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Viksit Bharat @2047

Governance Transformed

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Chapter 14. Rural Development: The Village in Focus

Dr. Jugal Mohapatra¹⁴⁴

Introduction: Evolution of the Rural Development Programmes in India

Since the beginning of planned economic development, India has pursued a strategy that promotes equitable growth and social inclusion. During the 1950s and 1960s, the main objective of the strategy of the five-year plans (FYPs)—what is commonly referred to as the “Mahalanobis model”—was to build a diversified industrial economy for “self-sufficiency” and to provide opportunities for the underemployed and surplus labour in the rural agricultural sector, as envisaged in the “dual economy” model of Arthur Lewis. At the same time, the planners also sought to follow Gandhian ideals of village development through programmes designed to revitalise the rural agrarian economy

My ideal village still exists only in my imagination. After all every human being lives in the world of his own imagination. In this village of my dreams the villager will not be dull – he will be all awareness. He will not live like an animal in filth and darkness. Men and women will live in freedom, prepared to face the whole world. There will be no plague, no cholera and no smallpox. Nobody will be allowed to be idle or to wallow in luxury. Everyone will have to do body labour. Granting all this, I can still envisage a number of things that will have to be organized on a large scale. Perhaps there will

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*even be railways and also post and telegraph offices. I do not know what things there will be or will not be. Nor am I bothered about it. If I can make sure of the essential thing, other things will follow in due course. But if I give up the essential thing, I give up everything.*¹⁴⁵

A community development programme was launched to help the rural poor through participatory planning, the establishment and fortification of village institutions, and the provision of extension services. Efforts were also made to institutionalise the three-tier Panchayati Raj Institutions (PRIs), albeit with varying degrees of success across different states. As India faced a severe food crisis in the mid-1960s, the focus shifted towards initiating the “green revolution” through technology transfer and the introduction of high-yielding crop varieties. This required the establishment of a dedicated apparatus of agricultural extension service and a network of cooperative institutions to provide farmers with credit and other essential inputs. However, this strategy to achieve food self-sufficiency was primarily limited to areas with assured irrigation in the northern and southern parts of the country. These areas did experience a structural shift in agricultural growth and productivity. Yet, as expected, the benefits of this agricultural transformation did not reach the rest of the country. Thus, after nearly two decades of planning, it was realised in the early 1970s that the modest growth rate achieved during that period did not have strong “trickle-down effects.” Consequently, around 55% of the population was estimated to be “poor” as per official estimates (Lakdawala poverty estimates) in 1973–1974. More worryingly, the incidence of poverty was found to be severe in most states, even in some of the more prosperous southern and western regions such as Maharashtra, Gujarat, Kerala, and Karnataka. Moreover, the

¹⁴⁵ Letter to Jawaharlal Nehru, October 5, 1945; 81:320, extracted from Gandhiji on Villages: Mani Bhava Gadnhi Sangrahalaya, Mumbai, First Edition, 2002.

benefits of growth did not appear to have been evenly distributed among different social groups.

The regional and social aspects of poverty triggered what has been termed a “direct attack on poverty,” and a series of schemes aimed at rapidly alleviating rural poverty were launched to provide employment and livelihood support to households “below the poverty line” (BPL), both through wage employment and self-employment. As a result, the Integrated Rural Development Programme (IRDP) was launched in 1978 as a livelihood-based intervention for profitable self-employment, and the National Rural Employment Programme (NREP) was initiated in 1980 to provide supplemental wage employment to unskilled rural households, primarily small and marginal farmers and agricultural labourers, during the lean season in public works such as village road construction, school building, afforestation, water body construction/renovation, and irrigation works. Subsequently, in 1985, a rural housing scheme, Indira Awas Yojana (IAY), was also introduced (initially as a sub-scheme of Jawahar Rojgar Yojana (JRY), and later as a separate scheme in 1996) to benefit a large section of rural households without safe shelter.

Following the extensive economic liberalisation in 1991, the Government of India (GoI) recognised the need to strengthen social protection to mitigate the adverse impact of the general squeeze on public spending on the poor. Accordingly, the National Social Assistance Programme (NSAP) was initiated in 1995 as a fully funded, centrally sponsored scheme with three components: a pension scheme for destitute senior citizens, an insurance scheme to benefit a poor family in the event of the death of the primary breadwinner, and a maternity benefit scheme. Throughout the 1980s and 1990s, the portfolio of rural development (RD) schemes was periodically redesigned in terms of scale and scope, with some operational innovations. However, the fundamental approach of assisting the rural poor through wage employment in public works and self-employment by providing subsidised credit and capacity

development support characterised the poverty alleviation strategy during this period. At the turn of the century, for the first time, a major rural infrastructure scheme—Pradhan Mantri Gram Sadak Yojana (PMGSY)—was launched to provide all-weather connectivity to unconnected rural habitations above a specified population threshold. This was in recognition of a widely accepted but previously unaddressed gap in the prevailing strategy that the lack of physical connectivity is one of the primary structural causes of rural poverty. The enactment of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in 2005 marked another paradigm shift in the rural development strategy as it signalled the endorsement of a “rights-based approach.” The subsequent enactment of the Right to Education Act and the National Food Security Act, following the same approach, further expanded the envelope of legal entitlements for deprived rural households. Thus, both in the pre- and post-liberalisation era, the State has proactively intervened in the sphere of rural development, though the nature of its intervention has varied over time in terms of focus and design.

Although the outlay on RD schemes has increased over the years, a persistent criticism of these schemes has been the alleged scale of “leakages” and the consequent misallocation of public funds. This scepticism persisted ever since a former prime minister conjectured in a public forum that out of every rupee spent on anti-poverty programmes, only 15 paise actually reaches the targeted beneficiaries. However, in recent years, significant efforts have been made to reengineer and streamline the implementation of major RD schemes to improve their delivery efficiency. The primary motivation of this paper is to analyse and appraise some of the more recent government interventions to transform the rural economy and alleviate rural poverty, in particular, to assess whether these programmes have had a substantive impact in terms of their desired outcomes. The remainder of this paper is organised as follows: the section “Overview of the Changing Landscape of Rural

India” provides a broad overview of the changing demographic and economic landscape of rural India. Trends in rural poverty at the macro level from 1951 to 2021 have been discussed in the section “Trends in Rural Poverty (1951–2020).” In the section “How Much Does the Central Government Spend on Rural Development?”, an attempt has been made to present an estimate of the central government’s budgetary expenditure on major rural development programmes over the preceding 10 years. The section “Efficiency and Equity of Rural Development Programmes” contains the case study of a flagship rural development programme launched in 2016, which is widely acknowledged to have contributed significantly towards accelerated reduction in

in the rural areas during recent years. The last section “Some Concluding Observations and the Way Forward” contains some concluding observations.

Overview of the Changing Landscape of Rural India

Rural Demography

According to the first census conducted after independence, nearly 30 crore people, constituting 82.7% of the total population, lived in rural areas in 1951. The share of the rural population steadily declined to 68.8% in 2011, as shown in Table 1.

Table 1: Rural Population (in Million) 1951–2011

<i>Census</i>	<i>Rural population</i>	<i>Total population</i>	<i>Rural population (% share)</i>
1951	299	361	82.7
1961	360	439	82
1971	439	548	80.1
1981	524	683	76.7
1991	629	846	74.3
2001	743	1029	72.2
2011	833	1210	68.8

Source: Census documents.

Table 1 also shows that while the total population has increased 3.35 times during 1951–2011, the rural population has grown at a slower pace, by 2.78 times only, suggesting a relatively slower pace of growth of the rural population.

Education and Health

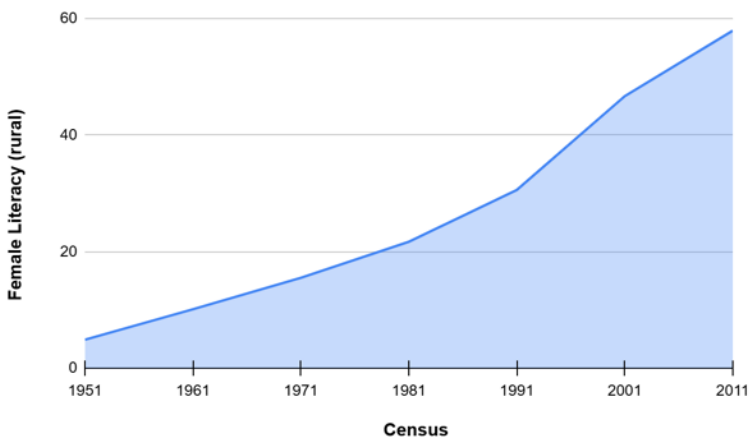
The literacy rate in rural India was barely in double digits in 1951, almost one-third of the urban literacy rate, as shown in Table 2.

The gap in rural–urban literacy widened from 1951 to 1981. During the subsequent three decades, the gap has consistently narrowed, though it still remains significant. Though growth in rural literacy during the six decades has been impressively more than two times higher than urban literacy, concerningly, almost a third of the rural population remained illiterate at the time of the 2011 Census. More worrisome is the gender disparity in rural literacy (Figure 1), as nearly 40% of the female population was illiterate according to the 2011 Census, whereas the corresponding percentage for the urban areas was only 20%. However, on a positive note, the growth of female literacy in rural areas seems to have accelerated from 1991 onwards.

Table 2: Literacy Rate: Rural–Urban Disparity

<i>Census</i>	<i>Literacy rate (rural)</i>	<i>Literacy rate (urban)</i>	<i>Rural–urban gap</i>
1951	12.1	34.6	–22.5
1961	19.1	47	–27.9
1971	23.7	52.4	–28.7
1981	36.1	67.3	–31.2
1991	44.7	73.1	–28.4
2001	58.7	79.9	–21.2
2011	68.9	85	–16.1

Source: Census documents.

Figure 1: Female Literacy in Rural India (1951–2011)

As regards health indicators, the rural–urban gap has shown a consistently declining trend during 1971–2010, noticeably from 1991 onwards (Table 3).

Table 3: Vital Health Indicators: Rural–Urban Gap (1971–2011)

<i>Census</i>	<i>Crude birth rate</i>	<i>Crude death rate</i>	<i>Infant mortality rate</i>	<i>Total fertility rate</i>
1971	8.8	6.7	56	1.3
1981	8.6	5.9	57	1.5
1991	–3.4	3.5	34	1.2
2001	6.8	2.8	30	1.1
2011	5.7	1.9	19	0.8

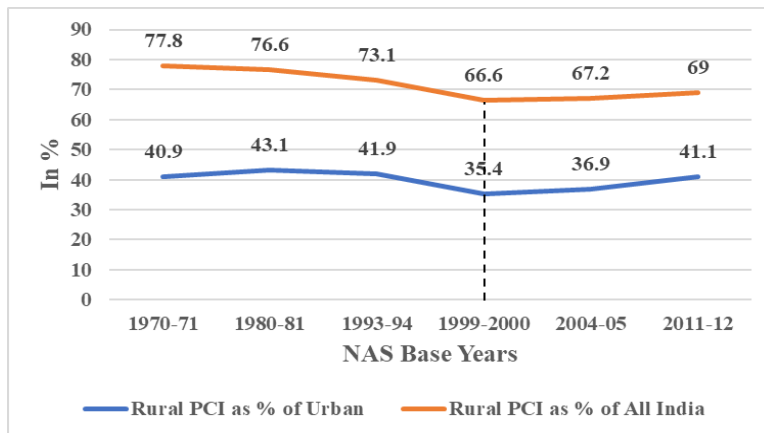
To sum up, rural India has witnessed fairly significant progress in terms of the social dimensions of development.

Rural Income

According to a press release by the Ministry of Statistics and Programme Implementation (MoSPI), posted on April 3, 2023, the Government of India (GoI) compiles estimates of rural and urban income only in the base years of the Gross Domestic Product (GDP) series, and these estimates for other years are not available. Rural per capita income (PCI) as a percentage of the urban PCI, as well as all India PCI for the base years of the GDP series (National Accounts Statistics [NAS] base years), based on the official estimates, is shown in Figure 2.

Rural PCI as a percentage of the economy-wide Net Domestic Product (NDP) declined steadily until 1999–2000, from 77.8% to 66.6%. It has marginally recovered since then to 69% in 2011–2012. The trend in rural–urban PCI is somewhat mixed—it increased during 1970–1994, sharply declined by more than 6 percentage points over the next 5 years, and has increased by a similar magnitude during the succeeding 10 years.

Figure 2: Rural Per Capita Income (PCI) as a Percentage of Urban and All India PCI



Source: National Accounts Statistics (1999, 2006, 2009, and 2016).

Structural Changes in the Rural Economy

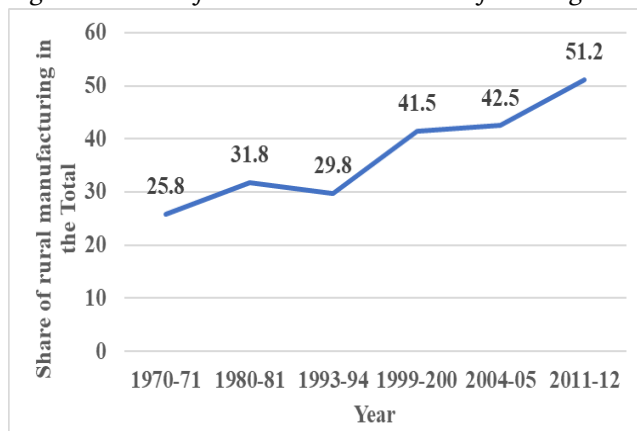
The structure of the rural economy of India has witnessed a significant shift, as reflected in the sectoral composition of its NDP shown in Table 4.

The rural economy has been considerably diversified over the four decades since 1970–1971, with a sharp decline in the share of the agriculture sector in the NDP from 72.4% to 39% in 2011–12. Simultaneously, the share of the industrial sector has increased by more than threefold, from 10.6% to 32.2% during this period. A noteworthy feature of the structural transformation of the rural economy is its emergence as a manufacturing hub, contrary to the popular perception that rural India is primarily agrarian.

Table 4: Sectoral Composition of NDP of Rural India

<i>Year</i>	<i>Agriculture</i>	<i>Industry</i>	<i>Services</i>
1970–71	72.4	10.6	17.1
1980–81	64.4	15	20.6
1993–94	56.1	16	27.9
1999–2000	51.8	19.9	28.3
2004–05	38.3	24.1	37.5
2011–12	39	32.2	28.8

Source: National Accounts Statistics (NAS).

Figure 3: Share of the Rural Area in Manufacturing NDP

Source: National Accounts Statistics (NAS).

In 1970–1971, the share of rural areas in manufacturing NDP was barely a quarter. It constituted more than half of the total manufacturing NDP in 2011–2012, with the sharpest increase observed between 1993–1994 and 1999–2000.

Trends in Rural Poverty (1951–2020)

The genesis of poverty estimation in India goes back to the Working Group set up by the erstwhile Planning Commission in 1962 to recommend a normative minimum level of living for the population. The Working Group had recommended a minimum per capita expenditure of ₹20 and ₹25 per month, respectively, for the rural and urban areas and ₹25 at 1960–1961 prices, excluding public expenditure on health and education. This “poverty line” was extensively used throughout the 1960s and 1970s to estimate the incidence of poverty at the national and state level. However, no official estimate of poverty in India was made available until a Task Force constituted by the Planning Commission in 1977 submitted its report in 1979. The Task Force redefined the “poverty line” in terms of per capita consumption expenditure required for a calorie intake of 2,400 kilocalories (kcal) per day in the rural areas and 2,100 kcal in the urban areas with minimum non-food expenditure. Using these norms, the poverty line for the rural and urban areas was worked out at ₹49.09 and ₹56.64 per capita per month, respectively, for 1973–1974. Accordingly, the first set of official poverty estimates was made available for 1973–1974. Broadly, this methodology was used for official poverty estimation until 2004–2005.¹⁴⁶ Subsequently, based on the report of an Expert Group constituted under the chairmanship of Prof. Suresh Tendulkar, official poverty estimates were made available by the Planning Commission for 2004–2005 and 2011–2012 (though a comparable estimate was also worked out for 1993–1994). The official estimates of rural poverty for the period 1973–1974 to 2011–2012 are shown in Table 5.¹⁴⁷

¹⁴⁶ The methodology of the Task Force was further refined and improvised by another Expert Group headed by Prof. Lakdawala in 1993 to derive state-specific poverty lines.

¹⁴⁷ No official estimate of poverty is currently available after 2011–2012.

Table 5: Incidence of Rural Poverty in India (1973–1974 to 2011–2012)

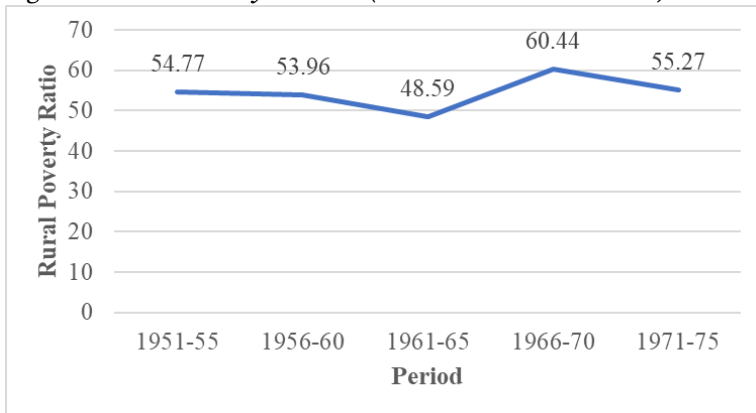
<i>Year</i>	<i>Rural poverty ratio</i>	<i>Rural poor as % of total poor</i>
1973–74	56.4	81.3
1977–78	53.1	80.4
1983	45.6	78
1987–88	39.1	75.5
1993–94	37.3	76.2
1999–2000	27.1	74.3
2004–05 [*]	28.3	73.2
2004–05 [#]	21.8	71.4
<i>Tendulkar methodology</i>		
1993–94	50.1	81.5
2004–05	41.8	80.2
2011–12	25.7	80.4

Notes. ^{*}Comparable with 1993–1994 estimates; [#]Comparable with 1999–2000 estimates.

Source: (Erstwhile) Planning Commission.

As mentioned above, no official estimates of poverty are available for the period prior to 1973–1974. However, Datt (1997) provides a comparable time series of rural poverty estimates for the prior period using the poverty line originally defined by the 1979 Task Force and National Sample Survey (NSS) data on consumer expenditure surveys (3rd to 28th NSS rounds). These estimates for the period 1951–1975 are shown in Figure 4.

Figure 4: Rural Poverty in India (1951–1955 to 1971–1975)



Source: Datt (1997).

From Datt's time series of rural poverty (1951–1955 to 1971–1975) and official estimates for the subsequent period (1973–1974 to 2004–2005), it is evident that throughout the 1950s and 1960s poverty in the rural areas fluctuated in the band of 50–60%. Only from the mid-1970s onwards it fell below the level observed in 1951–1955. It has steadily declined thereafter, though the rate of change varied during different sub-periods. Does this comparable time series of rural poverty from 1951 to 2005 provide robust evidence of the “trickle-down effects” of growth? Or does the observed decline from the mid-1970s onwards reflect the impact of the targeted poverty reduction programmes and redistributive policies?

Decomposition of the effects of growth and redistribution is complex and tricky, even for highly trained and accomplished empirical economists. Unsurprisingly, therefore, there is a lack of consensus on this contentious issue with regard to the observed decline in rural poverty from the mid-1980s onwards. However, the data presented above unequivocally shows that a declining trend in rural poverty was observed from the late 1970s and 1980s. This coincides with the launching of a number of poverty amelioration and pro-poor redistributive

programmes by the Government of India. Commenting on this debate, Datt (1998) has concluded that “favourable redistribution made an important contribution to the decline in the depth and severity of poverty.”

Basu and Mallick (2008) have made an important contribution to the growth versus redistribution debate in relation to the trickle-down effects of growth on rural poverty over the period 1951–1991. Using rigorous econometric analysis, they did not find significant evidence of the trickle-down effects of growth on the rural poverty decline during this period. Rather, they concluded that “the incidence of poverty (rural) that had been declining from the late 1970s and throughout the 1980s must be the result of the government's anti-poverty measures.”

Basu and Mallick (2008) also explain why the trickle-down effect did not take place in the Indian context. Analysing the agricultural growth process in rural India in the post-Green Revolution period, they point out that the capital investment that catalysed agricultural growth in that era was largely labour-displacing in nature, accompanied by large-scale mechanisation. Though this strategy of growth was “scale neutral,” it was not “resource neutral.” Consequently, the benefits of this growth accrued mostly to the large and middle-class farmers, leaving out the majority of small and marginal farmers, as well as agricultural labourers.

From the above discussion, it is evident that a high rate of growth by itself might not catalyse faster poverty reduction. The “redistribution bias” of the growth process also complements the impact of the rate of growth in this regard. If the increased incomes resulting from higher growth accrue largely to the groups that are already above the threshold of poverty, its poverty-reducing effects might get substantially neutralised. Thus, for economic growth to make a significant dent in poverty, it has to be “labour-inclusive” in nature.

As regards the post-2011–2012 period, though we do not have official poverty estimates,¹⁴⁸ NITI Aayog has released estimates of rural poverty (headcount ratios) for 2015–2016 and 2019–2021 using the United Nations Development Programme (UNDP)’s multidimensional poverty (MPI) measurement methodology¹⁴⁹ and National Family Health Survey (NFHS) datasets (NFHS-4 and NFHS-5). According to these estimates, rural multidimensional poverty (head count ratio) in India has declined from 32.59% to 19.28% during this period. Based on the projected rural population for 2021, about 120 million people in the rural areas escaped multidimensional poverty between 2015–2016 and 2019–2021.

A recent discussion paper of NITI Aayog has attributed this acceleration in the momentum of poverty eradication to several targeted interventions, such as the provision of subsidised food grains to 75% of the population in rural areas under the National Food Security Act (NFSA), free hot cooked meals to the children in pre-school and elementary school (Classes I to VIII) under the Pradhan Mantri Poshan Shakti Nirman (PM POSHAN) programme, provision of clean cooking fuel to 31 crore individuals under the Ujjwala Yojana, 100% access to electricity under Saubhagya, provision of 14 crore tap water connections under the Jal Jeevan Mission (JJM), and construction of 11.33

¹⁴⁸ Official estimates of poverty in India are based on periodic Household Consumer Expenditure Surveys (HCES) by the National Sample Survey Organisation (NSSO). The latest report of HCES relating to the year 2022–2023 (NSS report no. 591) has recently been released in June 2024 by the MoSPI. However, the empowered agencies, officially authorised to update or redefine the “poverty line,” have not yet come out with the latest official estimates of rural poverty using the above HCES report. Thus, as of now, no official estimate of rural poverty is available after 2011–2012.

¹⁴⁹ These estimates are officially endorsed by the UNDP and the Oxford Poverty and Human Development Initiative (OPHI) which had conceptualised and developed the MPI methodology. However, it may be noted that while the Global MPI uses 10 indicators (2 for Health, 2 for Education and 6 for Standard of Living), NITI Aayog uses 2 additional indicators for India’s National MPI (“Maternal health” for Health and “Bank Account” for Living Standards).

crore household latrines in rural areas under the Swachh Bharat Mission (SBM). School education of children, particularly of girls, has been given a big push under the programmes of universalisation of elementary education, and higher enrolment in secondary education (Samagra Shiksha Abhiyan, SSA) has substantially boosted the proportion of children with at least 10 years of schooling. Fifty crore new bank accounts have been opened under the financial inclusion campaign launched under the banner of the Pradhan Mantri Jan Dhan Yojana (PMJDY) in recent years. For providing structurally safe houses to the rural poor, 25.3 million houses have been sanctioned during 2017–2018 and 2023–2024 under the Pradhan Mantri Awas Yojana–Gramin (PMAY-G), of which 22 million have already been built. As a cumulative result of all these targeted interventions, undertaken at scale on a saturation mode, massive improvement has been accomplished in respect of most of the key socio-economic indicators of rural development, which are constituents of MPI, between 2015–2016 and 2019–2021, as brought out in the reports of NFHS-4 and NFHS-5. For example, antenatal visits by mothers increased by 21%, women with at least 10 years of schooling rose by 23.44%, women with bank accounts increased by 60%, households using toilets increased by 76.84%, and households using clean cooking fuel increased by 80%. Unsurprisingly, improvements accomplished in these dimensions have been reflected in the significant reduction of multidimensional poverty in rural areas over the period 2015–2016 and 2019–2021. Since all these key indicators are also major constituents of MPI, improvements accomplished on these dimensions have been reflected in the significant reduction of multidimensional poverty in rural areas over the period 2015–2016 and 2019–2021.

It may be mentioned in this context that the Ministry of Statistics and Programme Implementation (MoSPI) has released the report of Household Consumer Expenditure Survey (HCES) 2022–2023 in June 2024. According to this report, the average monthly per capita consumption expenditure (MPCE) is

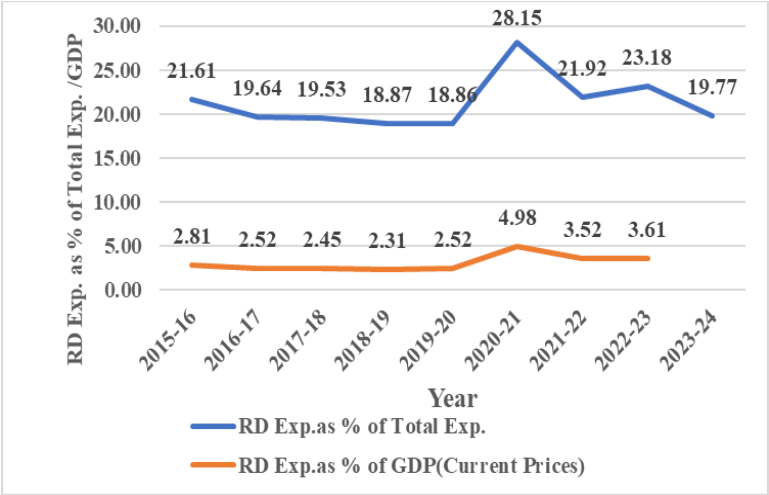
estimated to be ₹3,773 in rural India in 2022–2023 as compared to ₹1,430 in 2011–2012. Although the official estimates of poverty based on this report of MoSPI are still awaited, the Economic Research Department of the State Bank of India (SBI) has published (February 27, 2024) estimates of rural and urban poverty based on data disclosed in the above-mentioned fact sheet. This SBI research report has estimated that rural poverty in 2022–2023 has declined to 7.2% from 25.7% in 2011–2012. However, some economists have raised methodological issues relating to the comparability of HCES 2022–2023 with HCES 2011–2012. As such, we have to wait for the official estimate of rural poverty in 2022–2023 based on the full report of the latest HCES.

How Much Does the Central Government Spend on Rural Development?

Discussion in the preceding section suggests that the government's rural development programmes have significantly contributed to the sizeable decline in rural poverty from the 1970s onwards. In this context, we need to analyse the share of spending on rural development in the aggregate budgetary expenditure of the central government, since most of the flagship interventions for rural development are under central sector and centrally sponsored schemes. For this purpose, it is necessary to look at not just the budgetary spending of the Ministry of Rural Development (MoRD), but also the budget of all other Ministries/Departments which have sizeable allocations for the rural areas. Other than the MoRD, the budget of eight other departments is fully committed to the development of rural areas. The central sector scheme of fertiliser subsidy is also entirely committed to rural India. In addition, there are some large pan-Indian programmes, such as SSA, the Mid-Day Meal Scheme, the National Health Mission

(NHM), and the Integrated Child Development Scheme (ICDS), which also have an urban component. In these cases, we need to segregate the rural component of the programme expenditures. Aggregate expenditures of these departments and programmes provide a rough, if not exact, estimate of the share of the central government’s budget on rural development. The profile of GoI’s budgetary spending for the development of rural areas over the past 9 years, worked out on this basis, both as a share of total expenditure and GDP, is shown in Table 5.

Figure 5: Central Government’s Budgetary Expenditure on Rural Development (from 2015–2016 to 2023–2024)



Note. The numbers for 2023–2024 are based on revised estimates, other numbers are based on actuals.
Source: GoI budget documents (for budgetary expenditures) and NAS (for GDP).

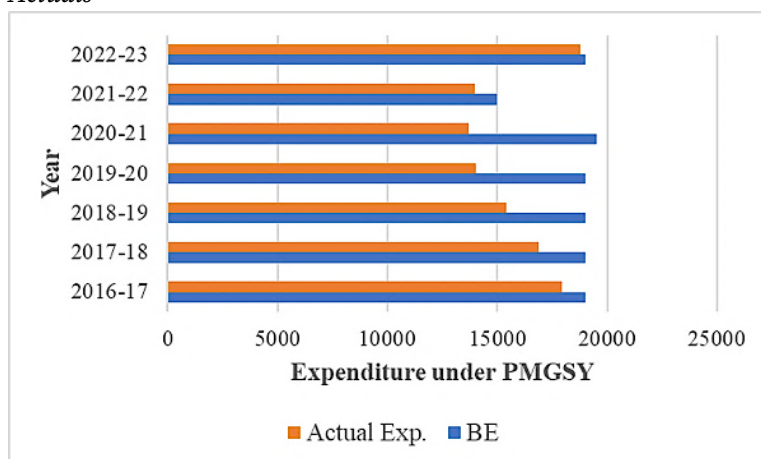
Average spending on rural development during 2015–2016 to 2023–2024 was around 21% of the total budgeted expenditure of the central government and around 3.1% of the GDP. There is, however, a significant hike in the post-COVID-19 pandemic period (2020–2021 to 2023–2024) as compared to the pre-

pandemic period (2015–2016 to 2019–2020). During the pre-pandemic years, average expenditure on RD programmes was 19.70% of total expenditure and 2.52% of GDP, which rose in the post-pandemic period to 23.26% of the total expenditure and 3.78% of GDP. Unsurprisingly, it peaked in the first year of the COVID-19 pandemic (2020–2021) at 28.15% of the total GoI spending and nearly 5% of GDP. With the rising aspirations of rural households for better infrastructure and higher standards of living, the post-pandemic levels of spending on rural development are likely to be maintained or even enhanced over the next decade.

Though adequate budgetary allocation is a necessary condition for the accelerated development of the villages, larger public spending alone cannot be relied upon to achieve the desired programme outcomes. The quality and efficiency of programme expenditure are also critical determinants of the actual outcomes. Many empirical studies in recent years suggest that the estimated “leakage” in some of the flagship rural development programmes, such as MGNREGA and PDS, is as high as 20–30% (Muralidharan et al., 2016, 2024). In this connection, underinvestment in building the “state capacity” has also been flagged as a critical and binding constraint. In fact, Muralidharan (2024) has forcefully argued: “investment in better governance can be *over ten times* more cost effective than increasing spending in government as usual.”

Constrained state capacity is often manifested even in the recurring underutilisation of budgetary allocation of major RD programmes. For instance, in a flagship rural infrastructure programme like PMGSY, the budget allocation (BE) has not been fully spent in any single year from 2016–2017 to 2022–2023, as shown in Figure 6.

Figure 6: Expenditure Under PMGSY: Budget Estimates Versus Actuals



Source: GoI budget documents.

In this perspective, therefore, it would be useful to analyse in some detail a couple of flagship RD programmes, especially specific interventions that might have been made to enhance their delivery efficiency.

Efficiency and Equity of Rural Development Programmes

The sheer number of rural development and welfare schemes, both by the central government and state government, of varying size in terms of financial allocation, geographical coverage, and diversity of scope, makes the task of concurrent, or even periodic, impact evaluation fairly challenging. The central government's budget documents alone provide a list of 740 central sector schemes and more than 65 centrally sponsored schemes. Some of the centrally sponsored schemes such as MGNREGA, PM KISAN, NRLM, PMAY-G, PMGSY, fertiliser subsidy, and PDS (Public Distribution System) with sizeable budget allocations, which are generally referred to as

the “flagship schemes,” have been extensively studied and evaluated by independent academic and public policy experts, even by multilateral development institutions. In particular, there is a rich body of empirical literature on MGNREGA. In contrast, some of the newer schemes launched during the last 10 years have not possibly been studied adequately using cross-country evidence already available with the required academic rigour. It is for this reason we have primarily chosen to analyse the programme efficacy and delivery efficiency of one recent scheme—namely, Pradhan Mantri Ujjwala Yojana (PMUY)—as a detailed case study.

There are also some additional persuasive motivations underlying the choice of this scheme. First, Bharguwar (2023) has meticulously explored 27 selected factors with high potential to significantly impact rural development using multivariate analysis and found that six factors, including household access to LPG for cooking, have maximum impact. Second, this indicator also has a significant contribution to the multidimensional poverty index (MPI score).¹⁵⁰ Third, Muralidharan (2024) has provided a simple, yet powerful 2×2 framework (which he has actually referred to as the foundational framework of his book) to analyse the quality of welfare and development spending. The framework evaluates both the efficiency and equity dimensions of the development interventions. The optimal interventions are those which improve both equity and efficiency. Conceptually, PMUY has the potential to produce a positive impact on both dimensions.

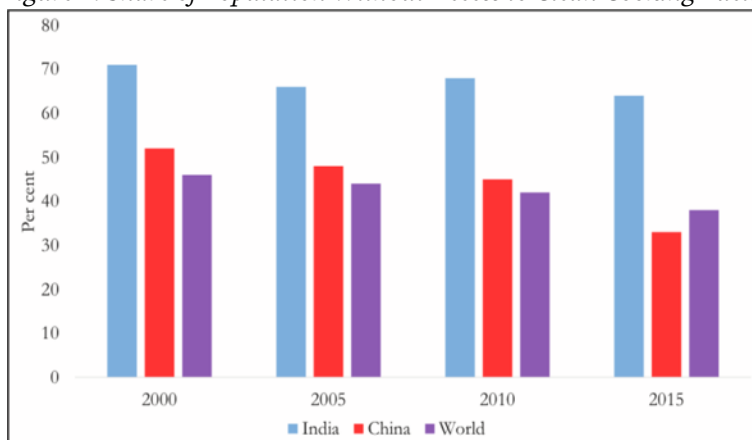
¹⁵⁰ Among all the seven standards of living indicators used for the computation of the National MPI score for 2019–2021 in the NITI Aayog report, cooking fuel had the highest contribution of 8.82%.

Pradhan Mantri Ujjwala Yojana (PMUY): A Case Study

Universal access to clean fuels for cooking by 2030 is one of the sustainable development goals (SDGs), subsumed in SDG 7.1. Achievement of this goal is critical to improving the health and well-being of millions of poor women living in less developed regions. According to an estimate, nearly 4.3 million people lose their lives worldwide owing to indoor air pollution caused by the burning of unhygienic solid fuels for cooking (Watts et al., 2017). Apart from the catastrophic health effects, even the burden of collecting unclean fuels for cooking meals to feed their families entirely falls on women. An estimate cited in the *Economic survey 2017–2018* (Volume 2, Chapter 5) states that women in India spend, on an average, 374 hours in a year just for collection of firewood.

Progress achieved in India with respect to the provision of access to clean cooking fuels until 2015 was unflattering compared to the rest of the world, as shown in Figure 7.

Figure 7: Share of Population Without Access to Clean Cooking Fuels



Source: *Economic survey 2017–2018*, Volume 2, Chapter 5.

At the beginning of the new millennium, 70% of the population lacked access to clean cooking options, compared to 50% in China and the global average of around 45%. Over the next 15 years, this figure marginally declined to 64% in India. However, China managed to reduce this critical deprivation to 33%. Thus, in a “business as usual scenario,” India would have certainly struggled to meet this SDG commitment by the specified timeline. This possibly was the motivation for the launch of the “Pradhan Mantri Ujjwala Yojana” (PMUY) in May 2016 to fast-track the removal of this deprivation by providing LPG connections to 80 million “below the poverty line” (BPL) households by 2020 on a “mission mode.”

This new scheme embodied a couple of interesting features in its implementation design which are worth noting. First, it took serious note of large targeting errors (both Type I and Type II errors) which were invariably identified as a major source of leakages in many of the targeted flagship RD schemes, such as the erstwhile Indira Awas Yojana (IAY) and the pre-NFSA PDS. To address this source of leakage, the scheme mandated that the BPL households eligible for this scheme would be identified using the database of the Socio Economic and Caste Census (SECC) 2011. According to a field survey conducted by MicroSave in January 2018 in 25 districts of Uttar Pradesh, Madhya Pradesh, and Chhattisgarh, the methodology used for targeting under PMUY was “laser precise,” and the benefits reached the neediest segments, with almost 90% of the beneficiaries living in *kutcha* houses and around 86% of the surveyed households either being daily wage workers or depending on agriculture and seasonal income (Giri & Aadil, 2018).

The second noteworthy feature of PMUY relates to its somewhat innovative method of financing. The scheme envisaged the provision of ₹1,600 to each of the eligible beneficiaries as a one-time grant to cover the security deposit for the LPG cylinder, pressure regulator, and installation charges. The oil marketing companies (OMCs), who were the

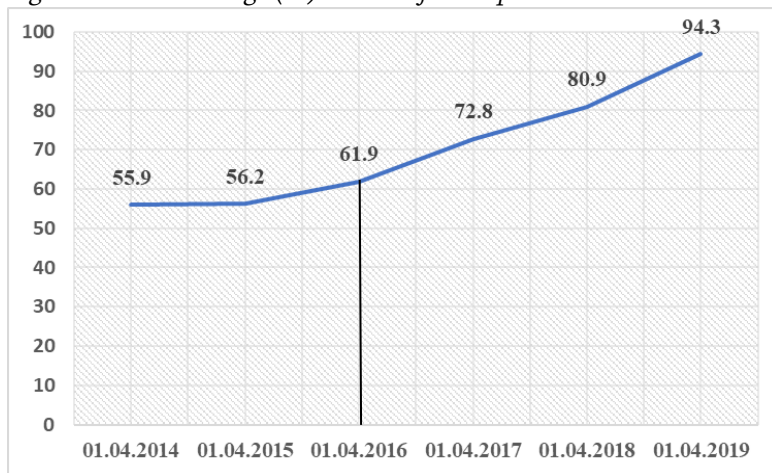
implementing agencies, were advised to offer a loan of around ₹1,500 to the beneficiaries, as per their option, to cover the residual cost of a cooking stove and the first refill. The EMI (equated monthly instalment) of the loan amount was to be recovered from the future subsidies payable to the beneficiaries on subsequent refills. Thus, the actual one-time subsidy borne by the Government of India (GoI) under the scheme was roughly of the order of 50%. To finance this one-off budgetary commitment, GoI took recourse to a couple of rather unusual initiatives. Over 4 years from 2014 to 2018, it launched a “Give-it-Up” campaign which “nudged” more than 10 million economically well-off LPG consumers to voluntarily forgo their fuel subsidy entitlement. GoI also implemented a direct benefit transfer (DBT) in LPG subsidy during this period, which linked the bank accounts of the customers to their Aadhaar numbers, which are unique identification numbers assigned to the citizens. In the process, 38 million “fake” or “ghost” and duplicate LPG connections were reported to have been weeded out. According to a statement made by the then Minister of Petroleum and Natural Gas of the GoI reported in the *Economic Times* on February 8, 2017, the elimination of the ghost/duplicate connections generated savings of ₹21,000 crore of subsidy during 2014–2015 and 2015–2016. Assuming this estimate to be correct, the estimated savings was more than double the amount spent on the first phase of PMUY,¹⁵¹ which makes it a classic case of redistribution of subsidy from the well-off to provide access to clean cooking fuel to the poor households.

This path-breaking scheme to universalise access to clean cooking fuel has sparked off fairly extensive research interest, particularly among environmental economists and scientists. The Comptroller and Auditor General of India (CAG) has also presented a fairly comprehensive audit report on PMUY in 2019

¹⁵¹ According to the CAG report ₹9,183 crore was spent on PMUY reimbursement to the OMCs as of May 2019.

(report no. 14 of 2019). Most of the studies, including the CAG report, have lauded the “remarkable success” achieved in providing LPG connections to nearly 8 crore poor households over a span of 40 months. According to the CAG report, LPG coverage¹⁵² in India ramped up almost exponentially from 55.9% to 94.3% during FY2014 and FY2018, as shown in Figure 8.

Figure 8: LPG Coverage (%) in India from April 2014 to March 2019



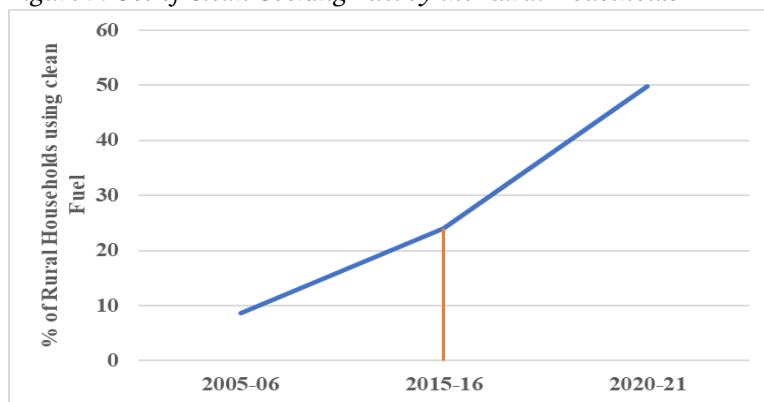
Source: CAG report no.14 of 2019.

Notably, out of the 9.87 crore increase in LPG connections after the launch of PMUY, 7.19 crore new connections (i.e., 73%) were accounted for by PMUY. NFHS-3 (2005–2006), NFHS-4 (2015–2016) and the NSS 78th round multi-indicator survey also substantially validate the big push given by PMUY in accelerating the use of clean cooking fuel by rural households, as shown in Figure 9.

¹⁵² Defined as the ratio of active domestic customers to the total households estimated based on the growth rate between 2001 and 2011 as per the 2011 Census.

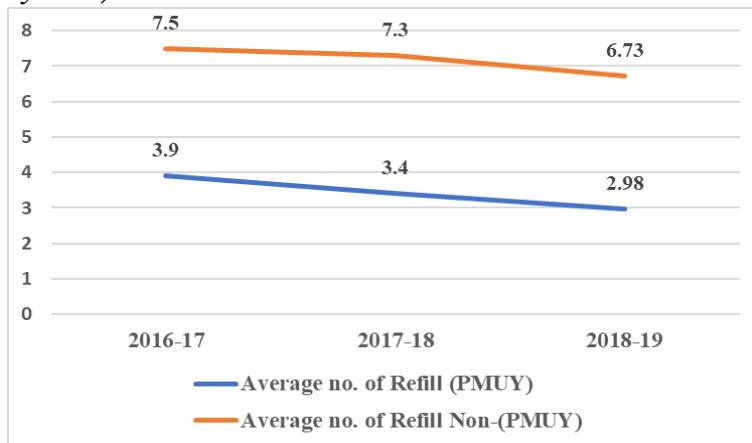
Notwithstanding this well-acknowledged impressive increase in the coverage of the BPL households under the clean fuel scheme, almost every independent study, including the CAG report, has prominently highlighted a fairly low rate of transition of these households from the traditional “unclean fuels” like firewood and cow dung cakes to LPG for cooking, despite being provided with the gas connection. This is evident from the average number of refills by the PMUY consumers during a year which varied between 3 and 4 (14.2 kg cylinder) in comparison with annual refills of 7–8 by the non-PMUY consumers, as depicted in Figure 10. According to the analysis presented in the CAG report, out of 3.18 crore PMUY households who had completed a year or more by December 31, 2018, nearly 18% (0.56 crore) failed to come back even for the second refill (the first refill being free and complimentary as per the scheme).

Figure 9: Use of Clean Cooking Fuel by the Rural Households



Source: NFHS-3, NFHS-4, and NSS 78th round survey.

Figure 10: Average Annual Refill Consumption of LPG (14.2 kg Cylinder)



Source: CAG report no.14 of 2019.

Evidence presented by the MicroSave survey referred to earlier shows that 23% of the PMUY beneficiaries surveyed in Madhya Pradesh, Uttar Pradesh and Chhattisgarh did not seek a refill even once, with the highest percentage of defaulters being in Chhattisgarh (40%).

The insufficient impact of the scheme in facilitating the transition of poor households to clean, smoke-free kitchens has also been validated by a structured evaluation study of the PMUY by Ashraf and Tol (2024). Using NFHS datasets and robust econometric methods (propensity score matching and difference-in-difference estimation technique), the study found that the policy intervention produced a fairly modest 2.1 percentage point increase in LPG consumption attributable to PMUY, with a corresponding decrease in the consumption of firewood. The study further revealed that its impact was regionally differentiated, with an increase of 5.6 percentage points in the uptake of LPG due to PMUY in the North Zone and 4.6 and 3.9 percentage points increase in the South Zone and West Zone, respectively. No significant positive impact was

found in the relatively poorer regions of the East Zone, Central Zone, and North-Eastern Zone.

The CAG audit exercise carried out a sample survey of 1,662 PMUY beneficiaries to assess the extent of transition to clean cooking fuel as a result of this policy intervention and to identify the critical factors that deterred regular and sustained use of LPG by them. Results of the survey indicated that before PMUY, almost 96.5% of the households covered in the survey were fully dependent on firewood, cow-dung cakes, and even highly polluting low-grade coal. Post-PMUY, 40.33% fully transitioned to LPG, 35.44% “reverted back” to the unclean fuels that they were using before, and 24.13% continued with a mix of LPG and unclean fuels. The survey further highlighted the high cost of refills as the principal constraint underlying the incomplete and inadequate transition to the use of clean cooking fuel by the PMUY beneficiaries.

The MicroSave survey has delved deeper into this issue and further analysed the “barriers to PMUY uptake.” While this survey acknowledges that LPG was indeed the preferred choice of cooking medium by the beneficiaries, the scheme design perhaps did not adequately factor in three key challenges that might hinder regular and sustained use of LPG by them, ensuring a full transition to the “smoke-free kitchens” in the households covered under PMUY.

First and foremost is the factor of “affordability.” To obtain a refill from the nearest LPG distributors,¹⁵³ the beneficiaries have to invariably forgo wages for a full day (in the absence of any arrangement for ensuring doorstep delivery) besides the transportation costs to and fro. This imposes *additional costs* of at least ₹150–250 on the beneficiaries for obtaining a refill, in addition to the actual refill price of ₹750–850.

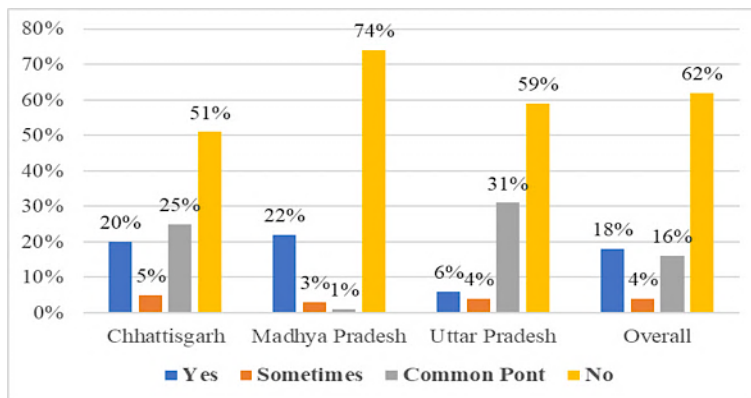
Second, under the scheme, the beneficiaries are required to bear the full cost of the refill (around ₹900–1,000, including the

¹⁵³ According to a sample survey of 164 distributors carried out by the CAG audit, their average distance to the villages covered by them was nearly 34 km.

opportunity cost of wages foregone and transport costs) upfront, before they can get the subsidy of ₹200 via DBT. Since most of the beneficiaries are largely dependent on seasonal agricultural incomes or irregular daily wage earnings, with average monthly earnings ranging between ₹5,000 and ₹6,000, regularly committing almost 20% of that amount for an LPG cylinder every month is formidably challenging.

Third, even though the LPG distributors were obliged under the “Marketing Discipline Guidelines” to make necessary arrangements for doorstep delivery of the cylinders, this was more observed as an exception rather than as a rule. As the MicroSave survey has brought out, there was no supply constraint at the LPG dealer location as per the response of 96% of the PMUY beneficiaries surveyed. The real constraint was indeed the absence of adequate logistic support for ensuring home delivery. The field situation with regard to home delivery, as captured in the aforesaid survey, is shown in Figure 11.

Figure 11: Do LPG Dealers Ensure Home Delivery of Cylinders Under PMUY?



Source: MicroSave survey, August 2018.

Thus, no more than 22% of the beneficiaries admitted to home delivery—18% regularly and 4% sometimes. Had the distributors ramped up this support facility substantially, it

would have most probably ensured much higher usage of LPG by the PMUY beneficiaries.

Fourth, as noted in the CAG report, despite the decision of the Ministry of Petroleum and Natural Gas (MoPNG) to promote the use of smaller 5 kg cylinders, in addition to the standard 14.2 kg cylinders, and provide an option to the beneficiaries depending on their household cash-flow situation, OMCs did not really give a big push to this initiative. Had more vigorous attempts been made to ensure higher availability of the smaller cylinders with higher frequency at the doorstep, keeping the overall fuel subsidy element for the beneficiaries intact, possibly the extent of transition to clean cooking fuel would have been substantially higher.

Finally, behaviour change aspects of the intended transition to clean cooking fuel perhaps did not receive the attention they ought to have in the implementation design of PMUY, which is somewhat surprising. In fact, the MicroSave survey observed that many beneficiaries felt that using firewood instead of LPG is “justified” in view of monetary savings. Some of them also felt that food cooked in traditional mud stoves using firewood “tastes better” as compared to food cooked using an LPG stove. Had a behaviour change campaign, similar in scale and scope to the one mounted during the Swachh Bharat Mission (SBM), been undertaken, possibly the scheme would have accomplished much more impactful outcomes.

The Election Manifesto of the Bharatiya Janata Party (BJP), 2024, has promised further expansion of the PMUY over the next 5 years. In this context, it is imperative that the systemic weaknesses highlighted in the foregoing paragraphs are adequately addressed through appropriate policy and operational tweaks to ensure the sustainable transition to smoke-free kitchens by rural poor households. The convergence of PMUY with the NRLM and the newly announced scheme for the creation of 30 million “lakhpati didis” offers excellent scope to plug many of these deficiencies.

Some Concluding Observations and the Way Forward

As India embarks on its “Viksit Bharat@2047” journey, its focus on the all-round development of the villages, especially the momentum of bridging the rural–urban divide in respect of infrastructure and basic minimum needs, needs to be sustained and may even need to be further bolstered. This would continue to figure right at the top of the agenda of the governments, both at the central and state levels, simply because even in 2047 around 50% of our population would live in the villages, according to the available projections.¹⁵⁴ In this context, a recent article in the *Economist* (July 6, 2024) has aptly commented that the so-called “new welfarism”¹⁵⁵ has possibly run its course as a strategy for ensuring electoral success for the political parties, as evidenced in the recently held national and state elections in India during April–June 2024. The hypothesis it has offered is that voters have gotten used to receiving welfare benefits in cash and kind as an “entitlement” from the competing political parties. Possibly, going beyond “new welfarism,” voters prefer “better jobs, better health care and better schools for their children.” From this perspective, it is pertinent to mention that youth employment and their skilling, particularly among the educated youth, is perhaps one area that governments, both at the central and the state levels, need to pay much greater attention to over the next two decades.

In this perspective, the following specific areas need more urgent attention. First, PMGSY 1.0 has ensured all-weather

¹⁵⁴ Attributed to a statement by Dr. Ramesh Chand published in *The Hindu Business Line* on November 1, 2023.
<https://www.thehindubusinessline.com/news/by-2047-over-50-of-population-will-still-be-in-rural-areas-says-chand/article67485558.ece>

¹⁵⁵ “New welfarism” refers to subsidised or free public provision of essential private goods and services, such as housing, water supply, toilets, cooking gas, or even untied cash grants.

connectivity to all the habitations with a population above 250 in the scheduled areas and above 500 in the non-scheduled areas, as per the 2001 Census. Meanwhile, a large number of habitations that meet these eligibility criteria, as per the 2011 Census, need to be covered under a new phase of the programme, PMGSY 2.0, on a mission mode.

Second, unemployment among rural youths with a secondary or higher level of education is as high as 18% in 2023, according to the *India employment report 2024* by the International Labour Organization (ILO). The corresponding number for those with a graduate degree or higher level of education is even more concerning at 28.4%. Another data point relating to rural youths (15–29 years) reported to be “not in education, employment” at 33%, according to the NSS 78th round (NSS report no. 589), also points to the job crisis in rural India. In this connection, it needs to be stressed that rural youths, even those with secondary or higher levels of education, suffer from a formidable handicap in terms of their “computer illiteracy,” which is an essential competency required these days for both private and public sector jobs. As the Report of the NSS 78th round shows, there is a huge rural–urban divide in respect of ICT (information and communication technology) skills. While only 18.1% of youths (15 years and above) were found to be “computer literate” in 2020–2021, the corresponding percentage was more than double—39.6%—for urban areas. Hence, governments must work towards ensuring universal digital literacy, particularly among the educated rural youth, to provide them with a “level playing field” in the job market.

Third, governments, both at the central and state levels, must prioritise and focus on the creation of “decent work opportunities” in labour-intensive manufacturing and services for the rural educated youth, which in turn necessitates a massive uplift in the access and quality of publicly funded school/college education as well as the public provision of high-quality primary/secondary health care.

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