exact nature of institutional reforms detailed information on the performance of local-level organization would be required. As Cronin and Thompson (2014) point out there's a need to examine the factors that interfere with financial progress and PWS outcomes. Additionally, it might be instructive to compare between different schemes of PWS like single village and multi-village schemes to identify the efficacious arrangement in the rural water sector. Multi-village water schemes can be effective in areas where water is scarce and water is fetched from distant sources to serve number of villages (Misra, 2008). These issues form an important basis of future research agenda.

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Part III
Education, Health and Social Security for Human Development

Chapter 7
Higher Education in Quest of Humane Development: Envisaging the Future in the Post-COVID Era

Saumen Chattopadhyay

7.1 Introduction

The universities, which are considered to be the longest surviving institutions after the Church, have been undergoing transformation concomitantly with the evolution of modernity. But this transformation in the basic university activities, teaching, research and outreach is witnessing a sudden acceleration in the wake of the Pandemic in the first quarter of 2020. This transformation which began with the adoption of the neoliberal approach to policymaking gained momentum with the introduction of the information and communication technology (ICT) in the realm of the university functioning and in fostering globalization as evident in increasing cross-border activities. All this while, the higher education sector has been undergoing massification amid growing expectations from the higher education sector to connect better with changing job market and generate knowledge for the industry while addressing the long-term challenges we are faced with. The issue we need to deal with is to trace out the possible implications of this evolution of the university in contributing towards development which is sustainable and holistic. In particular, what is so specific about the role of education, broadly speaking, in creating conditions for achieving development which is humane other than contributing towards economic growth.

This chapter looks at the linkage between the higher education sector and development against the backdrop of the transformation the universities are undergoing. We begin with the conceptualization of higher education as a public good which provides us a framework for studying the linkages between higher education and the broader notion of development. This is followed by a discussion on the transformation of the higher education sector and the possible factors behind this transformation. We

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then take up the discussion on how these changes can affect the objectives of higher education, expansion, inclusion and excellence.

7.2 School Education as a Foundation for Higher Education

School education is generally considered to be a merit good (Musgrave & Musgrave, 1989) the provision of which deserves attention from the society despite being a private good as not only does it generate positive externalities, it builds the foundation of the society by ensuring universal literacy and numeracy, introduction to the cultural aspects and inculcation of values to become responsible citizens. Access to school education cannot be left to the choices of the household sectors as the parents, in particular, and the school going students may suffer from bounded rationality, myopic vision and information asymmetry while bearing substantial substantial opportunity costs of attending schools due to poverty. Legislating access to school education as a right while backing it up with public funding support to make it affordable and accessible to all to make an inclusive society.

Sen (1987/2010) in its conceptualization of a much broader notion of human development which entails development as a freedom has laid stress on the criticality of education in attaining human development. Education is essentially about empowerment which gives freedom to the educated to make independent and free choices as to how they envisage their future and what do they want to achieve in life. This is in contrast with the narrow human capital approach propounded by Becker (1964/1993) and Schultz (1971), which focuses on human capital embodied in the educated which raises their cognitive capacities and therefore eventually raises their productivities resulting in higher pecuniary returns.[1] Sen (*ibid*.) points out that why being in the school is important by virtue of its own sake as it deters child labour and creates space for socialization (Drèze & Sen, 1996).

7.3 Role of Higher Education

In continuation with the school education, the role of higher education in effecting socio-economic transformation is recognized, albeit sub-optimally as claimed by Marginson (2020), the role of public *vis-a-vis* private in shouldering the responsibility of higher education provisioning has remained disputable. To critically evaluate the debate, we revisit the debate on the character of higher education, public or private good or a blend of the two, a quasi-public good. This way of conceptualization of education has a bearing on the issue of kind of role the government should play to nurture and develop this sector in comparison with the other sectors to achieve socio-economic development.

[1] Becker recognizes psychic returns from investment in education along with monetary returns.

7.3.1 Higher Education as a Quasi-Public Good

As per the original and economic definition, a public good is defined by two main features, non-rivalry in consumption and non-excludability (Samuelson, 1954). If consumption is non-rival, it becomes difficult to exclude the free riders. Hence, non-rivalry leads to non-excludability but not always. The degree of excludability is a socio-economic and political construct. By this definition, higher education is not exactly a public good because there is rivalry in consumption as the number of seats in a higher education institute (HEI) is generally limited which makes the admission process excludable too. But higher education is not strictly speaking a private good too. Though the graduates earn their degrees on successful completion of their studies, the graduates duly transformed by education behave responsibly and contribute to the society and the polity which are referred to as externalities or non-market benefits which accrue to the society in various ways and forms. McMahon (2004) has sought to identify and measure the various dimensions of externalities higher education generates. Externalities can take the form of reduction in corruption, better health and hygiene, meaningful participation in civic affairs, etc.

7.3.2 Knowledge as a Public Good

The other deliverable of the university is knowledge which is generated out of research. Intrinsically, knowledge is a public good (Stiglitz, 1999) because once it is out in the public domain, knowledge gets disseminated to all without there being any depletion in its stock. However, production of knowledge requires resources which should ideally be public funding. If knowledge is privately funded, there develops a tendency to patent knowledge so as to enforce excludability and recover cost of producing knowledge. While patenting helps in sustaining knowledge production by ensuring its funding, it restricts its use at the expense of the optimum realization of public benefit. The contributions of higher education should also include the role of knowledge in the formation of the society other than fostering growth and outreach activities a university undertakes to meet the societal demand through research and to connect with the civil society.

7.3.3 Public Good, Public Sphere, and Public Funding

Education inculcates critical thinking and informs public debate which seeks to contribute towards the democratic functioning of the institutions by creating a ‘public sphere’ as conceptualized by Habermas (Marginson, 2014). Dissent and debate are essential components of a democracy and to counter the naivety and manipulability of the citizens in a media-dominated world where we are inundated by a lot of

information and news, often partial and biased. It is education to ensure attainment development humane because of its emphasis on the formation of self and by creating equal opportunities which are essential for nurturing solidarity and tolerance in the community. This broader conceptualization which emphasizes on the content, distribution and the political process has led to the advocacy of higher education as a common good (Marginson, 2016, 2020).

The argument that higher education is a public good and it is the responsibility of the government to support its functioning has however been challenged by the new theory of public finance which argues that though public funding is an imperative for the delivery of public good, mode of public funding can be channelized to the private sector in the provisioning of public good within a market kind of setup. But output-based funding and channelization of resources through market duly constructed affect the ways universities carry out its activities.

7.4 Transformation of Higher Education

One way of studying the transformation the universities are undergoing is to look at what a university, at the top of education pyramid, does with regard to three distinct sets of university output, teaching–learning, generation of knowledge and outreach activities.[2] Higher education has been undergoing transformation from one of traditional model which bestows academic autonomy to the faculty with the support of public funding support from the state to a system where accountability mechanism is institutionalized and it is vested with the state and the market in different proportions often differently for different categories of institutions. This involves a transition from accountability to self to accountability towards market and the state (Trow, 1996).

This transition can also be described as a transition from an internalist conceptualization of higher education which focuses on the connections between higher education and the development of mind and to initiate students to develop a form of reasoning to one of externalist (Barnett, 2014) which highlights the contributions of higher education towards economic, social and cultural value of education. This transformation has changed the aim of education. In the internalist approach, education is not meant to equip the student in a particular set of skill, not to train him in specific teachings and doctrines but to enlighten him, to teach him not what to think but how to think (Kant, 1977, p.107 as quoted in Rider, 2013, p. 173). The movement can also be looked at as a transition towards exchange value with focus on private benefits (McCowan, 2016, 2017).

[2] The other two important functions are to certify the education and skill imparted to the graduates, revealing thereby the information to the employers about the credibility of the graduates, and to create space for socialization which is essential for the transformation of the graduates. This seeks to inculcate values and empathy and fosters understanding among the graduates to evolve as responsible citizens.

John Stuart Mill in his inaugural speech as Vice-Chancellor of St Andrews in 1867 said:

> Universities are not intended to teach the knowledge required to fit men for some special mode of gaining livelihood….the Object is not to make skillful lawyers or physicians or engineers but capable and cultivated human beings. (Mill, 1984).

Kerr's (1963/2001) *The Uses of the University* envisaged what it means to be a modern university. With massification, a university has to pursue multiple purposes to serve a set of diverse constituency. Most of his futuristic predictions have come true like the growth of knowledge society, growing importance of biological sciences, a steeper hierarchy between science and humanities and mechanization of learning. But his dream has remained unfulfilled (Marginson, 2016). Slaughter and Leslie (1997) highlighted the aspect of propertization of knowledge which they described as academic capitalism. This is largely relevant for capitalist economies and not so much for the developing world (Marginson, 2004a).

Marginson (2004a: 162) has very well described what a university is:

> Arguably, the model of University as self-serving corporation—while it is certainly capable of inflicting major changes on teaching, learning and research, ….no more exhausts the University as an institution than the notion of the University as site of political conflict and resolution; the University as privileged site for the workings of the scientific imagination; the University as community of scholars; the University as the fountainhead of culture and civilisation; the University as the arena of cultural diversity and global linkages; the University as producer of common public goods; the University as the wellspring of commercial science and technology; the University as the engine room of global competitiveness; nor, indeed, the University as irretrievably wrecked by neo-liberal globalisation.

The dynamics of the higher education sector, which Marginson (2004a, 2004b) argues is essentially one of status competition in a resource-driven world. A drive for prestige maximization among the students and among the universities nationally and globally can explain the dynamism in the sector. Status competition is marked by economic efficiency mediated by private capacities to pay. However, this is intensified because of the failure to address the domestic and public good objectives (*ibid*.).

To understand the policy focus and the transformation, we can ask the question Pusser (2014: 72) has raised, 'What is the fundamental role of higher education in the state project?' This can be analysed by looking at the three essential spheres for the university, the state, the civil society and the market forces. Universities allocate public costs and public benefits, and universities create opportunities within the context of a wider political economy (Marginson, 2014) of a country.

Vincent-Lancrin (2004) has identified six possible factors responsible for ushering in the transformation in the higher education sector. He draws our attention towards two major aspects of this ongoing transformation, one is a movement towards lifelong learning and the other is gearing up to the possibility of multiple institutions for the award of degree or certification of the skill imparted.

The six factors are (i) students' selection, post-secondary or for all ages, e.g. initial stage and lifelong learning; (ii) funding, public and private; (iii) teaching and research; (iv) national and international ICT; (v) diversity in staff and institutions and

(vi) e-leaning and e-research. Given the rise to the dominance of world ranking in the determination of university mandates and functioning, ranking is another factor which is driving the top universities of the world towards convergence or isomorphism as the ranking parameters become the mandate of the competing universities.

All six factors, in fact, are not independent of one another. Funding is critical to the university functioning and along with technology, funding has a major role to play in shaping up the university system. The related questions to funding are, who funds, by how much and how or by what mode. Given the possibilities of the various types of universities, the future will see some of these types to co-exist as noted by Kerr (1963) in his conceptualization of a multiversity.

The traditional model based on input-based funding assumes that the faculty and the students are supposed to remain intrinsically motivated. This assumption has been questioned in the wake of mounting concerns about poor quality of education delivered by the public-funded HEIs, increasing faith reposed on market and private enterprises to achieve efficiency, bestow sovereignty and deliver quality education. The link between efficiency and quality is unclear and uncertain. If academic autonomy is construed to have been abused, then the policy response is how to fix responsibility by institutionalizing accountability mechanism. To effect such a transition, mode of funding has been used as a policy instrument which has seen a movement from input-based funding to output-based funding. The other aspect is to channelize resources through the institution of market based on financial empowerment of the students by providing them with education vouchers or even educational loans on concessional terms. This has naturally involved a greater thrust on quantitative assessment of the faculty and the universities. World ranking of universities seeks to construct a global market for higher education by valuing knowledge produced and vertically ordering them.

The approach of the neoliberals has been to guide and build up the higher education sector with the help of market mechanism. If market does not exist, markets are required to be constructed, as the neoliberals argue that markets infuse competitiveness into the system which seeks to get the best out of the institutions, teachers and the students. Markets give sovereignty to the participants to exercise their choices. These have become the quintessential elements for higher education reform.

7.4.1 The Introduction of Digital Technology

The increasing use of digital technology has ushered in irreversible changes in the way a university functions. The period of lockdown accelerated the changes as face-to-face teaching–learning had to be suspended and online teaching became the widely accepted order as social distancing had to be enforced in all the affected countries. Online courses particularly in the form of massive open online course-wares (MOOCs) were introduced in the early 2000 in the USA by the Stanford University and a few others. Gradually, MOOCs found acceptance among a few more universities. The private players like Coursera entered the higher education sector to capitalize

on the potential of technology. Post-COVID, there has been a gradual acceptance of the online classes. The EdTech companies are exploring possibilities and investing heavily in the sector. The private universities are keen to adopt this both as a source of revenue and curtailment of costs of operation.

Online class has brought about two major changes in the process of teaching–learning. It has obliterated the concept of space and time associated with teaching. The online classes can now be both global and non-synchronous which is made possible because classroom lectures can be recorded and digitally stored. This makes quality of the lecture in the form of course contents and the quality of delivery reproducible not only to those who are present in the classroom, but beyond the four walls of the classroom and beyond the class period. As pointed out by McClure (2015), MOOCs can help expand the size of the higher education with the assurance of quality and for all as the course fee can be kept affordable while maintaining quality.[3] While in absence of classroom interaction, the quality of learning outcome suffers, the improvement in the content and the possibility of reproduction of quality contribute to the quality enhancement. Intellectual property is becoming more pervasive which can redistribute power within the universities and in gradual commodification of teaching. The workload of a university teacher can now be distributed between two categories of academic staff, those who have developed the content based on ideas who should have the property rights and a large group with a lower status with no property right because they did not develop the course and did not prepare the lecture notes. Internet universities exhibit this tendency. This is going to become more and more prominent with the growing importance of online teaching in the near future.

7.4.2 Changing Demand for Skill and Lifelong Learning

It is predicted that a rapid rise in the introduction of artificial intelligence (AI) and automation, nearly 30 percent of the present jobs, will become redundant in future. This requires the universities to continuously upgrade their course content to ensure relevance of their teaching programmes. The students are being given a wider variety of courses to choose from with the option to opt for courses offered in the Coursera or MOOCs depending on what they want to pursue. The universities are also asking the industry professionals to collaborate with the universities and participate in their teaching programmes.[4] This close link between the universities and the industry is not only making the graduates employable, this mutual relationship is helping both the universities and the industry because it is cost effective and mutually beneficial.

[3] The only difference between digital music with digital teaching is that the former does not require interaction between the service provider and the audience.

[4] The policy of Graded autonomy allows the Category-I universities to appoint industry professionals to gain from their expertise and experiences which will make the students aware of the recent developments and enhance their employability.

The offering of the courses delivered online can be unbundled and offered to the students who would now become increasingly mobile not only across the space but also over time. McCowan (2016, 2017) has identified unbundling along with commodification as one of the two most features of university transformation. The National Education Policy 2020 (GoI, 2020) allows for student sovereignty in their exercise of course choices and duration of study. The students can now accumulate credits and deposit them in the Academic Bank of Credits. They can claim award of degrees upon acquisition of requisite number of credits. Further, setting up of the National Skill Qualification Framework will allow for easy switching between mainstream general education and vocational to make vocational popular. However, because of scale expansion and quality improvement, competition will become fierce and only the best of the courses will survive resulting in creating a bi-polar market (Chattopadhyay, 2020).

7.4.3 Doing Research and Generating Knowledge

The universities will continue to remain important for knowledge generation as it has been in the past. But the conduct and purpose of research in the research intensive universities are now different under the influence of world ranking parameters and growing instances of university–industry collaboration. The symbiotic relationship between teaching and research as it was stressed in the Humboldtian tradition is weaker now. In the post-War decades, the universities were imparting education to the growing masses of professionals and functionaries to work in the industry and government along with engagement in basic science. However, under the impact of world ranking, the best of the universities vying for world ranking status are geared up for producing research in line with the ranking parameters. The ranking parameters give importance to the citation index and h-index as indicators of quality and publication in journals listed and recognized by these agencies.[5] The impact of the ranking parameters on the autonomy and creativity of the faculty in the competing universities can be overwhelming (Chattopadhyay, 2019; Teichler, 2011). This impairs the link between research carried out at the universities and the local and the national need. Marginson & van der Wende (2017) has described this as disembedding of universities from the societal context. This hierarchy among the universities can have a salutary impact if the non-competing universities intend to focus more on strengthening linkages with the civil society and addressing the research priorities at the local and national levels (Pusser, 2014). As more weightage is given to research, teaching may suffer in these best of the universities (Trigwell, 2011) which enervate one of the two most important functions of universities, churning out of responsible and productive graduates. Outreach activities, diversity and inclusiveness are some

[5] The important ranking agencies in the world are the ARWU, the THE and the QS. All these three are also recognized by the Government of India in the policy for Institution of Eminence (GoI, 2017) and Graded Autonomy (GoI, 2018).

of the objectives of higher education which are not recognized in the world ranking parameters. With heavy weights being assigned to research carried out by the universities, the public good character of higher education remains ignored in the world ranking of universities.

Knowledge has emerged to be a major determinant of economic growth as custom-made products and services require a different type of capital in contrast to the mass production (Hasselberg et al., 2013; Rider, 2013). Capitalization of knowledge has cultivated the tendency for propertizaton of knowledge. This development is commensurate with the increasing preferences of the companies to procure knowledge from the market rather than produce it in-house resulting in increasing instances of collaboration between the university and the industry. To facilitate transfer of knowledge, located within the universities are patent offices, tech transfer offices, university holding companies, etc. This has led to co-production of science as the industry is now interested in favourable scientific evaluation of their drugs (*ibid*.). Internet and ICT have made it easier to collaborate in distributed innovation networks.

7.4.4 Downsides

It is to be noted that the computers and biotechnology revolutions were the outcomes of academic research labs. The university–industry collaboration has raised concerns about most cherished impartiality and neutrality of universities in its pursuit of knowledge. Universities invest in risky start-ups founded by their professors, run their own industrial parks, venture capital funds, for-profit companies and encourage faculty members to commercialize their research by going into business (Washburn, 2005: xi). Corporations now fund a growing share of academic research in the areas of medicine and biotechnology with strings attached. This results in secrecy and delays in publications. Actually, two dozen universities in the USA make significant profits from technology licensing. Hundreds of others barely break even. These same universities are reducing the faculty strength. More are part-time and adjunct professors (*ibid*.). As pointed out by Washburn (2005), there was a rise in the number of cases of malpractices and fraud. University research gets patented which compromises with the public good nature of knowledge which is useful for the nation and the world. However, this remains debatable whether industry-sponsored research reflects the need of the society. With the professors showing tendencies to compromise with integrity, neutrality and objectivity, the purpose of university research has become questionable.

In a way, both ranking and industry partnership can affect the autonomy and the agency of the university to reach out to the society without getting unduly influenced by the objective of profit making and ranking parameters. It is not a debate between advocates of commercialization and traditionalists. Kehm (2014) argues that a diversified funding base indicates wider possibilities of outreach activities and an ‘expanded development periphery’. However, universities must commit themselves to defend the values and ideals rather than succumbing to the pursuit of profit

maximization. As Hasselberg (2013) argues in the context of European universities, that to achieve efficiency, internal democracy is being restricted commensurate with the growing importance of management and bureaucracy. Research problems are determined by the field of politics, research administration and funding agencies with prescribed outlets and prescribed values resulting in the shrinkage of space for exercising discretion.

7.5 Envisioning the Future of Higher Education

In view of these changes in the realms of teaching and research, it would be of interest to see what lies ahead for the universities. We outline below two such envisioning of the future of higher education, one was back in 2004 by Vincent-Lancrin and other published by The Economist group during the Pandemic in 2020. The six scenarios suggested by Vincent-Lancrin (2004) are (a) traditional: government-funded universities with limited participation of the private sector which pursues teaching and research with lifelong learning and e-learning taking place outside the university system; (b) entrepreneurial universities: the universities can respond to the diversified sources of funding; research is patented, and teaching gets limited importance. Lifelong learning occurs in teaching-only universities and it is accorded with lower status; (c) free market: market forces are the driving forces and the institutions specialize under the pressure of market in terms of teaching and research, with variation in field and audience like adults, part-time students, distance education and lifelong learning; the international dimension assumes importance; (d) lifelong learning and open education: universities offer access to all ages with focus on teaching; there is a rise in the demand for skill as universities become more learner oriented with short duration courses, researchers move to the research institutions, eventually universities follow the professional school model. There is business-oriented investment in e-learning; (e) global network of institutions: the learners decide their courses of study and associated duration, and the HEIs form partnerships with the industry and with other universities globally. The demand for lifelong learning expands and the teaching community gets divided. Programmes and courses assume more importance than the institutions; (f) diversity of recognized learning and disappearance of universities: this is marked by the disappearance of formal higher education sector. People learn everywhere all the time and share their learning with others in the same field. Learning becomes primarily through 'open course', mostly free and non-commercial involving partnerships. Networking becomes global. Formal assessments of credentials are acknowledged by various accrediting agencies.

The report published by The Economist (2020) has suggested five different models of university in the future which are briefly discussed below to see what are the changes envisaged after a gap of 16 years. These are.

(i) Open university model: The Open university model offers degrees to virtually anyone, anywhere and anytime with the only prerequisite being having

internet connection. This model would rely on fees to recover costs. Effective online learning would however be costly. Harvard, Yale and Georgetown Universities in the USA have invested heavily on their online offerings. It is rightly observed that since the students have been observed to do better with face-to-face learning, the future models would like to adopt a blended or hybrid method.

(ii) Cluster model: The cluster model will bring together independent institutions capitalizing on strength and realization of efficiency. The administrative work will be shared, reduce duplication of courses and would reap the benefits of economies of scale and reduction in costs. Students can earn joint degrees. Collaboration in research would be convenient. The challenge is to balance collaboration with institutional autonomy.

(iii) Experiential model: this model seeks to combine traditional learning with hands-on work experience.

(iv) Partnership model: this seeks to build relationship with external partners for collaboration, to secure long-term funding and increase employment opportunities.

(V) Liberal arts model: this model combines broadened depth of learning as well as inter-disciplinarity. This model is closer to the existing models with focus on critical thinking and creative works which are expected to be valued by the industry.

We can observe a few commonalities between the two scenarios. One, increasing reliance on internet and digital technology in teaching; two, greater orientation towards external forces and three, closer and intense collaboration with the private sector. Public funding is likely to decline which would compel the universities to explore alternative sources of funding. All these tendencies would conjure up a competitive situation with the elite universities participating in cross-border activities to become integrated in global networks.

7.6 Factors Undermining Publicness of Higher Education

As universities seek to respond to the changing situation and evolve with increasing externalist orientation which consolidate and strengthen the linkages with development, the important issue is the desirability of such changes keeping in mind the long-term interests of the society and sustainability of development goals. These changes throw up developments which are undesirable, To put it differently, what are we missing out which are valuable and important as we transit from internalist to externalist? There are internal contradictions in this transformation which negate and undermine the potential contributions of higher education which are discussed below.

7.6.1 Students as Customers and Failure of Credential Signaling

The issue of poor quality of education is a serious one in a developing country context. Education devoid of quality means virtually nothing. With marketization and rising fees, students are increasingly showing inclination to treat education as an investment. In the process, if students behave as consumers with the focus on acquire degrees rather than going through the tedious process of learning, desirable learning outcome will not be achieved. This is because quality is determined by not only the resources at the disposal of the educational institute but more importantly by the agency of the teachers and the students in teaching–learning and in doing research which requires both students and teachers to remain intrinsically motivated in their academic engagements. This is likely to happen in case of universities which are not heavily dependent on cost recovery from students' fees.

Dominance has been given to institutionalization of education with accreditation being given a controlling power which has led to a conflation between the idea of higher education and a university as an institution (Gibbs 2014, p. 40). A graduate is therefore viewed more as an accredited person rather than as an educated person.

If the HEIs indulge in unfair practices of grade inflation and tolerate student consumerism, the role of education as a screening device fails. In the theory of screening, the credentials are supposed to signal the quality of human capital embodied and competence of the graduates (Stiglitz, 1975).[6] If the credentials are up for sale, and fees are cost determined which makes education unaffordable to many, both quality and access suffer. Unregulated and profit-oriented private participation can damage the public good character of education.

7.6.2 Marketization and Privatization of Higher Education

Absence of market-based accountability has long been identified as the root of the failure of the universities to realize full potential of its resources and motivations and deliver quality education. This was pointed out long ago by Adam Smith (1776/2003) followed by Buchanan and Devletoglu (1970) that in an absence of market for higher education, universities did not deliver to their potentials. Higher education is not amenable to a full-fledged marketization because one, knowledge by its very nature is a public good with able support from internet and open access and, two, social competition is getting intensified with accentuation of hierarchies (Marginson, 2016). A market for higher education is highly differentiated and heterogeneous with some forms of universities running more like a business enterprise to co-exist with liberal

[6] In the theory of signalling, the role of education is not for formation of human capital but for revelation of information about the attributes of the graduates. Since education is presumed to be not for augmenting productivity, the process of acquiring the education credentials is a waste of resources.

arts universities or teaching-intensive universities. However, marketization will relegate those who are from the margins of the society along with the merits if adequate safeguards are not adopted (Chattopadhyay, 2009). Regulation of a higher education market requires obliteration of fragmentations between the general and professional education, public and the private. Market failures are difficult to be corrected by the policymakers posing before them crucial trade offs for negotiations. Education being an 'experience good', the students suffer from information asymmetry while choosing courses and institutions to pursue studies. Market competition and profit making are no guarantees for quality education (Chattopadhyay, 2009).

Teaching and research both are getting commodified which is weakening the link between teaching and research. Teachers are not necessarily the researchers and vice versa. As Hasselberg et al. (2013) argue that education is a commodity which is to be understood in terms of well-defined skills and competencies but it is devoid of identity, history, values and sound judgements which can be imparted to the students and accordingly they are to be evaluated precisely in terms of that. This type of education caters well to the production apparatus of industrialized research. This shallowness between the researcher and body of knowledge is valued in the industry. Everything becomes a matter of technique and a pursuit of quantifiable targets. While at the same time there would be demand for knowledge at the intersections of the disciplinary boundaries. The outcome will be polarization both in the field of teaching and in research.

At the same time, the higher education system is getting more and more stratified because of the very nature of functioning of the system based on the selection-based efficiency (Glennerster 1991) and policy induced promotion of world class universities to achieve world ranking status (Teichler 2015).

7.7 What This Transformation Means for Humane Development

As universities are undergoing transformation primarily in response to the need of the time and, as per the envisioning of the higher education in the state's project in the future, we need to take stock of the question we raised in the beginning of this paper, i.e. how this transformation in the higher education would mean in the pursuit of development which is humane. Though various types of universities are likely to co-exist, the traditional universities will have to be more entrepreneurial and more market oriented with university governance being reformed in line with the new public management (NPM).

7.7.1 Access and Equity in the Context of Growing Differentiation

The growing differentiation within the higher education sector exacerbated in the global sphere with the cross-border mobility of human capital embodied is also associated with the tendency for the expansion of higher education sector spurred by the online education and MOOCs. Because of the differences in the quality broadly defined rather than focusing on content and delivery, the gains from increasing access will remain limited. The wider options available in MOOCs enhance employability but it limits self-transforming role of education at the same time. It is also to be debated whether the advocacy for income contingent loans (ICL) (Chapman et al., 2020) which makes tuition fees zero at the time of entry but students pay the loans back if their earnings exceed a threshold level suitably defined when the higher education and job market linkages are weaker in view of job scarcity and rapidly changing demand for skill.

7.7.2 Higher Education as a Global Public Good

The global knowledge space consists of three tendencies of varying strength and intersections. These are the system of open access, knowledge valued by the world university ranking system and the private knowledge where knowledge is a property of a capital good (Marginson, 2011). The third and to an extent the second undermine the public good character of knowledge at the global level.

Higher education is a global public good because knowledge produced by the universities and human capital embodied circulate across the international borders as the reputed universities seek to attract the best of the minds. However, patenting of knowledge, paid journal articles and restrictions on mobility as exercised by the countries circumscribe the global character of higher education. Open access to knowledge and the growing importance of Internet as a medium of circulation have been rising steadily. The growing relevance of (MOOCs) in the era of post-pandemic, opening of the international branch campuses and entry of foreign universities will further contribute to the higher education as a global public good. The HEIs operate in open information setting which makes collaboration possible and less costly. Because of ICT, classroom can now become global. 'Internationalization at home' in contrast with internationalization abroad in the post-Pandemic era has gained prominence with the disruption of international movement (de Wit and Altbach, 2020). However, embracing the global entails a trade-off with the local and national imperatives. Welcoming foreign students to study in universities in the home country and entry of foreign universities, migration of best of the minds generates possibilities for such trade-offs. Participation by the best of the universities to participate in global ranking disembed these globally aspiring universities from the national context (Marginson, 2004b, Marginson and van der Wende 2007). Depending on the variation in terms

of participation in the global arena among the nations and the HEIs, there would be variation in the nature of higher education as a global public good. The global relations are structured based on both cooperation and competition.

Is the emerging challenge for the top universities is to strike a balance between contributions towards global public good under market conditions and at the same time contribute to the local private goods and foster societal relevance in teaching, learning and research (Kehm, 2014) or it is the responsibility of the universities not globally competing to do more for the society at the local and national levels resulting in clear differentiation within the university system in terms of university mandate?

7.7.3 Higher Education as a Common Good

Marginson (2016, 2020) argues that the economic conception of public good and the neoliberal approach to policymaking have constrained our understanding of the possible contributions of higher education in the 'sustainability of human relations' and in reproduction of 'collective human environment'. The economist's notion of public good does not talk about its content, how fairly the benefits are distributed among the people and the political process to articulate societal aspiration and solidarity to partake the benefits collectively. Public benefits of higher education are collective in nature both nationally and globally. Common goods are beneficial goods to shared social welfare, relations of solidarity, inclusion, tolerance, universal freedoms, equality human rights and individual capability on a democratic basis (UNESCO, 2015).

7.8 Concluding Remarks

This chapter has made an attempt to speculate about the future as to how the contributions of universities, towards humane development, will undergo changes as the universities are undergoing transformation.

Though this transformation began long ago with the advent of neoliberal approach to higher education policymaking and the introduction of ICT in the classroom commensurate with the rise of MOOCs, in the era of post-pandemic we are witnessing the growing popularization of MOOCs and the rise to the dominance of the EdTech companies.

This technological change has in fact changed the very nature of teaching–learning. This has far-reaching implications. While universities are evolving to meet the changing social demand and address the need of the state to connect strongly with the society, the formation of the self, importance of value-based education may get relegated in the process. The transformation of the individual is affected because of (i) the rising fees and education is increasingly being treated as an investment; (ii) blended teaching–learning would lead to a shrinkage in socialization among the

students and (iii) standardization in course curriculum and evaluation which can lead to shallowness in understanding.

7.8.1 Distinguishing Between Positive and Normative Approach

There is ought to be a clamour among many for treating higher education as a public good so that the nation benefits from its publicness by making it inclusive, less hierarchical and making sure that the graduates contribute towards sustainability of social relations. This entails a greater role of the government towards increased public funding and appropriate regulation to harness the potential of this sector. This is a normative approach in contrast to the positive approach as in the reality, where the private elements of higher education are assuming larger proportion.

7.8.2 Public–Private Divide is not Zero–Sum

The private goods produced by higher education in the form of embodiment of human capital in the students and knowledge produced specifically for the use by the industry determine the publicness of higher education. This is unlike the clear and unambiguous division between private and public properties defined by the technical property of a good as implied by the narrow definition of public good (Samuelson, 1954). If the quality of education imparted is not of good quality and the transformation of the self is inadequate and partial, the ability of the students to contribute and act in the public interest may also remain limited. The private elements of higher education manifest also in the social status of the graduates which renders higher education as a positional good in the society (Marginson, 2016).

What higher education can do depends of course on the quality of higher education delivered. We may take note of the fact that given that the crucial inputs are non-reproducible as teachers and students are, there will always be pronounced differences in the quality of higher education across the vertically ordered universities.[7] One possible reason that the Pandemic hits the USA and the UK the most could be attributed to the high degree of individualization and poor social responsibility as compared to some parts of Europe and East Asia. Marginson (2020) argues that it was because of the failure of higher education to inculcate right kind of values within the market setup.

[7] In comparison, in a consumer durable industry or say for in case of laptop or computers, the hardwares and the softwares are reproducible in large numbers. For higher education, the best of the students and the teachers always tend to converge to the best of the universities. The efficiency in the higher education sector is therefore called selection based efficiency (Glennerster, 1991).

An examination of the role of higher education needs a study of the state, society and the university in a single framework. There are therefore variations in the conceptualization of higher education, society, state, public and private which are nested nationally and culturally (Marginson, 2016).

7.8.3 Participation in Public Sphere

The public sphere has assumed more importance in the wake of rising prominence of social media which assigns a crucial role to be played by the democratic institutions. The intrusion of social media entails critical thinking. The university governance which is marked by a crucial role being played by the teachers will no more remain united and vocal. They will have constrained academic autonomy, eroded collegiality faced with an incentivized pay structure, status and class differences among the faculty due to the online teaching mode and casualization of the teaching profession.

7.8.4 Changing Notion of Quality, Changing Motive for Knowledge Generation

Ranking parameters are determining the concept of excellence. There has been a major change in the world of dissemination of research. The focus is now more on increasing publication and improving citation index. In this rush, not often quality is cherished and not often scholarship is pursued.

Research in science has continued to raise relevant questions and has been providing us the solutions the imperatives of the sustainability warrants. The issue is to what extent science would remain morally and intellectually independent of economic power as articulated through market and industrial demand for knowledge. The propertization of knowledge continues commensurate with the growing dominance of ranking parameters on research and revisit the university mandate. Can market and industry reflect the true need for the long-term interests of the society? The legitimacy of the university has been not to succumb to the partisan interest. Social science research should also maintain objectivity and autonomy as the states will show tendencies to leverage social science research to propagate the rationale behind government policies.

Focus on skill alone would not suffice. The traditional role of the universities needs protection from the state to serve its purpose for maintaining social and political order and put the world economy on a sustainable path. The order in society and polity we see today is not commensurate commensurate with an outcome expected from the expansion of higher education. Increased openness to society's demand is good, but it has also come at a price by challenging the very core of university's pursuit for truth, objectivity and neutrality in generation of knowledge. Community

engagement is now filtered through the market characterized by the objectives of profit maximization and cost recovery. Recognition of the public good character of higher education at the global level and a fight for solidarity to minimize quality differences will uphold higher education as a common good to the extent desirable, to the extent feasible.

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Chapter 8
The Effect of Employment Guarantee Scheme on School Attendance in Rural India

Tushar K. Nandi

8.1 Introduction

Workfare has been widely used as a poverty-alleviation policy in both developed and developing countries. One of the earliest examples includes England's *Poor Law* of 1834 in which poor people were granted relief through residence in workhouses (Thane, 2000). In the context of developing countries, self-targeting feature of workfare is particularly attractive in absence of a cost-effective administrative machinery to determine whether a relief claimant is in need or not (Besley & Coate, 1992). Whether workfare contributes to permanent reduction in poverty is still debated.[1] However, there is empirical evidence that workfare positively affects short-run outcomes like income and consumption (Azam, 2012; Jalan & Ravallion, 1999; Ravi & Engler, 2013; Scandizzo et al., 2009).

India's recent workfare program under the National Rural Employment Guarantee Act (NREGA) guarantees 100 days of wage employment per year to every rural household. On an average, 50 million households have been provided employment every year since 2008–09 making it one of the largest workfare programs in the world (Ministry of Rural Development, 2012). The primary objective of this Employment Guarantee Scheme (henceforth EGS) is poverty alleviation through employment generation. The secondary objective is to strengthen natural resource management—like water conservation, drought proofing, irrigation canals maintenance, land development, and rural road construction—to address the causes of chronic poverty. The EGS was first implemented in 200 districts of India in 2006–07.

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[1] See Devereux & Solomon (2006) for a review of developing country experiences.

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By April 2008, it was extended to cover the whole India. A burgeoning literature has already started to analyze the effect of this EGS on different aspects of rural economy, like market wage (Imbert & Papp, 2013), aspiration of rural poor (Bhatia & Dreze, 2006), work (Islam & Sivasankaran, 2015), and education of children.[2] This paper contributes to this literature by studying the effect of the EGS on school attendance of youth in rural India.

Theoretically, a household's work in EGS can have two opposing effects on the school attendance of household members who are of school-going age. Education being a normal good, the income effect of EGS would lead the household to invest more on education. The school attendance of members of households who do not work in the EGS increases as well when the EGS induced demand drives the market wage in upward direction. The substitution effect, due to EGS induced increase in market wage, would lead to withdrawal of household members from school and sent to work. Two features of the EGS in India make the substitution effect work differently for households who obtain work under EGS and households who do not obtain. One, the work in the EGS must be performed by adult members of a household, implying that non-adult members cannot substitute school attendance for the EGS work. Two, a maximum of 100 days of work can be provided to a household in a year, implying that household's year-long labor market engagement cannot be the EGS. The substitution effect for the households who obtain work in EGS may mean that non-adult members (14–17 years) are withdrawn from school to perform the usual income generating work of adult member who opted for work in EGS. Relative strength of this latter effect may generate differential educational outcomes for youth of households who work in EGS vis-à-vis households who do not. This argument is consistent with the concern raised by Murgai et al. (2013) that the advocates of the program often assume that workers remain idle in absence of the EGS.

In this paper, we use data from a nationally representative survey of households, carried out in 2009–10, to estimate the effect of a household member's work in the employment guarantee scheme on the school attendance of younger male household members (14–17 years). We exploit the self-selection feature of the scheme to compare school attendance of the households who applied for and received work in the EGS, with that of households who applied but didn't receive work in EGS. We find that a household member's work in the EGS reduces the probability that a 14–17-years-old male member of the household attends school by 14%. We use an older subsample of youth (19–21 years) who attended the same level of schooling as 14–17-year olds before the implementation of the EGS. Estimation with this subsample shows that there is no significant difference in school attendance outcomes between households who later worked in EGS and those who applied but didn't obtain work. This implies that the effect of the EGS on school attendance of 14–17-years-old is not driven by unobserved household heterogeneity that affects both the chance to obtain work in the EGS and the school attendance outcomes. We also show that

[2] See Sukhtankar (2016) for an extensive review.

results are robust to the inclusion of local economic shocks that may affect both EGS participation and school attendance.

The rest of the paper is organized as follows. Section 8.2 provides details of the data and estimation strategy used in this paper. The next section presents the estimation results. The last section concludes the paper and provides policy implication of the results.

8.2 Data and Estimation Strategy

We use data from the 66th Round Employment and Unemployment Survey (2009–10) of National Sample Survey Office. The survey collects information on employment and unemployment of individuals from a nationally representative sample of households in India. In addition to employment status of household members, it also collects information on the educational attainment and current school attendance status of household members. We use both individual and household level information to estimate the effect of work in EGS on the school attendance of male household members who are 14–17 years old.

In order to work in the EGS, a household must have a job card. Any adult member of the household with a job card can apply for work. The act mandates that work must be provided within 15 days after application (with wage fixed at the minimum wage for agricultural worker in a state). If work cannot be provided within 15 days, the applicant is entitled to unemployment benefit (fixed at 25% of the wage rate). Crucial to our estimation strategy is that not all households who applied for work in the EGS obtained work in the year 2009–10. Households self-select themselves to apply for work in the EGS. Some of them did not get work because of non-availability of public work under the scheme. Our analysis is based on the sample of households who applied for work in the EGS. We exploit the difference in the EGS work status among the applicant households for identification. The estimation model takes the following form

$$y_{ij} = \alpha + \beta x_{ij} + \gamma z_j + \delta EGS_j + (\mu_j + \varepsilon_{ij}) \tag{8.1}$$

where y_{ij} is the educational outcome of individual i in household j, x_{ij} a set of individual characteristics, z_j a set of parental and household characteristics, EGS_j a dummy for households that obtained work in employment guarantee scheme, and $(\mu_j + \varepsilon_{ij})$ a composite error term with μ_j being unobserved household heterogeneity.

We use data for male youth (14–17-years old) to estimate the effect of EGS on their school attendance. Individuals in this age group are eligible to work as they have crossed the legal age limit protected by child labor law. However, they cannot work in the EGS as only adult members of a household are eligible to work in the EGS. Thus, this age group corresponds to the trade-off in household decision between school attendance and non-EGS work of youth household members. We call this

subsample "14–17 years (2009–10)". The dependant variable for this subsample is a dummy for current school attendance.

A major concern with the above estimation is that if unobserved household heterogeneity affects both the chance of getting work in EGS and educational outcomes of household members, we are likely to find a significant estimate of δ even when the EGS work does not have any effect on school attendance. In order to be confident that δ captures the effect of the EGS work and not that of unobserved household heterogeneity, we estimate the model using an older subsample consisting of household members who have attended school before the implementation of the EGS in 2006–07. Among individuals of the younger subsample (14–17 years in 2009–10), 85% are currently attending secondary or higher secondary education. In the older subsample, we choose individuals who were likely to attend secondary or higher secondary education in 2005–06 (a year before the first implementation of the EGS). Individuals who are 19–22 years in 2009–10 were 14–17 years in 2005–06. Thus, the older subsample consists of individuals who were 14–17 years old in 2005–06. We call this subsample "14–17 years (2005–06)". We observe their educational attainment in 2009–10. In this age group those who have attained secondary or more education must have attended school in 2005–06. Thus, the dependant variable for this subsample is a dummy variable for school attendance in 2005–06, inferred from the attainment of at least secondary education in 2009–10. Note that the dependent variable for this subsample cannot be called current school attendance as attendance status in the past has been inferred from their present educational attainment. We use the same set of variables, including a 2009–10 EGS work dummy, for the estimation using data from this older subsample. If δ appears to be significant in this estimation, we would conclude that the work in EGS is associated with unobserved household heterogeneity that affects both school attendance and the chance to obtain work in the EGS three years later. On the contrary if δ is insignificant in this subsample, we would infer that estimate of δ in the younger subsample is not contaminated by the presence of unobserved household heterogeneity and stands for true effect of the EGS work on school attendance. However, our data do not allow us to check time trends of educational outcome in treated and non-treated groups. If time trends differ in these groups, our estimation strategy would not be able to eliminate endogeneity entirely.

An additional concern in the above estimation is the possibility of area-specific shocks that affect both EGS participation and school attendance. India has a long tradition of using work program as social security. If ESG is used as a relief measure by government in drought-affected areas, households in affected areas will be more likely to receive work under EGS conditional on application. At the same time, school attendance will respond negatively to drought-induced income shock.[3] In order to account for area-specific shock, we use district-level rainfall as an additional control variable in the estimation model.

Descriptive statistics of these two subsamples are presented in Table 8.1. The school attendance in 2009–10 sample is much higher than that in 2005–06 sample.

[3] See Jacoby and Skoufias (1997).

Table 8.1 Descriptive statistics—male 14–17 years (2009–10) and male 14–17 years (2005–06)

	14–17 years (2009–10)	14–17 years (2005–06)
	Proportion	Proportion
School attendance	0.710	0.645
NREGA (three years later for "2005–06" subsample)	0.561	0.577
Age§	15.422 (1.084)	15.554 (1.103)
Land owned (in hectare) §	0.996 (2.029)	1.163 (2.757)
Caste		
General caste	0.204	0.205
Scheduled tribe	0.346	0.342
Scheduled caste	0.214	0.213
Other backward caste	0.236	0.240
Religion		
Hindu	0.756	0.723
Muslim	0.116	0.131
Christian	0.085	0.100
Other religion	0.043	0.045
Number of observations	3729	2707

§ Mean value (standard deviation)

Part of the difference can be attributed to the economy-wide rise in school attendance of young individuals from 2005–06 to 2009–10. There is very little difference in the EGS participation in these two samples—56% in 2009–10 sample and 57% in 2005–06 sample.

Two subsamples are very similar in terms of age, household land ownership, caste, and religion. The average age of individuals (whose school attendance is the focus of this study) is 15.5 years in both samples. Land ownership is slightly higher in the older subsample. There is considerable variation in terms of caste and religion in both samples.

8.3 Estimation Results

Estimation results of Eq. (8.1) are reported in Table 8.2. For the subsample "14–17 years (2009–10)", the dependant variable is a dummy for school attendance in 2009–10. For the older subsample "14–17 years (2005–06)", the dependant variable is a dummy for school attendance in 2005–06.

A probit model is used for both subsamples. Two specifications of the model are estimated for each subsample. The first specification includes EGS dummy, age of the individuals, parental education, land ownership, caste religion, and district fixed

Table 8.2 Estimates of school attendance of 14–17-years-old male—2009–10 and 2005–06

	14–17 years (2009–10)						14–17 years (2005–06)					
	(i)			(ii)			(i)			(ii)		
	Marginal effect		Std. error	Marginal effect		Std. error	Marginal effect		Std. error	Marginal effect		Std. error
EGS	−0.137	***	0.034	−0.152	***	0.040	−0.009		0.051	−0.047		0.060
Age	−0.183	***	0.013	−0.203	***	0.016	−0.070	***	0.017	−0.078	***	0.021
Father's education (No education omitted)												
Primary	0.192	***	0.035	0.161	***	0.040	0.210	***	0.050	0.200	***	0.059
Secondary	0.378	***	0.044	0.404	***	0.054	0.723	***	0.067	0.735	***	0.079
More than secondary	0.478	***	0.074	0.387	***	0.089	1.247	***	0.160	1.363	***	0.204
Mother's education (No education omitted)												
Primary	0.096	***	0.039	0.087	**	0.044	0.139	**	0.059	0.208	***	0.072
Secondary	0.149	***	0.060	0.154	***	0.075	0.262	***	0.097	0.341	***	0.124
More than secondary	0.059	***	0.154	−0.043		0.183	0.001		0.274	0.140		0.347
Land owned (in hectare)	0.018	**	0.008	0.019	**	0.009	0.059	***	0.013	0.057	***	0.014
Caste (General caste omitted)												
Scheduled Tribe	−0.061		0.057	−0.090		0.063	−0.383	***	0.088	−0.343	***	0.105
Scheduled caste	−0.076		0.048	−0.052		0.055	−0.251	***	0.076	−0.241	***	0.087
Other backward caste	0.061		0.045	0.073		0.052	−0.197	***	0.072	−0.227	***	0.084
Religion (Hindu Omitted)												

(continued)

Table 8.2 (continued)

	14–17 years (2009–10)						14–17 years (2005–06)					
	(i)			(ii)			(i)			(ii)		
	Marginal effect		Std. error	Marginal effect		Std. error	Marginal effect		Std. error	Marginal effect		Std. error
Muslim	−0.157	***	0.052	−0.212	***	0.062	−0.404	***	0.081	−0.516	***	0.098
Christian	−0.073		0.107	−0.098		0.126	0.138		0.148	0.094		0.170
Other religion	−0.087		0.096	−0.085		0.110	0.024		0.139	0.092		0.172
District level annual rainfall (deviation from 1951-2000 average)				0.004		0.005				−0.008	*	0.004
District fixed effects			Yes			Yes			Yes			Yes
Log likelihood		−1723.731			−1283.873			−1281.300			−955.250	
Number of observations			3729			2789			2707			2033

*, ** and *** stand for significance at 10, 5 and 1% level, respectively

effects. The second specification incorporates an additional variable on district-level rainfall. We prefer to do separate estimations with rainfall variables, as the number of observations declines due to non-availability of rainfall data for some districts. Estimation results are presented in Table 8.2. Marginal effects and their standard errors are reported for each specification of the model. Standard errors are clustered at the district level.

Estimation results from specification (i) for the subsample "14–17 years (2009–10)" show that a household's work in the EGS reduces the probability of school attendance of its 14–17-years-old members by 14%. The effect is highly significant after controlling for age, household characteristics, and district fixed effects. Estimates of marginal effects of other variables have expected signs. Higher age is negatively, higher parental education, and land holding positively associated with the probability of school attendance. There is no significant difference in school attendance among individuals from different castes who applied for work in the EGS. Among the religious groups, Muslims are less likely to attend school than other religions. In specification (ii), we introduce an additional control for district-specific shock measured by rainfall deviation from long-run average rainfall of a district. For this subsample, the variable is constructed by taking difference of the average annual rainfall (over 1951–2000) of a district from the rainfall of that district in 2009. Estimation results do not change much due to the inclusion of this additional control variable. The rainfall deviation in the year 2009 does not have any significant effect on school attendance. The effect of EGS on school attendance increases marginally, from 14 to 15%. We check the robustness of our result using other ways to incorporate district-level rainfall data, such as annual rainfall in 2009, annual rainfall in 2008, deviation of 2008 rainfall from long-run average and logarithmic value of them. The results do not change substantially. Moreover, the effect of EGS on school attendance always remains around 14%.

Now turning to the estimates from specification (i) for "14–17 years (2005–06)" sample, we find that work in the EGS after three years is not significant. This confirms our hypothesis that obtaining work in EGS is not associated with unobserved household heterogeneity that affects educational outcomes. This is consistent with the design of the EGS—universal coverage, voluntary participation. Thus, obtaining work is solely determined by institutional capacity to provide work within 15 days from the day of application for work. Other results for this sub-sample are very similar to those of "14–17 years (2009–10)" sub-sample except that individuals from non-general castes are less likely to attend school. This difference in caste results for older and younger individuals is consistent with Hnatkovsk et al. (2013) who find gradual convergence in educational outcomes of different castes since 1980s. The specification (ii) includes district-level rainfall deviation in the year 2005 from the long-run average rainfall. We do not observe any substantial change in the estimates. The EGS work after three years remains insignificant. The rainfall deviation in 2005 is marginally significant, indicating that higher rainfall deviation is associated with lower school attendance. Again, we check the robustness of our result using other rainfall variables. The EGS remains insignificant in all specifications.

The negative impact of EGS on school attendance is consistent with the finding of Datt and Ravallion (1994) that other household members take up the displaced productive activity when someone joins a workfare program in India. In our sample, the majority of non-school-going youth work as unpaid household workers. Our results suggest that boys who are of working age but not eligible to work in EGS may replace the household member who opts for work in EGS with negative implication for their schooling.

8.4 Conclusion

Using data from households who applied for work in the EGS, we estimate the effect of a household's work in EGS on the school attendance of its younger members (male 14–17-years old). We find that a household's work in the EGS reduces the probability of school attendance of its younger members by 14%. Our estimation strategy confirms that the negative effect of the EGS is not caused by unobserved household heterogeneity that affects both a household's chance to obtain work in the EGS and educational outcome of its members. We also provide evidence that the result is not driven by area-specific shocks that affect the probability of receiving work in EGS and the probability of school attendance in opposite directions. The results indicate that a well-intended employment guarantee scheme can have a perverse effect with long-term consequence for the beneficiaries and the economy as a whole. From a policy perspective, it is important to modify the design of EGS in India to arrest the negative effect on school attendance. An integrated approach like PROGRESA in Mexico that combines education, nutrition, and health interventions in one package can be more successful in poverty alleviation.

The COVID-19 pandemic has caused major changes in rural economy in India. The lockdown has affected the rural income by disrupting the supply chain of agricultural produce. The return migrants, otherwise remitters to rural India, are now a part of rural unemployment pool. The majority of school-going children are out of school because of school closure. In such a situation, the EGS is being used to alleviate rural distress. It would be interesting from a policy perspective to study how changes in EGS design can induce the children to continue education without affecting household welfare.

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Chapter 9
Health and Well-Being of the Elderly People Before and After COVID-19 Outbreak: A Survival Challenge in West Bengal, India

Priya Biswas, Sanchita Roy, and Debaprasad Sarkar

9.1 Introduction

Since the past few years, the world has been facing a rapid population growth of elderly people, and India is no exception in facing the impact of this transitional phenomenon. This alarming rate of population growth of the elderly could be attributed to a combination of factors like decreased death rate due to advancement in the field of medicine, longevity, increase in fertility rate, and enhancement in the average span of life. In terms of the absolute size of the elderly population, India ranks fourth all over the world.

The projection of the proportion of the percentage of 60-plus persons in the total population in India (Fig. 9.1) shows that the share of elderly persons in India has been increasing at an increasing rate over the last few decades. It is expected that the scenario will remain the same in the coming decades. The share of the elderly population is estimated to increase from 11% in 2021 to 19% in 2050. With this increasing trend, the elderly population will constitute nearly 37% of the total population in the country.

Depending upon the pace of demographic transition, a considerable interstate dispersion at the level and growth of the elderly population is one of the distinguishing features of ageing in India. Consequently, there are significant variations in the percentage of 60-plus population across states in India from 1961 to 2011,

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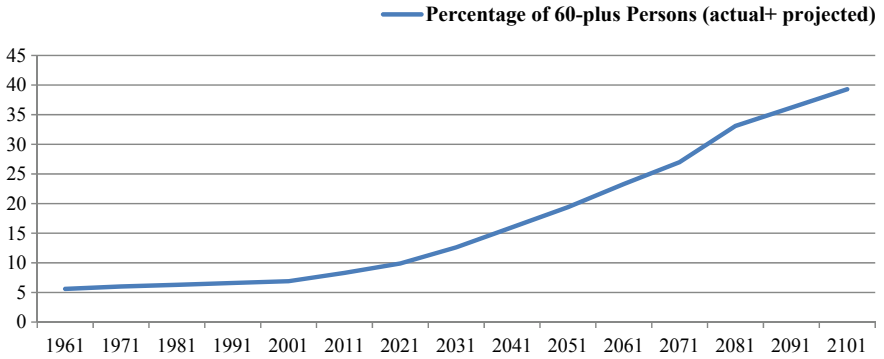

Fig. 9.1 Percentage of 60-plus persons in total population, India, 1950–2100. *Source* United Nations (2015), World Population Prospects, 2015 Revision, Department of Economic and Social Affairs, United Nations

and thereby, the difference in the percentage of 60-plus population across states in India varies to different extents, for instance, states like West Bengal, Gujrat, Kerala, Maharashtra, and Tamil Nadu show higher percentage difference compared to the national average (Fig. 9.2).

The rapid growth of population age has crucial implications for the socio-economic and health status of the elderly, and mostly governments are often unprepared to mitigate the consequences. The elderly constitute one of the most vulnerable sections of the society even in normal times on account of poverty, deteriorating health, lack of familial support, neglect, social isolation, discrimination, and abuse. Moreover, under the present unprecedented COVID-19 pandemic crisis, a large proportion of deaths have been reported among people aged 60 years and above,

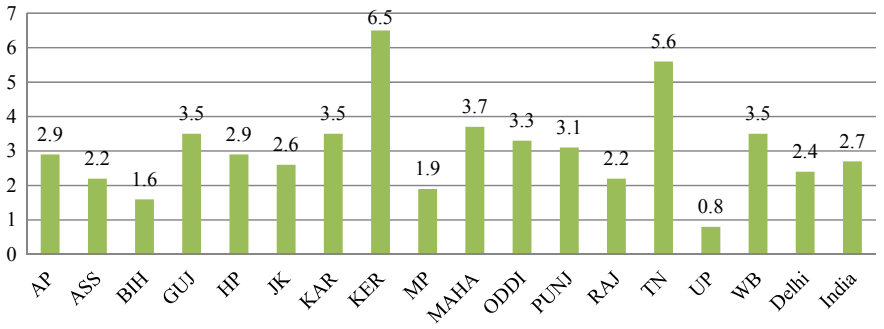

Fig. 9.2 Difference in percentage of 60-plus population across the Indian States, 1961 and 2011. *Source* ORGI (2011), Census of India (2011), Office of the Registrar General and the Census Commissioner of India, Ministry of Home Affairs, Government of India. (AP–Andhra Pradesh, ASS–Assam, BIH–Bihar, GUJ–Gujarat, HP–Himachal Pradesh, JK–Jammu & Kashmir, KAR–Karnataka, KER–Kerala, MP–Madhya Pradesh, MA–Maharashtra, ODDI–Odisha, PUNJ–Punjab, RAJ–Rajasthan, TN–Tamil Nadu, UP–Uttar Pradesh, and WB–West Bengal)

with co-morbidities such as cardiovascular, diabetes, hypertension, and respiratory diseases.

In a country like India, central and state governments have already some policy measures but those are very insufficient in front of the huge need. As per the literature, income insecurity has been the significant source of elderly vulnerability, only a few older has little-bit information about government-provided Income security schemes. Awareness and use of the publicly provided health insurance programmes (like the Rashtriya Swasthya BimaYojona (RSBY)) among older people are negligible particularly for rural old and female old (Fig. 9.3). Social security measures would significantly contribute to the health and well-being of the dependent elderly, and without having that, the condition of the elderly had become worse enormously. In West Bengal, most of the elderly people are not availing the existing social security in terms of IGNOAS (less than the national average Fig. 9.3) either due to lack of information they have or due to the relative size factor of the elderly (availability of social security measure is very negligible against huge demand). Thus, there is a need to pay greater attention to the increasing awareness on ageing issues and socio-economic effects and to promote the development of policies and programmes for dealing with improved quality of life for ageing society.

The country is not adequately equipped to look after their special health needs for the normal time and particularly during the pandemic. The traditional value system has changed, and feeling is now growing among the aged persons that the attitude of the younger generation towards them has not been desired and they need sympathy and support especially with deteriorating mental and physical health instead of neglect, social isolation, discrimination, and abuse. In this context, the first part of the work has been devoted to understand the relative contribution of factors that can explain the differences and change in health and well-being (HUI) of elderly between

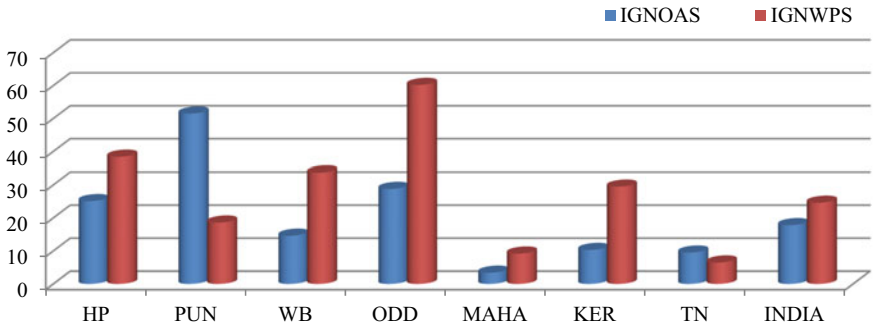

Fig. 9.3 Elderly from BPL households utilizing national social security schemes in the selected states, 2011. *Note* IGNOAPS–Indira Gandhi National Old Age Pension Scheme and IGPNSWPS–Indira Gandhi National Widow Pension Scheme, HP–Himachal Pradesh, PUNJ–Punjab, WB–West Bengal, ODDI–Odisha, MA–Maharashtra, KER–Kerala, TN–Tamil Nadu, and BPL–Below the Poverty Line. *Source* Alam et al. (2012), "Report on the Status of Elderly in Select States of India 2011" Building a Knowledge-base on Population Ageing in India, United Nations Population Fund, New Delhi

elderly people residing inside and outside of old-age homes in and around Kolkata, West Bengal, through the intense assessment, and in the later part, the impact of COVID-19 pandemic on the health and well-being of elderly has been done, so that the study can identify the factors or subjects on which government should emphasize the policy priority.

9.2 Literature Review

Health is a "state of complete physical, mental and social well-being and not merely the absence of disease and infirmity" (World Health Organisation Report, 1978). In this context, general well-being is defined as the subjective feeling of happiness, satisfaction of an individual's life experiences, sense of achievement, utility, belongingness, and no distress, dissatisfaction, etc. (Verma, 1989; Verma & Banjare, 2016). Moreover, one's overall sense of well-being that includes happiness and satisfaction with life as a whole describes the Quality of Life of an individual (Oksuz & Malhan, 2006).

For the last few decades, health and well-being challenges faced by the elderly is a very frequent problem in India. Increased life expectancy, rapid urbanization, modernization, and changing life style together with changes in ageing such as psychological changes, physical changes, and social changes affect the health and well-being of the elderly significantly (Gurung & Ghimire, 2014). Mental disorder, malnutrition, deprivation, lack of familial care, financial insecurity, increasing dependency ratio, restricted pension and social security, loneliness, retirement issues, disappointment, disrespect, dejection, destitution, depression, anxiety, loss of status, worthlessness, feeling of burdens, feeling of powerlessness, inferiority, decreased physiological and psychological functioning, and housing problems are most of the common problems which elderly are facing in recent years in India (Prasad, 2017). Although, elderly care has been the responsibility of family's members, children away from home, no one to take care of at home, and misbehaviour of son and daughter-in-law are the most common reasons for the elderly to reside in old-age homes over residing with family members (Akbar et al., 2014; Rajan, 2000). Relation to son and daughter-in-law, asset and transfer of assets, willingness, hobby and previous standard of living, mental health, financial health, and loneliness are the most important determinants of health and well-being of the elderly residing in old-age homes (Kirtonia & Sarkar, 2019; Seth et al., 2018). Unfortunately, the elderly in old-age homes faced lots of problems related to personal and social adjustment due to loneliness, loss of spouses, divided property, family members not meeting up, no entertainment, no friend to share problems, no social gathering, no outing, and no caring of family members (Tripathi, 2014). Therefore, family support plays a vital role in the oldest age group people (Gurung & Ghimire, 2014). But in India, elder abuse is a very common problem for those elderly who reside with their family (Help Age India, 2018). The most common form of abuse they experienced was Disrespect, Verbal Abuse, and Neglect, and the main abusers were Son and Daughter-in-law

(Help Age India, 2018). Thus, the older generation is caught between the decline in traditional values on one hand and the absence of an adequate social security system on the other (Gormal, 2003).

In a normal situation, most of the elderly in India work to make ends meet as there is no universal social security system and only more than 1/3rd of the elderly in India live above the poverty line. During COVID-19 pandemic, most of the working elderly are severely affected by the low job opportunity and fear of contracting infection (Help Age India Report, 2020). The survey and analysis by Help Age India have illustrated the situation of the elderly with respect to healthcare, livelihood, access to goods and services, and assistance provided by various stakeholders during COVID-19 pandemic and lockdown. In documenting the health and well-being of the elderly during the pandemic, the life of the elderly COVID-19 impacted in various ways with deteriorating health, lack of familial support, neglect, social isolation, discrimination, and abuse (Prasad, 2020). Roy et al. (2020) have shown how state-specific interventions effected to control mental health issues of the elderly like stress, anxiety, depression, insomnia, denial, anger, and fear during COVID-19 pandemic. Singh et al. (2020) have estimated the idea to prevent the COVID-19 community transmission among High-Risk Age Group Population in India analysing trends for infection, death, and cured cases. The study by William et al. (2020) has illustrated that males and females both display high mortality risk and require special care when infected by COVID-19. The analysis of COVID-19 cases and mortality data has great importance to support policy decisions. In the above context, the paper will argue some notable issues in exploring the difference in respect of health and well-being of elderly residing in old-age homes and with family members before and during COVID-19 lockdown. Moreover, the present study undertakes the analysis of the condition of elderly people staying inside and outside of the old-age home in the following main areas:

1. The background socio-economic profile of elderly staying at old-age homes and within the family.
2. The environment of elderly residing in old-age homes and within the family environment in terms of i. General feelings, ii. Social relationships and norms, iii. Personal relationships, likings, and satisfaction, iv. The Quality of Life they are enjoying, and v. Their needs and supports.
3. The analysis of health and well-being (HUI) of elderly in old-age homes and within the family before and during COVID-19 lockdown is important to identify the factors or subjects on which government should emphasize for the policy priority.

9.3 Objective

The present work is devoted to understand the following:

(i) A comparative picture of HUI among elderly residing in old-age home and outside of the old-age home, before and during COVID-19 pandemic in West Bengal, India.
(ii) Identification of the relatively important correlates among all influencing factors of the health and well-being of elderly residing in old-age homes and outside in West Bengal, India, before and during COVID-19 lockdown.

9.4 Selection of Study Area

The present work has been carried out through a rigorous primary survey on elderly persons residing inside and outside old-age homes in and around Kolkata, West Bengal. Following Census Report 2011, Sample Registration System Report 2013, the State of Elderly in India Report 2014, India Ageing Report 2017, elderly people in West Bengal are about 8.4% of the total population which is slightly higher than the all India average (8%). According to the above reports, the socio-economic status of the elderly person in and around Kolkata shows a quite glimpsing picture in the Quality of Life, the status of health and well-being particularly for the elderly. The selection of Kolkata, West Bengal, has been done on the basis of interstate and intercity comparison of the situation of elderly persons across India. Here, in Table 9.1, a closer scrutiny of the elderly in and around Kolkata clarified that in both absolute and relative terms, the elderly in and around Kolkata are very much deprived. As per the intercity comparison across India, more than 75% of the old are above the mean age (Indian mean 83 years) in and around Kolkata which is quite higher. With respect to the current living status, more than two-thirds (71%) of the old in and around Kolkata stay with their sons (57.8%), and 16.7% stay with their daughters, and out of them around 36% are abused by son (60%) and daughter-in-laws (75%). Moreover, 53.8% of the elderly in and around Kolkata have not got any support from their children, which is the highest in India. Besides these, 19% live alone, the proportion is highest in Kolkata over national average (10%), 26.9% have no children, 24.5% live in Kucha house, and 40.2% of elderly have monthly income less than Rs. 2500. Thus, basically in and around Kolkata, most of the elderly persons are highly dependent on remittance from children (70.6%), and their financial dependency is 2nd highest (84%) in Kolkata (after Delhi NCR (90%)). The main cause behind this is that more than two-thirds (70%) of the oldest in and around Kolkata is illiterate and only 15% of them have asset or properties as their own. When the question comes in respect of need and support, the elderly in and around Kolkata about (87%) needed financial support highest in India with about 47% needing health aid. The present analysis is devoted to search for the causes of survival challenges of the elderly, and hence without analysing the situation of most deprived elderly in and around Kolkata, the main purpose will not be solved.

Table 9.1 Intercity comparison

	Remittance from children	Financial dependence	Ownership of property	Ownership of house	No income source	Contributory pension	Elderly economically active (%)	Living alone with no support from children
DEL/NCR	27.5	90	22.5	90.8	22.5	15	10	50
MUM	51.54	71.3	70.3	79.2	27.7	10.9	8.9	20
HYD	4	39.6	65.3	67.3	14.9	64.4	4	6.3
CHEN	66	62	22.8	73	21.8	2	2	26.1
PTN	68	73	41	78	24.8	16	19	36.4
KOL	70.6	84.3	2.9	13.7	6.9	2	21.6	53.8
BPL	39.8	65.7	5.6	63	16.7	6.5	16.7	41.2
ADH	66.3	83.2	32.7	50.5	15.8	3	11.9	16

Source The State of Elderly in India Report–2014 (Del–Delhi, MUM–Mumbai, HYD–Hyderabad, CHEN–Chennai, PTN–Patna, Kol–Kolkata, BPL–Bhopal, and ADH–Ahmadabad)

9.5 Sample Selection and Data

The data and information from 458 elderly respondents (265 residing in the family setup and 193 residing in old-age homes) have been collected from some selected old-age homes in and around Kolkata, using a specially designed interview schedule and observation technique before COVID-19 pandemic lockdown. Prior to final data collection, the interview schedule has been tested on a small subsample and subsequently finalized, upon successful testing and minor modifications. The interview schedule is divided into four sections. The first section included questions regarding the general socio-economic information of the respondents. The second section included some information regarding the physical quality of old people on mobility, vision, breathing, etc. The third section included questions regarding the situation in which the person came to old-age home, particularly on some critical relation with members and relatives. The fourth section included questions pertaining to the general feelings of old-age people to happiness, loneliness, depression, security, insecurity, and the feasibility of recreation along with the personal interests and hobbies. During COVID-19 lockdown and unlock process (April–June'20), the same set of information has been collected through a phone call from 98 elderly (around 20% randomly selected elderly respondents from the same set of the elderly sample) in order to know the impact of COVID-19 pandemic on health and well-being.

9.5.1 Variable: Outcome Variable

The outcome variable Health Utility Index (HUI) is the combined score from 14 physical attributes (Mobility, Vision, Hearing, Speech, Breathing, Eating, Sleeping, Usual Activities, Pain and Discomfort, Cognition, Elimination, Distress, Depression, and Vitality) with 1–6 scales from high (no problem) to low (death/ dysfunction) effective value accordingly.

9.5.2 Related Variables

Related variables are sub-divided into three broad categories and then categorized into various sub-categories on the basis of information collected from the survey (Fig. 9.4).

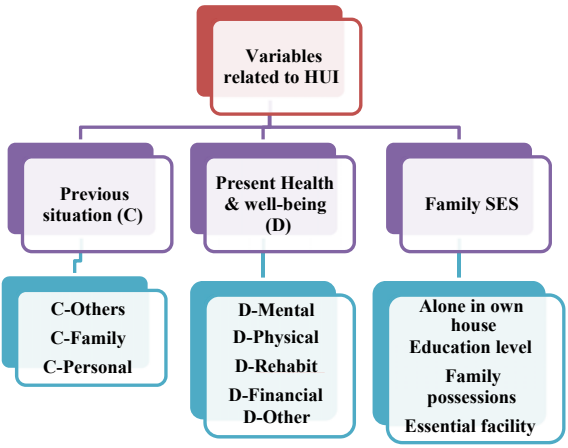

Fig. 9.4 Schematic figure of HUI and its related variables of elderly. *Source* Designed by authors

9.6 Methodology

To calculate the Overall Health Utility Index (HUI), both the generic HUI mark-3 method and Principle Component Analysis (PCA) method have been used in order to examine whether there is any marked difference between two methods or not and to justify the use of HUI mark-3 method in the present context. Here, the sacrificed physical and mental health attributes of the elderly have been taken into consideration in order to present the combined score of sacrificed overall HUI. Earlier research tried to examine the construction of a context-specific composite index that does not suffer from the problems of theoretical and methodological underpinnings (Krishnan, 2010). Different works have been done to combine multidimensional variables into a composite index to construct indexes (Boelhouwer & Stoop, 1999; Fotso & Kuate-Defo, 2005; Morris & Castairs, 1991; Oakes & Rossi, 2003).

9.6.1 Calculation of Combined Indices Through Principle Component Analysis (PCA)

The Principle Component Analysis (PCA) is used to get combined scores of Outcome Variables and Overall HUI after making normalization of individual scores in respective answers of health attributes (Gjolberg, 2009; Jolliffe & Cadima, 2016; Krishnan, 2010).

Calculation of Combined Indices through HUI3: The multi-attribute utility functions provide all the information required to calculate single-summary scores of health-related quality of life (HRQL) for each health state defined by the classification systems. The use of HUI provides comprehensive, reliable, responsive, and valid measures of health status and HRQL (Horsman et al., 2003). The Health Utility

Index Mark 3 (HUI3) is a comprehensive system to describe the health status of individuals and for assigning a utility score to that health status Classification (Feeny et al., 2002; Furlong et al., 1998, 2001). The classification system of HUI3 has been described by Feeny et al. (1995). HUI3 provides a set of categorical variables to assess the overall health utility score of individuals on the basis of health quality-related fourteen attributes (Mobility, Vision, Hearing, Speech, Breathing, Eating, Sleeping, Usual Activities, Pain and Discomfort, Cognition, Elimination, Distress, Depression, and Vitality) on 1–6 relative scales. Health Utility Score is derived as

$$U^* = A(b_1 * b_2 * b_3 * b_4 * b_5 * b_6 * b_7 * b_8 * b_9 * b_{10} * b_{11} * b_{12} * b_{13} * b_{14}) - (1 - A)$$

where U^* is the utility of the chronic health state on the utility scale where dead has a utility of 0 and healthy has a utility of 1.

where b_i is the individual specific item score for different attributes (vision, hearing, etc.).

$$U^* = 1 - \overline{U}^* \text{ and } \overline{U}^* = \frac{\overline{U}}{\overline{U}_{\text{Dead}}}$$

Again, calculation of first and second constant of Multi-Attribute Utility Function is derived from

$$1 + C = \prod_{j=1}^{14} (1 + \text{CC}_j)$$

where $\prod_{j=1}^{14}(\dots)$ is the product of all $(1 + \text{CC}_j)$ from C_1 to C_{14}.

9.6.2 Specification of the Relative Importance Among and Within the Input Category

To calculate the relative importance of individual information in each input category, a Multi -dimensional Segregation Approach (MSA) (like MPI by UNDP) is used among all sub-categories of inputs and within each sub-category to assess the relatively important sub-category and the relatively important factors. If C_{ij} is the normalized score of the jth explanatory factor of ith category, (f) is dependency ratio, and weightage (W) for each sub-category, then the contribution of factors will be

$$\text{Contribution} = \frac{(\sum(Cij * f)) * W}{\sum f} * 100$$

The data was disaggregated as much as possible in pointing out the relative important factors of health and well-being of the elderly. Due to the limited scope of the direct interview during the pandemic protocol, investigators and the study have suffered from the observational arguments; thus, this representative analysis provides a snapshot of the situation of the elderly in Kolkata, West Bengal. Furthermore, the representatives of the final sample are only older people who have access to and are able to communicate via the telephone.

9.7 Results and Analysis

9.7.1 Comparative Features Overall HUI Among Elderly in Between Old-Age Home and Outside Old-Age Home Before COVID-19 Pandemic

Calculation of Overall HUI has been done in two methods in order to examine whether there is any marked difference between the generic HUI mark-3 method (mod avg. score) and Principle Component Analysis (PCA) method (avg. score mod) from the same sample data. And the results show that there is no significant difference between these two methods in explaining the variation of HUI. So, we ultimately proceeded with Principal Component Analysis (Ex: Figs. 9.5, 9.6, and 9.7) (Table 9.2).

Here, all variables related to socio-economic status are categorical (like: 'Own Monthly Income': no income as '0', upto Rs. 2000/-as '1', Rs. 2001/-to Rs. 5000/-as '3', etc.); thus, the mean absolute value (e.g. mean monthly income level 1.07, 0.79) signifies the average level of those categories, which are used only in a comparative sense to explain either lower or higher level. It can be seen that variables like family possession and year of schooling of the respondent have a significant difference between the mean value of socio-economic status of the elderly living in old-age homes and outside the old-age home. Thus, most of the residents of old-age homes are capable to bare the expenditure as they are mostly from privileged family setup and willingly chosen to stay in old-age homes. Otherwise, there is no marked difference

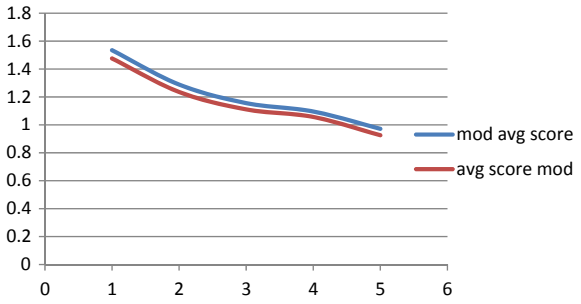

Fig. 9.5 Pattern of HUI from HUI mark-3 and PCA combined score for the sleeping attribute. *Source* Computed and drawn by authors from individual-level records of primary survey

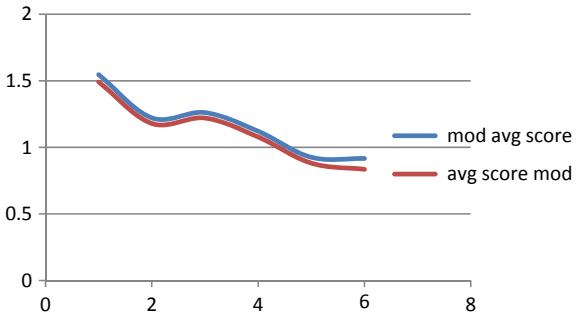

Fig. 9.6 Pattern of HUI from HUI mark-3 and PCA combined score for cognition attribute. *Source* Computed and drawn by authors from individual-level records of primary survey

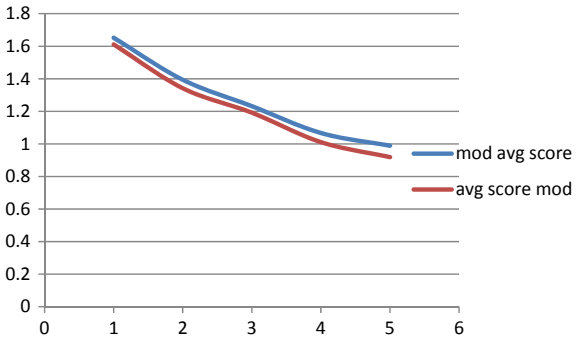

Fig. 9.7 Pattern of HUI from HUI mark-3 and PCA combined score for pain and discomfort attribute. *Source* Computed and drawn by authors from individual-level records of primary survey

Table 9.2 Difference in socio-economic status of the elderly living in old-age homes and outside the old-age home

Variables	Mean value inside the old-age homes	Mean value outside the old-age homes	t-stat
Income	1.07	0.79	0.89
Occupation	1.02	1.08	−0.22
Type of family	1.27	1.26	0.31
No. of children	1.21	1.29	−1.72
Marital status	1.16	0.73	1.89
Family possession	1.15	0.53	2.38**
Alone in own house	1.26	1.04	1.03
Current earning member	1.28	1.27	0.28
Present asset	1.24	0.83	1.07
Member in home now	1.19	1.24	−0.75
Year of schooling	1.30	1.23	2.57***
Education level	1.25	0.97	1.45
Cultivating land	1.24	1.24	0.32

Source Computed and drawn by authors from individual-level records of primary survey; ***1% level of significance, **5% level of significance, *10% level of significance

between the two samples of elderly people living inside and outside old-age homes in socio–economic status. Thus, the overall HUI from two different sets of data elderly people residing in old-age homes and outside the old-age home is justified for comparison.

9.7.2 Comparative Value of Overall HUI Among Elderly in Between Inside Old-Age Home and Outside Old-Age Home

There is a significant difference between inside and outside old-age home people mean value of overall HUI with respect to 'C-condition before' and 'C-family' in the Previous Situation (C) domain. With respect to 'D-others', 'D-financial', 'D-physical', and 'D-mental condition in the Present Health and Well-being (D) domain, there is a significant difference in the mean value of overall HUI in between the people inside and outside of old-age home. This implies the fact that there is a marked difference in the value of overall HUI in between the people inside and outside of old-age homes, even the two sets or sub-sections of data are more or less from the same population. Hence, the present analysis has got relevance particularly with respect to the identified factor domain of the elderly population in and around Kolkata, West Bengal. The next section is, thus, devoted to identifying the relatively important factors within identified relatively important domain like C-condition before, C-family, D-current status, D-financial, D-physical, and D-mental health that can influence the health and well-being (overall HUI) of the elderly population in Kolkata, West Bengal.

9.7.3 Relative Importance of Sub-grouped Factors in Explaining HUI of Elderly

This section has been devoted to understand and identify relatively important factors within identified relatively important sub-domains like C-condition before, C-family, D-current status, D-financial, D-physical, and D-mental health that can influence the health and well-being (overall HUI) of the elderly population in Kolkata, West Bengal.

Among elderly people staying inside or outside of the old-age home, there is a significant statistical difference with respect to the sub-domain family issues (C-Family), which includes variables like misbehaviour and problems with the asset, in explaining HUI in their present life. That means most of the elderly people who live with family setup faces some sort of differences in opinion with their other family members in their present life but elderly people who live in old-age home have

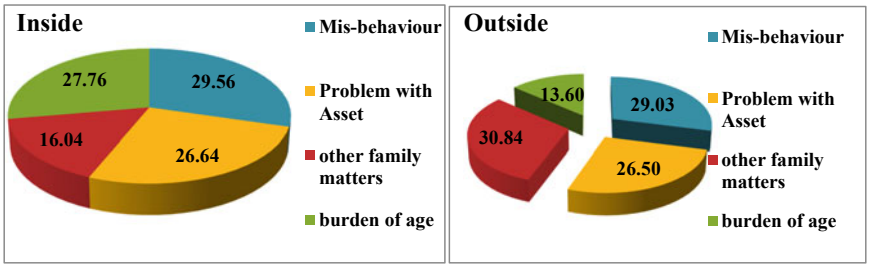

Fig. 9.8 Item-specific disaggregation of family-related issues (C-family) sub-domain for both inside and outside old-age home people. *Source* Computed and drawn by authors from individual-level records of primary survey

already gone through the extreme pain and they had to be separated from family (Fig. 9.8).

While considering the family issues in the previous situation (C-family) domain, 'misbehaviour' of the family gets the highest importance in explaining health and well-being (HUI) for the elderly people who live inside the old-age home. This is the main reason for which destiny put them to the old-age home at the end after putting so much effort to bloom up a family throughout life. Those who live with family also face different misbehaviours but this does not make them feel too hurtful. The factor 'problem with asset' is also a very important factor that can influence the family relations and hence ultimately made difference in HUI of elderly people staying inside or outside of the old-age home. Thus, the two most important factors in 'C-family' sub-domain, 'misbehaviour' and 'problem with asset', are identified as the key factors that can make difference in HUI between elderly people staying inside or outside of the old-age home (Figs. 9.9 and 9.10).

For the people who live inside the old-age home, the scope of 'problem sharing' has the highest contribution in explaining HUI in the sub-domain C-condition before-1. Those who live outside old-age home have to face more problems with 'ownership of asset or savings'.

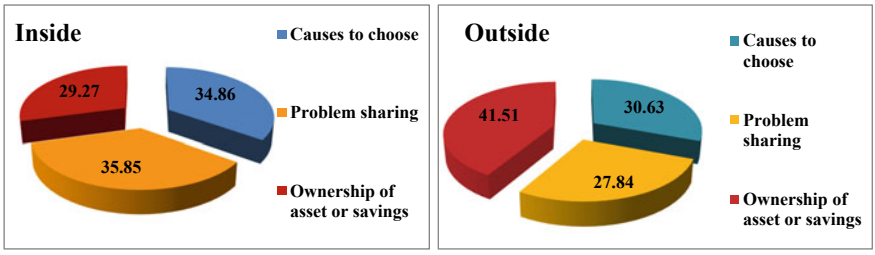

Fig. 9.9 Item-specific disaggregation of sub-domain C-condition before-I in explaining HUI for both inside and outside old-age home people. *Source* Computed and drawn by authors from individual-level records of primary survey

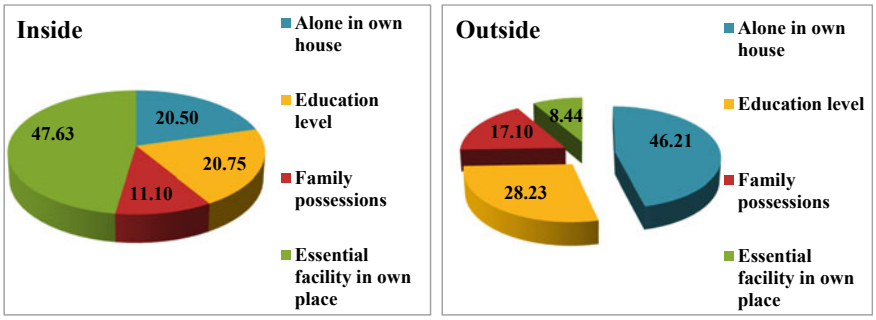

Fig. 9.10 Item-specific disaggregation of sub-domain C-condition before-II in explaining HUI for both inside and outside old-age home people. *Source* Computed and drawn by authors from individual-level records of primary survey

The people who live inside the old-age home have higher access to their 'daily essential facility' rather than those who live outside old-age home, because elderly inside enjoy higher freedom to decide for themselves for their daily need as they live away from family. But people who live outside old-age home feel more 'alone in own house' because other family members are in the busy schedule of the family. Thus, in nutshell with respect to sub-domain 'C-condition before' factors like 'problem sharing', 'ownership of asset or savings', 'daily essential facility', and 'alone in own house' are identified as key factors that can make differences in health and well-being (HUI) between elderly people staying inside or outside of the old-age home.

In considering the factors among the domain present health and well-being (D), it has been shown that for those who do not live in old-age home, the factor Others (which includes variables like social participation, sympathy, thinking about future, stay willingly with family, etc.) gets the highest importance and all other factors have the more or less same importance in explaining overall HUI among elderly in between inside old-age home and outside old-age home (Fig. 9.11).

From the comparative analysis of overall HUI among elderly in between inside old-age home and outside old-age home (Table 9.3), it has been observed that with respect to D-other, D-financial, D-physical, and D-mental health condition in the Present Health and Well-being (D) domain, there is a significant difference in the mean value of overall HUI in between the people inside and outside of old-age home. Now, the further disaggregation of identified sub-domains of the Present Health and Well-being (D) factor domain has been done in order to identify the relatively important factors that can influence the HUI of elderly staying inside or outside of the old-age home (Fig. 9.12).

For elderly people who stay at old-age homes, the 'social interaction', 'happiness', and 'satisfaction' with a combination of 'frustration' defines their mental health in their present life. For the people who live outside old-age homes, 'standard of living before' of their earlier age has higher importance than the people who live inside old-age homes. Feeling lonely and frustrated has the lowest importance for those who stay with their family as the homely feeling and family support make them

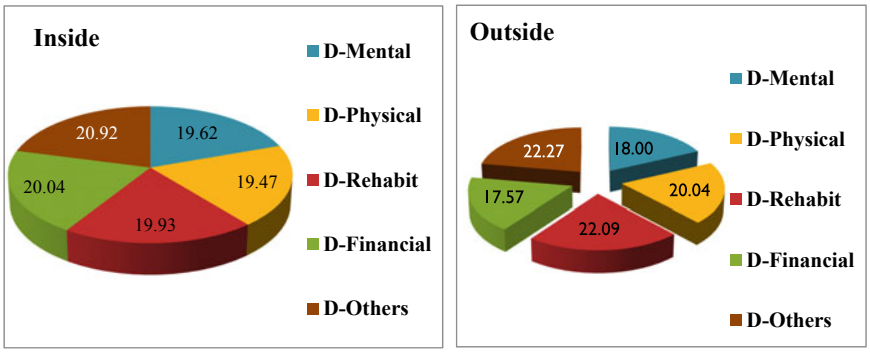

Fig. 9.11 Relative importance of sub-domain of present health and well-being status (D) domain in explaining HUI for both elderly inside and outside old-age home. *Source* Computed and drawn by authors from individual-level records of primary survey

Table 9.3 Difference in the mean value of overall HUI for the elderly people residing in old-age homes and outside old-age homes on the basis of a broad category of related variables

Variable	Mean HUI in old-age homes	Mean HUI outside old-age homes	t-stat
SES variable	21.54	23.55	−0.72
D-mental	8.82	7.40	1.89*
D-physical	22.82	16.08	2.00**
D-rehabit	11.77	11.98	−0.14
D-financial	19.12	16.18	1.89*
D-current status	11.95	11.66	0.16
D-others	10.78	9.61	2.79***
C-family	12.55	15.33	−1.89*
C-condition before	19.36	21.58	1.94*
C-personal	8.94	9.05	−0.92
C-others	19.36	21.58	−0.57

Source Computed and drawn by authors from individual-level records of primary survey; ***1% level of significance, **5% level of significance, *10% level of significance

much happier and satisfied. Thus, among all factors of 'Mental Health' sub-domain, 'standard of living before', 'social interaction', 'happiness', and 'frustration' are identified as relatively important factors that can make differences in the overall HUI of elderly from both inside and outside old-age home (Fig. 9.13).

For the people who live inside the old-age home, 'social participation' in gathering contributes highest because they have to organize social participation by themselves or by the authority. But for the people who live with their families, participation in a social gathering is a part of their daily life. Thus, 'social participation' factor in

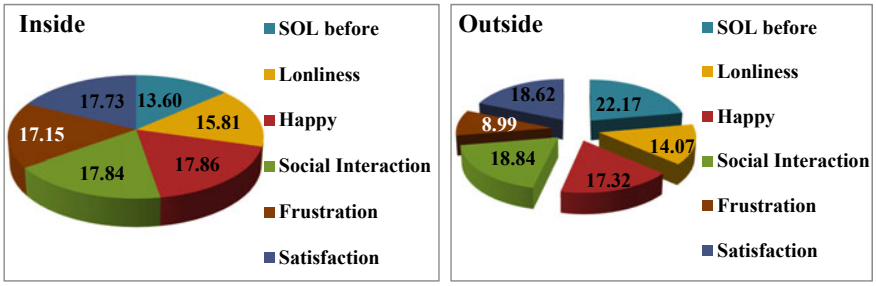

Fig. 9.12 Item-specific disaggregation of mental condition in present health and well-being status (D) domain for both inside and outside old-age home people. *Source* Computed and drawn by authors from individual-level records of primary survey

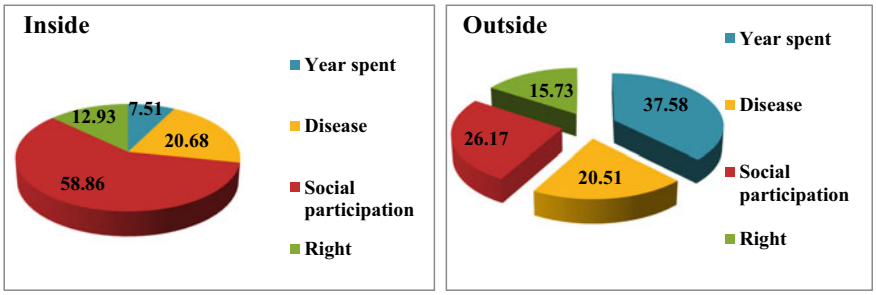

Fig. 9.13 Item-specific disaggregation of 'Physical condition' sub-domain in present health and well-being status (D) domain for both inside and outside old-age home elderly. *Source* Computed and drawn by authors from individual-level records of primary survey

'Physical condition' sub-domain is the key factor that can make differences in the overall HUI of elderly from both inside and outside old-age home (Fig. 9.14).

Among all the factors in 'Financial condition' sub-domain, factor 'Pay bill' indicating the financial burden that has to be borne by the elderly has the highest importance in explaining the overall HUI of elderly in both inside and outside old-age home. 'Medical need' is much high for the people who live inside old-age home than those who live outside old-age home. People living inside old-age homes get much less flexibility to visit the doctors more often. Hence, factors like 'Pay Bill' and 'Medical need' take the important contribution in influencing HUI of elderly from both inside and outside old-age home (Fig. 9.15).

For both inside and outside old-age home, elderly have chosen their living destination willingly as 'stay willingly', according to their opinion. Variables like 'Regular need' and relation with co-mates or friends in 'Other condition' sub-domain have also shown much higher priority to the elderly people living both outside and inside. Thereby, 'stay willingly', 'Regular need', and 'relation with' are the most important factors in 'Other condition' sub-domain in Present Health and Well-being status (D) domain for both inside and outside old-age home elderly in explaining overall HUI.

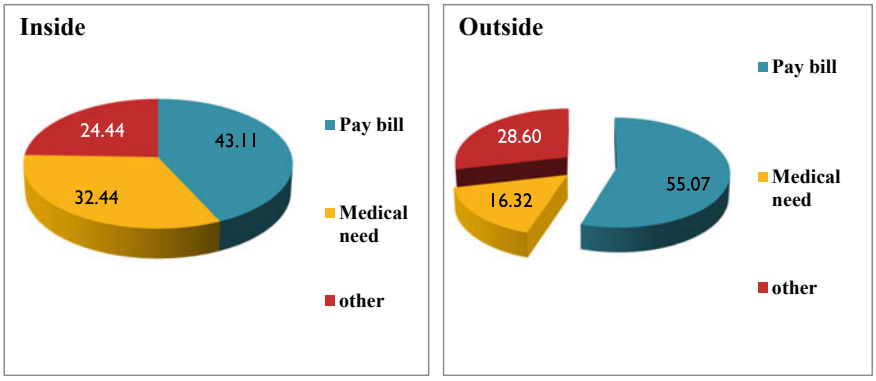

Fig. 9.14 Item-specific disaggregation of 'Financial condition' sub-domain in Present Health and Well-being status (D) domain for both inside and outside old-age home elderly. *Source* Computed and drawn by authors from individual-level records of primary survey

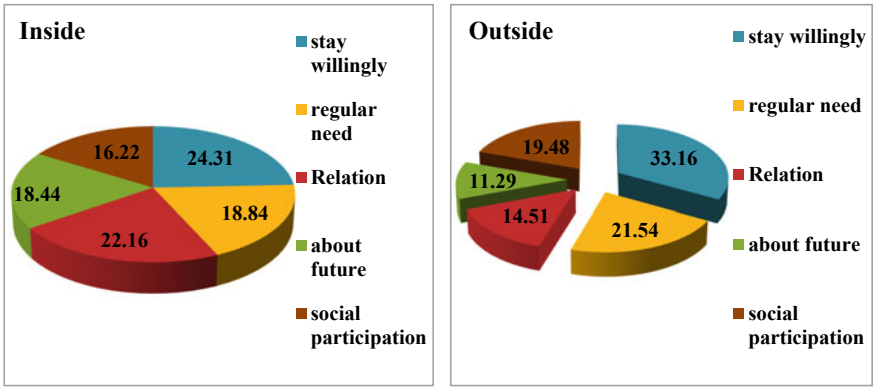

Fig. 9.15 Item-specific disaggregation of 'Other condition' sub-domain in Present Health and well-being status (D) domain for both inside and outside old-age home elderly. *Source* Computed and drawn by authors from individual-level records of primary survey

Among all factor domains in explaining HUI of Elderly, family SES is the most important domain with even insignificant difference among inside and outside old-age home elderly (Fig. 9.16).

For both old-age people living inside and outside, 'SES Condition' has the highest importance to explain the overall HUI in their present life. This is quite natural as the present life of the elderly is sufficiently influenced by the conditions of the previous life in most of the cases. The further disaggregation of 'SES Condition' domain for both inside and outside old-age home people be helpful in identifying the most important factor among 'SES Condition' of the previous life (Fig. 9.17).

In the end, factor 'loneliness' dominates all the feelings and socio-economic conditions of the elderly due to the loss of spouse, busy schedule of other family

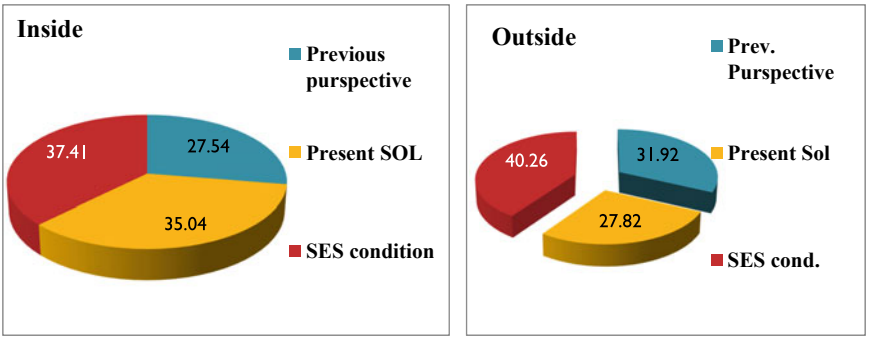

Fig. 9.16 Relative importance of sub-groped Factors in explaining HUI of Elderly for different domains for both inside and outside old-age home people. *Source* Computed and drawn by authors from individual-level records of primary survey

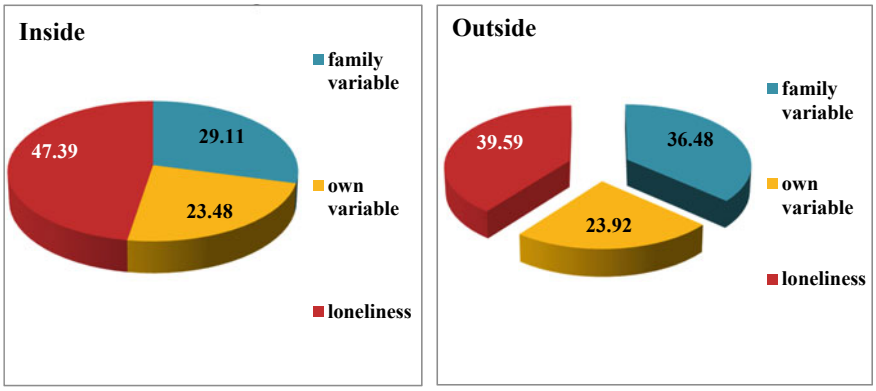

Fig. 9.17 Item-specific disaggregation of socio-economic condition domain for both inside and outside old-age home people. *Source* Computed and drawn by authors from individual-level records of primary survey

members, etc. The loneliness of the elderly people living inside old-age homes broadly comes from the realization of distance created by family and younger generation. For every elderly people, the family variable is much more important than their own factors. Thus, 'loneliness' is identified as the most important factor in 'SES condition' domain for both inside and outside old-age home elderly in explaining overall HUI.

Hence, the health and well-being of the elderly (HUI) among elderly living outside and inside old-age homes are extensively influenced by the factors like 'loneliness', 'frustration', 'stay willingly', 'misbehaviour' or 'abuse', 'problem sharing' or 'social isolation', 'problem with asset' or 'ownership of asset or savings', 'essential facility', 'social interaction', 'happiness', 'pay bill' or 'financial insecurity', and 'medical need'. Those variables are the key identified factors barrier in front of smooth survival

of elderly living outside and inside old-age home in and around Kolkata and West Bengal. Those relatively important factors have created insecurity in the present and future life of the elderly. Awareness and use of the offered social pension scheme by the government among older people are negligible particularly for rural old and female old (Fig. 9.3). More and more awareness and use of publicly provided social security measures like Rashtriya Swasthya Bima Yojna (RSBY) or the health insurance programme would significantly contribute to the health and well-being of the dependent elderly. Those variables would be the urgent policy variable to form a defined structure of social security measures for the improvement of the quality of life of the elderly.

9.7.4 Comparative Features Health and Well-Being During COVID-19 Pandemic Among Elderly in Between Inside and Outside Old-Age Home

In a normal situation, most of the vulnerable elderly suffer from long-prevailed poverty, deteriorating health, lack of familial support, neglect, social isolation, discrimination and abuse, and without any universal social security system. During the present unprecedented COVID-19 pandemic crisis, a large proportion of deaths have been reported among people aged 60 years and above, with co-morbidities such as cardiovascular, diabetes, hypertension, and respiratory diseases. Thus, the Health and Well-being (HUI) of the elderly have been seriously affected by fear of contracting infection, absence of help or paid service from others by the social distancing and other pandemic protocol, loss of job opportunity in pandemic lockdown, the disappearance of help from NGOs, and minimal practice of social pension. From Fig. 9.18, it has been observed that with the increase in age the overall HUI decreases but the absolute fall of HUI is more for elderly residing in old-age homes compared to elderly from outside. Thus, survivals of the elderly in old-age homes become more challenging particularly during the unprecedented COVID-19 pandemic crisis.

In order to provide a snapshot of the situation of the elderly in Kolkata, West Bengal, during COVID-19 lockdown and pandemic protocol, the present study analyses the perception and feeling of the elderly (40 from old-age home and 58 from outside old-age home) with respect to their health and well-being. The elderly with fatal co-morbidities and under-detection of symptoms are at a unique risk of vulnerabilities. All respondents reported that their standard of living has decreased during COVID-19 lockdown. At gross, 68% of the elderly expressed that they cannot access medication for their regular health condition (78% and 53%, respectively, from old-age home and outside old-age home) mainly due to changes in access to health services and due to non-affordability. Of these, 64% and 36%, respectively, from old-age home and outside, reported that their health condition has worsened during the lockdown. During COVID-19 lockdown and pandemic protocol, 74% elderly

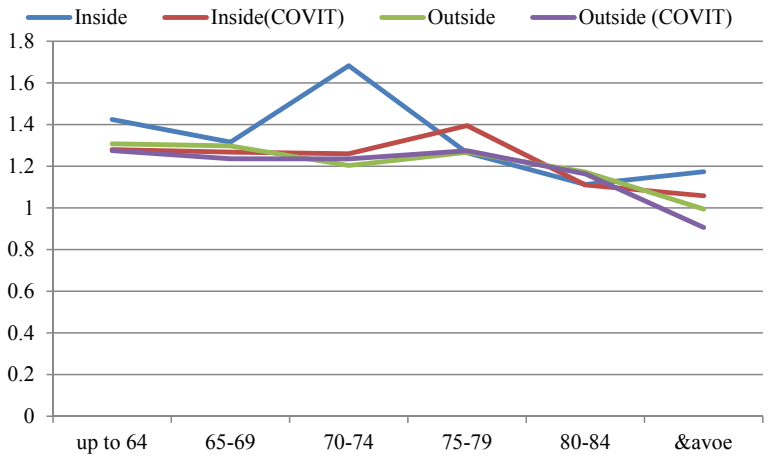

Fig. 9.18 Age-wise distribution of HUI before and during COVID-19 from both inside and outside old-age home. *Source* Computed and drawn by authors from individual-level records of ongoing primary survey

(88% and 61%, respectively, from old-age home and outside) have faced problems in getting difficulties in accessing prescribed food and supplements. In analysing the well-being of the elderly during and after COVID-19 lockdown, it has been observed that 85% of older people (96% and 73%, respectively, from old-age home and outside) are always worried and felt depressed as compared to before social distancing protocol of COVID-19 pandemic as most of them has been suffering from at least one co-morbidity and dependability on others with different forms of disabilities (Fig. 9.19).

Loneliness of 96% elderly (100% and 87%, respectively, from old-age home and outside) is the topmost reason for their depression and anxiety due to reduction in the mental relaxation process, reduction in physical activities, increase in negative news consumption during the social distancing protocol, and nonappearance of proper information. In expressing their perception by elderly (75%) regarding warning they faced from their care giver in old-age institution and elderly (48.7%) from closer one in the family in financial abuse and opportunities of necessary services mainly due to restricted movement (46%) and neglect (34%). During lockdown, 82% and 38% of elderly residing in old-age home and outside, respectively, have faced problems in receiving pension or remittance from family members which have created insecurities a lot among the elderly. Only in a few cases, some NGOs were doing an excellent job in addressing such problems but no such initiative from public authority has been shown except some Health Advisory for Elderly Population during COVID-19. During lockdown, 59% and 41% of elderly residing in old-age home and outside, respectively, have felt socially isolated and suffocating. Only 31% of elderly residing at home has been able to practice social distancing protocol imposed by the local govt. and 67% of elderly have reported that they have faced problems in frequent

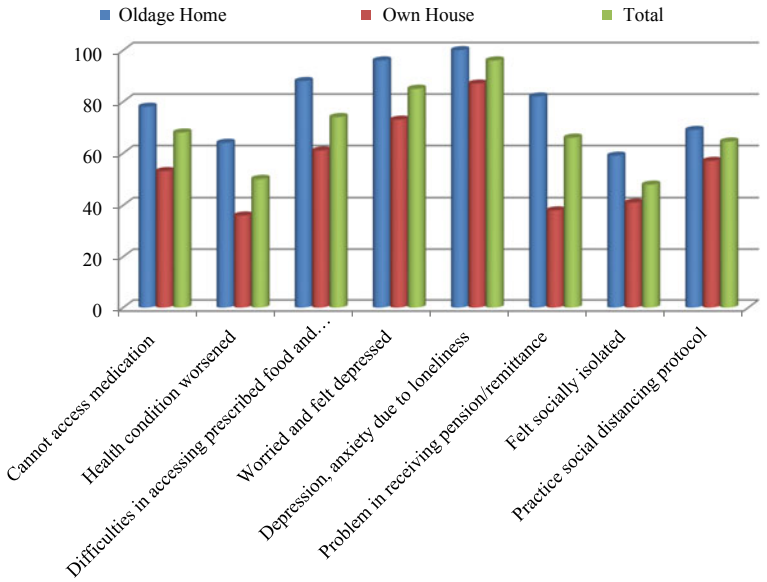

Fig. 9.19 Major problem faced by elderly during COVID-19 lockdown from both inside and outside old-age home. *Source* computed and drawn by author from individual level records of ongoing primary survey

hand washing. Due to restricted movement during lockdown, 64.5% of elderly (69% and 57%, respectively, from old-age home and outside) have expressed their dissatisfaction in wash facilities (when washing is not done by himself/herself) and daily maid services. Thus, direct support to the elderly is required on urgent basis as in COVID-19 pandemic outbreak, physical health, mental health, and well-being of the elderly have been affected a lot, and COVID-19 transmission among high-risk elderly population has increased many folds. Figure 9.20 has shown the major demand or

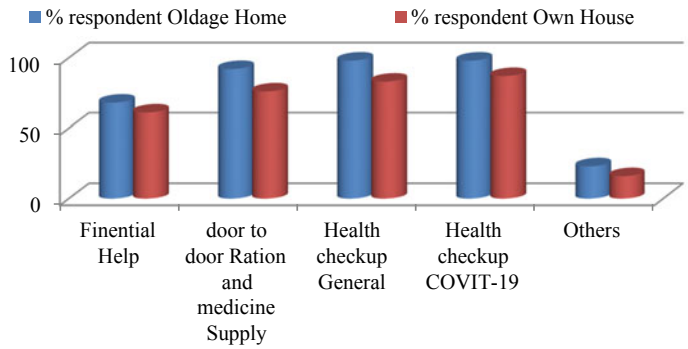

Fig. 9.20 Suggestion from elderly from both inside and outside old-age home. *Source* Computed and drawn by authors from individual-level records of ongoing primary survey

suggestion by the elderly in West Bengal to public authorities to make their life manageable.

9.8 Findings and Conclusions

The analysis of the status of health and well-being of the elderly and related survival challenges has shown that the life and the process of survival of elderly are, thus, very trivial due to the fragmentation of society in its value chain, consumerism, and self-centeredness. The elderly need respect, love, and affection from the family members instead they were considered as burden. The study reveals that asset and transfer of assets, relation with inmates and service providers, relation to son and or daughter, etc., previous SOL, etc., mental health, financial health, and loneliness are most important determinants of health and well-being of elderly residing in old-age home. Moreover, misbehaviour from near and relatives, age as burden, problem sharing, financial liberty to pay the bill, sympathy to them, and some rehabilitation and recreational items like hobby, social participation, and interaction are also valuable to the elderly who reside in old-age home. The situation is rather better for those older who are living in and with the families. To some extent they get a positive attitude towards old age. Most of the elderly people face some sort of loneliness which largely occupies the feelings of the elderly people. Although it can be thought that better social relations and sufficient social safety programme are needful love and affection from near and dear are of utmost importance.

The COVID-19 pandemic has made the life more painful not only due to deterioration of physical and mental health but also due to non-availability of minimum requirements to sustain life in both old-age home and outside by the social distancing protocol and with a high risk of COVID-19 contamination in presence of co-morbidity. The survival of the elderly has been seriously affected by fear of contracting infection, absence of help or paid service from others by the social distancing and other pandemic protocol, loss of job opportunity in pandemic lockdown, the disappearance of help from NGOs, and minimal practice of social pension. Thus, in a nutshell, the health and well-being of the elderly have been impacted a lot during the COVID-19 pandemic and the situation is worsening day by day. The direct support to the elderly through financial help/social remittances, door to door ration and medicine supply, general and COVID-19 health check-up, etc. are required on an urgent basis under public control as policy urgency. Otherwise, during the unprecedented COVID-19 pandemic outbreak, COVID-19 transmission among the high-risk elderly population will create a mess.

The variables that are identified as the main barriers in front of smooth survival of elderly living outside and inside old-age home in and around Kolkata and West Bengal have created insecurity in the present and future life of the elderly. More and more awareness and use of publicly provided social security measures or the health insurance programme would significantly contribute to the health and well-being of the dependent elderly. Those variables would be the urgent policy variable to form a

defined structure of social security measures for the improvement of the quality of life of the elderly.

The present study is not beyond the scope and limitation. Firstly, the study can be extended to any two complementary groups like rural–urban group, male–female group, poor–non-poor group, employed–unemployed parent group, etc. Secondly, due to the limited scope of the direct interview during the pandemic protocol, investigators and the study have suffered from the observational arguments. Furthermore, the representatives of the final sample are only older people who have access to and are able to communicate via the telephone.

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Chapter 10
Experience of Social Security for Unorganized Workers in West Bengal

Arghya Kusum Mukherjee

Introduction

Policies for social security are in vogue in several countries of the world since long. However, there are sharp differences regarding approaches to entitlement. The scope of entitlement might expand during the regime of a pro-poor political party and get smaller during the regime of a party favouring the rich. The extent of social security measures is determined by economic policies, political economy, and wealth of the country. Section 10.1.1 discusses the justification of social security measures, the progress of social security measures, the composition of the workforce, employment conditions for the unorganized workers, and social security measures adopted by the West Bengal Government. Section 10.1 discusses social security measures adopted by the Government of West Bengal and the Government of India. This paper shows that the employment conditions of the unorganized workers are worse in West Bengal than that in India. The Government of West Bengal took several social protection measures for unorganized workers. However, the number of actual beneficiaries of these programmes is very insignificant compared to eligible beneficiaries. The Government of India announced several relief packages during the COVID-19 pandemic situation. But, a tiny portion of those packages is for social security measures. The Government of West Bengal took several initiatives for returnee migrant workers during the COVID-19 pandemic. However, state action was not sufficient to keep migrant workers in their natives, and again they have started to migrate.

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10.1 Social Security Initiatives

10.1.1 Justifications for Social Security Initiatives

Underlying reasons for adopting social security measures can be categorized as follows: (a) welfarist approach, (b) public good approach, and (c) right-based approach. These approaches differ in the understanding of the causes of poverty. If causes of poverty differ, then authorities to address poverty will also vary. It might be individuals, markets, or states. Neoliberals make individual traits like illiteracy, ill-health, etc. responsible for poverty and deprivation. However, poverty depends on several systematic factors like unequal distribution of wealth, political economy of the country, etc. Neoliberals think that the state does not have any responsibility for the protection or promotion of individuals from poverty. Therefore, individuals are solely responsible for their own promotion and protection from poverty. 'Welfarist' approach entrusts voluntary organizations or philanthropist non-state actors for addressing the problems of poverty and deprivation (Foucault, 1991).

However, there are several factors, which determine poverty is beyond the control of common people. Right-based approach entrusts the state to address the problem of deprivation, and non-state agency can play a complementary role. Poverty and deprivation are characteristics of specific groups identified by caste, creed, gender, etc. Age-old social relation of power has created these identities. These identities are being reproduced by the ongoing political economy. The state must act for the empowerment and right of this subordinate group (Sen, 1997).

Social security as a public good is more concerned with the justification of action rather than cause. One cause might be future higher growth. Government can take universal health schemes to enhance future growth prospects. Another reason might be governmentality, i.e. politically pacifying the disgruntled section of the citizen, or motivating the citizens. Except the 'welfarist' approach, the other two approaches advocate for entitlement (Sen & Rajsekhar, 2012). However, right is superior to entitlement. Entitlement can be done away at any time, but right is intrinsic. Rights might emerge from basic social agreements like the constitution. If social protection policy is derived from the constitutional mandate, then beneficiaries can demand prompt actions and better accountability. Two examples of right-based social security measures are (a) Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and (b) Food Security Act. Social protection policies were designed to reduce the vulnerability arising from idiosyncratic risks like ill-health, sickness, disability, job loss, etc. With the introduction of 'New Economic Policy' in 1991, employment is being informalized in the organized sector also. Social protection policy became an integral part of economic policy since the 1990s.

10.1.2 Progression of Social Protection Policies in India

Like many other parts of the world, social protection was introduced for workers of the organized sector after the independence of the country. In the parliamentary election of 1971, Indira Gandhi, the prime ministerial candidate of 'Indian National Congress' raised the slogan of 'Garibi Hatao', i.e. abolition of poverty. The fifth five-year plan (1974–78) put emphasis on poverty elimination and employment generation. National Rural Employment Guarantee Programme (NREGP) was launched in 1980 to expand the employment opportunities in rural areas. Another promotional social security measure Integrated Rural Development Programme (IRDP) was implemented during the 1980s. The aim of this programme was to ameliorate poverty through asset creation and self-employment generation. These promotional measures along with Public Distribution System (PDS), a protective social security measure, have a noticeable impact on poverty. National Literacy Mission was set up in 1988. The aim of this programme was to impart functional literacy to the illiterate.

The Government of India adopted the 'New Economic Policy' in 1991. The integral part of this policy was liberalization, privatization, and globalization. There was a significant reduction in the budgetary allocation for social protection schemes. However, coalition politics gained momentum since 1989. Regional political parties' sway in 'Central Government' increased significantly during the 1990s. In the shake of electoral politics, budgetary allocation increased for social protection measures in the mid 1990s.

Mazdoor Kishan Shakti Sangathan (MKSS), a non-government organization (NGO) working for the rights of workers, started the campaign at the grass-root level for the right to information in 1994. MKSS demands information regarding development work in Rajasthan. The right to information movement forced the Rajasthan government to enact the 'Right to Information Act' (RTI) in 2002. In 2005, RTI Act was passed in the Parliament of India. Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) was passed in 2005. In this act, there is a mandate of 100 days employment for every rural household in each financial year. The National Food Security Act (NFSA) was passed in the Parliament of India in 2013. The aim of this act was to provide subsidized food grains to the lion share of the population. Therefore, the trajectory of social security measures changed from philanthropy to constitutionally guaranteed rights in the post-independent India.

10.1.3 Composition of Workforce in India

Terms 'organized' (unorganized) and 'formal' (informal) are often used synonymously. However, the term 'formal' refers to enterprises and 'organized' refers to workers. In the Indian context, NCEUS defined informality as follows: The informal sector consists of all unincorporated private enterprises owned by individuals or households engaged in the same and production of goods and services operated on a

Table 10.1 Percentage distribution of workers between formal and informal sectors

Year	Informal sector	Formal sector	Total
1999–2000	86.2(341.69)	13.8(54.7)	100(396.39)
2004–05	86.3(394.8)	13.7(62.67)	100(457.47)
2009–10	84.2(387.67)	15.8(72.75)	100(460.42)

Figures in parentheses are the absolute numbers in millions
Sources NCEUS (2009)

proprietary or partnership basis and with less than 10 workers (Kannan, 2014). This definition shows that there is no institutional protection for these units. Any shock whether it is idiosyncratic or covariate will be borne by the owners themselves. Therefore, informal sector consists of all small economic units including manufacturing units. Table 10.1 shows the percentage distribution of workers between formal and informal sectors.

The National Commission for Enterprises in the Unorganized Sector (NECUS) brought out a report in 2007. The commission estimated 457.47 million workers in the Indian economy in 2004–05. It comprises both principal and subsidiary workers. Among these workers, 394.8 million are unorganized workers. 64% of these labourers are engaged in agriculture and the remaining labourers are in non-agricultural sector. Most of the workers in the agricultural sector are self-employed or casual workers. Between 1999–2000 and 2004–05, 7.9 million employments were created in the formal sector without any secured job contract. This is known as the informalization of the formal sector (Sen & Rajsekhar, 2012).

'Organized' labourers are unionized, and they cannot be fired easily. Their wages are determined by collective bargaining and are protected by the social security measures endorsed by the labour laws of the country. NCEUS (2007) has clearly defined the term unorganized workers as those who are working in the informal sector or households, excluding those with a regular wage and social security benefits provided by the employer and working in the formal sector without any job security and social security benefits from the employer. It implies unorganized workers exist in both formal and informal sectors. In the post-liberalization period, the existence of unorganized workers is common in formal enterprises as well. Informal sectors also have organized workers, but their number is very low. Percentage distribution of workers as organized workers and unorganized workers is given in the following Table 10.2.

In the formal sector, about half of the employees are unorganized workers. Therefore, taking together all the employees of both formal and informal enterprises, the share of unorganized workers in the total workforce decreased from 93.6% in 1999–2000 to 91.2% in 2009–10. Among total workers in the country, the share of unorganized workers increased to 92.4% in 2011–12. However, that share decreased to 90.7% in 2017–18, i.e. share of organized workers increased marginally to 9.3% in 2017–18. Therefore, around 9% of employees are organized workers who enjoy secured tenure of employment and protection against contingent risks.

Table 10.2 Percentage distribution of workers as organized workers and unorganized workers

Year	Unorganized workers	Organized workers	Total
1999–2000	93.6	6.4	100
2004–05	93.1	6.9	100
2009–10	91.2	8.8	100
2011–12	92.4	7.6	100
2017–18	90.7	9.3	100

Sources NCEUS (2009); computed from NSS 68th unit-level data on employment and unemployment, 2011–12; Labour Force Survey, 2017–18

10.1.4 Features of Enterprises in West Bengal

From 1999–2000 to 2014, the share of West Bengal in the number of factories in the organized sector in India has decreased from 4.84 to 3.95%. Share of this State in the total number of workers engaged in the organized sector in India decreased from 9.69% in 1990–91 to 4.69% in 2014–15. The following table shows different features of unorganized enterprises (Table 10.3).

West Bengal has almost 14% of all unorganized non-agricultural enterprises of the country and 12.8% of the total workers of all unorganized non-agricultural enterprises of the country in 2015–16. Per worker annual gross value added (GVA) for all unorganized non-agricultural enterprises was Rs. 63,299 in West Bengal (Ray & Bhattacharya, 2017).

Khasnabis (2008) said that most of the manufacturing units of Wet Bengal were in unorganized sectors, and the share of the manufacturing units in Gross State Domestic Product (GSDP) decreased but the share in employment increased. The size of these enterprises is small. In the unorganized trading sector, West Bengal has a 9.81% share of the total number of enterprises and an 8.46% share of total employment of the country in 2015–16. These figures were 11.75% and 9.09%, respectively, in the same year for the sector 'services other than trading'. In West Bengal, 'Trading'

Table 10.3 Unorganized non-agricultural enterprises (excluding construction) in 2015–16: West Bengal

	West Bengal's share in total enterprise (%) of the country	West Bengal's share in total workers (%) of the country	Annual GVA per enterprise (INR) in West Bengal	Annual GVA per worker (INR) in West Bengal
Manufacturing	21.25	19.3	67,055	40,258
Trading	9.81	8.46	137,340	94,712
Other services	11.75	9.09	109,914	80,775
All	13.99	12.18	96,686	63,299

Source NSSO 'Key Indicators of Unincorporated Non-Agricultural Enterprises (Excluding Construction) in India, 2015'

and 'services other than trading' in unorganized sector have GVAs per worker Rs. 1,37,340 and Rs. 1,09,914, respectively, which are far below the national averages. It implies sizes of enterprises are tiny in West Bengal (Ray & Bhattacharya, 2017). These segments of unorganized sectors are not homogeneous in nature. It comprises of 'own account enterprise (OAE)' and 'establishment'. OAE does not hire any worker on a fairly regular basis.

10.1.5 Employment Conditions in Informal Sector of India and West Bengal

Organized workers enjoy several social security benefits like maternity leave, retirement benefits, health insurance, compensation for work-related accident, etc. These benefits have been derived from the Directive Principle of State Policy. The cost of these social security benefits is borne by both employers and employees or solely by the employer. However, a tiny portion of the Indian labour is organized in nature. The relative share of the formal sector is gradually shrinking aftermath of globalization. The contract work system is prevalent in different industries.

NSO conducted a survey to know about the employment conditions of the employees (regular wage/salaried employees and casual labours) of the informal sector engaged in non-agriculture and AGEGC[1] sectors. This survey collected information on three aspects: (a) whether there is any written job contract; (b) whether employees get paid leave; and (c) whether employees are entitled to get social security benefits. In 2017–18, 71.1% of the employees of India who are regular wage/salaried employees in non-agriculture sector had no written job contract. Among them, 72.3% are male employees and 66.8% are female employees. The proportion of regular wage/salaried employees without any written job contract in India increased by 5.6 from 2004–05 (NSS 61st) to 2011–12 (NSS 68th). It increased further by 6.4% from 2011–12 to 2017–18. Table 10.4 shows the percentage of employees having no job contract, not eligible for paid leave, and without any social security benefits.

In 2017–18, 54.2% of the regular wage and salaried employees of India in the non-agriculture sector were not eligible for paid leave. 55.2% of male employees and 50.4% of female employees of this sector were not eligible for paid leave. The proportion of regular wage/salaried employees who were not eligible for paid leave increased by 3.8% (from 46.2 to 50%) in India from 2004–05 (NSS 61st) to 2011–12 (NSS 68th) and increased by a further 4.2% from 2011–12 to 2017–18.

In 2017–18, 49.6% of the regular wage and salaried employees of India in the non-agriculture sector were not eligible for any social security benefits. Among them, 49% are male employees and 51.8% are female employees. The proportion of regular wage/salaried employees who did not get any social security benefit increased by

[1] The industry groups/divisions 014, 016, 017, 02, and 03 are in the [AG]ricultural sector [E]xcluding [G]rowing of [C]rops, plant propagation, and combined production of crops and animals without a specialized production of crops or animals (referred to as AGEGC activities).

Table 10.4 Percentage of regular wage/salaried employees in usual status (ps + ss) in the non-agriculture sector without written job contract, not eligible for paid leave, and without any social security benefit* for industry (05–99)

	With no written job contract			Not eligible for paid leave			Without any social security benefit*			Not eligible for paid leave, without written job contract, and without any SSB*		
	Person	Male	Female	Person	Male	Female	Person	Male	Female	Person	Male	Female
West Bengal	62.8	64.2	58.2	50.4	50.6	58.2	59.2	58.1	49.7	41.7	41.4	42.7
India	71.1	72.3	66.8	54.2	55.2	50.4	49.6	49	51.8	38.0	38.8	35

Source Periodic Labour Force Survey (PLFS), 2017–18

SSB: social security benefit; For the purpose of the survey, the social security benefits considered were PF/pension, gratuity, health care, and maternity benefit

0.9% (from 54.5 to 55.4%) in India from 2004–05 (NSS 61st) to 2011–12 (NSS 68th) and increased by a further 4.2% from 2011–12 to 2017–18.

In 2017–18, 38% of the regular wage and salaried employees of India in the non-agriculture sector did not have any written job contract, were not eligible for paid leave, and had no social security benefits. 38.8% male employees of this category and 35% female employees of this category do not have any of these three benefits.

In 2017–18, 62.8% of the regular wage and salaried employees in the non-agriculture sector of West Bengal did not have any written job contract. Among them, 64.2% are male and 58.2% are female. 50.2% of these workers are not eligible for paid leave. Among them, female workers are more deprived. 59.2% of employees of this category in West Bengal were not protected by any social security measure. 58.1% male employees and 49.7% female employees of this sector did not get any social security benefits. In 2017–18, 41.7% of the regular wage and salaried employees in non-agriculture sector of West Bengal were not eligible for paid leave, having no job contract and social security benefits. 41.4% male employees and 42.7 female employees of this category did not get any one of these three benefits. Therefore, from the above table, we can see that social security benefits for the workers in West Bengal are worse compared to all India averages.

10.1.6 Social Security Initiatives by the Government of West Bengal

The degree of association among 'informal status of employment' and poverty and vulnerability is very high. To ameliorate the hardship of unorganized workers, NCEUS advocated three tire protection policies: (a) universalization of education and health facilities funded from the state exchequer; (b) Basic Social Security Schemes (BSS) like MGNREGA, PDS, etc.; and (c) Contingent Social Security (CSS) Schemes to meet contingencies like sickness, old age, disabilities, etc. NCEUS also recommended a National Minimum Social Security (NMSS) for all unorganized workers. NMSS had three major covers: (a) sickness, the maternity of spouse or self; (b) insurance against death or accident of registered workers; and (c) old-age pensions. With a substantial curtailment of these benefits, the Government of India passed Unorganized Workers Social Security Act, 2008. Two major important clauses of this act are (a) health insurance scheme for BPL households and (b) life insurance scheme for rural landless households. In the context of West Bengal, we will discuss one BSS: MGNREGA a and some CSS.

10.1.6.1 Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

MGNREGA is a right-based social security measure. This programme was notified in 2005 and rolled out in three phases in the country. In 2020, the MGNREGA is being implemented across 696 districts of the country. In MGNREGA, there is a mandate for at least one hundred days of employment for all rural households in public works programme at statutory minimum wage in each financial year. Beneficiaries of this scheme self select themselves. People willing for unskilled manual work under MGNREGA have to apply for registration in the concerned local bodies like 'Gram Panchayats (GP)'. 'Gram Panchayat' will issue a job card to the households verifying the age and place of residence of the applicants. Job card is a prerequisite for getting employment in MGNREGA. Some special features of MGNREGA are as follows: (a) at least 33% participation of women, (b) equal wage for men and women, and (c) crèches for the children of women workers. These clauses might reduce gender discrimination in the rural labour market. In India, women person days out of the total were 52.54% and 54.72%, respectively, in 2020–21 and 2019–20. From the beginning of this programme, SC/ST communities have participated overwhelmingly. SC person days as a percentage of total person days are 20.53% in 2020–21. ST person days as a percentage of total person days are 17.85% in 2020–21. The following table shows the performance of MGNREGA in West Bengal (Table 10.5).

Table 10.5 Performance of MGNREGA in West Bengal

	2019–20	2018–19	2017–18	2016–17
Person days generated (in lakhs)	2723.19	3382.53	3125.55	2354.58
SC person days % as of total person days	29.42	31.36	31.12	30.45
ST person days % as of total person days	9.18	8.4	8.46	8.49
Women person days out of total (%)	47.86	48.12	47.59	46.52
Average days of employment provided per household	49.89	77.03	59.63	40.43
Average wage rate per day per person (Rs.)	178.62	174.5	170.66	171.25
Total No. of HHs completed 100 days of wage employment	3,65,799	13,36,873	5,57,643	1,99,465
Total households worked (in lakhs)	54.58	43.91	52.41	58.23
Total individuals worked (in lakhs)	79.69	74.42	81.01	85.29
Differently abled persons worked	66,098	61,458	75,173	80,926
Total expenditure (in lakhs)	7,49,953.48	8,05,557.57	8,02,445.88	7,27,362.59
Wages (Rs. in lakhs)	4,83,985.03	5,81,905.94	5,92,529.16	5,68,194.38
Payments generated within 15 days (%)	91.21	79.86	87.43	23.59

Source Government of India, Ministry of Rural Development (mnregaweb4.nic.in)

In West Bengal, from 2016–17 to 2019–20, the highest person days generated were 3382.53 lakhs in 2018–19 and the lowest person days were 2354.58 in 2016–17. During the same period, SC person days as a proportion of total person days was 31.36% in 2018–19. In 2019–20, it was 29.42%. However, during this period, ST person days as a proportion of total person days were not impressive. The highest figure was 9.12% in 2019–20. There is a mandate for 50% of women participation in MGNREGA. However, from 2016–17 to 2019–20, women person days as a proportion of total person days never emulate 50%. It was 48.12 % in 2018–19, the highest during this period. There is a provision of work for the differently abled persons in this programme. In 2016–17, 80,926 differently abled persons worked in this programme. In succeeding years, these numbers have been decreased.

The average days of employment provided per household were 77.03 days in 2018–19, the highest during this period. In 2019–20, households on average got 49.89 days of employment in 2019–20. In MNGREA, households should get at least a hundred days of employment. Therefore, in reality, households are receiving much less number days of work. This phenomenon in West Bengal is not very different from the rest of the country. It is not that rural households are not applying for jobs under MGNREGA. Rather, it is a supply-side problem. Central Government is unable to provide one hundred days of employment to all eligible households. In 2018–19, 13,36,873 households got one hundred days of employment in West Bengal. In the succeeding financial year, the number of households getting hundred days of employment reduced significantly. 58.23 lakh households worked under MGNREGA in 2016–17. In two succeeding years, the number of households working in MGNREGA decreased and then increased in 2019–20. In each year, the number of individuals working in MGNREGA is more than that of households. It implies more than one individual from some households have participated in the programme.

Wages in MGNREGA are paid according to the appropriate schedule of rate for different types of work for different rates. However, the above table shows the average wages per day per person in MGNREGA. After 2016–17, wages increased continuously except for a little fall in 2017–18. It was Rs. 178.62, the highest during this four-year period.

In 2018–19, the total expenditure incurred in West Bengal was Rs. 8,05,557.57 Lakhs. In the succeeding year, it becomes Rs. 7,49,953.48 Lakhs. There is a provision of 60:40 for wage and material costs in MGNREGA. It has to be maintained at the Gram Panchayat level. The amount of work is measured every day; however, payment is made fortnightly. Workers are receiving their wages directly to their bank accounts since 2009. In 2016–17, 23.65% of the payments were generated within 15 days. It is increased to 91.21% in 2019–20.

Reddy et al. (2010) and Drèze and Khera (2017) told that workfare like MGNREGA is an important constituent of social security measures for the vulnerables. MGNREGA played an exemplary role in reducing vulnerability. It is very common for the governments for opting workfare programmes to cushion the impact of macroeconomic and climatic shocks that tend to affect the poor disproportionately and in large numbers (Narayanan, 2020a).

10.1.6.2 Contingent Social Security Measures

Several social security laws have been enacted in India for the organized workers. Some social security laws have also been enacted by both Central and State governments for unorganized workers:

(a) Under the Building and other construction (Re and CS) Act, 1996, a scheme is for that segment of construction workers wherein there are provisions for pension, health, and life insurance.
(b) West Bengal Unorganized Sector Workers Welfare Act, 2007, was enacted for the entitlement of pension, health, education, and maternity benefits of unorganized workers. West Bengal Unorganized Sector Workers Welfare Board was created to look after welfare measures of the unorganized workers. This Board introduced two schemes for unorganized workers: (1) State-Assisted Scheme for Provident Fund for Unorganized Workers' (SASPFUW). It is claimed that the scheme is the first of its kind in the country. (2) West Bengal Unorganized Sector Workers Health Security Scheme.
(c) As per the recommendations of NCEUS, the Government of India enacted 'Unorganized Workers Social Security Act' in 2008. Under this act, State Government can provide PF, injury benefits, housing, education, etc. for unorganized workers. West Bengal Government introduced the 'Transport Workers Social Security Scheme' in 2010.

The Labour Department of the Government of West Bengal is implementing the following schemes:

(1) State-Assisted Scheme for Provident Fund for Unorganized Workers' (SASPFUW).
(2) West Bengal Unorganized Sector Workers Health Security Scheme.
(3) Social Security Scheme for construction workers.
(4) West Bengal Transport Workers Social Security Scheme.
(5) West Bengal Beedi Workers' Welfare Scheme.

We will discuss here the first three social security schemes.

(a) **State-Assisted Scheme for Provident Fund for Unorganized Workers (SASPFUW)**

The scheme was introduced in 2001. All wage employed and self-employed workers aged between 18–60 and having monthly income less than Rs. 6500 can be beneficiaries of this scheme. Each beneficiary has to contribute Rs. 25 per month in his account, and Government will contribute Rs. 30 each month against each worker's contribution. On the accumulated sum, West Bengal Government will pay interest annually. After completion of 60 years or in case of premature death, the worker or nominee of the worker will get a cumulative amount with interest earning. If a beneficiary does not contribute for three consecutive financial years, his account will be closed. The following Table 10.6 shows the progress of SASPFUW. A subscriber

is allowed to withdraw Rs. 1000 provided he contributed 48 months and his account having a minimum deposit worth of Rs. 3500.

The scheme started with the enrolment of 1,07,036 subscribers in 200–02. These subscribers contributed Rs. 2,202,340, and the matching contribution deposited by the State Government was Rs. 24,791,400. In 2002–03, the number of subscribers increased three times compared to last year; however, matching contributions from the State Government were not deposited. In 2003–04, the number of subscribers decreased significantly from 324,201 to 104,424. Next year, the number of subscribers declined further. No final payment was made during 2001–07. In 2013–14, 753,149 individuals joined the programme and contributed Rs. 812,184,540, the highest since the inception of the programme. The matching contribution from the government was also very high. In this year, final payment was made in 31,747 cases. Total Subscriber in this programme was 5,572,238 till 31st March 2016. During this entire period, the final payment was made in 151,272 cases, and in this regard, Rs. 47,71,23,103 was disbursed.

(b) **The West Bengal Unorganized Sector Workers Health Security Scheme**

Subscribers of SASPFUW who contributed their subscription regularly for the last two years are eligible to get the benefits of this scheme. Beneficiaries are entitled to get up to Rs. 10,000 per annum for hospitalization of not less than five days. The hospital must be a Government hospital. Claims for full costs of clinical examinations and medicines are admissible. Rs. 1000 for 1 to 5 days of hospitalization and an additional amount of Rs. 100 per day for remaining days of hospitalization will be provided as assistance for hospitalization. If the subscribers of this scheme are hospitalized more than once, then the claim will be acceptable, but total assistance capped at Rs. 10,000. A nominee of the subscriber will get Rs. 1,50,000 for the death of the subscriber due to accident and Rs. 50,000 for the natural death of the subscriber. All Assistant Commissioners of Labour in their respective jurisdictions are capable of discharging these claims (Table 10.7).

In 2011–12, only 24 cases were registered for medical assistance, and Rs. 1,02,659 was disbursed as medical assistance. No case was registered for financial assistance arising out of the natural or accidental death of the SASPFUW subscriber. In 2012–13, altogether 425 cases, comprising medical assistance and death benefits either natural or accidental, were registered, and money amounting to Rs. 1,71,03,409 was disbursed. In the succeeding years, the number of cases for medical assistance, natural death benefits, and accidental death increased significantly. Cumulative beneficiaries for all these three programmes become 13,934, and Government disbursed fund amounting to Rs. 696,310,134 up to 31st March 2016. However, we must remember that the total number of subscribers under SASPFU up to 31st March 2016 was 5,572,238, significantly higher than that of beneficiaries of the WBUS health security scheme.

Table 10.6 Year-wise progress under SASPFUW up to 31/03/2016

Financial year	Number of subscribers enrolled	Amount collected as subscription (INR)	Matching contribution deposited (INR)	No. of cases for final payment	Amount disbursed (INR)
2000–2001	0	0		No final payment was made from 2001 to 2007	
2001–2002	107,036	2,202,340	24,791,400		
2002–2003	324,201	49,358,920			
2003–2004	104,424	75,264,460	60,636,460		
2004–2005	72,340	88,958,640	109,499,660		
2005–2006	75,480	90,103,900	123,819,560		
2006–2007	159,774	111,364,960	108,591,840		
2007–2008	230,378	149,510,800	141,883,220	6226	12,713,729
2008–2009	306,195	167,961,200	153,781,870	9196	12,264,458
2009–2010	346,827	236,373,360	13,442,600	8511	18,893,859
2010–2011	641,914	286,548,660	284,524,090	13,111	32,917,635
2011–2012	585,284	437,054,980	399,910,000	20,361	51,905,008
2012–2013	742,937	480,668,495	473,690,000	14,119	40,680,137
2013–2014	753,149	823,514,335	860,000,000	31,747	98,490,735
2014–2015	642,099	812,184,540	1,182,689,930	19,159	80,562,600
2015–2016	480,200	1,059,276,410	1,240,600,010	28,842	128,694,942
Total	5,572,238	4,870,346,000	5,298,844,040	151,272	477,123,103

Source 'Labour in Wet Bengal 2015–16, Annual Report', Ministry of Labour, Government of West Bengal

Table 10.7 Year-wise report of WBUS health security scheme up to 2015–16

Financial year	Medical assistance		Natural death		Accidental death		Scheme total	
	No. of cases	Amount disbursed (INR)	No. of cases	Amount disbursed (INR)	No. of cases	Amount disbursed (INR)	No. of cases	Amount disbursed (INR)
2011–12	24	102,659					24	102,659
2012–13	141	703,409	262	13,100,000	22	3,300,000	425	17,103,409
2013–14	302	1,901,972	910	45,500,000	87	13,050,000	1299	60,451,972
2014–15	655	3,835,471	3530	176,500,000	291	43,650,000	4476	223,985,471
2015–16	982	5,866,623	6189	309,450,000	529	79,350,000	7710	394,666,623
Total	2114	12,410,134	10,891	544,550,000	929	139,350,000	13,934	696,310,134

Source 'Labour in Wet Bengal 2015–16, Annual Report', Ministry of Labour, Government of West Bengal

Table 10.8 Progress report of BOCWA (Up to March 2016)

Beneficiary enrolled	Cess collected (INR)	No. of benefits disbursed	Amount disbursed (INR)
2,850,490	1089,32, 31, 963	17,21,775	526,43,78,922

Source 'Labour in Wet Bengal 2015–16, Annual Report', Ministry of Labour, Government of West Bengal

(c) Social Security Scheme for Construction Workers

This scheme was introduced in 2006 and administered by the 'West Bengal Building and Other Construction Workers Welfare Board'. Any building or construction worker having age between 18 and 60 years and worked for at least 90 days in the last one year is eligible for enrolment in this scheme. The registration fee is Rs. 20 and the yearly subscription is Rs. 30. Building and construction works comprise construction, demolition, repair, and alteration works of building, road, railways, tramways, etc. In 2013, workers engaged in brick-kiln and stone crushing came into the purview of the 'Schemes of Construction Workers'. To augment the resources of 'West Bengal Building and Other Construction Workers Welfare Board', there is a provision in the scheme to collect cess at 1% of the total expenditure incurred by the employer. The benefits of this scheme for registered construction workers and their family members are given below.

Construction workers are more susceptible to accidents. Beneficiaries of this scheme are entitled to get INR10,000 for accident-related treatment and INR 50,000 for disablement. After the attainment of 60 years, beneficiaries get a pension worth Rs. 750 per month. After the death of the beneficiary, her family gets a pension amounting to Rs. 375 per month. Children of the beneficiaries got assistance for pursuing their education. Students of engineering and medical got assistance up to Rs. 30,000. Female workers get maternity benefits of Rs. 6,000 for childbirth or miscarriage. Workers can purchase tools and working dresses from the allotted fund of the scheme. Beneficiaries are entitled to get Rs. 10,000 for the birth of a girl child. They can also get housing loan up to Rs. 50,000 (Table 10.8).

Total beneficiaries crossed 2.8 million by 31st March 2016. Cess collected from the employer is more than Rs. 10 billion. The number of benefits disbursed more than 1.7 million, and the amount disbursed in this regard is more than Rs. 5 billion.

10.2 COVID-19 Pandemic and Social Security Measures Adopted by the Government

With the outbreak of COVID-19, country-wide lockdown was declared without giving a reasonable amount of time to move from one place to another. Labourers stranded in different parts of the country did not get necessities for endurance and

became impatient to go back to their native. The country witnessed millions of people were walking on the highways with their belongings, pregnant wife, small children, etc. It is really hard to fathom the miseries of the migrant labourers that they faced during the COVID-19 pandemic. The next section discusses the reasons behind lockdown and social protection measures taken by the Government of India and the Government of West Bengal.

10.2.1 Why Lockdown?

When the actions of one agent directly influence the environment of another agent, then we can say that there exists externality (Varian, 2000). Negative externality arises when the actions of one agent impose some costs on other agents (third party). In the presence of externality, prices do not reflect marginal social costs, i.e. opportunity costs of all factors of production are not taken into account. With the outbreak of the COVID-19 Pandemic, the Government of India announced 'Lockdown'. Lockdown means adherence to physical distancing and isolation. During 'Lockdown', normal physical movement and all economic activities are suspended. The underlying philosophy of lockdown is individuals will generally underemphasize the negative contagion that their actions impose on others (Ray & Subramanian, 2020).

10.2.2 Social Security Measures

Impact of COVID-19 pandemic varies between formal and informal sectors. 85% of the country's labour force is engaged in the informal sector, and most of them are migrant workers who lost their job due to lockdown. They do not have much wealth to deplete for meeting day-to-day expenditures. On the contrary, workers of the formal sector are accumulating savings. They are getting regular salaries whereas there are consumptions restrictions due to 'Lockdown'. Therefore, 'Lockdown' has enhanced inequality. At the beginning of the COVID-19 pandemic, it was assumed that country-wide suspension of transportation would confine the pandemic within the urban area of the country, and rural areas of the country would be free from the pandemic. Any social policy has two components: (a) carrot and (b) sticks. If it is thought that individuals are not behaving in a socially desirable way, then there must be some incentives in the form of carrots. Safety nets can be viewed as carrots for migrant workers (Ghatak, 2020).

10.2.2.1 Social Security Measures by the Government of India During COVID-19 Pandemic

Most of the workers of the country are engaged in the informal sector and lost their job during this lockdown period. Their savings are not adequate to meet their household needs. Therefore, lockdown should have a complementary relief package for the vulnerable.

COVID-19 Relief Package announced on 27th March 2020: The finance minister announced a relief package worth Rs. 1.7 trillion (Ray & Subramanian, 2020). This money will be disbursed under the following heads:

(a) Transfer of Rs.500 for three months to 200 million JDY female account holders.
(b) Households covered under PDS will get five kg of rice or wheat per person and one kg pulse per household.
(c) An increase in MGNREGA wages from Rs. 180 to Rs. 220.
(d) Transfer of Rs. 2000 to 87 million farmers' accounts under P.M Kisan Scheme.
(e) 86 million Ujjwala scheme beneficiaries will get free LPG cylinder for the next three months.
(f) A one-time grant of Rs. 1000 to poor senior citizens, widows, and disabled.
(g) Medical insurance worth Rs. 5 million for health workers serving COVID-19 patients.
(h) Female SHGs can borrow up to Rs. 2 million without any collateral.
(i) In this relief plan, there are provisions for the contribution of government for those whose per month earning is less than Rs. 15,000 and employed in a concern having less than 100 employees. These workers are allowed a non-refundable advance of 75% of provident fund or three months' wages, whichever is lower. State Government was directed to give relief to construction workers from the 'Construction Workers' Relief Fund'.

The second relief plan of the Government of India was announced on 12th May 2020. This plan envisages an expenditure of Rs. 20 trillion, 10 times higher than the expenditure of the previous plan. However, a tiny portion of this package will be spent for social protection purposes. These are as follows:

(a) Rs. 0.035 trillion for food grains of 80 million non-ration card holders migrant workers. These migrant workers will get 5 kg of wheat/rice per person and 1 kg chick-pea per family for 2 months. Some allowances for using ration cards anywhere in the country.
(b) Over and above the earlier budget estimate of MGNREGA of Rs. 0.61 trillion for fiscal 2021, an additional Rs. 0.4 trillion allocated for employment generation in MGNREGA. In this latter relief plan, it is declared that money for the migrants will be provided to State Government, District Collector, and Municipal Commissioner.

Almost entire fund for this package is to infuse liquidity in the economy or bailing out some industries.

Macro-Economic Implications

The problem started as supply-side constraint. Due to the pandemic, people are unable to go to work, and their income is decreasing. As income decreases, consumption decreases. Aggregate demand decreases through the multiplier process. The government has increased liquidity to revive the economy, but the problem lies in the supply-side constraints like the problem of transportation of labour and commodity both (Narayanan, 2020b). Therefore, to revive the economy, aggregate demand must be increased. Aggregate demand can be increased through the multiplier process if income is transferred to the poor people.

10.2.2.2 Social Security Initiative Amid COVID-19 Pandemic by the West Bengal Government

The Government of West Bengal first announced confirmed positive cases on 17th March 2020. Afterwards, the State Government has announced lockdown in the State. The government took several measures for physical inhibition like banning of non-essential social gatherings, closure of inter-state bus and train services, etc. West Bengal Government constituted an expert committee to get advice on strategies for isolation, quarantine, testing, health infrastructure, and disease prevention. West Bengal Government took some social protection measures for migrant labourers. This Government created 'West Bengal State Emergency Relief Fund' to garner funds for meeting the expenses related to the COVID-19 pandemic.

Most of the people in the State are employed in the informal sector, and they have faced job loss or wage cuts during the lockdown period. On 22nd March 2020, the State Government declared that people of the State would get free food grains and ration under PDS for the next six months. About nine crore people will be benefited from this scheme. In addition, households having children will get another two kilograms of rice under ICDS and Mid-Day Meal schemes. A scheme 'Prochesta' has been introduced for the workers of the informal sector of the State. Beneficiaries of this scheme will get Rs. 1000 as a one-time benefit. Another scheme 'Snehar Paras', of one-time assistance of Rs. 1000, was launched for stranded migrant workers migrating from West Bengal (Saha, 2020).

Wage employment programmes like MGNREGA can play a pivotal role in employment creation of returnee migrant workers. Since the end of March 2020, around six lakh people, most of which are migrant workers, applied for job cards in MGNREGA. A sizeable section of the migrant workers did not get employment in MGNREGA. Each of the 20 districts of West Bengal has more than 25,000 returnee migrant workers. However, West Bengal has not been included in 'Garib Kalyan Rojgar Abhiyaan (GKRA)', a livelihood programme for returnee migrant workers launched by Central Government. The scheme was launched with an initial funding of Rs. 50,000 crore. GKRA aims to provide 125 days of employment to returnee migrant workers in their native area. State Government has tried to launch a job portal for returnee migrant workers. An employment portal 'Vishwa Karma' was

launched for returnee migrant workers in the Purulia district. This portal has information regarding the skills, years of experience, contact numbers, etc. of 36,000 returnee migrant workers (Bhattacharya, 2020).

Migrant workers came back to their native villages putting their lives at menace. However, some of them started returning to those states where they worked earlier. Local administrations have not been able to create meaningful employment for migrant workers.

10.3 Conclusions

India has achieved impressive growth in the post-liberalization era, but the extent of inclusion of unorganized workers in social security programmes is very narrow. West Bengal is one of the best performing States in MGNREGA, a basic social security scheme. There is a mandate of hundred days of employment in the scheme. The scheme has provided 49.89 days of employment in the last financial year. The inclusion of unorganized workers is also very insignificant in different contingent social security schemes in West Bengal. It is an upheaval task for the government to provide social security benefits to the vast mass of unorganized workers. More concerted financial and administrative supports are required in this regard. Indian economy is characterized by informality, poverty, and inequality. A prolonged lockdown has enormous negative consequences for the well-being of unorganized workers. The government took some compensatory welfare measures to meet the immediate needs of the vulnerable population. But, the state-sponsored initiative is inadequate compared to the need of the older people, casual, and informal workers.

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Chapter 11
Backward Regions Grant Fund and Its Utilization: A Case Study in the District of Adilabad, Erstwhile Andhra Pradesh

Bishakha Ghosh and Archita Ghosh

11.1 Introduction

"Backward Regions Grant Fund (BRGF)" was an Indian government programme designed to "address regional imbalances in development." Launched in 2007 in Assam and covering 250 districts in 27 states, the programme aimed to eliminate regional imbalances, eradicate poverty in selected backward districts, and promote accountable and responsive municipal and Panchayat systems. The programme provided additional financial resources and converged a few of the then-existing developmental inflows into the identified backward districts. The announced objectives of the BRGF programme (Government of India, 2007) were to:

1. bridge the critical gaps in local infrastructure and other development requirements that the existing inflows failed to meet adequately;
2. strengthen the Panchayat- and Municipality-level governance by more appropriate capacity building by extending professional support to them for planning, implementation, and monitoring of their plans;
3. facilitate people's participation in planning, decision-making, implementation, and monitoring so that the local needs may be addressed;
4. improve the performance and delivery of critical functions assigned to Panchayats, and counter the possible efficiency and equity losses arising from inadequate local capacity.

Thus, three features of BRGF made it unique among the Union Government's initiatives to combat backwardness: First, the approach of putting the grassroots-level democratic organizations of the government, the Panchayats, and the Municipalities,

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at the center of planning and implementation; Second, BRGF was the most "untied" central fund—the Panchayat/Municipality might utilize the funds according to their preferences, as long as it filled a development gap, and the people participated in deciding the work to be taken up. Third, the BRGF programme spent the highest amount, nearly 11 percent of the total allocation, for capacity building and staff provisioning. The programme was completed in 2012. Thus, the government set a time frame of 5 years to fulfill the objectives.

The World Bank (2010) carried out the First Independent Review of the Backward Region Grant Fund, and the synthesis report was submitted on January 7, 2010. The report mentions that, during the first couple of years of implementation of the BRGF, several bottlenecks in its operations have been experienced, including under-utilization of funds, challenges in the local planning process, and challenges concerning the coverage and scope of the capacity-building support.

This paper attempts to assess this public programme through a case study at a district of Andhra Pradesh (now included in Telangana) carried out during 2018–19, after the programme's closure. Such an evaluation involves studies in two aspects—the allocation and the utilization of funds. Here, we principally address the issue of utilization: how the utilization of the fund at different levels helps to achieve the stated objectives of the programme, and also critically examine people's participation in planning, decision-making, implementation, and monitoring of the plans. However, utilization and allocation are interrelated, and thus, the issue of allocation also comes in the way.

11.1.1 Objectives of the Study

The objectives of our study are to:

1. Examine the issues of intra-Mandal/Gram Panchayat allocation;
2. Examine the extent and pattern of fund utilization in the study area;
3. Examine the extent of participation in the planning process at the grassroots level in the study area.

The rest of the paper is organized in the following way: Sect. 11.2 discusses the implementation of BRGF, Sect. 11.3 presents the case study, and Sect. 11.4 concludes.

11.2 Implementation of BRGF

11.2.1 Fund Allotment

The BRGF did not replace any existing programme but was given additionally to the backward districts to reduce regional imbalances. The untied Funds were broadly classified into Development Grants and Capacity Building Grants.

11.2.1.1 BRGF Development Grants

This untied fund was to bridge critical gaps in integrated development, identified through participatory planning. The development projects included drinking water, irrigation, soil and water conservation, connectivity, health, education, social sectors, electrification, and construction of administrative buildings.

11.2.1.2 BRGF Capacity Building Grants

Creating capacity for effective planning at the district and lower levels is a crucial prerequisite to participatory planning. Hence, the BRGF contained a specific component of Rs. 250 crore per year for the capacity building of Panchayati Raj Institutions. The National Capability Building Framework (NCBF) was developed. It would encompass training, handholding, and providing support to the elected representatives, functionaries, and other stakeholders of the Panchayats. The institutional arrangements, including infrastructure and software support, needed strengthening to improve the vigor of grassroots-level democracy. The states were to follow this framework.

11.2.1.3 Process of Fund Allocation

After identifying the districts, funds were allotted to the backward districts based on the total population and population composition. The rates were Rs. 27.15157985 per capita for general category and Rs. 68.5260504202 per capita for Scheduled Caste and Scheduled Tribe categories.

For each district, Gram Panchayats (village/municipality level) received 50% of the total allotted funds, 30% went to the Mandal Parishads (block level) and 20% to the Zilla Parishads (district level).

11.2.2 Planning the Projects

Under BRGF, each district under coverage had to identify the district's problems and prepare a plan to address those problems. The districts would undertake diagnostic studies of its backwardness and baseline surveys "by enlisting professional planning support, to be followed by a well-conceived participatory district development perspective plan to address this backwardness during the Eleventh Five Year Plan" (Government of India, 2007). The local governments, i.e., the Panchayats in rural areas and the municipalities in urban areas, were assigned the central role in planning and implementing the programme. Programme selection was assumed to be through people's participation in rural areas through Ward sabhas and Gram sabhas and in urban areas through Area sabhas and Ward committees. The District Planning Committees would consolidate the programmes selected at the local level and at the district level to prepare the draft district plan. The planning process under BRGF had to follow the guidelines for district planning issued by the Planning Commission in August 2006 and January 2009. Plans prepared in each Panchayat and each municipality would consider all resources spent at the area of the Panchayat covering (Government of India, 2007):

a. "Sectoral and district segments of the state plan
b. Centrally sponsored schemes
c. Funds inflow on account of MGNREGA
d. Tied and untied grants from the central and state finance commission
e. Fund inflow on account of "Bharat Nirman Programmme".

Thus, the entire process would reflect all the financial resources available to the district and ensure their optimal use "without delay, diversion, duplication, and leakage" (Government of India, 2007). Furthermore, it was expected that a composite strategy document would come out, where multiple programmes, in operation in the district concerned, would be integrated. Consequently, by combining the resources that flow to the district, the problems of backwardness in the entire district would be addressed.

Thus, the BRGF programme represented a significant shift from top-down plans to participatory plans prepared from the grassroots level upwards.

The conviction that drives this locally driven approach is that the grassroots-level democratic institutions know the extent and dimensions of poverty in their areas. Consequently, they are better equipped than higher authorities to undertake small but significant local interventions to tackle local poverty alleviation.

11.3 Case Study

11.3.1 Selection of the Study Area

Since the 1960s, the government and non-government organizations have attempted several times to identify the country's poorest or most backward districts. However, the Backward Regions Grant Fund, aimed explicitly for backward districts, identified the backward districts based on the Rashtriya Sam Vikas Yojana (RSVY) classification. In addition, it also used the National Rural Employment Guarantee Act list of districts.

The Planning Commission drew up the RSVY Programme under the 10th Plan. In 2002, the Planning Commission identified India's 100 most backward districts, covering the backward districts in all the states of the country except Delhi, Goa, Bihar, and Orissa. This list was specific to the RSVY Programme. Later, according to the Report of the Task Force on "Identification of Districts for Wage and Self-employment Programmes," Planning Commission, 2003 (Government of India, 2003), 449 districts were identified as backward based on 3 parameters: Percentage of SC and ST population, Agricultural Wages, and Output per Agricultural Worker. The districts with low wages, low productivity, and high SC/ST populations would be ranked backward on this index.

The district of Adilabad in erstwhile Andhra Pradesh is chosen as our study area. The state of Telangana was carved out of Andhra Pradesh in June 2014, taking ten districts. In October 2016, the ten districts of Telangana were divided into 31 districts. The erstwhile district of Adilabad in Andhra Pradesh was broken down into four districts in the new state of Telangana: Adilabad, Kumaram Bheem, Nirmal, and Mancherial. We have selected both Adilabad and Mancherial districts in the state of Telangana. The district of Adilabad has always been categorized as a backward district. However, the district has pockets of developed and underdeveloped areas. While Adilabad was always a backward region in Andhra Pradesh, the Mancherial region was not so. Mancherial is now considered to be an advanced district.

For the primary survey, we have selected Kotapally (also referred to as Kotapalle) Mandal. This Mandal is presently in the Mancherial district, but it was in Adilabad at the time of BRGF. Hence, Kotapally has the characteristic of a backward Mandal within a presently advanced district, Mancherial.

11.3.1.1 A Brief Description of Kotapalle Mandal

Secondary data from the District Census Handbook, Adilabad District, Andhra Pradesh, in 2011 reveals that there are 21 Gram Panchayats (GP) and 34 villages in Kotapalle Mandal, and that the Mandal had no urban areas. The villages are small, and our field survey shows that some villages are very remote and nearly inaccessible. Three villages Adkapalle, Ayepalle, and Chintakunta, shown in the previous

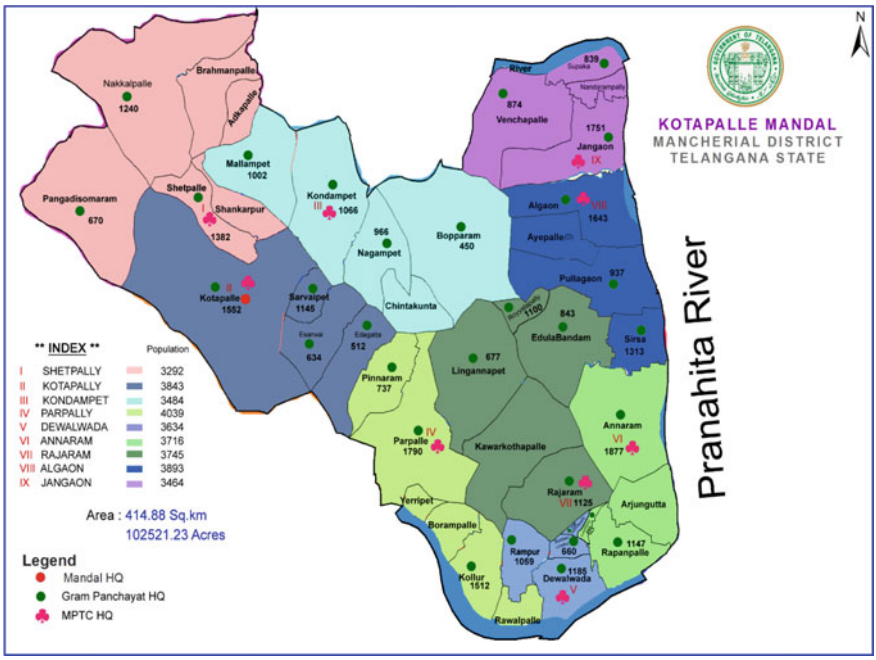

Fig. 11.1 Map of Kotapalle Mandal. *Source* Census of India (2011), District Census Handbook, Adilabad, Village and Town Directory, Series 29 Part XII A

Census 2001, became uninhabited by 2011 (Census of India 2001, 2011). A map of Kotapalle Mandal is given below Fig. 11.1.

11.3.1.2 Population Profile of the Mandal

18% of the villages have a total population below 200, 35% have a population in the range 200–499, 38% have a population below 999, and 3% have a population between 1000 and 1999. In the Kotapalle Mandal, 37.77% of the total population belongs to Scheduled Castes (SC) and 9.63% of the total population belongs to Scheduled Tribes (ST).

11.3.1.3 Literacy Rates in the Mandal

Kotapalle had a low literacy rate of 54.38 with a high male–female literacy gap of 21.32. STs had a miserably low literacy rate of 44.92, female literacy rate being only 33.33. All these rates were much higher for the district of Adilabad as a whole.

Every village has a primary school. In addition, there are middle schools in nine villages and secondary schools in six villages.

11.3.1.4 Health Amenities

A thorough study of the District Handbook reveals that none of the villages in the Kotapally Mandal have a community health center, and the nearest one is more than 10 km away. Among the 34 villages, only the Kotapally village, which hosts the Mandal office, has a Primary Health Center. The nearest Primary Health Center is more than 10 km away for 22 villages and 5–10 km away for ten villages. Nine villages, including Kotapally, have a primary health sub-center.

The Human Development Report, 2017, brought out by Centre for Economic and Social Studies and Government of Telangana Planning Department, on Telangana state shows that Kotapalle was not deprived of natural resources. However, only 16.4% of households had drinking water facilities within premises, and only 6.9% of households had toilets.

11.3.1.5 Occupation of the People

A considerable percentage of the population (44.93%) in the Mandal was non-workers. However, those who work were engaged principally as main workers (41.34%). Females, however, are engaged in marginal work in a higher percentage (17.43%). As shown in the District Census Handbook, workers are primarily agricultural laborers (63.07%), the percentage being much higher for females (76.63%). 25.76% are cultivators. Thus, almost 89% of the population is dependent on agriculture. Table 41 of the District Census Handbook reveals that the total area of Kotapalle Mandal is 38,813.0 Hectares, of which 35.06% is cultivable. Of the cultivable area, the percentage of irrigated area is 5.71%. Irrigation is very poor, and the area is irrigated mostly by tank irrigation, followed by well/tube well irrigation. So, although a high percentage of people live on agriculture, the agricultural infrastructure is not developed in the region.

11.3.1.6 Connectivity

None of the villages directly connects to State Highways, Major District Roads, and Other District Roads, and the nearest such road is more than 10 km away. The national highway passes by seven villages. The nearest town Mancherial is more than 10 km from the Mandal. However, other than Kawarkothapalle, Vesonvai, and Pangadisomaram, the villages are connected by bus service.

There are no regular markets/mandis in any village, and there is a weekly haat only in Kotapally village where people procure their necessary goods. Each village is, however, served by Public Distribution System.

11.3.1.7 Availability of Amenities in Villages

Table 11.1 below presents the state of amenities available in the Mandal compared to the district.

11.3.2 Availability of Data

The BRGF scheme was completed in 2014 before Telangana state was born. Therefore, all the data we have collected are for the erstwhile Adilabad district. As most of the Sarpanches are newly elected, after Telangana state was born, very few records on BRGF could be found. For Kotapally Mandal, we have received only the data on the final release and works done at the Mandal level.

We have interviewed people from three strata—officials at Mandal level and District level, Sarpanches or panchayat members, and the ordinary people.

11.3.3 Allocation of Development Fund

As has been mentioned earlier, development funds were allocated using a formula of Rs. 27.15 per capita for general category and Rs. 68.52 per capita for Scheduled

Table 11.1 Infrastructural amenities available in Kotapalle Mandal

	Kotapalle Mandal	Adilabad district
No. of inhabited villages	34	1,590
Education (all educational facilities)	34 (100%)	1,563 (98.3%)
Medical (all medical facilities)	33 (97.06%)	912 (57.36%)
Drinking water	34 (100%)	1,590 (100%)
Post office (all post, telegraph, and post and telegraph offices)	11 (32.35%)	475 (29.87%)
Telephone (telephone, PCO, and mobile)	33 (97.06%)	1,385 (87.11%)
Transport communications (bus, rail, and waterways)	31 (91.18%)	789 (49.62%)
Banks (commercial and cooperative banks)	1 (2.94%)	84 (5.28%)
Agricultural credit societies	1 (2.94%)	62 (3.9%)
Approach by Pucca Road	26 (76.47%)	1,149 (72.26%)
Power supply	34 (100%)	1,590 (100%)

Source Table 36, District Census Handbook, 2011, Adilabad, Census of India, Andhra Pradesh, Series 29, Part XII A

Note The figures present the number of villages where the particular amenity is available. The figures in parentheses give the percentage of villages in the Mandal/District where the amenities are available

Caste and Scheduled Tribe categories. Accordingly, the total fund for a district was fixed. First, funds came to the State Treasury Office. Then 50% of the total allotted funds were allocated to the Gram Panchayats (village/municipality level), 30% to the Mandal Parishads (block level), and 20% to the Zilla Parishads (district level).

We have got differential responses from people of different strata regarding the funds under the BRGF programme. As evident from Mandal- or district-level data, although the scheme was from 2007 to 2012, the funds were not released early. We see that funds were released till 2014–15, even 2 years after the official closure of the programme.

The fund release was late and sporadic, but the Sarpanches liked the programme. According to them, once the fund came, paying the contractors became easy. Moreover, it was easier to find contractors with this type of fund flow than with other schemes.

One of the problems with the BRGF lies in its amount of release. The fund received by the GPs for carrying out development works is too small. According to the District- or Mandal-level officials, sarpanches, or even ordinary people, no substantial work can be done with such a small amount. For example, it becomes difficult for a GP to complete one internal road in a meaningful stretch or build a water connection. However, some sarpanches informed that sometimes BRGF is combined with MGNREGA funds to repair roads.

One crucial problem with BRGF was that there always had been uncertainty about the release of funds. Officials at Mandal and District levels said they were unsure of the next release of funds, so the senior and junior engineers could not approve substantial work. Sarpanches also reiterated the problem. They were never sure if the next installment would come and hence could not plan for the long term.

Thus, the piecemeal allocation of funds to a single GP and the uncertainty about the release of the next installment acted as barriers to meaningful development works to fulfill the infrastructural gaps in the rural areas.

11.3.3.1 Allocation of the Fund at the Village Level Within a GP

The allocation of the funds among the GPs also raises questions. Table 11.5 in the Appendix depicts a picture of inequitable allocation of funds between villages of a particular GP. It is revealed from the secondary data that in some cases within a GP, a particular village(s) with high ST population concentration received less funds or even no funds at all. In contrast, other villages with low ST concentration received funds, sometimes even twice to thrice in the total BRGF period. For example, in Rapanpalle GP there are only two villages—Arjungutta and Rapanpalle. No fund was allocated during 2008–09 and 2011–12 to 2014–15 to Arjungutta village, where the SC–ST concentration is 62.4%. In contrast, Rapanpalle village, with a low share of the SC/ST population, received funds in several years.

During 2011–12, out of the nine works, four were in GPs where the share of ST population was below 5 percent, and no work was undertaken in 3 other GPs with

21–30% of the ST population. There are GPs too where SC–ST concentration is high, but no fund has been allotted from the Mandal Parishad fund, e.g., Kollur.

11.3.4 Utilization of Fund

We have received data on fund utilization from the Kotapally gram panchayat. The detailed story of funds released to the GP sector and fund utilization is given in Tables 11.2 and 11.3.

The problem of the release of funds always lies with the sanctioning authority. Although during two periods, namely 2009–10 and 2010–11, the release was almost the same as estimated, the average release of funds was only 74%. One of the important reasons behind this under-release is the failure of the gram panchayats to submit utilization reports.

Another critical point is that fund is released late. For example, the release of development fund grants is mainly concentrated in the third and fourth quarters. Table 11.4 gives the pattern of fund release.

Regarding fund utilization, we find that in the GP sector, on average, only 68% of the released fund could be utilized, whereas, in the MP sector, utilization is much higher at 94.44%. As found from our survey, the MP-level fund is distributed among the panchayats. Thus, only an insignificant portion of the MP-level fund remains unutilized. However, in the GP sector, where the actual implementation of the development works takes place, a substantial portion remains unutilized.

Table 11.2 Fund released versus fund utilized in GP Sector Kotapalle Mandal

GP sector						
Year	Fund released as fraction of fund estimated	Fund utilized as fraction of fund released	No. of works			
			sanctioned	Completed	Under progress	Not started
2007–08	0.94	0.83	26	21	5	0
2008–09	0.67	0.92	26	25	1	0
2009–10	0.997	0.93	26	24	2	0
2010–11	0.997	0.89	27	25	2	0
2011–12	0.8	0.29	21	9	0	12
2012–13	0.62	0.8	21	19	2	0
2013–14	0	0	21	0	0	21
2014–15	0.79	0.09	21	10	11	0
Total	0.74	0.68	189	133	23	33

Source Status PF BRGF WPRLS Sanctioned during 2007–08 to 2014–15 under GP/MP Sector MPP Kotapally

Table 11.3 Fund released versus fund utilized in MP Sector: Kotapalle Mandal

MP sector						
Year	Fund released as fraction of fund estimated	Fund utilized as fraction of fund released	No. of works sanctioned	Completed	Under progress	Not Started
2008–09	0.51	1	12	11	1	0
2009–10	1	0.99	10	10	0	0
2010–11	0.83	0.92	11	10	1	0
2011–12	0.8	0.98	9	9	0	0
2012–13	0.61	0.999	4	3	1	0
2013–14	0	0	3	0	0	3
2014–15	0.79	0.74	11	9	2	0
Total	0.703	0.944	60	52	5	3

Source Status PF BRGF WPRLS Sanctioned during 2007–08 to 2014–15 under GP/MP Sector MPP Kotapally

Table 11.4 Pattern of fund release under BRGF

Year	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15
Fund released in third and fourth quarters (%)	91	78	79	48	69	68	58	37

Source Centre for Policy Research (2016) (collected from Backward Region Grant Fund, Fund Release Report—Participatory Plan)

The Centre for Policy Research has reported that, during 2013–14 and 2015–16, many districts did not receive any fund within a single financial year. 30% of the districts did not receive any fund in these 2 years (Centre for Policy Research, 2016).

Total funds could not be utilized. Interaction with the present Sarpanch revealed that unused funds were lying in the GP account with the Mandal but could not be used anymore as the programme has been discontinued and the ZP has submitted a full fund-utilization report. Therefore, the unspent amount lying in the GP account in Mandal Office demarcated for BRGF cannot be utilized for any purpose, nor can it be sent back.

11.3.4.1 Ease of Fund Utilization

According to the panchayat members and staff, this type of funding is preferred. In other schemes, the Plan and the estimated expenditure are sent to the authority first. The authority seldom sanctions the entire amount and seldom releases the total sanctioned amount, thereby creating problems in the execution of the project. In this scheme, the sanctioned amount is notified first, and the GPs are asked to plan the project accordingly. Therefore, it is easier for the GPs to streamline the budget and set priorities. Moreover, the contractors get immediate payment, and hence they are interested in executing the works.

However, the officials are sarcastic about the project. They feel that it is not easy for the villagers to articulate their needs in a proper plan. They are supposed to help the GPs formulate the plans, but they are reluctant to visit the GPs and help them. Other schemes like NREGA, which are formulated at upper levels, are better, in their opinion.

11.3.4.2 Problems in Overall Fund Utilization

Our interactions with the common people in the villages revealed that they are, in general, not aware of the source or the release of the fund. However, people closely related to the Panchayats, like the Sarpanches and the Panchayat secretaries, pointed out different problems in utilizing the fund. First, the works are supervised by a junior engineer after being sanctioned by the district engineer. However, sometimes there is considerable delay in getting the sanction from the higher level, and consequently, the works cannot be started. Secondly, the sum being minimal for a particular village makes it difficult to get contractors to execute the work. The officials have also corroborated this factor at the Mandal level.

11.3.4.3 Works Done in the Survey Area

We have received only MP-level data regarding works done from Kotapalle Mandal. The detailed report is presented in appendix Table 11.5.

As revealed from Table 11.5 in the appendix, during 2011–12, all nine works carried out in the Mandal were constructing compound walls. During 2012–13, out of 4 proposed works, only two were carried out. These two were the construction of CC roads. No work was carried out during 2013–14. During 2014–15, out of 11 works, 8 were the construction of CC road, and 2 were the construction of compound walls. There were two water supply schemes carried out in the SC and ST colonies. From the above utilization pattern, it is evident that most of the works were constructing compound walls. While the BRGF fund aimed to bridge the infrastructural gap in backward regions, allocating a substantial part of the fund to building the compound wall only, leaving aside the water problems, raises questions about the efficacy of the expenditure pattern. It needs to be mentioned that this region of Andhra Pradesh

suffers from acute water scarcity. It is surprising that "the participating villagers" chose to spend the funds to construct compound walls and not create water cisterns or pipelines.

In some villages, e.g., in Rapanpalle village with a 29.3% SC–ST concentration, a substantial amount has been utilized to build CC roads or improve an existing road. However, our discussion with the villagers reveals that the CC roads were constructed in front of the sarpanches' houses.

Shetpalle GP is one example where works have been done properly. There are two villages in Shetpalle—Shankarpur (with a low SC population and no ST, population size being only 176) and Shetpalle (40% of the population belonging to SC or ST community). Works done in these villages are the construction of CC road, road improvement, compound wall, and waterworks.

In general, it was observed that in a particular GP, most of the works had been done in the village containing the GP office.

11.3.5 Problems in Planning

11.3.5.1 People's Participation at the Panchayat Level

We have received differential feedback about the people's involvement in executing the programme, i.e. in planning as well as in monitoring. At the upper level, officials claim that villagers are unable to articulate their needs and formulate plans. Therefore, they say that the scheme is a bad experiment.

In every village, the interviews with the Sarpanch and the villagers revealed that the gram sabha is a regular affair and people participated at the planning level. The story changes when the villagers are interviewed separately from the panchayat members or staff. Although some of the villagers said they participated in the planning level, people are unaware of the BRGF scheme in some villages. Therefore, the expenditure pattern does not reflect the need of the ordinary villagers. Sarpanches, however, say that the people's need was put first.

Moreover, very few of the projects benefit the women directly. For example, there are only a limited number of water-works in a Mandal which suffers from acute water scarcity and women have to bring water from far away sources. Census data on the source and location of drinking water in Kotapalle Mandal show that out of 8664 rural households, 1,423 households (16.42%) have access to water within premises, and 264 (3.05%) households use tap water from a treated source. Only 126 (1.45%) households have access to tap water from a treated source within premises. Three thousand three hundred eight households, comprising 38.18% of the total, have to obtain water from sources that are quite a distance away, and, of them, more than 96% are from untreated sources. Our field survey shows that water scarcity is an acute problem in the Kotapally Mandal. Therefore, it was expected that a plan at the grassroots level would put forward the water problem first and try to build pipelines to solve the drinking water crisis.

11.3.5.2 BRGF and Women Empowerment

There are women Sarpanches in many GPs. At the time of the survey, among 21 GPs, there were 11 GPs where the Sarpanch was a woman. So, the requirement of the stipulated percentage of women sarpanches in the Mandal has been fulfilled. However, the field survey found that this does not reflect women's empowerment through political power. Women, including the women sarpanches, confessed that they hardly voice their concerns even if they sit in the Gram Sabhas. The women sarpanches even said that all the work relating to the GP, including the finance, is handled by the male family member (husband or son). Our survey also revealed that the women members of the Panchayats, including the Sarpanches, are mostly uneducated or illiterate. Many women villagers reported that women are discouraged from articulating their thoughts. Their families are threatened to be ostracized if they speak out, so they do not participate in the decision-making.

The lack of women empowerment is also brought out by the projects chosen. Projects that catered to the benefit of the women, like building pipelines to bring water within premises, were hardly given importance.

11.4 Conclusion

In this paper, we have attempted to evaluate the BRGF scheme with the help of both primary and secondary data. The project followed an allocation-first approach based on population and its composition of different social categories. In contrast to the usual budget-first approach, this approach is reported to be easier for the grassroots-level planners to plan and execute. However, the paucity of funds at the GP level and the uncertainty and irregularity of fund flow pose a colossal hindrance to the scheme. As a result, only piecemeal and trivial work could be undertaken. Thus, the project did not empower the villagers to make a comprehensive and complete development plan that would benefit the region over the longer term.

Secondary data found that within a GP, where there is more than one village, the allocation among villages is not always balanced. The villages within the GP, having a higher share of the SC–ST population, sometimes get less funds.

The primary survey on people's participation in planning and monitoring the works under BRGF showed that apart from the Panchayat members, including the Sarpanch and the officials, very few people in the villages seemed knowledgeable about the BRGF.

Therefore, it can be concluded that although the BRGF programme was appreciated at the grassroots level for its allocation-first approach, it could not deliver the promises about filling the development gaps and regional imbalances. It also failed to empower people to solve their problems through appropriate planning and participation

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Appendix

See Table 11.5.

Villages in Kotapalle Mandal	Under Gram Panchayat	Percentage of ST population	Work done in 2011–12 (Figures of expenditure in Lakh Rupees)	Work done in 2012–13 (Figures of expenditure in Lakh Rupees)
Nakkalpalle	Nakkalapally	0	–	–
Brahmanpalle	Nakkalapally	<5	–	–
Mallampet	Kondampet	<5	–	–
Kondampet	Kondampet	11–20	–	–
Raghunathpally	–	–	–	–
Shankarpur	Shetpally	5–10	–	–
Shetpalle	Shetpally	<5	Construction of PS compoundwall @1.140	–
Bhavanpally	–	–	–	–
Pangadisomaram	Pangidisomaram	11–20	–	–
Kotapalle	Kotapally	<5	–	–
Vesonvai	Sarwaipet	31–40	Construction of PS compoundwall @1.140	–
Sarvaipet	Sarwaipet	21–30	–	Laying of Pipeline at Drinking water facility @ 1.399 planned but not started
Nagampet	Nagampet	<5	Construction of PS compound wall @1.140	Construction of Anganwadi Building @ 4.017 planned but not started
Bopparam	Nagampet	11–20	–	–
Venchapalle	Venchapally	5–10	–	–

(continued)

(continued)

Villages in Kotapalle Mandal	Under Gram Panchayat	Percentage of ST population	Work done in 2011–12 (Figures of expenditure in Lakh Rupees)	Work done in 2012–13 (Figures of expenditure in Lakh Rupees)
Supak-O	Venchapally	0	–	–
Supaka-K	Venchapally	–	–	–
Shivarampally	–	–	–	–
Jangaon	Jangaon	11–20	Construction of compound wall of UPS building @2.280	–
Algaon	Algaon	11–20	Construction of PS Compound Wall@1.220	–
Pullagaon	Pullagaon	5–10	–	–
Royalapally	–	–	–	–
Nadarampally	–	–	–	–
Sirsa	Sirsa	5–10	–	–
EdulaBandam	Edulabandham	11–20	–	–
Lingannapet	Rajaram	11–20	–	–
Kawarkothapalle	Rajaram	0	–	–
Rajaram	Rajaram	21–30	Construction of PS compound wall @1.140	–
Edagatta	Pinnaram	<5	–	–
Pinnaram	Pinnaram	<5	Construction of PS compound wall @1.140	–
Parpalle	Parpally	<5	–	–
Yerraipet	Parpally	5–10	–	–
Borampalle	Kollur	0	–	–
Annaram	Annaram	<5	Construction of PS Compound Wall@1.140	–
Arjungutta	Rapanpally	31–40	–	–
Rapanpalle	Rapanpally	<5	–	Laying of CC Road @ @ 4.017
Rampur	Rajaram	0	–	–
Kollur	Kollur GP	21–30	–	–
Rawalpalle	Devalwada	0	–	–
Dewalwada-O	–	–	–	–

(continued)

(continued)

Villages in Kotapalle Mandal	Under Gram Panchayat	Percentage of ST population	Work done in 2011–12 (Figures of expenditure in Lakh Rupees)	Work done in 2012–13 (Figures of expenditure in Lakh Rupees)
Dewalwada	Devalwada	0	–	–
Babbarchelka	Devalwada	–	Construction of PS Compound Wall @1.140	Laying of CC road @ @3.582
Velmapally	–	–	–	–
Nakkalpalle	Nakkalapally	0	–	–
Brahmanpalle	Nakkalapally	<5	Construction of PS compound wall @0.705	–
Mallampet	Kondampet	<5	–	–
Kondampet	Kondampet	11–20	Construction of slab culvert and side-drain @1.430	–
Raghunathpally	–	–	–	–
Shankarpur	Shetpally	5–10	–	–
Shetpalle	Shetpally	<5	Construction of compound wall to Anganwadi centre @ 0.676	2 Mini Cistern water scheme at SC colony and ST colony@0.316 x 2
Bhavanpally	–	–	–	–
Pangadisomaram	Pangidisomaram	11–20	Laying of CC Road @ 3.748, c/o GP building compound wall @0.461	Construction of Primary School Compound Wall @0.514
Kotapalle	Kotapally	<5	Completion of CC Road @ 0.931	Laying of CC Road @1.146
Vesonvai	Sarwaipet	31–40	–	–
Sarvaipet	Sarwaipet	21–30	Completion of PS compound wall@ 1.207	–
Nagampet	Nagampet	<5	Completion of PS compound wall @ 0.870	–

(continued)

(continued)

Villages in Kotapalle Mandal	Under Gram Panchayat	Percentage of ST population	Work done in 2011–12 (Figures of expenditure in Lakh Rupees)	Work done in 2012–13 (Figures of expenditure in Lakh Rupees)
Bopparam	Nagampet	11–20	–	Laying of CC Road connecting ST wada ZP road@1.146
Venchapalle	Venchapally	5–10	–	–
Supak-O	Venchapally	0	Construction of compound wall to PS building@ 0.655	Laying of CC road @1.146
Supaka-K	Venchapally	–	–	–
Shivarampally	–	–	–	–
Jangaon	Jangaon	11–20	Completion of UPS Compound Wall @ 0.810	–
Algaon	Algaon	11–20	Completion of PS compound wall construction @1.088	Laying of CC Road @1.146
Pullagaon	Pullagaon	5–10	Completion of PS compound wall @ 0.427	–
Royalapally	–	–	Construction of PS compound wall @ 0.811	–
Nadaranpally	–	–	–	–
Sirsa	Sirsa	5–10	Laying of CC Road @ 3.758, Construction of compound wall to ZPSS school	–
EdulaBandam	Edulabandham	11–20	Completion of Anganwadi building @3.735	Laying of CC Road @1.146
Lingannapet	Rajaram	11–20	–	–
Kawarkothapalle	Rajaram	0	Laying of CC Road @0.939	–
Rajaram	Rajaram	21–30	–	–
Kollur	Kollur	21–30	–	–
Borampalle	Kollur	0	–	–

(continued)

(continued)

Villages in Kotapalle Mandal	Under Gram Panchayat	Percentage of ST population	Work done in 2011–12 (Figures of expenditure in Lakh Rupees)	Work done in 2012–13 (Figures of expenditure in Lakh Rupees)
Edagatta	Pinnaram	<5	Completion of PS compound wall @0.710	–
Pinnaram	Pinnaram	<5	–	–
Parpalle	Parpally	<5	Construction of CC Road @0.919	Laying of CC Road @ 1.146
Yerraipet	Parpally	5–10	–	–
Annaram	Annaram	<5	Construction of side drain from busstop to borewell @0.856	Laying of CC Road @1.146
Arjungutta	Rapanpally	31–40	–	–
Rapanpalle	Rapanpally	<5	Completion of PS compound wall @0.856	–
Rampur	Rampur	0	Completion of PS Compound wall @.456	–
Rawalpalle	Devlawada	0	Construction of PS Compound wall @0.811	Laying of CC Road @1.146
Dewalwada-O	–	–	–	–
Dewalwada	Devlawada	0	–	–
Babbarchelka	Devlawada	–	–	–
Velmapally	–	–	Laying of CC Road @1.368	–

Source Information obtained from the Mandal office at Kotapally during the survey in 2019

Table 11.5 Works done in the villages of Kotapalle Mandal under MP sector funds

Villages in Kotapalle Mandal	Under Gram Panchayat	Percentage of ST population	Work done in 2008 (Figures of expenditure in Lakh Rupees)
Nakkalpalle	Nakkalapally	0	–
Brahmanpalle	Nakkalapally	<5	–
Mallampet	Nakkalapally	<5	–
Kondampet	Kondampet	11–20	Improvement of road from ZP road to Kondampet @1.25
Kondampet	Kondampet	11–20	Improvement of road from ZP road to Kondampet @1.25
Raghunathpally	–	–	–
Shankarpur	Shetpally	5–10	–
Shetpalle	Shetpally	<5	Improvement of road from ZP road to Shetpally @1.25
Bhavanpally	–	–	–
Pangadisomaram	Pangidisomaram	11–20	–
Kotapalle	Kotapally	<5	–
Vesonvai	Sarwaipet	31–40	–
Sarvaipet	Sarwaipet	21–30	Construction of Road from ZP road to SC wada@1.25
Nagampet	Nagampet	<5	–
Bopparam	Nagampet	11–20	–
Venchapalle	Venchapally	5–10	–
Supak-O	Venchapally	0	–
Supaka– K	Venchapally	–	–
Shivarampally	–	–	–
Jangaon	Jangaon	11–20	Improvement of road from SC wadatoJangaon
Algaon	Algaon	11–20	–
Pullagaon	Pullagaon	5–10	Improvement of road from Sirsa to Pullagaon@ 1.25
Royalapally	–	–	–
Nadarampally	–	–	–

(continued)

Table 11.5 (continued)

Villages in Kotapalle Mandal	Under Gram Panchayat	Percentage of ST population	Work done in 2008 (Figures of expenditure in Lakh Rupees)
Sirsa	Sirsa	5–10	–
EdulaBandam	Edulabandham	11–20	–
Lingannapet	Rajaram	11–20	–
Kawarkothapalle	Rajaram	0	–
Rajaram	Rajaram	21–30	Construction of side drains in road @.80 (progress)
Edagatta	Pinnaram	<5	–
Pinnaram	Pinnaram	<5	Improvement of Road from Pinnaram to Nagampet @ 1.241
Parpalle	Parpally	<5	Improvement of Road from Kollur to Parpalle @ 0.52
Yerraipet	Parpally	5–10	–
Borampalle	Kollur	0	–
Annaram	Annaram GP	<5	–
Arjungutta	Rapanpally	31–40	–
Rapanpalle	Rapanpally	<5	Improvement of Road from Pranhita to Rapanpally @1.25
Rampur	Rampur	0	–
Kollur	Kollur	21–30	–
Rawalpalle	Devalwada	0	–
Dewalawada-O	Devalwada	–	Construction of Road from ZP road to SC wada@1.25
Dewalwada	Devalwada	0	–
Babbarchelka	Devalwada	–	–
Velampally	–	–	Improvement of Road @ 0.60
			Improvement of road from Vemapally to Rapanpally @ 1.0

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Part IV
Gender and Human Development

Chapter 12
Understanding Costs of Violence Against Women and the Need for Contextualisation

Manasi Bhattacharyya

12.1 Violence Against Women and Girls: Prevalence

Violence against women and girls (VAWG) is a global issue. Women are exposed to physical, sexual, psychological and economic violence irrespective of their age, education or income groups. Prevalence data[1] suggests that worldwide one in three women have reportedly experienced physical and/or sexual violence by an intimate partner or sexual violence by a non-partner at least once in their lifetime. Nearly one-fifth of them have experienced such violence in the past 12 months. The rates of lifetime intimate partner violence vary across the regions, with women in the Least Developed Countries, Oceania, South Asia and Sub-Saharan Africa regions,[2] at the greatest risk.[3] The prevalence rate is the highest in the least developed countries (37%) and three sub-regions of Oceania (around 40% and above).[4] South Asian countries have significantly high prevalence rates of intimate partner violence (35%). More than half of the women (54%) in Bangladesh have experienced physical and/or sexual violence by an intimate partner in their lifetime.[5] In India, as per the NFHS-4[6] data, about one-third of ever-married women reported experiencing some form of violence during their lifetime, while 27% reported violence in the past 12 months. In Africa, Sub-Saharan Africa has the highest prevalence rate of lifetime intimate partner violence (33%) followed by Northern Africa (30%). In contrast, the estimated rates are below average in Latin America, the Caribbean and Northern America (25%),

[1] WHO (2021).

[2] As per the UN SDG Classification of the regions.

[3] WHO (2018).

[4] Melanesia (51%), Micronesia (41%), Polynesia (39%).

[5] UNFPA (2014).

[6] Ministry of Health and Family Welfare, Government of India (2015–16).

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Australia and New Zealand (23%) and Europe (23% in Northern Europe and 16% in Southern Europe). Prevalence rates are relatively lower in Southeastern (21%), Eastern (20%) and Central Asia (18%) also.

12.2 Definition and Forms of Violence Against Women and Girls

VAWG is a major violation of a woman's human rights and fundamental freedom.[7] The United Nations defines[8] VAWG as "any act of gender-based violence that results in, or is likely to result in, physical, sexual, or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private life."

UN defines the forms of VAWG as follows[9]:

- Physical violence: "Intentional use of physical force with the potential to cause physical harm, injury, disability, and in the most severe cases death".
- Sexual violence: "any sexual act, attempt to obtain a sexual act, or other act directed against a person's sexuality using coercion by any person regardless of the perpetrator's relationship to the victim or the setting".
- Psychological abuse: "behaviour that is intended to intimidate and persecute and takes the form of threats of abandonment and/or abuse, surveillance, constant humiliation, verbal aggression, and others".
- Economic violence: "Acts that deny a woman access to and control over basic resources or causes or attempts to cause an individual to become financially dependent on another person by obstructing their access to or control over resources and/or independent economic activity".

Women and girls are at risk of different forms of violence at all their life stages. As the diagram demonstrates, while sexual violence affects women of all ages, different environments at home, in school, at work and within the community expose women and girls to specific forms of violence during each phase of their life, as depicted (Fig. 12.1).

[7] *Declaration on the Elimination of Violence against Women*, UN Doc A/RES/48/104, 20 December 1993.

[8] As per the Declaration on the Elimination of Violence Against Women, adopted by General Assembly in 1993.

[9] UN Women (2018).

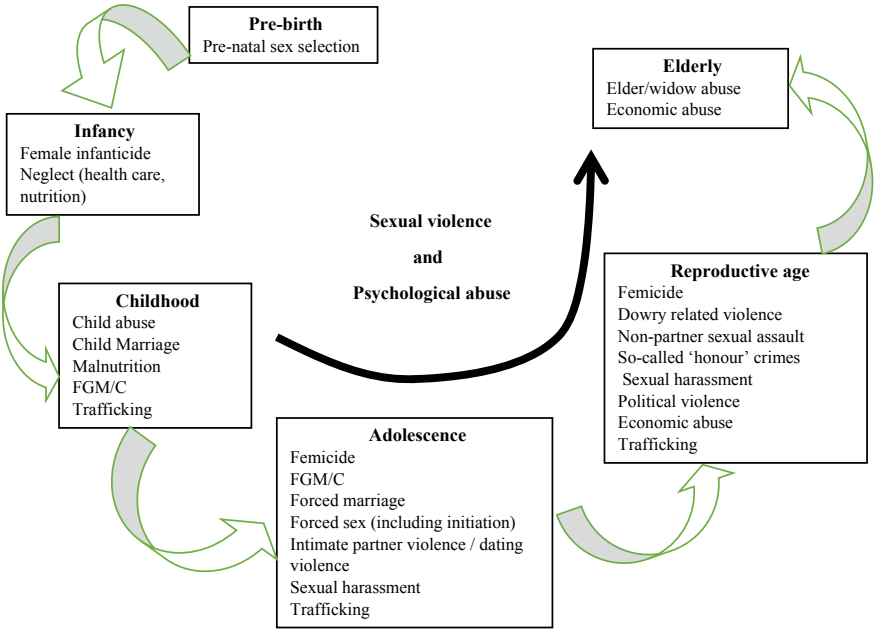

Fig. 12.1 Life Cycle of Violence against women and girls[10]

12.3 Consequences and Cost of Violence Against Women and Girls

The definition of VAWG reveals the complexity of the issue. Violence can be experienced by women in multiple ways/contexts, which implies that its costs and consequences are pervasive. Violence against women has immediate and long-term physical, sexual and psychological consequences. In extreme cases, it can be lethal, resulting in death.

Consequences and the costs of VAWG can be analysed at three levels: individual/household, community and national. Cumulative socio-economic impacts of VAWG at the individual/household and community levels contribute to the nation's social and economic costs. Additionally, at the national level, the government bears the expenditure to prevent and mitigate the impacts of violence for safeguarding citizens' fundamental human rights.

At the individual/household level, health consequences of violence can be immediate or long-lasting and sometimes even fatal. The impact of VAWG on women's physical and mental health depends upon the severity of the abuse. The consequences are more severe when more than one form of violence (e.g. physical and sexual) is endured simultaneously.

[10] Adapted from Ellsberg and Heise (2005), Watts and Zimmerman (2002), Shane and Ellsberg (2002), 2 as cited by UN Women (2010).

VAWG has a range of physical and sexual consequences such as injuries, disabilities, long-term health problems, unwanted and early pregnancies, STDs, including HIV/AIDS and femicide. Physical and sexual violence against women and girls are associated with mental health complications including anxiety, depression and suicide attempts.

Violence also has negative consequences for the children. Research findings demonstrate that exposure to violence at home may have a range of severe and lasting effects on the children's psychological well-being and cognitive function. They may suffer from mental health issues such as depression or severe anxiety and "exhibit violent, risky, or delinquent behaviour" (UNICEF, 2006).[11] These children may also have limited social skills and a higher probability of experiencing child abuse.[12] Child marriage also exposes girls to violence and poses serious threats affecting the sexual, reproductive and mental health of child brides. Globally, more than one-fifth (21%) of young women (aged 20–24) were married as children.[13] The practice is most common in South Asia and Sub-Saharan Africa.[14] Child marriage often isolates the girls from their families and peer networks. The significant age gap between a child bride and her spouse often makes her more vulnerable to domestic abuse. Young girls married to older men are more likely to justify wife-beating.[15] These young girls lack the ability to negotiate safe sex, and are more vulnerable to HIV and/or other sexually transmitted infections and early pregnancy. WHO data[16] suggests that globally, perinatal mortality is 50% higher among babies born to adolescent mothers as opposed to those born to mothers aged 20–29 years.

Violence has a significant impact on women's economic participation and care work. The impact of VAWG on women's care work has a detrimental effect on overall household well-being. A recent ICRW study in Ghana[17] reveals that about 15% of IPV survivors and 10% of survivors of non-partner violence have reportedly missed care-giving activities. As an impact of (any form of) VAWG, 14% of women had to skip care work on an average for 23 days annually. Women experiencing violence also reported that their children missed school due to the violence experienced by their mothers.

Women and girls around the world also experience sexual harassment and other forms of sexual violence in public spaces. A recent study[18] conducted in Maputo, Mozambique, reveals that the majority of the women and girls (60%) have reportedly experienced some forms of harassment and violence in public spaces, and girls constitute the most vulnerable group. Fear of violence negatively impacts women's and girls' freedom of movement and their ability to participate in public life. It

[11] Brown and Bzostek (2003), UNICEF (2013).

[12] World Health Organization (2002).

[13] UNICEF (2018).

[14] UNICEF (2014a).

[15] UNICEF (2014b).

[16] WHO (2008).

[17] ICRW (2019).

[18] Mariano et al. (2020).

also curbs their "access to essential services and their enjoyment of cultural and recreational activities", impacting their overall well-being (UN Women).

Globally, progress on eliminating VAWG has been slow. A lot needs to be done to achieve the Sustainable Development Goals (SDGs) on gender equality and the particular target (5.2) on eliminating violence against women and girls[19]. Although monetary value cannot be attached to human dignity, estimation of the expenditure that the state could save by adopting the preventive measures to combat VAWG would help demonstrate the magnitude of the problem. The costing exercise fosters an understanding that VAWG is not a domestic issue and the consequences of VAWG, and the economic cost associated with it is borne not only by the women but also by their families, society and the nation. It should be prioritised as a human rights and development issue. VAWG costing serves as a tool for highlighting the issue in policy discussions and emphasising its significance as a key pillar of the post-2015 development agenda.[20] VAWG costing efforts that analyse current VAW-related budgetary provisions can reveal funding gaps (if any) in services and also highlight inadequate allocation of resources. A recent report suggests that government spending on gender is stagnant on average and falling in most countries as a percent of GDP or budget.[21] For instance, in India, the implementation of the Domestic Violence Act (2005) is impacted by the inadequacy of the budgetary provision.[22]

Various studies have attempted to estimate the economic and social costs of VAWG. Costs are incurred in three areas, namely[23] anticipation or preventative services, consequence and response.

Direct and indirect costs can be categorised as follows[24]:

Direct tangible costs are the "actual expenses paid". They include medical fees, cost of legal action, etc. incurred by the survivors, fines and legal fees borne by the perpetrators, expenses of preventive and support services extended by the government and non-government actors, cost of lost productivity and advocacy cost for the formulation and execution of laws and policies.

Indirect tangible costs are "loss of potential" due to the incident of violence, which can be measured in monetary terms, although "they involve estimating opportunity costs rather than actual expenditures". These costs include lower earnings and profits resulting from reduced output and productivity.

Direct intangible costs include psychological loss and pain directly associated with VAWG, which cannot be quantified in monetary terms.

Indirect intangible costs are an indirect outcome of VAWG. The adverse emotional impact of domestic violence on children is an example of this cost.

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[19] SDG 5.2: "To eliminate all forms of violence against women and girls in public and private spheres, including trafficking and sexual and other types of exploitation".

[20] UN Women (2013).

[21] Development Finance International and Oxfam (2013).

[22] Jhamb (2011).

[23] Oliver et al. (2019).

[24] UN (2005).

Research underscores the significant economic cost associated with violence against women, which is estimated to be around 2% of the global gross domestic product (GDP). The monetary value is equivalent to US$1.5 trillion, almost the size of the Canadian economy.[25] In Bangladesh, the economic burden of domestic violence was estimated at US$2.3 billion for the year 2010, which was equivalent to the national health and nutrition budget in that year.[26] In Zambia, the estimated cost of gender-based violence was US$473 million in 2016, which was equivalent to the health budget for the country in that year.[27] As per the 2012 Justice Canada report,[28] the total cost of intimate partner violence in that year was estimated at CAD 7.4 billion (€5.1 billion) per year, which also includes estimates for pain and suffering. Yearly direct costs are computed as CAD 1.9 billion (€1.3billion). These studies have revealed significantly high social and economic costs of VAWG. However, it is noteworthy that these costs are underestimated in many cases, as significant costs are missing from the estimations due to underreporting of incidents of violence.

12.4 Preventive Strategies and Policy Formulation—Need for Contextualisation

Women are not exposed to violence because of any inherent vulnerability. Men are the major offenders of VAWG, and research suggests that it is helpful to use the theories of masculinities to better understand the underlying causes of violence inflicted by men. Exploring masculinities helps to shed light on the links between men, gender, power relations and violence. As feminist literature has suggested, masculinities are socially organised, and vary over time, across and within cultures and geographic regions. It has also been argued that there is often a "hierarchy of masculinities", in which one (or more) form of masculinity is influential while others are marginalised. The dominant form of masculinity embodies the socially respected ways of being a man that influences other men.[29] A UN multi-country study on men and violence in Asia and the Pacific reveals that violence is associated with "narratives of masculinities that justify and celebrate male strength, the use of violence, men's control over women and heterosexual performance" (Fulu et al., 2013). Research findings demonstrate that intimate partner violence is justified by the majority of men, and in several cases by women themselves, primarily because of social acceptance of men's controlling behaviour. A study conducted in North-Indian villages[30] reveals that while most of the men (80%) justified violence and viewed it

[25] UN Women (2016).

[26] Siddique (2011).

[27] Zulu et al. (2017).

[28] Department of Justice Canada, An Estimation of the Economic Impact of Spousal Violence in Canada (2009).

[29] Crenshaw (1994).

[30] Bhattacharyya et al. (2011).

as a "pedagogical tool to discipline women for various transgressions", half of the women also justified it. Women viewed violence as an "outlet for male stress" and a "burden they need to bear as part of marriage responsibilities".

Men's perpetration of sexual violence is motivated by their perception of sexual entitlement. However, men's use of violence is associated not only with patriarchy. It is an outcome also of a complex interplay of a range of interconnected factors at the individual, community and societal levels. Gender is involved with other social structures, and it constantly intersects with other structural factors. So, violence against women cannot be eliminated by addressing the individual-level factors alone. Research reveals that men's perpetration of violence against women is found across all socio-economic groups. However, it is more common among less powerful men who are subject to social inequalities, and experience social stresses related to their lower socio-economic status and alcohol or substance abuse.[31] On the other hand, women's experience of violence is constructed by gender, race, sexuality, legal status, class, culture and religion. By intersecting with each other, these multiple identities shape women's social experience. The intersectional approach underlines all the axes of subordination that women experience simultaneously, not only patriarchy (Crenshaw, 1994). Women's experience of violence and men's violent masculinity and practices are situated in a broader environment of structural inequality. Formulation of the preventive strategies to address VAWG calls for structural reforms and the eradication of gender stereotypes that perpetuate violence against women.

However, a preventive strategy needs to take into account specific environmental drivers associated with the perpetration of violence. Studies suggest that these specific factors vary widely across regions/sites, and it is crucial to understand the difference between various experiences constructed in different socio-cultural, political, economic and historical contexts. For instance, economic inequality/stress reflected in food insecurity and low levels of education are some of the drivers of violence against women in the context of least developed/developing countries. Alcohol/substance abuse has been found to be a trigger for intimate partner violence in several contexts across the globe,[32] but it is not a major factor in Muslim majority settings. The dowry system, a deeply embedded socio-cultural practice that perpetuates gender inequality and subordination of women, is one of the critical drivers of intimate partner violence in South Asia. Non-observance of purdah by women can also trigger violence in certain settings in this region. The custom of purdah is related to family honour, which is a significant issue in some cultures. The majority of the incidents of violence against women and girls and femicide in the Arab states region are associated with family honour, which is primarily linked to the sexual conduct of the women.[33] In some African cultures, polygyny is practiced, and it has often been found to be associated with intimate partner violence.[34] It is imperative to unpack and understand these contextual factors.

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[31] Fulu et al. (2013).

[32] World Health Organisation, *Intimate Partner violence and Alcohol Fact Sheet.*

[33] Kulwicki (2009).

[34] Ahinkorah (2021), Ebrahim and Atteraya (2020).

Apart from these specific environmental factors related to VAWG, humanitarian contexts such as the wake of a natural disaster and conflict also further exacerbate women's and girls' vulnerability, as they are away from their family and community. Sexual violence is common in humanitarian situations. In many conflicts, rape is often used as a tactic of humiliation (UNFPA).[35] Incidences of child marriage also increase in humanitarian settings[36] as a negative coping strategy. In the Zaatari refugee camp in Jordan, Syrian refugee families marry off their daughters to protect family honour. Marriage is seen as a means to keep their daughters safe from sexual violence.[37] In Rohingya refugee camps in Bangladesh, adolescents are extremely vulnerable to child marriage.[38] Refugee families marry off their adolescent daughters to create new households since food and non-food assistance is household-based.[39] Most of these girls are married to much older men and are at an increased risk of experiencing violence within those relationships. As per the emerging data and reports, all types of violence against women and girls, particularly domestic violence, have intensified since the outbreak of COVID-19. The drivers are not the virus itself or the resulting economic crisis but a structural inequality and an imbalance of power and control.[40] To address VAWG, it is crucial to focus on prevention. In order to formulate strategies to prevent VAWG, it is critical to assess the context and the specific risk factors. Contextual assessment needs a thorough review of current laws, policies and practices to identify the gaps if any. Only a comprehensive and contextually relevant strategy addressing gender inequality and other structural factors can prevent VAWG.

12.5 Conclusion

Violence against women and girls is an outcome of complex dynamics of multiple and intersecting forms of structural injustices, including gender inequality, which deprives women of their fundamental human rights and freedom and also hinders human development. Women's equality and empowerment (SDG 5) is central to all dimensions of sustainable development, and achievement of SDG 5 is necessary for the achievement of all the SDGs. The social and economic costs of violence against women are critically high. For addressing violence against women, it is crucial to focus on prevention. Preventive strategies to eliminate VAWG must assess the individual, community, organisational and societal structures, laws and policies, social norms and practices that perpetuate harmful constructions of masculinities, gender inequality and other forms of social injustices that intersect with gender

[35] UNFPA (2014).

[36] Humanitarian settings include natural disasters, conflict, and complex political emergencies.

[37] UNICEF (2019).

[38] UNICEF (2020).

[39] Melnikas et al. (2020).

[40] UN Women (2020).

inequality. It is also imperative to identify context-specific triggers to formulate effective preventive strategies.

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Chapter 13
Women's Labour Force Participation in India and Continuing Gender Inequality: A Reflection of 15 Major States in India in the Reform Era

Anupam Hazra

Introduction

Significant changes in India's rural development have occurred since the start of economic reforms in 1991. In the 1990s, regional gaps in poverty, gross domestic product, and other factors grew. (Ahluwalia, 2000; Deaton and Dreze, 2002; Srinivasan, 1999). Data on real farm wages, per capita spending and GDP are decreasing. Several studies suggest a common relationship between development and women's participation in the labour market. In addition, studies have confirmed the link between economic structure and female economic activity. Experiences in India suggest that women's labour force participation declined from 1993–94 to 2011–12. It is expected that such a high annual growth rate over an extended period of time will generate sufficient employment and reduce unemployment and the incidence of poverty. The overall participation rate for women in India has been consistently low compared with other countries in the world. In 1994, India ranked 68th out of 83 countries as per data on female labour force participation. In 2012, it ranked 84th out of 87 countries (World Bank). The recent sharp drop in female labour force participation must, therefore, be seen in the context of low and stagnant female labour force participation rates over the long term.

Further, female participation in economic activities suggests that aggregate changes in the proportion of females in the workforce can be mostly recognized as to the movement of the workforce across sectors. Specifically, women's economic participation in a patriarchal society such as India is influenced by interrelated factors, a shift away from agricultural employment and increased mechanization of agriculture where some of the factors found to be driving female employment diversifications. Female participation in the workforce and household occupational choice can be thought of as the combined effect of mutually exclusive socioeconomic factors,

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such as education and endowment of assets, marital status and poverty situations. Since there is no job available in the non-agricultural sector, they again have no other option but to promote themselves into self-employed (and 'became his own boss') in a hand to mouth situation. The distress of the workforce during the liberalization era is largely feminized as female participation in domestic activity dominates and there was an increase in female participation in the old age group during the second reform period. This paper examines the precariousness and diversification of the female workforce as part of the reform (1999–2000 to 2011–2012). The purposes of the study are the following:

1. Understand the level and nature of women's labour force participation in 15 major Indian states over the reform period.
2. Analyze the trends of rural female labour force participation rates over the years and the nature of gender inequality (if any) in labour participation, and identify social, cultural and economic factors for changes in participation rates.

This paper analyses the nature of participation by females by incorporating econometric models. We apply the decomposition method (Oaxaca and Ransom) to find out the relative importance of overall participation differential between men and women This paper is an attempt to analyze qualitative and quantitative factors such as education, religion and social group, for female labour participation. This study is based on NSSO rounds from 1993–94 to 2011–12 (50–68th).

The structure of this paper is as follows: The first section presents the relevant literature on women's participation in the workforce and explains the variables of choice. The following section explains the trends that have been observed and that correspond to the NSSO data from the different cycles and descriptions. Section 13.3 will explain the econometric model used to analyze the participation of women in the labour force in 15 major states. Section 13.4 provides a description of the decomposition model and analysis. The concluding section presents the outcome of the study.

13.1 Literature Survey

Beutel and Axinn (2002) suggested that gender differentiation in adult roles and a focus on family roles for Female Labour Force Participation and the persistent Gender Inequality in women has led to gender differences in the level of education. As a result, a conflict between the pursuit of education and career roles with the pursuit of family roles had an adverse impact which led to the abandonment of schooling by the women at an early age. Societal expectations regarding women's behaviour and roles within their families, such as marriage and child-rearing, led females to truncate their education earlier than males and affected their access to work. This has diminished their opportunities to participate in professional life.

Klasen (2002) using cross-country and panel regression investigated gender inequality in education and its eventual impact on economic growth. The paper

reveals that gender inequality in education directly affected the economic growth of a country by lowering the average level of human capital, and indirectly through investments and population growth. These observations were made in southern and eastern Asia, sub-Saharan Africa and the Middle East. The findings showed that gender inequality in education accounted for 0.77% of the growth difference between South and East Asia, 0.44% between Sub-Saharan Africa and East Asia and 0.69% between the Middle East, North Africa and East Asia. It was suggested that the promotion of gender equality in education would not only contribute to the advancement of the nation, but also help in the promotion of human development goals, lowering mortality and fertility. This shows the positive and negative impacts of education not just on the individual receiving it, but also on the prospect of labour market participation. While higher educational attainment for individuals in general, and women, in particular, had the potential to boost their labour market performance as well as their wages; it also positively impacted several other spheres of their lives, such as the marriage market. However, the societal and cultural norms prevalent in different societies, besides poverty, were not just a hindrance to their receiving education, but also inhibited their effective participation in the workforce. In addition, gender discrimination, the distinction of earnings between men and women, and differences in skills have impeded their individual and occupational growth.

The impact of age on women's labour force participation is closely associated with matrimonial factors. Data from developed and developing countries showed variations in the participation rates of women as a function of their age. Fair and Macunovic (1997) had examined the labour force participation of females in the age group from 20 to 24 years for the period from the mid 1960s to the mid 1990s. The main findings of the study were that the increased participation during the period 1964–1978 was a combination of the rise in the potential wage rate and a fall in potential relative income. A smaller increase in the activity rate from 1978 to 1984 was attributed to the absence of an increase in the potential wage rate and a decline in potential relative income. On the other hand, a balance in participation was reported for the period 1985–1995 largely attributed to the effects of an increased potential wage and an increased potential relative income.

A United Nations report (2001) on the participation of the elderly in the labour force reported a global decline. Noting that the participation of people above 65 years of age had declined by 40% globally; there were differences in the pattern of participation of men and women among the older age groups. It was mentioned that the proportion of women in the elderly labour force has increased compared to that of men. In 2000, at the global level, the percentage of participation of older women increased to 31% from 26% in 1950, while that of men decreased from 55% in 1950 to 30% in 2000. Another feature was that the participation of older women was higher in developed countries with a participation rate of 41–29% for women in less developed countries. On the other hand, young adults, in the age group 25–34 years had a higher probability of being in temporary employment compared to prime aged (35–54 years) workers. People over 55 were less likely to be active or in work. The rate of nonparticipation among women was higher than among men.

In addition, those without or with low educational attainment had higher unemployment rates than those with higher educational attainment. On average, in both types of countries, young persons who entered the labour market were twice as likely to be unemployed as adults. An individual's age seems to have an impact on participation in work activities. However, the impact also varies by status and the economic and social condition of the population. At the same time, the rate of development achieved by a country also reflects the perspectives and attitudes of individuals towards work. Nonetheless, work participation appears to be higher for individuals in their prime age group of around the late twenties to forties; henceforth, it appears to dwindle for those in the higher age group.

A paper by Sobol (2002) on the labour force participation of married women for a period of ten years from 1957 to 1967 examined the behaviour of married women to certain economic and non-economic factors. The study focussed on non-economic factors that influence the participation of women in the workforce. The main findings of the study showed that absolute income, that is, husband's income, and relative income had a more important effect on married women's work status than changes in income level. The higher the husband's income, the less likely the wife is to work or get ready to work. Moreover, the higher the income of friends, the greater the tendency to work. Non-economic variables, such as large families, discourage women from entering the labour market, whereas educational attainment is positively correlated with labour force participation.

To study the impact of demographic changes on the participation of women in the labour force, Lichter and Constanzo (1987) incorporated the effects of fertility rates, marital status, educational levels and the age structure of women to examine how these variables may have contributed to a growth of female labour force participation in the United States since the 1970s. Their analysis was restricted to women in the age group of 25–49 years, as most of them have completed their schooling by 25 years and their exit rates from the labour market accelerated significantly after the age of 45. Their results showed that the higher participation rate was attributed to changes in the propensity to participate rather than changes in demographic make-up. Demographics such as fertility rates, marital status, age composition and educational attainment contributed to a 46% increase in participation. They, therefore, concluded that changes in the composition of the population were an important factor in women's labour growth, but not only responsible for increased participation. Jacobsen (2004), while analyzing the rate of women's participation in marital and parental status, showed convergence and increased participation rates. Increased participation was observed for women with children under the age of six, with a participation of more than 60%. More than three-quarters of women with school-aged children worked for a salary. As far as the convergence of activity rates is concerned, it was noted that it was notable at the vocational level. The marital status of women influences work participation to the extent that it encourages or impedes their role. This means that while the presence of younger children discourages participation, the presence of children in school leads them to work. Moreover, being single, that is to say, having never been married, or being divorced or widowed, also brings them into the labour market. Their family's economic circumstances also have an impact on their labour

market participation. Poor economic conditions and low incomes mean they have to work. However, withdrawal from the labour market occurs when there is a higher reserve wage and a higher income for the spouse. In general, in single-income households where there is an absence of male leadership, women's participation in work is likely to be higher. Moreover, those who are currently married, they are considered to have had lower participation at work.

The cultural traditions that shape the roles of women vary among classes, castes, regions and religious groups. Although women's work at home can be considered universal in every society, it is largely shaped by the cultural traditions prevalent in those societies (Paulson, 1984). There is considerable variation in the labour market participation of women, who are greatly influenced by prevailing traditions and customs in society. Female participation in employment depends not only on gender, but also on religion, caste, and ethnicity.

Munshi and Rosenzweig (2006) explored the role of the caste system and the conflict between traditional and modern institutions in women's career selection in Mumbai, India. It was pointed out that change in women's career was strongly influenced by modernity and that girls might surpass boys in terms of both education and employment in the future. This was mainly because girls from lower caste took advantage of such changes by switching to English medium schools, compared to boys from the same group who remained in traditional and local language schools. Khan (2007) also carried out an assessment of the role and identity of Muslim women in Mumbai, India. It was emphasized that religious restrictions imposed on women limited their scope of work. It was because they did not have the right to work in jobs that required long hours and to be away from home or to have long-term contact with men outside their communities. This was also the case for Muslim women coming from economically disadvantaged families who were rather encouraged to pursue home-based but low-paying jobs. These limitations on Muslim women were also closely related to the exclusion of the Muslim community.

While studying the question of discrimination against the Dalits, Thorat and Newman (2007) stressed the effects of discrimination and its consequences on the development of the country. They noted that discrimination or rather social exclusion of the Dalits in various areas of education and economic life had perpetuated the existing system of inequality in the country. They further pointed out that the problem of discrimination remained a serious issue in the Indian context as attitudinal barriers subjected people from lower castes to remain on the sidelines and making it harder for them to compete with other people from more privileged backgrounds.

Based on the preceding discussion, it is evident that the religion and ethnicity of individuals have a direct impact on participation in work. Women belonging to certain religious and social groups, where customs and traditions do not allow them to work, seem discouraged from participating in work outside their household. However, discriminatory perspectives and attitudes towards persons belonging to certain ethnic groups have had an adverse effect on their effective participation in the labour market.

13.1.1 Trends

The labour force participation rate (LFPR) indicates only the supply side of the labour market and on the other hand work participation rate (WPR) will demonstrate the result of interaction between both demand and supply in the market. The employment and unemployment status must be taken into consideration in the standard definition of LFPR. The unemployment situation finds itself in a situation where the labour market has not managed to generate adequate demand in response to the labour supply. In particular, the labour market in India has been observed to lag behind expectations in a period of high GDP growth (Table 13.1).

The activity rate is a key concept for explaining the evolution of employment dynamics in the Indian labour market. The standard definition of NSSO is used to investigate the dynamics that is the percentage of the labour force and the unemployed. The LFPR provides an idea for an economic workforce. A partial recovery in labour force participation was observed between the 55th and the start of its fall during the 1990s. In the post-reform period (1993–94 to 1999–2000), the rural labour force participation for men and women increased from 56.1% to 54% for men and from 33% to 30.2% for women, respectively. In the next five-year period from 1999–00 to 2004–05, there was an increment in rural labour force participation rate from 54% to 55.5% for males and from 30.2% to 33.3% for females. However, male participation in the rural labour force in 2004–05 remained marginally below that of 1993–94, while female participation in the same sector continued to fall over the same period (2004–05 to 2011–12). In the urban area, the numbers are rather similar. Between 1993–94 and 1999–2000, the urban labour force participation rate for males fell slightly from 54.3 % to 54.2 %, while females had a larger drop from 16.5 to 14.7 %. Both men and women recovered during the next few years, with the 61st round seeing a modest increase in both men and women's labour market participation. Men's and women's engagement in the urban labour force increased dramatically between 1999 and 2000, rising from 54.2 to 57 % for men and 14.7 to 17.8 % for women. Subsequently, there was a downward trend in participation by men and women in the urban labour force between 2004–05 and 2009–10. However, a marginal pick-up occurred in 2011–12. A significant drop in rural labour force participation over time indicates that rural areas are affected adversely during post-economic reforms and the economic policies failed to create proper employment

Table 13.1 Labour force participation rate in percentages gender basis

	1993–1994 50th round	1999–2000 55th round	2004–2005 60th round	2009–2010 66th round	2011–2012 68th round
Rural male	56.1	54	55.5	55.6	55.3
Rural female	33	30.2	33.3	26.5	25.3
Urban male	54.3	54.2	57	55.9	56.3
Urban female	16.5	14.7	17.8	14.6	15.5

Source Various rounds NSSO reports

opportunities in those areas However, the situation in the urban areas is not so clear, labour force participation increased marginally for urban male but female shows oscillation in the rate of participation during the same period except 2004–05 over the period of 1983–2004–05. Female participation rates in both regions (i.e., urban and rural) that decline over the period of economic reform indicate that these policies are incapable of providing gender-neutral opportunities.

Another indicator of labour force participation is considered an important way of looking at the employment situation in India. It generally imitates the harsh reality of work situations and a high value is interpreted as an enhanced well-being of the workforce. On the other hand, labour force participation is generally high in most disadvantaged areas, which exposes the household-induced poverty phenomenon. In such regions, people do not have any constant source of employment for a long period of time and they have to engage themselves in multiple economic activities for a short duration at low wage rates. Therefore, it is increasingly important to include qualitative aspects of the labour force participation rate in order to provide clarity in this analysis.

During this reference period (1993–94 to 2011–12), the work participation rate illustrates a declining tendency both for males and females, but there is a rise between 55th and 61st rounds. The same applied to the rural and urban sectors. Rural male work participation rate declined from 55.30 to 53.10% for the duration of 1993–1994 to 1999–2000, whereas female worker in rural sector declines its participation by nearly 3–29.90% from 32.80% in the same time reference. Nearly similar pictures are seen in the urban area during this reference period. The data suggest that there was a sudden increase in work participation rates from 1999–2000 to 2004–2005 in the sector and for both genders (Table 13.2).

13.1.2 Descriptive Trends

Over the reform period, the employment structure in India changed significantly. In the meantime, there are significant growth rates that have been observed, the same movement is absent in the participation of women in the labour force. India's employment structure has evolved significantly over the reform period. While significant growth rates have been documented in the meantime, the same trend has not been witnessed in the participation of women in the labour force. Examine the changes in labour force participation in fifteen major states from 1993–94 to 2011–12, and discover the micro patterns responsible for this change, as well as descriptive data for the regression model, in this section.

The first section of the table shows how women participate in the labour market in rural and urban areas. We see that during this period of reform, from 1993–94 to 2011–12, the participation rate of women in these two sectors is decreasing. The rural sector shows a significant decrease compared to urban areas, it was 0.287% in 1993–94 and recorded 0.252% in 2011–2012. There has been an almost 3% decrease in women's participation in the rural labour force.

Table 13.2 Work participation rate in percentage

Rounds	Usual status(ps + ss)		CWS		CDS	
	Rural		Rural		Rural	
	Male	Female	Male	Female	Male	Female
50	55.30	32.80	53.10	26.70	50.40	21.90
55	53.10	29.90	51.00	25.30	47.80	20.40
61	54.60	32.70	52.40	27.50	48.80	21.60
66	54.70	26.10	53.10	22.30	50.10	18.20
68	54.30	24.80	52.60	20.70	50.40	16.90
Rounds	Usual status(ps + ss)		CWS		CDS	
	Urban		Urban		Urban	
	Male	Female	Male	Female	Male	Female
50	52.10	15.50	51.10	13.90	49.60	12.00
55	51.80	13.90	50.90	12.80	49.00	11.10
61	54.90	16.60	53.70	15.20	51.90	13.30
66	54.30	13.80	53.60	13.00	52.20	11.70
68	54.60	14.70	53.90	13.80	52.80	12.50

Source NSSO (various rounds)

The following section in Table 13.3 presents the female labour force by educational attainment. A declining trend was documented for all educational levels during this period. It is worth mentioning that the fastest decreasing rate recorded in the higher secondary (HS) group was 0.70% in 1993–1994 and it decreased to 0.45% in 2004–2005, and it was a further increase to 0.47% in 2011–2012. The overall decrease was close to 23% during this period of study, which appears to be the largest decline in the educational attainment group. In particular, the decrease in female labour force participation (LFP) for "non-literate", secondary and tertiary education is 0.07%, 0.025% and 0.04%, respectively.

The third section of Table 13.3 provides a comparison of women's labour force participation by age group. This table shows that the first two age groups show a decrease in women's participation in the labour market. There was a steady downward trend from 1993–1994 to 2004–2005, but there was a slight correction in 2011–2012 for the age group as well. Specifically, the 15–29 age group experienced a significant decline over this period, from 0.28 to 0.245%, representing a nearly 4% decline in women's labour force participation. It should be noted that a marginal upward trend (close to 1%) was also observed in the 60+ age group from 1993–1994 to 2011–2012.

The effect of marital status on labour force participation is described in the following section of this table. It is apparent that there is a significant downward trend in labour force participation in all marital status groups except the divorced marital status group. Specifically, the unmarried group shows a significant reduction in participation rates between 0.11 and 0.09% over this period. But the divorced group shows a growing trend in participation during that time.

Table 13.3 Labour force participation rate

Variable	1993–1994 (50th)	1999–2000 (55th)	2004–2005 (61st)	2011–2012 (68th)	Difference
Rural	0.287772	0.274238	0.242282	0.252117	−0.03566
Urban	0.175454	0.154133	0.140652	0.14858	−0.02687
NL	0.330443	0.315484	0.260354	0.257243	−0.0732
Secondary level	0.151197	0.14531	0.155741	0.176282	0.025085
HS	0.703704	0.473232	0.457543	0.47202	−0.23168
Higher Edu	0.394533	0.385294	0.308517	0.34645	−0.04808
15–29	0.279906	0.254819	0.2271001	0.245406	−0.0345
30–60	0.369309	0.351263	0.3483003	0.354719	−0.01459
60 above	0.15259	0.150537	0.1529516	0.160349	0.007759
NM	0.115126	0.103554	0.073428	0.090862	−0.02426
CM	0.317738	0.305631	0.290595	0.298383	−0.01936
UM	0.312739	0.305247	0.297323	0.306928	−0.00581
DIV	0.557818	0.541946	0.565534	0.568489	0.010671
Hindu	0.263594	0.254397	0.223605	0.223493	−0.0401
Muslim	0.142794	0.133916	0.117722	0.118067	−0.02473
Others	0.237856	0.222203	0.227516	0.298387	0.060531
SC	0.398824	0.344322	0.30711	0.314412	−0.08441
ST	0.296361	0.269916	0.242336	0.236682	−0.05968
OBC		0.238305	0.218218	0.217418	−0.24089
OTH	0.223804	0.204372	0.153443	0.161344	−0.06246

The last two sections of Table 13.3 consider the impact of social and cultural variables on the participation of women in the labour market. The social structure in India is very fragmented because there is a caste system. This could significantly affect women's participation in the workforce. There is also evidence of a significant downward trend across all social groups. But the largest decline is resisted among the OBC group; it was 23% in 1999–2000 that is down to 21% in 2011–2012. The other cultural variable is religion, which is another important non-economic variable in India. In the present study, consider three groups of religion, i.e., Hindu, Muslim and others. The downward trend in female participation is observed among Hindu and Muslim religious groups, but there is an upward trend observed in other religious groups.

13.2 Method

The model for estimating women's labour force participation is divided into two parts. There are two main components to the model for estimating women's labour force participation. First, a linear model is examined and estimated for each round of the NSSO, and then a probit model is examined using the same set of variables. Consider a woman who has two options: to work or not to work. If the woman engages in the work, she receives a value of 1, and if she does not, she receives a value of 0. The specifications to be estimated are:

$$L = f\begin{pmatrix}\text{education level, age, household size,}\\ \text{social group, religion, marital status}\end{pmatrix} \tag{13.1}$$

In the above equation, L is the participation in the work of an individual woman taking the values 0 and 1. The EF is a dummy variable representing women's level of education that has been classified into four groups, namely, edugrp1 = illiterate, edugrp2 = literate but not finished primary school, edugrp3 = finished primary school but below secondary school, edugrp4 = secondary and above. AGE is an age which is further categorized into the following groups: agegrp1 is between age 0 and 14, aagegrp2 is aged between 15 and 29, age grroup3 is aged between 30 and 59 and age group4 has members of age 60 and above. Here, considers household land ownership to be a proxy for its assets. Here, religious belief is represented by a dummy variable religion, as religion group1 = Hindu, religion group2 = Muslim and religion group3 = others. M_status is a dummy variable representing marital status, i.e., marital 1 = unmarried, marital 2 = currently married, marital 3 = unmarried and marital 4 = divorced. The social group is a dummy variable representing the social position of individuals based on castes, categorized earlier into four groups, namely, social 1 = SC, social 2 = ST, social 3 = OBC and social 4 = others.

13.2.1 Results

In the previous section, women's participation in the labour force decreased at the aggregate level and this trend is followed across the population as a whole. Consequently, to see how women's participation in the labour market is determined, I consider a participation function probit. As a result, I estimate distinct engagement functions for each sampling year. To be more precise, I estimate a probit model according to the following specifications:

$$\begin{aligned}\text{lfpit} =& \text{aot} + 1\text{lnwageit} + 2\text{edu} + 3\text{m\_status}\\ &+4\text{socialgrp} + 5\text{religion} + 6\text{age} + 7\text{hh\_size}\end{aligned} \tag{13.2}$$

where lfpit is the participation indicator, which is a dummy variable equal to 1 in the case of an individual.

I take part in the labour force during the year t and equal to 0 if 0.

It is, in particular, the first person wage for year t in the specific reference period (here weekly). M status is a dummy variable that reflects the participant's marital status, which is divided into four categories: not married (NM), currently married (UM), unmarried (UM), and divorced (DIVO). Socialgrp is a dummy that is also categorized into three group vocals: Sc, St, and others. The EDU explanatory variable is a dummy representing female educational attainment. This variable is divided into four categories: primary, secondary, upper secondary and higher education.

The results derived from the probit model are presented in this section and the results obtained from the linear probability model are presented in Table 13.4. The main results of the estimate are in accordance with the theoretical predictions of the coefficient signs and the level of significance. The explanatory variables included in the regressions can be broken down into the following categories: education level, religious group, social groups, age, household assets (property ownership), marital status. Their impact on the participation of married women in the labour market will be discussed on a case-by-case basis.

The coefficients associated with female educational attainment were significant at the levels and specific in the signs for the years of this study. In the case of education dummies, the category 'higher education' is called the reference group. Therefore, the negative signs of the estimated 'secondary' coefficients indicate that less-educated women should not participate in the labour market. For example, using the probit model, the predicted coefficient of 'secondary' is 0.250 in the 68th rounds, indicating that girls with secondary education are roughly 25% less likely to participate in the labour market than females with higher education. Both estimates in the probit model and the linear probability model suggest that education has a positive impact on long-term participation. Significant growth has been observed in higher education of females nearly 3.53% and negative growth rate reflected in the secondary and higher secondary education (−45 and −46%) be a sign of human capital factors are becoming gradually more significant determinants of female labour supply in India.

The estimated coefficients for the women's age group are also significant for most of the NSSO round. Problem estimation is not statistically significant in Round 55. The estimated coefficient of age group 30–60 indicates a continuous increase from 20 (1993–1994) to 25% (2011–2012) overall, but there have been 55% growth rates observed in female participation. The participation in the labour between age group 15 and 29 is significantly higher (56%) among the age groups, though positive growth is also documented between age group 60 and above. As a result, female participation is expected to have increased from 1993–1994 to 2011–2012 within the age group, although there has also been a downward trend in female participation across the age group. Consequently, the estimated model supports the model of the u-shaped relationship between women's labour force participation and the age group.

Other social and cultural variables, such as religion and social groups, are equally relevant to a diverse country like India. The negative signs of religion reflect the prevailing social duty and belief system in society. Overall growth was negative

Table 13.4 Result of the linear probability model estimation

	50		55		61		68	
	Coefficient	$p > z$	Coefficient	$p > z$	Coefficient	$p > z$	Coefficient	$p > z$
Higher education (graduation and above)	0.42451	0	0.0381392	0.105	0.418783	0	0.453224	0
Higher secondary (class 10–12)	0.758516	0	0.0493668	0.74	0.580594	0	0.583743	0
Secondary (upto class 10)	0.036283	0	0.0125096	0.139	0.15632	0	0.144799	0
Religion group	−0.04939	0	0.0018623	0.794	−0.01225	0	−0.01613	0
Social group	−0.03019	0	0.0007156	0.563	−0.04295	0	−0.03812	0
Land owned	0.009273	0	−0,008,433	0.83	0.027293	0	0.028989	0
Household size	−0.01558	0	−0.0033784	0.988	−0.01778	0	−0.01748	0
Marital	−0.12235	0	0.0706935	0.752	0.056486	0.082	0.075562	0.006
Marital2	−0.06458	0.029	−0.0601566	0.787	−0.47184	0	−0.41873	0
Marital3	−0.52875	0	−0.0562458	0.801	−0.06161	0	−0.02968	0
Age 60 and above	1.49877	0	0.0128121	0.564	2.012045	0	2.031515	0
Age 30–59	2.036684	0	0.0035088	0.837	2.571377	0	2.573503	0
Age 14–29	1.637955	0	0.0066059	0.596	2.135262	0	2.143554	0
constant	−1.19343	0	−0.1600067	0.473	−2.02731	0	−2.09572	0
Log likelihood	−269,594.62		−31,167.255		−227,478.94		−297,113.21	
Pseudo R2	0.2103		0.2202		0.2711		0.2713	

Source Author's calculation

during globalization in India, estimated at 6.7% between 1993–1994 and 2011–2012, but for women, it was 12% over this period. This suggests that religious norms are high in determining the participation of women in the labour force in India. Social groups are another important variable that may be inferred from this study. The estimated coefficient is a documented and statistically significant negative sign in nearly all rounds except the 55th round. The estimated −0.030 in the 50th and −0.038 68th round, the negative growth has about 26% estimated for overall labour participation, but the growth in female labour participation registered a negative growth of about 83%. The probit model indicates that the female workforce was failing as a result of this social variable. Thus, existing social differences are crucial in determining women's participation in the workforce.

The estimate of household size, the coefficient is statistically significant and suggests that household size is negatively associated with labour force participation. Where a 12% increase is observed, which is conversely related to participation in employment. Over the same reference period, female labour market participation is more influenced by household size and negative growth is estimated at 36%. This may be because of the fact that the household responsibility primarily belongs to females in such a patriarchal society as India and it also indicates a gender gap in labour participation. Similar results are also estimated for the household ownership coefficient, which is considered a measure of replacement of primary household assets. The statistical meaning of this variable in most rounds will be interpreted as one of the key variables in a person's decision to participate in the labour market. For women, it becomes more significant because it shows the coefficient based on the growth rate. Thus, in the era of reforms, decisions about women's participation in the labour market are becoming more and more ambiguous due to the position of household assets, such as land held by households.

In particular, the probit estimates are statistically significant in most of the rounds except the 55th round, and LPM estimates suggest this negative effect of younger children on female labour supply shows the marked increase in magnitude over a year. Estimates of the number of household members are generally positive, although they are not statistically significant for some survey years. Finally, although it has been demonstrated that cohabitation with seniors contributes significantly to women's labour supply decisions, the estimated coefficients of the dummy variable. The fact of living with parents over 60 is not significant at conventional levels for all sampling years in the probit and linear model estimates. It is also important to stress that the explanatory variables representing the family structure of women can be endogenous. Therefore, they should be interpreted with caution.

13.3 Decomposition Framework

In this section, our prime concern is to investigate the change in the female labour force participation which can be decomposed into two parts, one is associated with social demographic composition or due to the discrimination. We use the methods

originally developed by Oaxaca (1973) and Blinder (1973) and subsequently refined by Reimers (1983), Cotton (1988) and Oaxaca and Ransom (1994). Following Oaxaca (1973) the difference in labour force participation of male and female can be written as follows:

Assume that the mean of male (S) is $(w^{-}s)$, and that of female (N) is $(w^{-}n)$ labourforce participation. Assume that the mean participation of male is determined by the following function

$$w^{-}s = fs(x^{-}s) \tag{13.3}$$

where, Xs is a vector of characteristics applicable to S and $(x^{-}s)$, denotes their mean values; similarly for N. The mean participation which the female (N) group would receive if they were paid according to the S earnings function is $fs(x^{-}n)$.

The gross difference in mean participation (G) between S and N can be divided into the part 'explained' by different personal characteristics (E) and the unexplained part (D), reflecting differences in 'participation structure', i.e., in the constant terms and coefficients of the regression equations for the two groups:

$$\begin{aligned} \mathrm{G} &= \mathrm{W}^{-}\mathrm{n} - \mathrm{W}^{-}\mathrm{s} = (\mathrm{W}^{-}\mathrm{n} - \mathrm{fn}(\mathrm{X}^{-}\mathrm{s})) + (\mathrm{fn}(\mathrm{X}^{-}\mathrm{s}) - \mathrm{W}^{-}\mathrm{s}) \\ &= \mathrm{fn}(\mathrm{X}^{-}\mathrm{n} - \mathrm{X}^{-}\mathrm{s}) + (\mathrm{fn}(\mathrm{X}^{-}\mathrm{s}) - \mathrm{fs}(\mathrm{X}^{-}\mathrm{s})) \\ &= \mathrm{E} + \mathrm{D} \end{aligned} \tag{13.4}$$

respectively. Similarly, the estimation of the wage received by the N group if they are paid according to the S wage structure permits the decomposition, into D + E, respectively,

$$\mathrm{G} = (\mathrm{fn}(\mathrm{X}^{-}\mathrm{n}) - \mathrm{fs}(\mathrm{X}^{-}\mathrm{n})) + \mathrm{fs}(\mathrm{X}^{-}\mathrm{n} - \mathrm{X}^{-}\mathrm{S}) \tag{13.5}$$

The term D is assumed to represent that part of the participation difference which is due to discrimination.

13.3.1 Decomposition Result

For decomposition analysis, use the similar specification which has been used in regression models. The decomposition method will give explanatory variables to clarify the differences in labour force participation between gender or simply explains the gender gap in labour force participation for the period of 1993–1994 to 2011–2012. This will also explain the changes that coexist among social, cultural and economic variables. Table 13.5 provides the result of the overall decomposition; the

Table 13.5 Blinder-Oaxaca decomposition

Blinder-Oaxaca decomposition female = 0 (male) female = 1 (female)	1993–1994 50th round	1999–2000 55st round	2004–2005 61st round	2011–2012 68th round
Difference	0.0074	−0.0011	0.3765	0.3551
Coefficients				
Lnwage	−0.0180	0.0286	2.0291	1.7101
Edu	0.0012	−0.0070	0.0331	0.0939
Religrp	0.0036	0.0036	0.0164	−0.0252
Socialgrp	0.0019	0.0001	0.0304	0.0338
hh_size	0.0015		0.0338	0.0369
m_status	−0.0016	0.0018	0.5838	0.5709
Land	0.0026	0.0190	−0.0378	−0.0638
_cons	0.0059	0.0004	0.4534	0.4201
Total	0.0074	−0.0011	0.3765	0.3551

Source Author calculation based on NSSO unit level data of 15 major states

bottom half of the table represents the contribution of each variable to female labour force participation.

The Oaxaca-Blinder decomposition is used to give an insight of the association (as is in the regression model) that characterizes the inequality in participation, it also allows to identify the causal effects and the factors responsible for this gap. Changes in the average probability of labour force participation among women. Decomposition analyses the potential for a participation gap caused in part by differences in determinant effects. This is due to changes in the 'effect of characteristics' and changes in the probability of participation which are based on the performance of those characteristics. As shown in Table 13.5, the effects of the coefficients represented a much greater proportion of the differences in the average probabilities of participation over the various survey years.

The outcome of the regression provides information on the associations between women's participation in the labour market and characteristics variables. The regression result does not give information on the contribution of these variable characteristics on inequality in participation. Hence, the decomposition method is required to describe the contribution of variables to participation inequality.

Gender inequality in participation increases significantly between 55 and 61%. It is documented at 0.37 in Round 61, which is also the highest in this period of study. There is a marginal correction in inequality between 2004–05 and 2011–12, with a decrease of 0.002% in 2011–12 compared to the previous round. Section 13.2 of Table 13.6 explains the relative contribution of explanatory variables to this gender gap in participation. Later, half of India's reforms led to a widening gap in labour force participation. The effect of wage ratios on this gap is more important when

comparing other demographic, cultural and social variables. The logarithmic wage (lnwage) is shared at 2.02–0.37% in 2004–05 and declines to 1.71 in 2011–12, respectively, in the inequality of labour participation. Marital status is emerging as the second contributor to the gender gap in labour force participation. Almost 60% of inequities are attributable to women's marital status in 2004–05, and a slight decrease was also observed in 2011–12. Demographic characteristics such as education and household size make equal contributions and follow the same model. Educational attainment documented a marginal increase in the effects of unequal participation in the workplace from 0.03 to 0.09 between 2004–05 and 2011–12. In addition, social variables play an important role in determining women's participation in the labour force. As shown in Table 13.6, social status makes a greater contribution to the gender gap in labour force participation relative to religious beliefs.

13.4 Conclusion

This paper estimates the economic, social and cultural constraints for the decline in female labour force participation. These challenges are seen as the most important to policymakers in the age of globalization. Externally disinclination was observed in the second half of the reform period, a significant increase in self-employment in terms of an increase in non-agricultural employment. Both the LFPR and the WPR increased during this stage. But these tendencies were also accompanied by a process of decline in agricultural growth (better to say agrarian crisis) even below the population growth rate, a decline in agricultural investment and a decline in agricultural and non-agricultural wage (Jha, 2007; Himansu, 2005) This paper has recognized the substantial decreasing rate in female participation in both at an aggregate level and in every demographic and economic variable. This trend is stronger for those with lower levels of education, married women and younger age groups.

The estimates specify that religious and social beliefs among women, level of educational attainment, household member and land ownership influence the possibility of India's females to participate in the labour market. Indeed, this document explores a multitude of factors that paid attention to the recent falling tendency and long-term sluggishness in the participation rates of working-age women in India. According to the estimates, religious and social beliefs among women, degree of educational attainment, members of the household, and land ownership all influence women's right to participate in the labour market in India. Indeed, this article investigates a wide range of factors that have contributed to the recent downturn and long-term sluggishness in working-age women's participation rates in India. Some of these attributes, such as improved educational participation and family income levels, are certainly beneficial for society and reflect India's rapid economic development. This analysis explains that there is a large gender gap when it comes to labour force participation. The gap becomes wider during this period of reform. The effects of social and cultural variables such as caste and religion are crucial in determining decisions regarding women's participation in the workforce. As household assets,

improve, households discourage their female members from taking part in economic activities. According to the decomposition analysis, there is a significant gender disparity in labour force participation. During this reform period, the chasm widens. The impact of social and cultural factors such as caste and religion on decisions about women's participation in the workforce is critical. As a household's assets increase, female members are discouraged from participating in economic activities. In India, economic reform was meant to be a process of capitalist development that would increase investment and wage employment; instead, we've seen agrarian disaster, industrial standstill, and jobless growth. Such a phenomenon can be called 'arrested capitalist development' as employed by Patnaik (2000).

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Part V
Financing for Human Development

Chapter 14
Backward Regions Grant Fund: Is the Allocation Justified?

Archita Ghosh and Bishakha Ghosh

14.1 Introduction

In a country as big as India, every region is not equally rich in endowments, nor is there an equitable income distribution. There exists a considerable disparity in the standards of living across regions. In India, there have been many plans aimed at reducing the regional imbalance, and all of them have a top-down approach. The Backward Regions Grant Fund (2007–08 to 2013–14) was designed as a supplementary fund to other Centrally sponsored schemes. It aimed at filling the critical gaps in local infrastructure and other development needs through people's participation from the planning to the implementation level (Government of India, 2007). Launched at Barpeta, Assam, in February 2007, the BRGF Programme covered 250 districts, identified as backward, in 27 States.

The programme had two types of grants—the capacity building grant and the development grant. Rs. 250 crores per annum were allotted for capacity building in planning, implementation, monitoring, accounting, and improving accountability and transparency. The capacity-building fund would include arrangements for contracting and outsourcing. The untied development grant was meant for development works or for bridging critical gaps in the integrated development process. The works were supposed to be identified through a participatory planning process in Panchayats and municipalities.

From the perspective of fund allocation, the uniqueness of BRGF lies in the fact that no Centrally funded scheme was as 'untied' as the BRGF. Therefore, the funds can be utilized according to the preference of the Panchayat/Municipality, so long as it fills a development gap and the work is identified through people's participation.

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Also, no other individual programme spent as high a share of funds, nearly 11% of the total allocation, for capacity building and staff provisioning.

The programme involved the identification of districts first. Then the allocation was done among the districts following a few criteria as given below:

(1) Every identified district would get a fixed Rs. 1 crore per annum under the capacity-building grant.
(2) Under the development grant, 50% of the allocation would be done based on the share of the district's population in the total population of all districts.
(3) The rest 50% would be on the basis of the share of the area of the district in the total area of the backward districts.

Rupees three thousand five hundred crores of the untied grant was allotted in 2006–07 for development works or to bridge critical gaps in the integrated development process identified through the participatory planning process in Panchayats and municipalities. Ten crores of this Development Grant was given to each backward district as a base amount. The rest was distributed according to criteria 2 and 3 above. Table 14.3 in the Appendix provides the horizontal allocation criteria for eight states.

The criteria for intra-district allocation were left to the discretion of the state. Consequently, states devised their own criteria for allocating funds among the Mandals/blocks. Table 14.4 in the Appendix gives an idea of the variation in vertical allocation among the states.

In Andhra Pradesh, the intra-district allocation of funds followed the population as well as its composition. Thus, 50% allocation was based on population, and the rest 50% was based on SC and ST population of the Mandal. The basic assumption behind the latter criteria is that the areas with high SC/ST populations are backward. Other variables of backwardness were not considered.

Although studies show that a region's backwardness is positively associated with its share of the ST population in the total population (Bakshi et al., 2015), such an association with the SC population is not beyond doubt. In this study, we would like to test the assumption that the areas with high SC and ST populations are backward, taking all Mandals of Adilabad district of erstwhile Andhra Pradesh. We attempt to develop an index of backwardness for the Mandals and use it to examine how far the adopted criterion reflects backwardness.

The objectives of our study are:

To examine whether the areas with high SC and ST populations are actually backward;
To examine whether the intra-district fund allocation in the district of Adilabad is justified when the backwardness of the Mandals is taken into consideration.

The rest of the chapter is organized as follows. In Sect. 14.1.1 and 14.1.2, we discuss the criteria used for selecting backward districts and those for allocating funds within the selected districts. In Sect. 14.2, a brief survey of the literature is presented. The methodology used for the study is discussed in Sect. 14.3. In Sect. 14.4, the results of our study are presented, and finally, Sect. 14.5 concludes.

14.1.1 Identifying Backward Districts

From the year 1960, there were several attempts to identify the poorest or most backward districts in the country. A committee (headed by E. Sarma) of the Government of India's Ministry of Rural Areas and Employment (previous name for the Ministry of Rural Development) conducted one of the most elaborate exercises to identify backward districts in 1997. The committee considered a few parameters, namely incidence of Poverty, Education, Health, Water Supply, Transport and Communications and Degree of Industrialization. It used a composite method with differing weights for calculating the backwardness of the districts.

Non-governmental organizations have also made attempts to draw up lists of the backward districts. Debroy and Bhandari (2013) made a comprehensive estimation of district-level deprivation in 2003. They used six indicators derived from the UN Millennium Development Goals—Poverty, Hunger, Infant mortality, Immunization, and Literacy and elementary school enrolment. They considered districts, which figured in the bottom quarter under four of these six criteria as the country's 'most backward' districts. The list had 69 districts.

In 2002, under the 10th Plan, the Planning Commission identified India's 100 most backward districts. This list was specific to the Rashtriya Sam Vikas Yojana (RSVY) Programme. It covered one or more backward districts in all states of the country except Delhi, Goa, Bihar, and Orissa. The first two had been excluded because they had no backward districts. The other two were excluded because the RSVY Programme had particular components for Bihar and the Kalahandi-Balangir-Koraput (KBK) region of Orissa.

According to the Report of the Task Force on 'Identification of Districts for Wage and Self-employment programmes' (Planning Commission, 2003), 449 districts were identified as backward based on 3 Parameters: Percentage of SC and ST population, Agricultural Wages and Output per Agricultural Worker. Therefore, the districts with low wages, low productivity and high SC/ST population would be ranked backward on this index.

The Backward Regions Grant Fund, aimed explicitly for backward districts, identified the backward districts based on the Rashtriya Sam Vikas Yojana (RSVY) classification of districts. In addition, it also uses the National Rural Employment Guarantee Act list of districts.

14.1.2 Intra-District Allocation of Funds Under BRGF

After identifying the districts, the vertical allocation of funds from BRGF among the three tiers of Panchayati Raj Institutions—the ZP (Zilla Parishad), the MP (Mandal Parishad) and the GP (Gram Panchayat)—was decided by the state governments. For example, in Andhra Pradesh, for each district, 50% of the total allotted funds were

allocated to the GPs (village/municipality level), 30% to the MPs (block level) and 20% to the ZPs (district level).

As has already been mentioned, in Andhra Pradesh, the intra-district allocation of funds following the population and its composition. 50% allocation was based on population, and the rest 50% was based on SC and ST population of the Mandal. With this formula, funds were allotted at the rate of Rs. 27.15157985 per capita for general category and Rs. 68.5260504202 per capita for Scheduled caste and Scheduled Tribe category.

14.2 A Brief Survey of Literature

There are many studies by both Government Organizations like the Planning Commission and non-Government organizations and individual researchers aiming at evaluating the impact of BRGF on the targeted beneficiaries. The first independent evaluation was carried out by the World Bank in 2010. The review team stressed the need for clarity in defining the objectives and expected outcomes.

Studies like World Bank (2010), Government of India (2014) and Srinivas and Kapur (2015) have discussed in detail about the practical problems in implementing the project.. The inadequacy of the grant, especially at the GP level, hinders the objective of filling critical gaps in infrastructure severely. The paucity of funds led to taking up projects that were trivial at worst and non-critical at best. Moreover, the ambiguity in the definition of critical infrastructural gaps in the BRGF guidelines has reduced the programme to a supplementary grant-giving one.

The problem of paucity of funds was compounded by the slow release of funds from the central government. The proportion of funds received by the districts also varied significantly (Srinivas & Kapur, 2015).

The most critical infrastructure gaps pertain to inter-Gram Panchayat and inter-Mandal areas. These works are supposed to be undertaken by the Zilla Parishads and the Mandal Parishads. However, the lion's share of allocation goes to the Gram Panchayats, resulting in works mainly concentrated within the territory of the GPs. The problem of the critical infrastructural gap remains unsolved (Government of India, 2014).

Problems also emanate from the assumption of the district as a homogenous unit (Baruah, 2009). The BRGF Guidelines identify a backward district as the unit of a backward region. All the Blocks (MPs), Urban Local Bodies (ULBs) and GPs under the jurisdiction of the particular district are thus entitled to allocation under the BRGF. However, in many BRGF districts, there are significant and noticeable inter-block and even intra-block development gaps. Some parts of a district are distinctly better off in terms of infrastructural and other development indicators than others due to historical, geographical and political reasons (Government of India, 2014).

Attempts have been made to measure the programme's efficacy in the states of Assam, where the programme was flagged off (Baruah, 2009; Borthakur, 2014), and Chhattisgarh (Singh & Bal, 2020). Baruah (2009) has conducted a study on

six districts of Assam under BRGF and has developed a programmable index to measure the block-level development within a district. However, Baruah assumes a continuous development process, and that makes the indicators used to create the index continuous too. The author recognizes that, in reality, continuous indicators do not always make sense.

A study by Bakshi et al. (2015) attempted to rank districts of India and blocks within each district according to backwardness. For calculation of backwardness, they have considered five variables: agricultural workers as a proportion to total workers, female literacy rate, percentage of households without access to electricity, drinking water, and sanitary latrine within premises and without access to banking facility. For technical issues, they have excluded the percentage of SC and ST populations from the list of variables for constructing the backwardness indices. When the indices calculated are compared with the percentage of SC and ST population, they found a high correlation of backwardness with the proportion of ST population. The Sub-districts (Mandals) are ranked in the decreasing order of backwardness. We have taken this paper as a point of reference in our work.

14.3 Study Area, Data and Methodology

Adilabad district was chosen as our study area (See map in the Appendix). The district was a part of Andhra Pradesh during the full term of BRGF. It has 52 Mandals organized into 5 Revenue Divisions. The 2011 Census shows the existence of 1,725 villages, of which 135 are un-inhabited. 15 Census Towns and 7 Municipalities form the urban areas. The district was chosen as a backward one, but it showed pockets of developed areas as well as extremely backward areas.

The state of Telangana was formed in 2014. Adilabad became a part of Telangana. Subsequently, it was subdivided into four districts: Adilabad, Asifabad (new name being Kumaram Bheem), Nirmal and Mancherial. The present study is based on secondary data. We have collected Data on Mandal level allocation by visiting the Zilla Parishad office located in Adilabad town of the district of Adilabad. The data on population and its caste composition are taken from Census (2011). Data on amenities at Mandal and village level are obtained from District Census Handbook, Adilabad District, Andhra Pradesh Series 29 Part XII-B, 2011.

To examine the extent to which the allocation within a district has been according to its backwardness, two sets of backwardness indices are considered—one provided by Bakshi et al. (2015) and the second one calculated by the authors with a set of variables different from that of Bakshi et al. (2015).

With a focus on the delivery of public services, we have chosen indicators that reflect a lack of public services in education, health, irrigation, connectivity, and the provision of potable water, electricity and latrine at the household level. Nearly every village has access to Primary school, but there is a dearth of Middle and High schools. Therefore, the backwardness in education is measured by the percentage of villages in a Mandal for which the nearest middle school is at a distance of more than

5 km. Similarly, the percentage of villages in a Mandal for which the nearest Primary Health Centre is more than 5 km away is taken as an indicator of lack of provision of health services. For measuring agricultural backwardness, we have considered the share of total unirrigated land in total cultivated land of the Mandal.

Connectivity remains a major criterion of development in an increasingly globalizing world (World Bank, 2019). In a primary survey conducted in 2019–20, we have seen that connectivity remains a deciding factor for perpetuating backwardness. We have selected three variables that reflect lack of connectivity for the Mandal: the percentage of villages in the Mandal at a distance of more than 5 km from (a) the nearest road, be it National Highway, State Highway, Major District Road and Other District Roads, (b) the nearest Public Call Office and (c) the nearest weekly haat (market). A simple arithmetic mean of these three indicators has been taken to yield the indicator for lack of connectivity.

To measure the quality of infrastructure at the household level, we have taken the percentage of households in a mandal without treated drinking water, electricity and latrines. Then, an arithmetic mean of the three indicators of household-level infrastructure is calculated.

We have taken the infrastructure index in two ways. In the first case, we have considered only connectivity, education, health and irrigation, and in the second case, we have added household-level infrastructure along with these four indicators. For the final choice of variables for creating an index of infrastructural backwardness (referred to as Infra index), we have calculated correlation coefficients between the variables. We have considered those variables only, which have correlation coefficients between 0.25 and 0.9. A simple Geometric Mean of the variables selected in this way is taken as the index of backwardness. (This is in contrast to Bakshi et al. (2015), who have taken Simple Arithmetic Mean for the index). The 52 Mandals are ranked in the decreasing order of backwardness. (See Table 14.5 in Appendix).

For arriving at our results, we have calculated Rank Correlation Coefficients between.

the Infra index and total allocation among the Mandals;
the Infra index and the percentage of SC population;
the Infra index and the percentage of ST population;
the Infra index and the percentage of SC and ST population in the Mandals.

All the above rank correlations have been re-calculated, replacing Infra indices with the indices provided by Bakshi et al. (2015).

14.4 Results

The correlation coefficients between the indicators of infrastructure [with (Infra HH) and without (Infra) adding household-level infrastructure], Education, Health, Connectivity and agricultural backwardness are presented in Table 14.1.

Table 14.1 Correlation matrix

	Infra	Infra HH	Connectivity	Education	Health	Irrigation
Infra	1					
Infra HH		1				
Connectivity	0.44	0.32	1			
Education	0.498	0.286	0.356	1		
Health	0.132	0.255	0.502	0.265	1	
Irrigation	0.036	0.223	0.416	0.378	−0.015	1

Source Authors' calculation based on secondary data

Table 14.2 Rank correlations between backwardness indices, allocations and population composition

	Bakshi et al. (2015)	Total allocation	Share of SC population	Share of ST population	Share of SC and ST population
Infra	0.369	0.092	−0.041	0.264	0.308
Bakshi et al. (2015)		–0.267	−0.074	0.431	0.485

Source Authors' calculation based on secondary data

Depending on the correlation matrix, we have selected four variables for calculating the index, namely, Infra/Infra HH, connectivity, education infrastructure and health infrastructure.

We find a negative rank correlation between the index provided by Bakshi et al. (2015) and Infra HH and a positive correlation (0.369) between the index provided by Bakshi et al. (2015) and Infra. Therefore, we have taken only the Infra index for calculating rank correlations. The results are given in Table 14.2.

Our results indicate a positive relationship between the backwardness index (Infra) and the proportion of the ST population as well as that of the SC and ST population in the Mandals. These corroborate the findings based on the indices provided by Bakshi et al. (2015). However, both the correlations are weaker in our case. Interestingly, the correlation between Infra and the share of SC population is negative, signifying that the presumption of the areas with higher SC population being necessarily backward is incorrect. This fact is also corroborated by the indices provided by Bakshi et al. (2015). Therefore, treating the SC population at par with the ST population for defining backwardness is not justified.

We also find an insignificant correlation between our backwardness indicator and total allocation. This correlation surprisingly came out to be negative in the backwardness indices provided by Bakshi et al. (2015). This outcome may be caused by the equal weights given to SC and ST population in the allocation criteria, and the resulting high allocation of funds to SC dominated areas that are not as backward as the ST dominated areas.

14.5 Conclusion

The BRGF programme aimed to provide funds to bridge the infrastructural gap in selected backward districts of India. The state administrations devised their own formulae for the allocation of funds at the sub-district level. In the Adilabad district, the allocation was based on the total population and proportion of SC and ST populations. The reason behind such allocation was the assumption that predominantly SC–ST areas are backward. Using an index based on infrastructural gaps, we find that while areas with a high share of the ST population are backward, those with a predominantly SC population are not. Thus, the intra-district fund allocation in the district of Adilabad does not seem to be justified. A more equitable allocation should be based mainly on the ST population and also on the infrastructure criteria.

Appendix

See Tables 14.3, 14.4 and 14.5 and Fig. 14.1.

Table 14.3 Horizontal allocation criteria for 8 states

States	IP	GP
Andhra Pradesh	50% population 50% SC/ST population	50% population 50% SC/ST population
Assam	100% Population	100% population
Bihar	100% population	Equal share allocation
Chhattisgarh	No criteria for PRIs & 100% population for ULBs	No criteria
Madhya Pradesh	No criteria	No criteria
Orissa	No criteria	No criteria
Rajasthan	No funds to the blocks	50% population 50% Below Poverty Line families
West Bengal	50% population 50% based on 7 criteria, some of those reflecting backwardness	50% population (1991) 50% Non-literate population (1991)

Source Table 7, World Bank Evaluation Report (2010)

Table 14.4 Vertical allocation of funds from BRGF in 8 states

State	ZP (%)	IP (%)	GP (%)	Remarks
Andhra Pradesh	20	30	50	
Assam	20	30	50	
Bihar (2007/08)	2	6	92	Allocation was changed based on a commissioned study by Government of Bihar
Bihar (2008/09)	10	20	70	
Chhattisgarh	100	0	0	Disbursement to GPs and MPs is based on DPC approval of projects
Madhya Pradesh	100	0	0	Disbursement to GPs and MPs is based on DPC approval of projects
Orissa	20	30	50	
Rajasthan	0	0	100	Some attempts from DPC to influence the priorities
West Bengal	20	20	60	

Source World Bank Evaluation Report (2010)

Table 14.5 Rank of Mandals in Adilabad District in the decreasing order of backwardness

Mandal	Rank	Mandal	Rank	Mandal	Rank	Mandal	Rank
Adilabad	21	GudiHatnoor	48	Kouthala	28	Nirmal	49
Asifabad	29	Ichoda	14	Kubeer	18	Rebbana	25
Bazarhatnoor	23	Indravelli	33	Kuntala	15	Sarangapur	22
Bejjur	3	Jainad	39	Laxmanchanda	51	Sirpur	2
Bela	7	Jainoor	35	Lokeswaram	31	Sirpur (T)	9
Bellampalle	52	Jaipur	10	Luxittepet	12	Talamadugu	16
Bhainsa	41	Jannaram	27	Mamda	24	Tamsi	46
Bhimini	30	Kaddam	42	Mancherial	17	Tandur	44
Boath	11	Kagaznagar	38	Mandamari	50	Tanoor	26
Chennur	34	Kashipet	45	Mudhole	37	Tiryani	47
Dahegaon	40	Kerameri	4	Narnoor	6	Uthnoor	19
Dandepalle	13	Khanapur	32	Nennal	8	Vemanpalle	1
Dilawarpur	43	Kotapalle	5	Neradigonda	20	Wankhdi	36

Source Authors' calculation based on the infrastructure indices

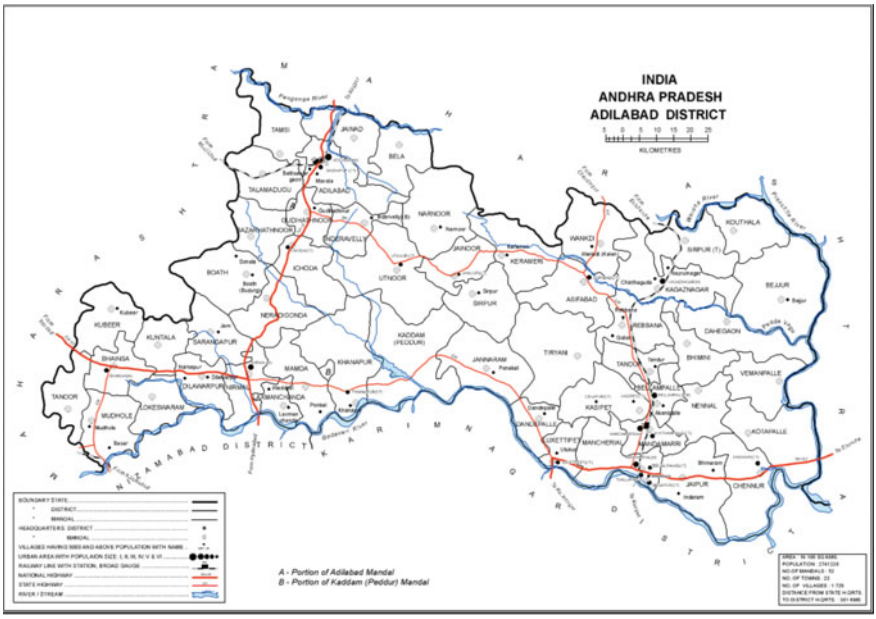

Fig. 14.1 Map of Adilabad district. *Source* Census of India (2011), District Census Handbook, Adilabad, Andhra Pradesh Village and Town wise Primary Census Abstract, Series 29, Part XII B, Directorate of Census Operations, Andhra Pradesh

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Chapter 15
Private Provision of Public Goods Through Corporate Social Responsibility (CSR) in India

Indranil De and Sudhir Kumar Sinha

15.1 Introduction

Intervention by government to address concerns of externalities is well established. Government may intervene through command and control policies and market-based policies. It is the responsibility of government as an institution to internalize the externalities, impose taxes and spread the cost of public good provision among taxpayers. However, there could be government failures due to omissions and commissions (Krueger, 1990). Furthermore, government may fail to assign the right social weight in decision making and incur high transaction cost of monitoring (Basley & Ghatak, 2007). This justifies private provision of public good, whereby private companies would expend for production of public good, popularly known as corporate social responsibility (CSR) in India.

There are arguments that private companies should only focus on profit maximization, leaving the task of public goods provision to government (Friedman, 1970). The institutional role of private company is profit maximization. Any CSR expenditure may be considered as moral hazard towards shareholders. However, the shareholders themselves may be interested about social and environmental performance of their firms, which is consistent with ethical discretionary and institutional legitimacy principle in management (Jensen, 2002; Wartick & Cochran, 1985; Wood, 1991). Moreover, if government fails to provide optimal levels of public goods then private provision of public good through CSR would lead to second best equilibrium level of public good provision (Basley & Ghatak, 2007). It is consistent with profit maximization objective of firms and creates Pareto-improvements. While the firms

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sell ethical brands in equilibrium, consumers also self-select CSR according to their valuation of public good. Firms may pass the CSR costs to the consumers. Pareto improvement would occur if the welfare gains of consumers caring about society and environment are high (Kitzmueller & Shimshack, 2012).

The pareto improvements in CSR may depend on welfare gains by caring consumers vis-a-vis others such as free riders who care about social and environmental values but do not want to bear the cost and consumers who are neutral to these values. As in public good, CSR may also be affected by free-riding problem (Kitzmueller & Shimshack, 2012). Hence, companies may fail to spend on CSR if the weight of free riders and neutral consumers is higher. Thus, regulation may become relevant to make companies to make CSR contributions. In India, CSR spend has been made mandatory under Sect. 135 of Companies Act 2013. On the contrary, CSR is considered as voluntary behaviour to fulfil responsibilities beyond compliance or those dictated by law markers (Calveras et al., 2007; McWilliams & Siegel, 2001; Vogel, 2005).

The study attempts analyses whether CSR spend in India has been able to provide public goods required by the community for social upliftment and environmental protection. We have also looked into sector-wise the CSR spend by companies since 2013 for provision of public goods. For in-depth understanding of CSR activities, we have analysed a few case studies of CSR projects in India. We attempted to understand how far the CSR activities have been able to build capabilities within communities, which the traditional economic literature has not investigated.

15.2 CSR Law in India

In India, CSR spend has been made mandatory under Section 135 of Companies Act 2013 for the companies having net worth of INR 500 crore or more or having a turnaround of INR 1000 crores or more or having net profit of INR 5 crore or more during the preceding financial year. The companies have to constitute a Corporate Social Responsibility Committee. The CSR Committee would formulate and recommend the Board a CSR Policy and recommend the amount of expenses on the activities. The Board would in turn ensure that the company spends at least 2% of the average net profits of last three immediately preceding financial years.

The company may spend in twelve activities specified in Schedule VII of Companies Act.[1] If the amount is not spent, then the Board of directors should explain the reasons for not being able to meet the obligations. The companies have to direct their unspent amount to government funds specified in Schedule VII within six months of expiry of the financial year. Bansal et al. (2020) found that the Act failed to make all the companies spend 2% profit, but it did lead to increase in CSR expenditures. It also let the eligible firms spend an average of 1% of their profits on CSR. However,

[1] For activities included in Schedule VII visit https://www.mca.gov.in/SearchableActs/Schedule7.htm.

the peer pressure on CSR and intrinsic motivations for CSR diminished after the Act was implemented.

15.3 Economic Rationale for CSR

Public goods can be provided by government through the public servants. However, the public servants may lack motivation in the event of imposition of policies by politicians and regime change (Basley & Ghatak, 2005). The productivity of the bureaucracy will change endogenously due to change in political boss or the principal in the principal-agent framework. Moreover, if non-government organizations are financed by government for public goods provision then the donation may be conditional on changing mission of the organization. The preference of the mission may be determined by electoral concerns or constitutional restrictions. Thus, government-funded organizations are less likely to be efficient for public goods provision than those privately financed through endowments. Public bureaucracies may be conservative and resistant to change as innovations that improve efficiency from the standpoint of financial accounting measures may not have much implications for bureaucrats. The for-profit organizations may not be plagued by this problem.

Public goods provision by for-profit private organizations may not have the problems of public bureaucrats. The moot question is whether CSR by private organizations is feasible and desirable in a competitive environment. This is especially as any public service provision by private has implications on marginal cost and price of the product. There could be two types of consumers in the market: caring and neutral. The caring customers have preference for provision of public good or common good (merit goods) by the private enterprise. The neural customers are indifferent about private provision of public good but not averse. If the caring customers are willing to buy product of the firm which is taking up the cause by providing public goods and if other consumers are neutral with no adverse effect, then CSR, defined as production of public good in market equilibrium or part and parcel of market process, creates a Pareto-improvement (Basket & Ghatak, 2007). CSR contribution is envisaged as voluntary behaviour as fulfilment of responsibilities beyond market forces or law (Brinkerhoff & Brinkerhoff, 2011). It reproduces second best level of public goods provision envisioned by standard literature.

CSR bundles public good with the private good. Thus, it reduces institutional transaction cost to deliver social goal (Basket & Ghatak, 2007). Compared to private enterprise, government may have higher monitoring cost and may not use appropriate social weights in decision-making. However, if the private enterprises lack economies of scope then government should provide public goods and private should produce private goods only (Brinkerhoff & Brinkerhoff, 2011). CSR is sustainable if shareholders themselves care about social and environmental performances. Firms may opt for CSR due to strategic reasons induced by demand side pressure and hedge against the risk of future regulation and activism.

As in public good provision by government, CSR is also subject to free-riding problem (Basley & Ghatak, 2007). The positive externalities from the public good or ethical version of the good may not get internalized fully by the caring consumers. Hence, in a voluntary-contribution equilibrium, public goods would be underprovided. The profit maximizing firms may also renege on their promise to produce public goods, raising a question on the sustainability of CSR. In this regard, as small uniform regulation for mandatory CSR contribution may leave public goods unchanged and would lead to redistribution of contributions from caring to neutral consumers. The CSR law in India under Section 135 of Companies Act 2013 assumes importance in this regard. A larger level of regulation would lead to increase in contributions to the public good. Uniform regulation can achieve the level of first best public goods provision at the cost of redistribution effects (Brinkerhoff & Brinkerhoff, 2011).

CSR contribution under regulation may lead to problem by making provisioning of public goods mandatory for all, even for agents and principals lacking missionary motivations. As a result, it may bring back the problems of public bureaucracies. Missions may not be developed with close consultations with clients. This may make the efforts less productive (Basley & Ghatak, 2005). There could be differences between mission preferences of the principal (owners of company) and the motivated agents (implementers of programme). To resolve it, co-production of public goods is required.

15.4 Co-production

Private participation in public goods provision is seen as a great threat by both public administration purists and market purists. The former found it threatening to the insulation necessary for clearheaded decision in public interest and the latter perceived it distorting the logic of individual incentives and rational resource allocation (Evans & Autonomy, 1995). However, the divide is hypothetical. Contributions from citizens towards public goods along with government may lead to better provision of public good. This is because citizens can play an active role in production of public goods services that are consequent to them (Ostrom, 1996). This process of production of public good is co-production, where two individuals from different organization can provide inputs to produce public good and services. These two individuals could be government and private. The latter may intervene through CSR.

The provision of inputs by two individuals (or cost sharing), government and private, does not always lead to better public goods provision. The condominial system of sewerage in Brazil was very successfully co-produced through citizen engagement (Ostrom, 1996). On the contrary, primary education in Nigeria could not be provided satisfactorily due to top-down approach and lack of citizen engagement. Similarly, in resettlement sites in Ahmedabad city, cost and management burden of basic services were shifted to the resident welfare associations without engaging with

the community since the inception of project (Mahadevia et al., 2016). The community had no financial capacity, time and sense of belonging for the project. Hence, co-production of public goods and services should happen through an institutionalized regular and long-term relationships between state agencies and organised groups of citizens (Joshi & Moore, 2004). Thus, co-production would be able to replace the principal-agent relationship in public goods provision (Brinkerhoff & Brinkerhoff, 2011). Motivation of implementers may be important for co-production.

15.5 Methodology

The study analyses macro level data on CSR expenditure of Indian companies as provided by Ministry of Corporate Affairs. This would include information regarding CSR expenditure on various public goods. We have compared the sector-wise proportion of expenditure made by CSR and government.

We have analysed the CSR models of various reputed public and private sector enterprises. We have selected projects from three core sectors: public health, education and environment. The environmental projects are also linked with livelihood. These case studies illustrate the motivation of the projects, project design, implementation and outcome. Through case studies we examine how far these projects were able to co-produce development by engaging community and capacity building. Two projects juxtaposed against each other for delivery of public health services are Nand Ghar by Vedanta Resources Ltd and *Didi-Bandhu* Initiative by Tata Steel. The projects considered in education sector are Innovation Model School by Central Railside Warehouse Company Limited (CRCWL) and Non-Conventional School by North Eastern Electric Power Corporation Limited (NEEPCO). The projects considered for environment and livelihood are Revival of Municipal Solid Waste Plant by Nuclear Power Corporation of India Limited (NPCIL), and Fabrication & Deployment of Artificial Reef by Nuclear Power Corporation of India Limited (NPCIL).

The case studies have been conducted through secondary research and primary data. Secondary research has been done by exploring the CSR policies of companies and CSR project documents. Primary survey was also conducted on the CSR officials of the companies, officials of implementing partners such as NGOs and the beneficiaries. Unstructured interview was conducted to understand the project modalities, community engagement and benefits of the project.

15.6 CSR Expenditure in India

The overall expenditure on CSR in India has increased from 2014–15 to 2018–19 by 85%. After the initial increase between 2014–15 and 2015–16, it has marginally declined till 2017–18, but again increased sharply between 2017–18 and 2018–19

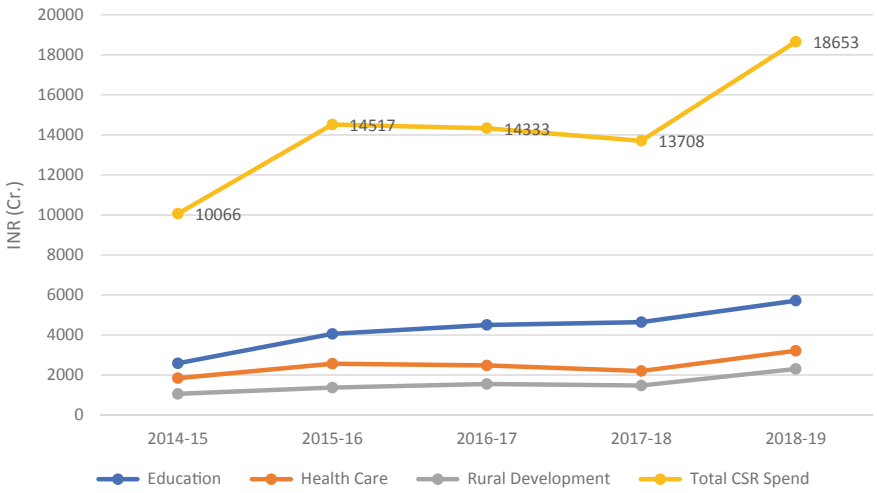

Fig. 15.1 CSR expenditure in India. *Source* Ministry of Corporate Affairs, Government of India

(Fig. 15.1). The highest amount of expenditure has been made in education, which has increased continuously over the last five years. It is followed by expenditure in healthcare, which has marginally declined between 2015–16 and 2017–18 (same as the trend of total expenditure), but otherwise has increased on year-on-year basis.

Sector-wise segregation of CSR spend demonstrates that around one-third of the CSR spend of the companies were in education between 2016 and 2019. The expenditure on health care and rural development were around 17% and 11% respectively (Fig. 15.2). The proportion of expenditure for other development sectors is very less.

We have compared the expenditure made by government and CSR on development sectors. Around 80% of expenses, that are comparable, are taken into account for comparison (Table 15.1). Education is the priority in both government and private CSR spend. While next important area of expenditure for government is agriculture and allied services, it is health care, drinking water and sanitation for CSR. Rural development and livelihood enhancement projects are next most important areas for CSR. It appears that CSR amount is spent in areas of priority for the government. CSR spend supplements government expenditure, rather spent in areas where government expenditure is very less, such as urban development.

15.7 Case Studies of CSR Project

In this section, we have critically analysed whether CSR spend helps in promoting public goods provision in healthcare, education, environmental improvement and livelihood. We have taken a critical view of CSR model and activities undertaken by the companies. We have studied whether CSR spends build the capabilities of

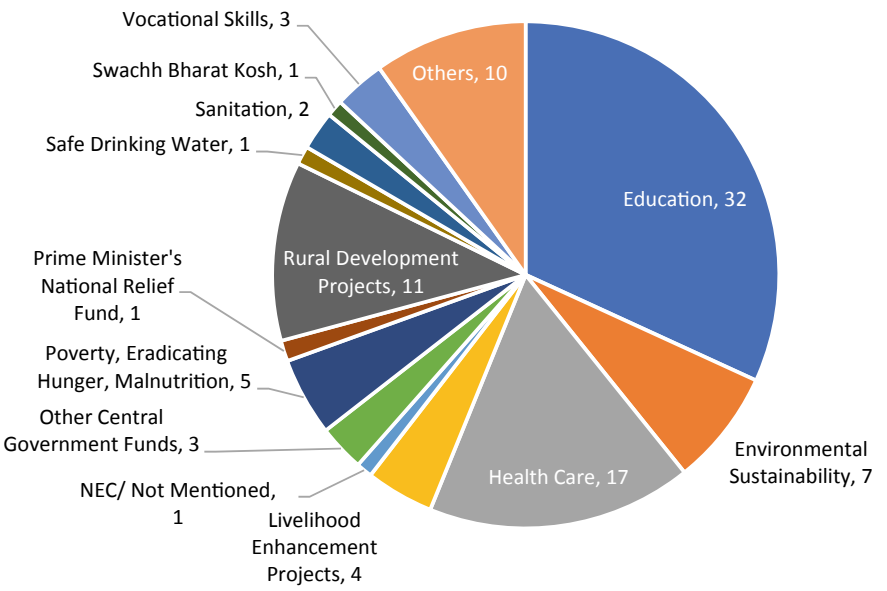

Fig. 15.2 Percentage distribution of CSR funds by development sectors (2016–19). *Source* Ministry of Corporate Affairs, Government of India

Table 15.1 Comparison of distribution of government and CSR spend by development areas

Combined revenue and capital expenditure of centre and the states		CSR expenditure	
Development areas	2015–18	Development areas	2016–19
Education, art, culture	21.50	Education	31.84
Medical, public health, water, sanitation, family welfare	10.27	Health Care, Drinking water and Sanitation	21.61
Scientific services & research	1.34	Environmental Sustainability	7.38
Agriculture and allied services, Social Security and Welfare	19.76	Livelihood Enhancement Projects, Poverty, Eradicating Hunger, Malnutrition	9.34
Labour and employment	0.74	Vocational Skills	3.26
Power, irrigation and flood control, transport and communication	24.71	Rural Development Projects	11.44
Urban Development	3.97		
Total	82.29		84.88

Source Ministry of Corporate Affairs and Ministry of Finance, Government of India

communities for long-term improvement in public health, education and skills, and environment and livelihood opportunities. In this regard, we would compare two CSR projects from similar sectors.

15.7.1 CSR in Public Health

The CSR projects considered under public health services are Nand Ghar by Vedanta Resources Ltd and Didi-Bandhu Initiative by Tata Steel.

15.7.1.1 Nand Ghar by Vedanta Resources Ltd

Vedanta Resources Limited is involved in extraction and processing of minerals, oil and gas, engaging more than 65,000 employees and contractors, primarily in India, Africa, Ireland and Australia. The CSR policy of the company aims at conducting business in a socially responsible, ethical and environmentally friendly manner.[2] It also aims to continuously work towards improvement of quality of life of the communities in its operational areas. For fulfilment of the these objectives, it wants to work in partnership with National Government, and other local, national and international partners.

Nand Ghar or Modern Aanganwadi is Vedanta's flagship CSR program. Vedanta has signed a MoU with the Union Ministry of Women and Child Development to construct 4000 Nand Ghars across 11 states in India.[3] The company has committed an outlay of over Rs. 800 crore for the project Nand Ghar. The project has been implemented by Vedanta in partnership with the Ministry of Women and Child Development (MWCD), state governments, and other key stakeholders. Nand Ghar project is stated to be in line with the government's flagship schemes: Swacch Bharat, Beti Bachao Beti Padhao, and Startup India. The concept of Nand Ghar encompasses the empowerment of women by making them entrepreneurs.

Nand Ghar, as claimed by the Company, is a state-of-the-art Anganwadi center with clean child-friendly toilets, solar panels for electricity, clean space with child-friendly furniture and toys. It is a transformative and giant leap dedicated to benefiting rural women and children. The core services provided at Nand Ghars include pre-school education to children (3–6 years) through e-learning, nutrition through pre-packed hot cooked meals to children, pregnant and lactating mothers, curative healthcare through Mobile Health Van, and support to Community Health Centre.

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[2] https://www.vedantaresources.com/Pages/VedantaCSRPolicy.aspx.

[3] https://www.thehindubusinessline.com/companies/govt-inks-mou-with-vedanta-to-build-4000-next-generation-anganwadis/article7674863.ece and The information on infrastructure, operations, other activities and impact have been taken from the website of Vedanta on And Ghar; https://www.vedantaresources.com/Pages/NandGhar.aspx.

The modern Aanganwadi incorporates essential elements or activities that galvanize women for skill development, credit linkage, and entrepreneurship.

The company launched the first project from Hasanpur village in Haryana in 2015. As per a report,[4] the 1500th center (of 4000 committed Nandghars) at Surahi village in Kashi Vidyapeeth block of Varanasi was rolled out in September 2020. The Nand Ghar project is now spread across seven states—Rajasthan, Odisha, Uttar Pradesh, Jharkhand, Chhattisgarh, Karnataka, and Madhya Pradesh. According to the company's claim, the project aims to touch 4 million community members' lives while directly impacting around 2 lakh children and 1.8 lakh women annually.[5]

Under the Project Nand Ghar, Vedanta has utilized its maximum or rather all resources to develop a state-of-the-art infrastructure that makes the Nand Ghar a model resource center for the community. The key features include the followings:

- Houses, which are earthquake resistant and fireproof
- Solar Panels: 24 × 7 electricity for essential facilities
- Toilets: For healthy sanitation and inculcating behavioural changes
- Smart TV: E-Learning through 40 weeks of curriculum for children
- Water Purifiers: Access to safe drinking water.

The company has claimed the following outputs of the project activities.[6]

- Aiming to provide around 64,000 children with pre-school learning through advanced teaching–learning methodologies, including television.
- Aiming to provide hot cooked wholesome nutritional meals to about 50,000 children.
- Around 20,000 OPDs are being conducted per month for the community by Nand Ghar Mobile Health Vans.
- Aiming for around 48,000 women to be trained to achieve financial and social empowerment through gainful employment.

The concept of Nand Ghar is an excellent idea for improving the efficacy of the old model of Anganwadi centres through making value addition by incorporating and integrating health and women empowerment activities into the primary objective of child care. However, it has low reflections on the company's understanding of making distinctions between outputs, outcomes, and impact of a community or CSR project.

Nevertheless, Nand Ghar project of the Vedanta Group, in its current approach, is focussing too much on the physical factors. Constructing 1600 Nand Ghars is undoubtedly an achievement for the company. However, the big question remains, which seeks a response, whether it has built the capacity of Anganwadi workers to deal with their performance challenges. Anganwadi workers are facing several

[4] The CSR Journal, CSR: Vedanta's Flagship CSR Project Nand Ghar Rolls Out 1500th Centre in Varanasi, https://thecsrjournal.in/csr-vedantas-flagship-csr-project-nand-ghar-rolls-out-1500th-centre-in-varanasi/

[5] https://indiacsr.in/csr-nand-ghar-aims-to-transform-4-million-lives-in-rural-india/

[6] The information on infrastructure, operations, other activities and impact have been taken from the website of Vedanta on And Ghar; https://www.vedantaresources.com/Pages/NandGhar.aspx.

challenges today because of enhanced expectations under ICDS's program objectives (Venugopal, 2012). The Anganwadis, which have always been seen as centres for food distribution, are so far falling short of people's aspirations on giving education to children. Further, the ICDS proposal to give Pre School Education (PSE) for three hours every day has overburdened Aanganwadi workers with responsibilities relating to nutrition, immunization, monitoring the growth of children, caring for pregnant and nursing mothers, and the formation of Self Help Groups. It is not clear how the Vedanta CSR team engages with Anganwadi workers under the Nand Ghar initiative to build Anganwadi workers' capacity to overcome these challenges. Therefore, Vedanta model under the present form of partnerships does not build institutional (ICDS) and communities' capability to make sustainable development and resilient communities.

15.7.1.2 Didi-Bandhu Initiative of Tata Steel

Tata Steel is one of the largest geographically diversified steel producers in the world. They integrate from mining to the manufacturing and marketing of finished products. Tata Steel's social responsibility is ingrained in the vision of the founder Jamsedji N Tata who considered community not just another stakeholder in the business, but the very reason for its existence (Witzel, 2010). The Company's long-term CSR objective is "*to improve the quality of life of the communities we serve globally through long-term value creation for all stakeholders,*" which aligns with the Tata Group Core Purpose.[7]

The genesis of the Didi-Bandhu initiative is rooted in a study, which was conducted by the team of the Tata Steel Rural Development Society (TSRDS).[8] The research study[9] was done for determining the specific health needs of the communities in the villages of Noamundi in Singhbhum (West), Jharkhand. The findings of the study were an eye-opener for the team at Tata Steel. The study gave some leading observations that raised concerns about deplorable health conditions and insufficient (up to seven months) household food security in villages. Although the study did not measure the area's morbidity and mortality rate, it was observed that they were very high since more young men and women would die. The findings suggested that a significant percentage of deaths among adults was mainly caused by malaria and diarrhoea in general and unsafe home delivery among young women. The only positive observation made was for the Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR), which were found to have been brought below the national average by 1998 under Tata Steel's CSR project on Mother & Child Health (MCH) Care.

[7] https://www.tatasteel.com/media/1879/csr-policy-version-20.pdf.

[8] Tata Steel Rural Development Society known as TSRDS is the social arm of Tata Steel. It was registered under the Scoeties Registration Act, 1860 in 1979 and since then it has been working in the communities around the business establishments of Tata Steel.

[9] An internal study titled as **"Understanding Community Issues for Determining Healthcare Services"**was conducted by TSRDS in 1999–2000, and the (unpublished) report was used internally within the organization for the development of health programs and operational strategies.

The MCH care project was launched in 1995.[10] The project had successfully created awareness among tribal women on the importance of immunization for pregnant mothers and infants. The findings of the study, as mentioned above, had reflected on the health-seeking behaviour of people in villages. People's first run to traditional healers (locally called Ojhas) and later to local quacks for seeking treatments emerged in the study's findings as one of the main driving reasons for the poor health conditions.

The increasing number of deaths caused by malaria and diarrhoea was a major concern that the company management wanted to address immediately. The TSRDS team consequently developed and worked out a simple but innovative public healthcare solution. It sought communities to be made responsible for the management of basic healthcare, which essentially would help them save lives. The "Project—Community Healthcare By Community" with a dedicated focus on saving people's lives from malaria and diarrhoea was launched in 1999–2000 and implemented successfully by the professional medical team of TSRDS under the leadership of Dr. CR Sardar,[11] a committed tribal doctor. Under the innovative idea, the team identified interested married couples, one couple each from a village hamlet, for giving them training and then developing them as front line health volunteers or '*Health Guides.*' Over one hundred *health guides* were trained for a year to manage diseases such as malaria, diarrhoea, and general cough and cold only. They were also trained to improve *health literacy* in villages. TSRDS established *'Health Stations'* at the health guides' residences after the training was over; initially, one health station was set up in every village.

People in villages were involved in and informed about this new healthcare management arrangement by taking their community leaders Mankis and Mundas[12] into confidence. Since people would call the health guides *Didi & Bandhu* in villages, the project was accordingly termed and popularised as *"Project Didi-Bandhu.*"

In the Health station, a *Didi-Bandhu* couple was given an aluminium box with five plastic jars to store medicines in them. Jar caps in a different colour were an innovative idea that ensured and avoided human errors while dispensing drugs. Colour coding of medicines was done to match the red colour of blood for malaria, yellow colour of stool for diarrhoea. The other medicine made available in the health station was paracetamol tablets to treat common fever and headaches. Also, the health stations would store the first-aid box and condoms.

It worked meaningfully and exceedingly well. There was a visible drop in the hospitalization of people suffering from malaria, confirmed by the Tata Steel Hospital. Nor were the people reported to have gone to other private or government hospitals, the nearest one in Chaibasa, 50 km far. It reduced morbidity and mortality

[10] Dr Prashant Tripathi and his wife Dr. Nirmal Nair are running an NGO, Ekjut (www.ekjutindia.org) from Chakradharpur in Jharkhand.

[11] Dr CR Sardar after superannuating from the services of Tata Steel is engaged with an initiative of the Govt of Jharkhand on community health in Singhbhum (East).

[12] A Munda is the village head while a Manki is the regional head of 10–15 villages under the traditional socio-political structure of the Ho communities.

in 42 villages in the periphery of Tata Steel's mines in Noamundi. The medical team of TSRDS would regularly collect data and information and cross-verified them to find reasons for reductions in deaths due to malaria. This finding was further validated by the increased annual consumption of medicines for the treatment of malaria, diarrhoea, and cough and cold at TSRDS. Further, the increased number of patients at the community health clinics of TSRDS demonstrated a positive change in people's healthcare-seeking mind set. An internal (undisclosed) report of the medical team of TSRDS Noamundi in 2002 confirmed the reduction in referral cases to Tata Hospital, increased OPD cases at Mobile Clinics of TSRDS, and increased demands for malarial and diarrhoeal medicines.

The programme was withdrawn by the company in 2010 and substituted by a somewhat similar project MANASI[13] (Maternal & Newborn Survival Initiative). Although, a programme similar to *Didi-Bondhu*, the Barefoot doctors,[14] is run successfully in China. The reflections of this innovative project could be found in the launch of a new concept of Accredited Social Health Activist (ASHA),[15] a community health worker, in 2005 under the National Health Mission (NHM).

The *Didi-Bondhu* successfully changed the healthcare-seeking conduct and mind sets of people who moved away from Ojahs (traditional healers)/quacks to modern health professionals. Through this ensured participation of a married couple from the village, the community involvement was the game-changer, which helped people believe and accept the modern healthcare system's benefits. The community involvement in the *Didi-Bandhu* system made Anganwadi and health workers deliver their improved performances. It happened without any conflicts between *Didi-Bandhus* and Anganwadi/Health workers. In fact, there was sustainable cooperation and coordination between them.

15.7.2 CSR in Education

We have compared and constated the CSR models adopted by Central Railside Warehouse Company Limited (CRCWL) vis-a-vis that of North Eastern Electric Power Corporation Limited (NEEPCO).

[13] https://tatacenter.mit.edu/portfolio/scaling-the-maternal-and-neonatal-survival-initiative-in-rural-india/

[14] Bulletin of the World Health Organization- China's village doctors take great strides (https://www.who.int/bulletin/volumes/86/12/08-021208/en/).

[15] https://nhm.gov.in/index1.php?lang=1&level=1&sublinkid=150&lid=226.

15.7.2.1 Innovation Model School by CRCWL

Central Railside Warehouse Company Limited (CRCWL) is a Government of India Enterprise under the Ministry of Consumer Affairs, Food and Public Distribution which provides warehousing services at its railside warehouses. The vison of CRCWL's CSR policy is 'to commit for enhanced value-creation for the Society, shareholders, other stakeholders, and the communities by taking–up activities and initiatives for sustainable growth for the Society, with environmental concern.'[16] One of the objectives of its CSR policy is to take projects that benefit communities in and around its terminals and offices. Education along with sanitation are important focus areas in CSR. This is in line with their vision of value creation for the society and communities.

The project Innovation Model School was launched in 2016 at Mahuipuri village in Hardoi district in collaboration with an NGO—All India Citizens' Alliance for Progress & Development (AICAPD). Most of the population belong to backward caste in the village. There is only one government school till class 5 in five panchayats. The students travel to 13 Kms to Hardoi for higher class. The project was taken up for providing free education at their doorstep with trained teachers with a vision to provide quality education in the rural areas of Uttar Pradesh. The area was selected such that it does not have access to education and drop out children are high in number.

The project is known as 'Education at Doorstep'. It covers children from weaker section whose parents work as daily wage workers in agricultural farms and construction industry. The children are left alone to their own devices exposing them to drug addiction, child labour and human trafficking. If these children are not provided proper education, then they would eventually become unskilled labour and live in extreme poverty.

In this project the NCERT/National School of Open Schooling (NIOS) curriculum was divided in three groups: A, equivalent to class 0–3; B, equivalent to class 4–5; and C, equivalent to class 6–8. At present, the Model school has 158 children including 69 girls who were selected through a survey of the area. All the students belong to backward and marginalized communities. The teachers and volunteers engage students not only in curricular activities but also sports, cultural functions, celebration of national events, science exhibition, etc. The students are given training to operate computers. Separate toilets for girls and boys are provided in the school. Regular examinations are conducted to evaluate the progress of the students. CRWCL provides funding for trained teachers, complementary study materials/bags and refreshments to the children. AICAPD was bestowed the task of project execution starting with convincing the parents to allow their children to join school.

The students used to work with their parents before joining school. The parents are very happy with the school education as they would not be able to afford similar quality of education in private. They visit the school once in month. During the interview with the students we found that they are very hopeful for a brighter future.

[16] https://www.crwc.in/sites/default/files/documents/csr-sd-policy-crwc-annex1.pdf.

They aspire to become policeman, doctor and teacher. However, while asked about the last lesson learnt in mathematics or language, they could remember it only with much difficulty. The parents wish the children would be able to get rid of poverty if they complete education. They would be able to get job and lift the economic condition of their household.

The project is extremely important to uplift the conditions of the rural backward communities through access to education. Since, the school is operating for last four years, the achievements through human capital formation are yet to be realized entirely. However, the process analysis of CSR initiative reveals that the education system does not provide any opportunity to develop skills to improve the earning potential step by step. The students would be able to improve their living conductions only if they continue their education in higher schools and complete it. This would mean continuing education even few years after completion of schooling from the Model school. They would be able to get a decent job as they aspire only if they cross a minimum threshold of education. Nevertheless, many may not be able to continue education till the threshold level. Hence, the effectiveness of education for upliftment of their economic condition is questionable. The education system attempts to mimic a good private education. What is more important probably is skill formation with education so that earning capabilities improve even before reaching the minimum threshold.

15.7.2.2 Non-conventional School by NEEPCO

North Eastern Electric Power Corporation Limited (NEEPCO) is a power generation company which works closely with Ministry of Power and the north eastern states. All round development of the people residing in and around its operational areas is given priority in its CSR policy. It has undertaken various community development activities particularly in the field of education, health, infrastructure development and other community needs.

As a part of its CSR expenditure, NEEPCO has funded in construction of "MOSONiE Non-Conventional Practical Educational School" at Timbokgre Village in Ri-Bhoi district, Meghalaya, in 2018–19. The village, located 95 Kms from Shillong, is inhabited by Garo tribes. Construction of classroom was funded by NEEPCO for development of an existing village school run by MOSONiE Socio-Economic Foundation, a non-profit organization. Before the intervention by NEEPCO, the school was run in a village community hall and temporary bamboo structure class room. Through intervention a three-room school building was constructed at a cost of Rs. 28,07, 186 and the school was upgraded from Class-III to Class-IV.

It was very difficult to conduct classes in bamboo made classroom during rainy season. It was expected that an intervention would contribute towards higher enrolment of students from the village and nearby. This would eventually lead to a better learning outcome and capability development process. Most of the villagers are daily wage labours or jhum cultivators. None of the villagers have regular income nor are employed in any government jobs. Hence, the intervention would immensely

help human capital formation of children from extreme poor economic background from Timbokgre and its adjacent villages. By June 2020, the school had 55 children enrolled. They pay Rs. 50 as admission fee and Rs. 10 as monthly fee. There are three dedicated teachers in the school.

Strong community participation was one of the strengths of the project. All members of the community have been contributing two man-days time in a month for up keeping the school. The demand for construction of classroom was raised through the Village Council, which was instrumental in running the school though small contributions mobilized from community. The villagers donated bamboo to construct additional classroom before NEEPCO intervention. The fees are decided after discussion with the parents in the village meetings. School engages with parents through school committee and village committee meetings. School also engages with parents through different school programmes as well. Parents are also trained by school in different income generating activities, such as kitchen gardening and vermicomposting.

The school gives learning opportunity to children from extremely poor economic background. The education gives them hope of better livelihood opportunities and improvement in health conditions. The curriculum is designed keeping in view the resources available in the community. The school provides Non-Conventional Practical Education (NCPE), which caters to the varied needs, interests and abilities of the students alongside conventional school education. It contains 75% practical education and 25% theory. While the students develop livelihood skills through the former component, they learn to read and write in the latter component. These two components are linked and complementary to each other.

Agriculture, adventure (appreciation of nature), and health are part of education along with reading and writing. Training in kitchen gardening, vertical farming with bamboos and rearing of goat are part of school curriculum. Students are taught how kitchen garden can provide nutritional and environmental benefit as well as develop family relationship. Education in kitchen gardening is a very important as the alternative livelihood is jhum cultivation. Employment generation is one of the focus areas for students' right from the primary level to advance classes. The Earn While Learning initiative is designed to create opportunity for students to graduate into entrepreneurs, who need not seek for job but become creator of their own enterprises. Children would learn entrepreneurial skills as a part of their hobby under NCPE.

As the project is operational from 2019, its long term benefits on human capital formation is unknown. But the initial response of both students and parents are very positive in the interview. Both expressed their delight and enthusiasm with the school. Digital learning is one important component of the education system. Students find it very interesting. Parents hope that their children would be able to excel in life owing to this education. The parents appear to be very confident about the process. The fees are charged after consultation with community. The parents get the opportunity to discuss issues with the school authorities in regular interval. The analysis of the process of CSR reveals that education is delivered with a lot of engagement with the community and parents. Attempts have been made to develop skills and capabilities of community.

15.7.3 CSR in Environment and Livelihood

The CSR projects catering to environment and livelihood have been compared and contrasted by considering two projects: Revival of Municipal Solid Waste Plant by National Thermal Power Corporation Limited (NTPC) and Fabrication & Deployment of Artificial Reef by Nuclear Power Corporation of India Limited (NPCIL).

15.7.3.1 Revival of Municipal Solid Waste Plant by NTPC

National Thermal Power Corporation Limited (NTPC) is a Central Public Sector Enterprise. It started with power generation in India in 1975. It is currently involved in generation of electricity via hydro, nuclear and renewable energy sources along with electricity generation from fossil fuels. The objectives of CSR policy of NTPC include delivery of business and environmental value through projects which are beneficial for business and larger ecosystem; ensuring sustainable power development; and actively contributing towards societal development. The CSR activities are outcome centric rather than activity based.

NTPC has revived a waste-to-energy plant in Karsada in the outskirt of Varanasi city for processing of waste collected from the city itself. The Municipal Solid Waste (MSW) plant was abandoned in partially built condition in 2012. As a result, waste from the Varanasi city used to remain uncollected with garbage pileups on roads and lanes. NTPC helped in making the MSW plant functional from 2016 under PPP mode and made it a "Waste to Compost" plant (NTPC, 2019). The plant has been able to process about 600 tons of solid waste per day and generate about 60–80 tones per day of compost. A Sanitary Land Fill (SLF) was constructed to accommodate stacking of the inert waste left after processing. The waste dumped by Varanasi municipality in Karsada plant is used for production of compost. The farmers of nearby villages collect compost from the waste-to-energy plant in Karsada at a very low cost (Rs. 1.5/ Kg). The company has also commissioned a thermal gasification plant which will generate 200 kW of electric power per day from 24 tonnes of waste.

After revival of the plant, it is currently processing about 600 MT tonnes of city waste every day. About 60 MT of waste is converted into organic manure (compost) and another 24 MT of waste is converted into Refuse-derived Fuel (RDF). The reduced inert waste goes into a scientifically built Sanitary Land Fill (SLF). The waste processing has also improved the cleanliness the of Varanasi city. The waste piled up earlier is no more to be seen. Interview with city dwellers, including residents and business owners, confirm that due to regular waste collection the city is lot cleaner. It is also reflected in ranking of cities in the scale of cleanliness. Varanasi has jumped from 418th position (in the year 2014) to 32nd position (in year 2017) under "Swachh Sarvekshan Rankings" conducted by Ministry of Urban Development, Government of India. NTPC is taking part in pilot project for Mechanized Sweeping, Collection and Transportation of Municipal Solid Waste (MSW) of 14

wards of Varanasi to further ensure the cleanliness of Varanasi. In spite of its outcome-oriented achievements, the project fails to engage with local people. The waste is not segregated during collection. There are no citizen's group on waste management.

Despite its success of delivering benefits to the farmers, the project appears to be weak with regard to long term sustainability and making irreversible change through building capacity of the community. One, the project was implemented with a top down approach. The community did not generate demand directly and approached the organization by stating their need. As a result, community involvement is minimal in the project. Second, the project does not earn any significant revenue and hence the financial sustainability of the project is under question. In case NTPC withdraws, the operation of the plant is very difficult. Third, it has not led to any behavioural change of the residents of Varanasi. Fourth, it has not developed any capacity amongst the citizens to run the operations on their own.

15.7.3.2 Fabrication and Deployment of Artificial Reef by NPCIL

The Fabrication and Deployment of Artificial Reef project was funded by Nuclear Power Corporation of India Limited (NPCIL) in Kalpakkam district of Tamil Nadu. NPCIL is engaged in the setting up of Atomic Power Plants under the Department of Atomic Energy (DAE), Government of India. It is involved in design, construction, commissioning and operation of nuclear power plants for generation of electricity.

The CSR policy of the company is to "contribute to inclusive growth and equitable development in society through capacity building measures, empowerment of the marginalised and underprivileged sections/communities". The CSR activities include "ensuring environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, agro-forestry, conservation of natural resources and maintaining quality of soil, air and water".

The project was executed by Madras Atomic Power Station (MAPS) along with PLANT Trust, an NGO. Artificial reefs are manmade concrete structure deployed in the bottom of the sea to increase the surface areas for marine organisms as well as to create shelters for fishes and lobsters. The objective of the project is to conserve biodiversity, improve biological resources, and improve socio-economic conditions of coastal communities through development of sustainable livelihood. Around two hundred artificial reefs have been deployed at the bottom of the sea, 4–5 KMs from shore in each 17 villages under the project. NPCIL spent around Rs. 20–25 lakhs per village. Months after the deployment, various marine organisms start growing on the reefs. It becomes shelter for the fishers and increases the availability of fish for the fishermen of nearby villages. This initiative improves biodiversity as well as provides sustainable livelihood to the fishermen.

PLANT coordinated with MAPS in implementing this project. It has conducted survey to find appropriate position to deploy the artificial reef structures. PLANT has

given training on artificial reef deployment and post-harvest technologies. Community was involved from the beginning of the project. They participated during deployment of the reefs. PLANT video graphed the development of algae and other microorganisms as well as resting of fishes on the reefs. This recording helped PLANT to convince more and more people and take them alongside. After implementation of the project in one village and its initial success, the villagers of nearby villages approached PLAN and MAPS to implement it in their villages as well. The spread of the project over the villages was demand driven.

Development of artificial reef is a traditional practice in Tamil Nadu. Earlier villagers used to practice "Mullam" (Sanjeevaraj, 1996), whereby they used to dump whole tree or branches of trees bound together in the sea. Stones were used for weighting the logs as anchors to remain at the bottom in a certain place. As the leaves and barks biodegrades it would attract fish. However, these reefs were temporary as they used to get dislocated due to heavy tide and mechanized bottom trawlers. The fishermen had to erect these temporary reefs periodically resulting in heavy losses. This made fishing through the deployment of temporary reefs unremunerative and unprofitable. Nevertheless, the concrete artificial reefs, deployed under the project, are heavy and so does not get dislocated easily. These artificial reefs have a lifetime of 25 years. PLAN fabricated and deployed the artificial reefs with the help of local villagers. They synthesized the traditional knowledge with advanced scientific knowledge to co-produce ecosystem services.

The intrusion of motorized fishing troller and overfishing may spoil the whole livelihood initiative. Free riding by fishermen may lead to the "tragedy of commons" (Hardin, 1968) by depleting the stock of fish. To avoid free riding and overfishing, a monitoring and maintenance committee of fishermen has been constituted. This committee is called Artificial Reef Fabrication, Deployment and Monitoring Committee. It works as a vigilant and monitoring committee. It includes senior citizens, panchayat members and expert members. The fishermen contribute 10% of their earnings to the committee for its operation and community welfare. This money is used for social welfare such as education of village kids and loans through SHGs. First and second ranked students in the class are offered prizes. This money can also be used to fabricate additional artificial reefs by the villagers.

The fishermen have taken the responsibility of operating the livelihood activity on their own after deployment of the reefs. The vigilant committee restricts fishing by outsiders. It also restricts fishing by community members during the first six months of deployment of artificial reefs. This is essential for growth of marine algae and other microorganisms on the reefs to attract the fishes. Fishermen were trained also to operate through GPS, motorboat repair, improved practice of fishing and further value addition of making eatables from fisheries. The number of boats is restricted by the committee to contain overfishing by the villagers.

The project has delivered enormous financial benefit to the fishing community in the project villages. The artificial reefs increased availability of fish in the region. They catch fish by hook and lines gear rather than by fishing net, as advised by PLAN. Before the project the fishermen use to travel 20–30 kms deep into the sea. In spite of going far from the shore they used to get poor quality of fish. After the

implementation of project, the fishermen travel only 5 kms into the sea. It saves fuel of their motorboat. Thus, it saves cost of fishing and contains environmental damage due to carbon emission. The fishermen now get a lot of new varieties of fish. They sell the fishes at a reasonably good rate. It has increased income of the fishermen and has improved their quality of life.

15.8 COVID-19 and CSR

The government of India has brought a notification that would allow CSR funding for the Prime Minister's Citizen Assistance and Relief in Emergency Situations Funds (PM CARES Funds) to meet the expenses to fight COVID-19 pandemic. Before the amendment, only Prime Minister's National Relief Fund (PMNRF) was eligible to receive CSR funding. Under the Income Tax Act, 1961, Section 80G, donations to PM CARES fund would qualify for 100% tax exemption.

CSR contribution in the PMNRF was not encouraged by a high-level committee constituted by the government after the passage of 2013 Act. The committee observed that companies could be tempted to channelize a significant part of their CSR budget to PMNRF to avail double benefit of tax exemption and fulfilling CSR compliance. In 2016, the government clarified through a circular that CSR funds should not be used as a source of funding government schemes.[17] This is because the projects undertaken by corporations are likely to have higher multiplier effect than the government projects. Moreover, this would throttle the application of corporate innovation and management skills in provision of public goods. However, companies may supplement government schemes if there are scopes of corporate participation. The siphoning of funds to government defeats the objective of reduction of transaction cost by bundling public good with private good (Basket & Ghatak, 2007). Co-production may also become difficult with private engagement.

Another committee which submitted its recommendations in 2019 suggested discontinuation of recognition of contribution to Central Government funds in areas specified in Schedule VII as CSR spend (GoI, 2019). Only, CSR funds unspent for 3–5 years may be transferred to a specific designated fund. Contribution of CSR funds to government funds goes against the philosophy of CSR, which should engage businesses as partners in social development. The Board of Directors of the company should decide the best interests including the interest of community and environment. The CSR spend should be determined by the CSR policy under the supervision of the CSR committee or Board.

The Indian economy has experienced a slowdown whereby GDP declined by 23.9% during April-June 2020. In this backdrop, CSR should come forward to meet the immediate challenges. The NGOs may need more funds to provide health and livelihood support for the people affected by COVID-19 pandemic. However, due to

[17] http://www.mca.gov.in/Ministry/pdf/FAQ_CSR.pdf.

the decline in profitability the companies may curtail their CSR spend. In this backdrop, the companies may prioritize their activities in health and livelihood generation and postpone activities like information dissemination for road safety, which automobile companies often undertake.

15.9 Discussion and Conclusion

The CSR spent in India has been undertaken in areas similar to the government spend on social development. Thus, it supplements resources and improves the amount and access to basic services. The Companies Act 2013 has boosted sourcing of funds from private under CSR. However, it is not clear whether all these projects improve community's capability and make sustainable change. It is possible to make such change if public services are co-produced by engaging the community from the beginning for planning and execution of public goods provision. The capacity building within the community is particularly important as a large part of CSR spent may get stopped if the companies incur losses due to economic downturn. If companies direct their CSR resources to government funds directly then it would fail in engaging the communities.

The CSR projects may have created infrastructure for public service but not all have been able to engage with the community. The Didi-Bondhu Programme and Fabrication and Deployment of Artificial Reef are the CSR projects which have been able to engage with the community from the very inception of the project. These projects have improved community's capability. Communities innovated institution to manage resources for long term benefit. These projects are demand driven. Either the CSR teams have gauged the demand after conducting a survey or the community has approached the companies or implementers.

CSR teams estimated the demand for public good such as demand for education in Innovation Model School project in UP but communities were not involved at every step of project implementation. Hence, public good was not co-produced. As a result, education delivered is potentially less effective and does not enhance livelihood opportunities. On the contrary, the Non-Conventional School in Sikkim engaged communities at every step. It has evolved a pedagogy which educates to appreciate the environment for sustainable livelihood activities. Community engagement has also increased confidence of the community and made the project more sustainable.

The infrastructure heavy CSR projects raise questions on its sustainability. The Revival of Municipal Solid waste Plant in Varanasi and Nand Ghar project have made a very high investment. However, community engagement in project implementation is not observed. As a result, the projects would fail to deliver benefits to the communities once they are withdrawn. They do not recover cost or do it very minimally. Had the projects developed along with community engagement and kept the cost low, the projects could have been much more sustainable. Another problem of lack of community engagement is conflict with exiting government provision of

services. The Nanda Ghar project is likely to increase troubles for already stressed Anganwari workers.

As CSR in India has been made mandatory under the regulation for ensuring sustainability and curbing free-riding (as discussed in Basley & Ghatak, 2007), there is every possibility that CSR efforts are not motivated enough to make sustainable improvement in living conditions of the people. The option of contributing in government pool would compound the problem by making co-production rarer. CSR should be co-produced with the clients (as discussed in Basley & Ghatak, 2005). In this contest, it is important to understand the possible relation between CSR governance and motivation of agents. The future research in CSR should be directed to investigate further the issues related to motivation of both principal and agents in the process.

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