STATE OF INDIA'S LIVELIHOODS

REPORT 2020

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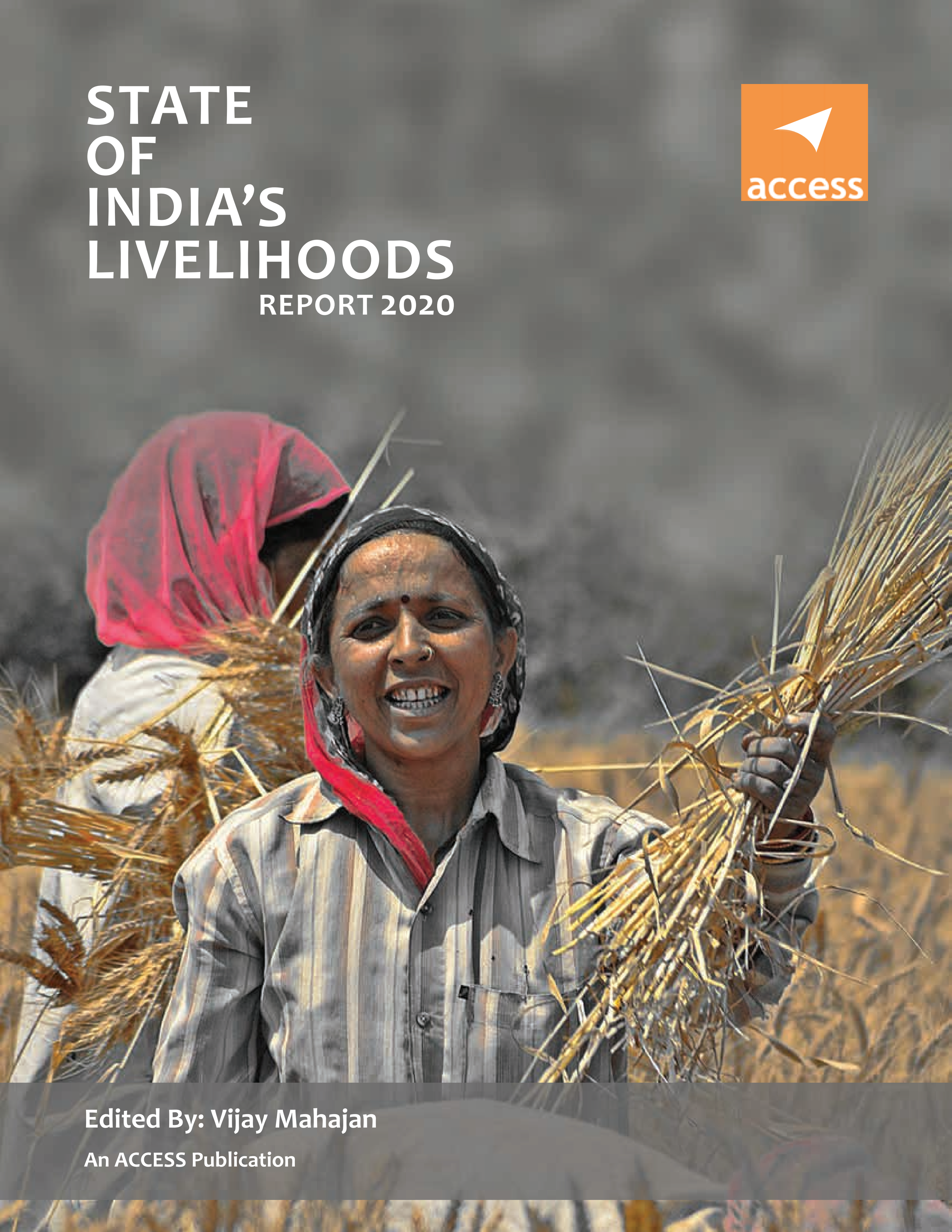

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State of India's Livelihoods Report 2020

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List of Abbreviations

AI	Artificial intelligence
AIACA	All India Artisans and Craftworkers Welfare Association
AIF	Agricultural Infrastructure Fund
AIHB	All India Handicrafts Board
ANM	Auxiliary nurse-midwives
APMC	Agricultural Produce & Livestock Market Committee
ASER	Annual Status of Education Report
ASHA	Accredited Social Health Activist
B2B	Business-to-business
BoP	Bottom of the Ppyramid
CA	Chartered accountant
CAGR	Compounded annual growth rate
CAMPA	Compensatory Afforestation Fund Management and Planning Authority
CCEs	Craft and creative enterprises
CMIE	Centre for Monitoring Indian Economy
CSCs	Common Sservice Ccentres
CSV	Climate-Smart Village
DMF	District Mineral Foundation
DPC	District Planning Committee
EPCH	Export Promotion Council for Handicrafts
EUS	Employment and Unemployment Survey
FPC	Farmer producer companies
FPOs	Farmer producer organizations
GDP	Gross domestic product
GEM	Global Entrepreneurship Monitor
GESI	Gender Equality and Social Inclusion
GIM	Green India Mission
GoI	Government of India
GRB	Gender-responsive budgeting
GST	Goods and sServices tTax
GVA	Gross value added
ILO	International Labour Organization
IoT	Internet of Things
IT	Information technology
IWAs	Informal workers associations
LFPR	Labour force participation rate
MAVIM	Mahila Arthik Vikas Mahamandal
MFIs	Microfinance institutions
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
ML	Machine learning
MoRD	Ministry of Rural Development
MSMEs	Micro, small and medium enterprises
MSP	Minimum support prices
MT	Million ton
MUDRA	Micro Units Development and Refinance Agency
MWCD	Ministry of Women and Child Development

NABARD	National Bank for Agriculture and Rural Development
NAPCC	National Action Plan on Climate Change
NBFCs	Non-banking financial companies
NCEUS	National Commission for Enterprises in the Un-organised Sector
NCPCR	National Commission for Protection of Child Rights
NEET	Not in Education, Employment or Training
NGOs	Non-governmental organizations
NPA	Non-performing asset
NRLM	National Rural Livelihoods Mission
NSS	National Sample Survey
NSSO	National Sample Survey Organization
NTPC	National Thermal Power Corporation
OAE	Own-account enterprise
OES	Own account enterprises
PACS	Primary Agricultural Credit Society
PDS	Public Distribution System
PF	Provident fund
PLFS	Periodic Labour Force Survey
PLI	Production-linked Iincentive
PM	Pradhan Mantri
PMEGP	Prime Ministers Employment Generation Programme
PMMY	Pradhan Mantri MUDRA Yojana
PPE	Personal protective equipment
PPP	Public–Private partnership
PPP	Purchasing power parity
RBI	Reserve Bank of India
RIDF	Rural Infrastructure Development Fund
RSETI	Rural Self Employment Training Institutes
SC	Scheduled Caste
SDG	Sustainable Development Goal
SHG	Self-help group
SHG–BL	Self-help group–bank linkage
SIDBI	Small Industries Development Bank of India
SLA	Sustainable livelihoods approach
SNA	System of National Accounts
SRLM	State Rural Livelihoods Mission
ST	Scheduled Tribe
SVEP	Start-Up Village Entrepreneurship Programme
TERI	The Energy and Resource Institute
TRIF	Transforming Rural India Foundation
TUS	Time Use Survey
TVEs	Township and village enterprises
VCC	Value chain cluster
YC	YUVA COMPASS

Preface

The 2020 pandemic arrived at a time when economic growth in India was already slowing down. As COVID-19 threatened lives, livelihoods and health across the world, the uncertain nature of the pandemic made it extremely difficult for governments to formulate policies, as the impact of the pandemic continued to evolve on an ongoing basis. However, the challenge was bigger for India. The lockdown imposed by the government to break the chain of transmission of disease was amongst the most stringent in the world. Given the huge informal economy of the country, where India's migrant labour eke out their livelihoods, the lockdown expectedly led to loss of livelihood for many, as a result of which hundreds and thousands of migrant labourers started leaving their workplaces to walk hundreds of miles towards their respective hometowns. Loss of livelihoods of the migrant labour was not the only problem that the country was staring at. The lockdown also caused havoc for a huge number of small and medium enterprises of the country, leading to further loss of jobs, causing slow demand, slump in production and the vicious cycle of economic downturn.

To tackle the challenges posed by the situation, the Government of India announced relief packages that included a slew of employment and social protection measures (food related, direct benefit transfer, health care and social security) and economic stimulus measures (liquidity measures, relief for MSMEs and NBFCs, relief for power utilities, regulatory measures, Insolvency and Bankruptcy Code, among others).

This 2020 edition of *State of India's Livelihoods* attempts to study the status of India's livelihoods in the light of the pandemic and the unprecedented shock in almost every sector resulting from the harsh and prolonged misery that the pandemic unleashed. It also looks at strategies for responding to the crisis and building resilience for the future.

Given the diversity of themes that are covered in the *State of India's Livelihoods Report* this year, as compared to the past two years, the Report has been put together by a group of authors. We have been fortunate to bring on board a very experienced and erudite group of practitioners, academicians and researchers, most of whom have come on board for the first time, but a few have been associated with the Report for several years. I would like to thank each one of them for anchoring this important responsibility of bringing the Report together.

In the first chapter, Vijay gives an overview of the livelihoods situation in India, looking at the economy, its growth rate and whether we are generating enough livelihoods or not. He also examines how decent are these livelihoods, in terms of level of remuneration, working conditions and social security. Vijay has great penchant for acronyms, and appropriately in the section on major future strategies to address India's livelihoods challenges in the coming decade are brought under the Section styled as TOIL (Trajectory of Inclusive Livelihoods).

In Chapter 2, 'From Policymaking to Building Institutions', Dr Ashok Sircar attempts to study and comment on livelihoods policymaking in India in the light of the pandemic and in the larger context of three significant livelihoods transitions taking place—demographic, occupational and geographic. He goes on to point out the key concerns in few of the major livelihoods programmes such as Mahatma Gandhi National Rural Employment Guarantee Act, Pradhan Mantri Kisan Yojana, Pradhan Mantri Fasal Bima Yojana, Pradhan Mantri Karam Yogi Mandhan Yojana and Pradhan Mantri Khanij Kshetra Kalyan Yojana. Government of India's policy response in COVID times also finds coverage in this chapter.

In Chapter 3 on the 'state of India's agriculture', Sivakumar looks at the current problems in the beleaguered agriculture sector, where only a small share of the consumer price is transferred to the producer, leading to low farmer incomes. While delving into the problems that ail the sector, Siva goes on to look at how significant changes in the needs of the consumers of food and other agricultural produce, together with the recent advances in digital technologies and developments in agri-sciences, offer an unprecedented opportunity to raise farmer incomes. He also emphasizes on building their resilience to weather risk as also developing other sources of income as important to reducing the vulnerability of subsistence farmers practising dryland farming.

In Chapter 4, 'Putting Informal Workers Back on Our Collective Agenda', Rajiv Khandelwal and Sanjiv Phansalkar start off by characterizing the informal workers. Starting from this analysis, the authors move on to unpack six work sectors that represent the diversity and complexity of informal sector in India, in terms of employment, gender and socio-economic composition. A section on COVID-19 and India's informal workers looks at the opportunities that the pandemic offers to reimagine what can be done to balance the demand for efficient labour use and the just and human needs of workers in the informal sector.

Chapter 5, 'India Needs to Move from Microenterprise Schemes to Building an Inclusive Entrepreneurship Ecosystem', by Patara et al. examines the microentrepreneurship ecosystem in the three broad domains of policy, support services and ecosystem behaviour in order to highlight the gaps in the ecosystem while also demonstrating the deeply systemic nature of entrepreneurship. The chapter goes on to build a case for 'inclusive entrepreneurship', a phenomenon characterized by systemic changes that enables underrepresented groups to access entrepreneurship opportunities.

In her chapter 'Revitalizing the Crafts and Creative Enterprises Sector', Sreya Mozumdar calls for revisiting the traditional approaches towards income generation and livelihoods and redefining the mechanics of work with craft workers to look at well-grounded, economically and environmentally sustainable models of social business and enterprise as a way ahead. She specifically highlights the need for artisans and craftsmen to explore new ways of doing business, emphasizing on the e-commerce potential. Sreya goes ahead to examine the impact of COVID on India's creative economy and prescribes the road map for the sector post COVID.

In Chapter 7, 'Unequal Access: Women and Their Livelihoods in 2020', Smita Premchander et al. examine the status of women and their livelihoods in 2020. They find that it is influenced by their access to education, vocational skills, employment options and the entrepreneurial ecosystem. They make the point that women's collectives such as self-help groups, federations and Farmer Producer Organizations are the single most powerful means of advancing women's agency, voice and influence over resources and institutional and social norms, which, in turn, strengthen their economic, social and political empowerment. The chapter also reports on how COVID-19 pandemic has negatively impacted all aspects of women's livelihoods while putting forward some suggestions for enhancing women's livelihoods.

We have been extremely lucky to get Vijay Mahajan to agree to edit the State of India's Livelihoods Report this year. The Report has benefited immensely from his deep engagement with the process all through, from the conceptualization stage to his detailed editorial inputs for finalizing each of the chapters. I believe we could not have found a more worthy editor than Vijay, and for that I am deeply grateful to him.

I take this opportunity to thank the key supporters of the Report. At the outset, I would like to thank Mr G. R. Chintala, Chairman, National Bank for Agriculture and Rural Development (NABARD), for his continued conviction that the *State of India's Livelihoods Report* brings an insightful value for a large audience. His support to our endeavours has been very encouraging. The financial assistance received from Research and Development Fund of NABARD is gratefully acknowledged. I also thank Arindom Datta and his team, comprising Rishabh and Dheeraj of Rabobank, for their continued support to the Report. Without their incredible support, it would not have been possible for ACCESS to mount this complex task of bringing together the Report.

Finally, both Puja and Shruti, my small team at ACCESS, anchored the full responsibility of ensuring that the *State of India's Livelihoods Report* is released at the Livelihoods India Summit. Coordinating with the authors on their chapters, coordinating with the editor, poring over the copy editor's corrections and managing other related queries, the team managed the task unflustered. Congratulations Puja and Shruti on a job well done.

I look forward to the release of the *State of India's Livelihoods Report 2020* at the inaugural session of the Summit that will be held virtually on 28 January owing to the pandemic. As always, I hope it will continue to inform, influence and support policy for livelihoods promotion of the poor.

Best wishes for a bright 2021!

access

Vipin Sharma
CEO
ACCESS Development Services

STATE OF INDIA'S LIVELIHOODS IN 2020 AND THE TRAJECTORY OF INCLUSIVE LIVELIHOODS BY 2030

1

Vijay Mahajan

1.1. Overview of India's Livelihood Situation

Livelihood is the social identity of a person, based on her or his economic activity, generating employment and income by producing various goods and services. For a country like India, where the level of employment is inadequate for the growing population, the economy needs to grow, and grow in a manner that generates livelihoods. Thus, we begin this overview with first looking at the economy and its growth rate and then seeing whether it is generating enough livelihoods. We also examine how 'decent' are these livelihoods-in terms of wage levels, working conditions and social security. Next, we project the likely increase in the labour force in 2030 and, therefore, the need for new livelihoods in the coming decade 2021–2030. Finally, we suggest four overarching strategies and an eightfold path to put them in action.

1.1.1. GDP Growth: From Jobful to Jobless, Then Job Losses, Then COVID

The compounded annual growth rate (CAGR) of purchasing power parity (PPP) adjusted gross domestic product (GDP) of India was 9.52 per cent per annum during the decade 2000–2010. In the following decade, however, CAGR of PPP GDP was only 5.34 per cent per annum. Annually, from 10.26 per cent to 7.99 per cent in 2015 and then to de-growth of-10.28 per cent in 2020. This was the result of the COVID pandemic and its adverse impact on the economy. The two decade of GDP on PPP basis was 7.4 per cent per annum. In contrast, CAGR of employment was 2.84 per cent in 2000–2010 and became negative at –0.85 per cent per annum in 2011–2020. Table 1.1 summarizes GDP versus the employment growth rate trends.

In 2012, the Planning Commission accepted that 'employment elasticity has come down from 0.44 in the first half of the decade, 1999–2000 to 2004–05, to as low as 0.01 during the second half, 2004–05 to 2009–10'.[1] Employment shrank by 0.1 per cent in FY 2015–2016 and by 0.2 per cent in FY 2014–2015, according to the India KLEMS Database of the Reserve Bank of India (RBI).[2] The COVID pandemic severely exacerbated the trend in 2020. Using the Periodic Labour Force Survey (PLFS) data for 2017–2018 and the Centre for Monitoring Indian Economy (CMIE) data for 2020, *we estimate CAGR of employment over*

1 https://www.livemint.com/Opinion/zAcuIvXlzIfML7N2Q10L2H/Employment-elasticity-almost-zero.html

2 www.livemint.com/Politics/sYBQOalLczD2rlAqE0xoWL/Forget-job-growth-employment-in-India-fell-between-2014-and.html

Table 1.1: India's GDP and Employment Growth since 2000

Year	GDP (in Billion $PPP)	GDP per Capita (in $PPP)	Share of the World GDP PPP (in %)	GDP Growth (Real)	Employment (in Million)	Employment Growth Rate in % per Annum
2000	▲ 2,077.9	▲2,018	▼4.16	▲4.0%	350[i]	The 20-year CAGR of GDP 7.4% per annum while CAGR of employment was just 0.98% per annum
2005	▲3,238.3	▲2,901	▲4.77	▲9.3%	▲458[ii]	
2010	▲ 5,160.8	▲4,181.2	▲5.76	▲10.26%	▲463[iii]	
2015	▲ 7,159.7	▲ 5,464.8	▲6.44	▲7.99%	▼443[iv]	
2020	▼8,681.3	▼6,283.5	▼6.66	▼–10.28%	▼425[v]	

Source: MOSPI (2019a) for PLFS data; CMIE (2020) for employment; CAGRs computed by the author; https://www.imf.org/en/Publications/WEO/weo-database/2020/October/weo-report?c=534,&s=NGDP_RPCH,NGDPD,PPPGDP,NGDPDPC,PPPPC,PPPSH,PCPIP-CH,&sy=1980&ey=2020&ssm=0&scsm=1&scc=0&ssd=1&ssc=0&sic=0&sort=country&ds=.&br=1

the 2000–2020 period was 0.98 per cent per annum, despite CAGR of GDP being 7.4 per cent over the same period. Thus, in this decade, 2021–2030, we will have to work for the growth of livelihoods, not just of GDP.

1.1.2. Employment: Inadequate, Insecure and Indecent[3]

1.1.2.1. Overall Estimates of Employment

The labour force includes those working (called the workforce) plus those able and willing to work, but are unemployed. In India, the National Sample Survey Organization (NSSO) conducted five-yearly Employment and Unemployment Surveys (EUS) and the last EUS was in 2011–2012. *The Government of India (GoI) discontinued EUS from 2015 onwards and launched PLFS from 2017. The first Annual Report of PLFS for the period June 2017–June 2018 was released in June 2019.* The second report based on the survey from July 2018 to June 2019 was released in June 2020. Though the second annual report of PLFS came in the middle of the pandemic-induced lockdown, as it covered a period a year before, it could not throw light on the situation in the midst of the lockdown.

Using other sources, particularly the unemployment reports from CMIE, we were able to put together a picture as on 31 December 2020. Applying the labour force participation rate (LFPR) of 37.5 per cent for age 15 and above, from PLFS 2018–2019, to the estimated Indian population of age 15 years and above of 1,095 million[4] at the end of 2020, we computed that the labour force was 520 million at the beginning of 2021. Of these, as per CMIE's moving average, 9.15 per cent or 47.6 million persons were unemployed at the end of 2020. *In colloquial terms, at the beginning of 2021, India had a labour force of 52 crore, of whom 47.2 crore worked and 4.76 crore were unemployed.*

1.1.2.2. Employment by Location, Gender and Age

In terms of rural/urban and male/female shares of the labour force, as per PLFS 2018–2019, about 55.1 per cent of rural males, 19.7 per cent of rural females, 56.7 per cent of urban males and 16.1 per cent of urban females were in the labour force. *As can be seen, female LFPR was much lower than male LFPR.* Female LFPR is high in low-income countries as well as in upper-middle and high-income economies, but relatively low in lower-middle-income countries, creating a U-shaped relationship between national income and female LFPR (Goldin, 1995; Mammen & Paxson, 2000). Decline in female LFPR in India since 2005 is in line with this U-shaped curve (Mehrotra & Sinha, 2017; Regy, 2019, cited in Mahajan et al., 2020).

The age-wise detail for LFPR is available from PLFS 2017–2018. In that year, among persons of age 15 years and above, LFPR was 49.8 per cent. *Working-age (15–59 years) population LFPR was 49.8 per cent. However, among persons of age 15–29 years, LFPR was only 38.2 per cent, much lower than working-age population, which indicated that a majority of working-age youth were Not in Education, Employment or Training (NEET), yet were not seeking work.*

Sector-wise employment details are also from PLFS 2017–2018. From that data, *it can be seen that crop cultivation accounted for 37.14 per cent and animal husbandry for 6.55 per cent of the workforce, making farming the largest occupation of 43.69 per cent. Manufacturing (12.13%), construction (11.68%), wholesale and retail trade (10.09%), transport and storage (4.93%), and education services (3.78%) were the next five largest employment sectors, together higher than farming.*

3 https://www.ilo.org/public/english/bureau/dgo/speeches/somavia/1999/seattle.htm

4 https://www.worldometers.info/world-population/india-population/

1.1.3. Agricultural 'Employment': Two-thirds Farmers Earned Less than What They Spent

The farmers' protests are in full swing while we write this chapter. The irony is that in the media, very little has appeared on the overall state of India's agricultural households. We attempt to fill that gap using data from the *National Sample Survey (NSS) 70th Round, which was on key indicators of agricultural households in India in 2013 (NSSO, 2015). Though it is seven years old, this is the most authoritative data source on India's farm households.*

India had a little over 90 million farmer households in 2013. *About two-thirds had less than 1 hectare (2.5 acres) of land and only 10 per cent owned more than 2 hectare (5 acres) of land.* Upper castes had a more than proportionate share of the larger landholdings, while the Other Backward Classes, who were about 45 per cent of the population, more or less maintained a proportionate share of land across all holding sizes. For the Scheduled Castes and the Scheduled Tribes, the skew was towards the lowest landholding sizes. Thus, lower caste and lower land ownership reinforced each other to keep certain segments of the population at the bottom.

The average Indian farmer household cultivated only 0.94 hectare in the July–December period, about 50 per cent of that with irrigation. In the January–June period, it was 0.78 hectare, about 80 per cent of that with irrigation. Out of 90 million farmer households, 78 million grew a crop in the July–December period. *Of these, 45 million grew paddy. Only 41 per cent of those who grew paddy sold it and of these, nearly 60 per cent sold it to local private traders.*

The high share of sale to local private traders was true for all other crops except wheat, soybean, *tur* (pigeon pea) and cotton, which had reasonably high sales in *mandis* (agricultural produce market yards). Sugar cane farmers largely sold to sugar mills. *Sale at minimum support prices (MSP) was predominantly for paddy and wheat, and for the other MSP-notified crops, less than 2 per cent of total sale was at MSP.* A much lower number of farmers grew other crops.

The cultivation cost structure of a farm household showed that bought inputs accounted for about 50 per cent, while animal labour was low at 1.5 per cent of the total cost. Only about 7 per cent of farmers got agricultural extension knowledge inputs from official sources (extension staff, Krishi Vigyan Kendras and agricultural universities).

Table 1.2: Monthly income levels of agricultural households in 2012-13

Statement 12: Average monthly income (Rs.) from different sources, consumption expenditure and net investment in productive assets (Rs.) per agricultural household during July 2012-June 2013 for each size class of land possessed

Size class of land possessed (ha)	Income from wages/salary (Rs.)	Net receipt from cultivation (Rs.)	Net receipt from farming of animals (Rs.)	Net receipt from non-farm business (Rs.)	Total incomes (Rs.)	Total consumption expenditure (Rs.)	Net Investment in productive assets (Rs.)	Estimated. No. of agri house-holds* (00)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<0.01	2902	30	1181	447	4561	5108	55	23857
0.01-0.40	2386	687	621	459	4152	5401	251	287381
0.41-1.00	2011	2145	629	462	5247	6020	540	315008
1.01-2.00	1728	4209	818	593	7348	6457	422	154810
2.01-4.00	1657	7359	1161	554	10730	7786	746	83964
4.01-10.00	2031	15243	1501	861	19637	10104	1975	33519
10.00+	1311	35685	2622	1770	41388	14447	6987	3499
All sizes	**2071**	**3081**	**763**	**512**	**6426**	**6223**	**513**	**902039**

**estimated number of households based on the common households of visit 1 and visit 2 differs from the estimate based only on visit 1 households due to effect to multiplier*

1.1.3.1. Income, Expenditure, Indebtedness and Subsistence Subsidies

The most important finding was that the average monthly household income was ₹6,426, while the monthly expenditure was ₹6,223 in 2013. However, for 62 million farm households, with land less than 1 hectare, comprising about two-thirds of all farm households, the monthly expenditure was in excess of income (see Table 1.2).

Only 52 per cent farmers said that they had any loan outstanding. Of these, 60 per cent took loans from banks and cooperatives and 25 per cent took loans from moneylenders. *On an average, the amount outstanding was ₹47,000 was about two-thirds of average annual income of ₹74,676 on an all-India level in 2013. However, the indebtedness levels as a percentage of income were much higher in Kerala, Andhra Pradesh, Telangana, Tamil Nadu, Punjab and Haryana, broadly reflecting the intensity of use of chemical inputs in agriculture.*

About 57 per cent farmer households were able to draw subsidized food grains. Only 44 per cent had Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) job cards to enable them to earn wages in the lean season in 2013.

1.1.4. The Informal Sector: Employment of the Last Resort

We present in Figure 1.1 a conceptual framework on informal employment, as defined by the Fifteenth International Conference of Labour Statisticians.

The framework excludes households employing paid domestic workers.

As per the Annual Report, PLFS 2017–2018, in India, 68.4 per cent of the workers in the non-agriculture sectors were engaged in the informal sector.

By gender, the share of informal sector among male workers was 71.1 per cent and among female workers was nearly 54.8 per cent in non-agriculture sectors. This was due to the fact that females, when they worked, tended to get into arrangements where they were more likely to be causal workers.

By contractual status, the share of rural households who had major source of income from self-employment was 52.2 per cent. Households with major source of income from regular wage/salary earning were 12.7 per cent and households in casual labour during 2017–2018 were 25 per cent. In urban areas, the share of the households in self-employment was 32.4 per cent; the share of households with regular wage/salary earning was 41.4 per cent, while those in casual labour was 11.8 per cent. As can

Figure 1.1: Conceptual Framework: Informal Employment

	Jobs by Status in Employment								
Production Units by Type	Own-account Workers		Employers		Contributing Family Workers	Employees		Members of Producers' Cooperatives	
	Informal	Formal	Informal	Formal	Informal	Informal	formal	Informal	formal
Formal sector enterprises	NA	FJ	NA	FJ	1	2	FJ	NA	FJ
Informal sector enterprises	3	NA	4	NA	5	6	7	8	NA
Households	9	NA	NA	NA	NA	10	FJ	NA	NA

Source: MOSPI (2019a).

Note: NA means not a possible category due to the definition itself.
FJ means formal job—whether in the formal enterprise or in an informal enterprise or in a household enterprise due to a relationship with the formal enterprise like outsourcing.
Informal employment is Cells 1, 2, 3, 4, 5, 6, 8, 9 and 10.
Employment in the informal sector is Cells 3–8.
Informal employment outside the informal sector is Cells 1, 2, 9 and 10. An example of 2 is housekeeping workers in offices, while 9 is piece-rate home-based workers.
The framework excludes households employing paid domestic workers.

be seen, urban areas were magnets because they offered a much greater opportunity for regular wage/salary earning.

1.1.4.1. Self-employed Workers

The largest number of workers in the informal sector were self-employed. *During 2017–2018, about 52.2 per cent of rural households had major source of income from self-employment.* In terms of earnings, as many as 57 per cent of all workers in rural areas were self-employed and the average gross earnings ranged between ₹ 8,500 and ₹9,700 per month among males and between ₹ 3,900 and ₹ 4,300 among females during 2017–2018. *In urban areas, where 38 per cent of all workers were self-employed, the average gross earning was around ₹ 16,000 among males and it ranged between ₹ 6,500 and ₹ 7,500 among females during 2017–2018. The differential of nearly 76 per cent between rural and urban males' earnings through self-employment, in addition to more self-employment opportunities in urban areas, explains the urban pull for rural migrants.*

1.1.4.2. Regular Workers

The share of rural households with major source of income from regular wage/salary earning was 12.7 per cent. Earnings in rural areas ranged from ₹ 13,000 to ₹ 14,000 per month among males and between ₹ 8,500 and ₹ 10,000 per month among females. In urban areas, the share of households with regular wage/salary earning was 41.4 per cent. Earnings among regular wage/salaried employees ranged from ₹ 17,000 to ₹18,000 among males and from ₹ 14,000 to ₹ 15,000 among females in 2017–2018. *The differential of nearly 30 per cent between rural and urban wages, in addition to more job opportunities in urban areas, explains the urban pull.*

1.1.4.3. Casual Workers

Households in casual labour during 2017–2018 were 11.8 per cent in rural areas and 25 per cent in urban areas. In terms of earnings per day, casual labour engaged in works other than public works like MGNREGS earned from ₹ 253 to ₹282 among males (working out to ₹6,955 per month) and from ₹ 166 to ₹ 179 among females (₹ 4,511 per month). Urban average earnings per day by casual labour ranged from ₹ 314 to ₹ 335 among males (₹ 8,435 per month) and from ₹ 186 to ₹ 201 among females (₹ 503 per month). *The 94 per cent differential in rural and 104 per cent in urban areas, between wages of regular employees and casual workers, in addition to greater insecurity of tenure and lack of benefits, explains the urge to search for naukri (regular job) rather than rozgar (casual work). Job seekers often opt for swarozgar (self-employment) as a temporary option initially, but it becomes a lifelong option for most of them.*

1.1.4.4. Benefits and Working Conditions

Let us briefly look at worker benefits and working conditions in the informal sector. E*ven among regular wage/salaried employees, 49.6 per cent did not have any social security benefit.* Thus, there was no paid leave once a year, no maternity leave or benefits, no crèches, no cover for health and life under the Employees State Insurance, nor any provident fund/pension. Working conditions showed little concern for occupational health and safety, and amenities like first aid were missing. *As many as 95 per cent of women workers in the informal sector in India suffered abuse and sexual harassment at the workplace,* as per a study by Human Rights Watch.[5]

GoI in 2020 amended the multiple labour laws and condensed into four labour codes: the wage code, code on industrial relations, code on social security and welfare, and code on working conditions and safety of labour. It is unlikely that this will increase the protection for or security of informal sector workers in any way. With a little over a half of the rural workers and a little less than a third of all urban workers being self-employed, the meaning of 'decent work' has to be understood differently from the employer's in-informal-sector-rarely-report-workplace-harassment-over-fear-of-losing-

5 https://economictimes.indiatimes.com/magazines/panache/2-years-after-metoo-movement-poor-indian-women-fear-losing-their-jobs-over-workplace-harassment-complaintsormetoo-2-years-on-indian-women-in-informal-sector-rarely-report-workplace-harassment-over-fear-of-losing-job/articleshow/78680850.cms?from=mdr

Box 1.1: What Is the Meaning of Social Security and Working Conditions for the Self-employed?

'…More than 97 per cent of all enterprises in India… employ less than five labourers, in most family enterprises…. Here the code of labour engagement, employer–employee relation, security, working conditions, etc., is constructed within a framework of social, familial, ethnic, caste ties of reciprocity, mutualism and trust. The authority of the state is already minimal in this context and will remain so in the given construct. How to imagine a labour code of security in this context? The country needs a robust institutional infrastructure at the state and local level to locate and identify informal workers of all types and facilitate the process of advancing social security measures. Currently, that infrastructure does not exist….' Professor Ashok in the chapter on policies and programmes in this volume.

job/articleshow/78680850.cms?from=mdr responsibility.

India not only had a large percentage of its workers in the informal sector due to the inadequacy of employment in the formal sector but the unemployment rate[6] *was 6 per cent in 2011–2012. In the same year, the share of the population below the poverty line was around 22 per cent.*[7] *Thus, many of the working persons were not earning enough to cross the poverty line. For them, some guaranteed employment was needed, even if it provided just living wages.*

1.1.5. The Rural Employment Guarantee Programme

Given the desperate need for employment in rural India, there is a long history of state response to generate wage employment in public works. In historical times, the kings used to open up the granaries and give people food in return for work. In British India, starting 'famine works' was a common part of the district administrators' work. Post-Independence, the idea of food for work remained in use. Maharashtra was the first state to begin an employment guarantee scheme during the major drought in the summer of 1973. Thereafter, the Janata government set up a food for work programme in 1977 during at the all-India level.

This was relaunched as the National Rural Employment Programme in 1980. Then the Rural Landless Employment Guarantee Programme was launched on 15 August 1983, to provide an employment guarantee to at least one member of every landless labour household up to 100 days in a year and create durable assets for strengthening rural infrastructure. On 15 August 2001, a new wage employment programme, the Sampoorna Grameen Rozgar Yojana was launched by the then Prime Minister Shri Atal Behari Vajpayee with an allocation of ₹10,000 crore. Thus, one can see that some form of the programme continued under various governments, irrespective of the party in power.

MGNREGA was enacted in 2005 by the United Progressive Alliance government at the advice of a number of social activists in the National Advisory Council. In contrast to earlier employment programmes, MGNREGA legally enshrined the right of the rural population to 100 days of paid work a year. Participation in the scheme was to be based on demand. Work must be provided within 15 days from the date of application and within a 5 km radius of their village. If no work could be provided, a specified unemployment allowance was to be paid.

MGNREGA gave preference to unskilled work and discouraged the use of labour-saving machinery. It also specified that the materials component of the programme should not exceed 40 per cent of the total cost, averaged at the Gram Panchayat level. The Act also prohibited the use of contractors and empowered the Panchayati Raj Institutions to implement it. Further, the Act prescribed a minimum one-third participation rate for women, and it emphasized the participation of the Scheduled Caste and the Scheduled Tribe populations. It provided that at least 50 per cent of the works carried out would have to be locally decided.

As per PLFS 2017–2018, the average wage earnings per day by casual labour engaged in MGNREGS/public works ranged between ₹141 and ₹171 among males, and between ₹131 and ₹165 among females. *In the middle of the pandemic,*

6 http://mospi.nic.in/sites/default/files/publication_reports/KI-68th-E%26U-PDF.pdf
7 https://web.archive.org/web/20140407102043/http://www.rbi.org.in/scripts/PublicationsView.aspx?id=15283

Box 1.2: MGNREGS: The World's Largest Employment Guarantee Programme

MGNREGS of public works under MGNREGA was launched in 2006. *Cumulatively, since 2006, the programme under MGNREGS has generated 31,302.5 million person days of work, with a total expenditure ₹627,153 crore, earning itself the rank of the number one public works employment programme in the world.*

As per the MGNREGS portal,* as against ₹ 68,278 crore for the whole year in 2019–2020, as on 31 December 2020, ₹ 82,678 crore had been spent under MGNREGS in 2020–2021. Of this, ₹ 59,670 crore was the wage component. About 25.4 per cent was spent on materials and 3.1 per cent on administration. *As on 31 December 2020, there were 142.1 million active job cards issued under MGNREGS, and these job cards covered 18.98 million active workers. MGNREGS works were going on at 1,202,827 or over a crore worksite on 31 December 2020.*

Thus, MGNREGS played a key role in ameliorating mass rural suffering during the COVID downturn, although there were many needy areas, particularly in Uttar Pradesh and Bihar, where MGNREGS coverage was low even in 2020.

*http://mnregaweb4.nic.in/netnrega/all_lvl_details_dashboard_new.aspx?Fin_Year=2020-2021&Digest=ueg/HtV54GGJ8ZQ6GUB2ew

the government raised the daily wage rate for MGNREGS workers to ₹200 per day. GoI also increased the original allocation of ₹61,400 crore in the budget by ₹40,000 crore. Over 5 million new job cards were issued, mostly to migrant workers who had returned to their home villages and over 90 million persons found work under MGNREGS by October 2020, which was the highest ever since MGNREGA was adopted.

1.2. What DOGS[8] India's Livelihoods?

We have identified four major factors that lie behind the livelihood problem in India. *These are demography, occupational status, geography and sectoral policies,* which militate against livelihoods. We will deal with each of these one by one below.

1.2.1. Demographic Disappointment: Dividend Declared but Not Paid

A nation is supposed to be harvesting demographic dividend at that stage in its history when a large proportion of its population reaches the working age. If they all get work, the ratio of workers to dependents goes down, and this drives overall growth prosperity. Instead, in India, we had a large population of the young joining the workforce over the last two decades, but no significant increase in employment. The population below 15 years in 2001 as per the Census was around 364 million.[9] They were all of working age by 2020, and if we apply LFPR of 38.2 per cent to this, an incremental 139 million persons would have joined the labour force.

As we have seen from the employment data in the earlier section, *in the period 2001–2020, employment went up from 350 million to 376.6 million, an increase of 26.6 million, which was only 19 per cent of the increment in the young labour force population. Therefore, as the young did not get employment, they remained dependent on earning members of their households and* this has reduced the overall per capita income growth and kept millions under poverty. As stated by the author in a recent webinar (Mahajan, 2020):

> If at 21 you are unemployed, the family says, no problem, h/she is still studying. If at 26, you are still unemployed, it becomes a family problem. If at 31, you are still not employed, it becomes a social problem. These frustrated youth can be prone to low self-esteem, depression, alcohol and drug abuse, and violence. They can be easily picked up by anti-social forces and mobilised for crime, riots and terrorism. These social ills in the Indian situation can be traced back to the inadequacy of livelihoods for the youth since 2000.

By 2030, India's dependency ratio is projected to be just over 0.4. Simply put, in an average household of five, two would be working and the other three would depend on their earnings. But this is based on the assumption that those two per

8.This is an acronym of demography, occupational status, geography and sectoral incentives
9. https://censusindia.gov.in/census_data_2001/india_at_glance/broad.aspx

household will have remunerative livelihoods on a steady basis. A study on demographic dividend in India by the United Nations Population Fund throws up two interesting facts:

> One, the window of demographic dividend in India is available for five decades from 2005–06 to 2055–56, longer than any other country in the world. Second, and more interesting, is the fact that this demographic dividend window is available at different times in different states because of differential behaviour of the population parameters.[10]

The first fact above should remind us that *we need to hurry to generate a large number of remunerative, dignified and stable livelihoods, as we have lost a third of the window of demographic opportunity.* The second fact is a powerful argument for *looking at migrants in a positive way and ensuring a dignified working and living experience for migrant workers.*

1.2.2. Occupational Aspirations: Government Jobs Not Self-employment

One of the factors that has dogged the livelihoods situation is *the aspiration of Indian workers for getting a regular, salaried job, preferably a government job.* This trend began in the colonial period, when the British needed an army of clerks and other functionaries to run the Raj. They paid their minions handsomely, as compared to the prevailing wage rate. Even words such as leave, provident fund and pension came into the Indian vocabulary, thanks to these jobs.

The trend continued unabated after Independence as India set out to build the nation and with that, the bureaucracy burgeoned. Despite a slowdown in government hiring in the last two decades, Indian newspapers and digital media are full of stories where many people apply for a few jobs. An extreme case is described below where the applicants to jobs ratio was 6,250:1.

> [In 2015], 2.3 million people, including postgraduates and PhDs, applied for 368 peon posts advertised in Uttar Pradesh. Outrage followed. Why were highly educated people applying for a job that required only primary school education and knowing how to ride a bicycle?[11]

Another case attracted 24 million applications, and the applicants to jobs ratio was 171:1.

> In a statement issued by the Ministry of Railways [on 22 October 2020], 'It may be noted that RRBs have [sic] issued three centralized employment notifications … for a total of about 1.4 lakh vacancies for various categories of staff…. Against these employment notifications, more than 2.40 crore candidates have applied'.[12]

*In sheer contrast, the aspiration to be self-employed is not widely found among the masse*s. As Patara et al. report in their chapter on inclusive entrepreneurship in this volume,

> One-to-one dialogue in 2017 by the authors' team with rural communities in Uttar Pradesh revealed that in a village with approximately 1,500 adults, only 14 individuals had thought of setting up an enterprise and only 6 of them were able to do so (Verma et al., 2017).

This micro-example with 14 out of 1,500 adults, slightly less than 1 per cent, even thinking of setting up an enterprise, is seriously problematic, as there are going to be less and less *sarkari naukris* (government jobs) or even *pakki naukris* (regular salaried jobs).

Why did people not seek jobs in private enterprises even when there were 6.34 crore enterprises in India during 2015–2016 as per an NSS report (MOSPI, 2017). An overwhelming majority of these were tiny and informal usually located within or just outside the owner's household premises.

10 https://www.livemint.com/Opinion/zgCdZ3GrDwtDpQWD95HenO/OpinionIndias-demographic-dividend-will-play-out-over-a.html

11 https://www.livemint.com/Politics/FL93KP1b9OtQmNnDOJeNxI/Why-PhDs-want-to-be-peons.html

12 https://www.livemint.com/politics/policy/2-40-crore-candidates-applies-for-jobs-in-1-4-lakh-vacancies-in-indian-railways-11603440686441.html

NSSO uses the term 'own-account enterprises' for enterprises run by households, and these comprised 84 per cent of all enterprises. The average gross value added (GVA) of own-account enterprises in 2015–2016 was ₹7,980 per month.[13] With such a low GVA, microenterprises can at best generate family self-employment. They cannot employ others. Jobs are in larger enterprises, called 'establishments' by NSSO, whose average GVA is ₹53,425 per month. That is where people search for work. But as we saw in Section 1.1.5, the low wages, lack of any benefits and poor working conditions make these jobs less preferred to government jobs, where the pay is higher and there is security of tenure.

1.2.3. Geographic Mismatch: Workers in Bharat, Jobs in India

The share of population living in rural India has steadily declined from 82 per cent in 1960 to 65.5 per cent in 2020, and it is projected to go down to about 60 per cent by 2030. At the same time, agriculture and allied activities such as animal husbandry, fishery and forestry, which were the predominant livelihood for rural India, have shown a decline in employment, employing only 44.15 per cent workers in 2017–2018 as per PLFS.

1.2.3.1. Transition from Farm to Non-farm Livelihoods Was Inadequate…

A survey of farmers in 2003 indicated that as many as 40 per cent of the farmers wished to exit from agriculture (NSSO, 2005). This meant that over 40 million persons wished to exit from agriculture over the previous two decades. This happened in China in a bigger way when over 100 million people were moved from agriculture to township and village enterprises (TVEs) between 1979 and 1989[14]. By 1999, TVEs were employing 18 per cent of China's labour force and produced 61 per cent of China's industrial output, worth nearly $967 billion.

India also needed to do this, but we did not make that policy choice. Our ideas of rural non-farm sector remained confined to khadi and village and later to handloom and handicrafts. This was a freezing of what Kumarappa and Gandhiji had proposed of as the basis for self-reliant villages. *Therefore, the growth of the rural non-farm sector remained inadequate to absorb the persons wanting to move out of agriculture, particularly the rural youth* (Fisher & Mahajan, 1996). Even agro-processing moved out of rural areas, for example, in the soybean sector, most of the processing units came up in cities such as Kota, Indore and Dewas and none in rural areas.

This was inevitable due to the better availability of input, market linkages and infrastructure in urban areas. These factors enabled setting up larger units in urban areas and the resulting lower costs enabled urban units to outcompete rural units, because of which the rural non-farm sector could not continue, except for a few handloom and handicraft units in established clusters. The part of the rural non-farm sector, which continued to exist, was proximate services such as repairs, retail trade, transport, education and health care.

1.2.3.2 Resulting in Rural-to-Urban Migration in Search of Livelihoods

As there are not enough livelihoods in agriculture nor many opportunities for diversifying from rural farm activities to rural non-farm activities, this led to massive migration. The number of internal migrants in India was 450 million as per the Census of India, 2011. This is an increase of 45 per cent over the 309 million recorded in the 2001 Census. This far exceeds the population growth rate of 17.64 per cent from 2001 to 2011. Internal migrants increased from 30 per cent of the population in 2001 to 37 per cent in 2011. A vast majority of these, however, migrated for work within the state. The bulk of the movement (62%) was within the same district. Another 26 per cent was between districts within the same state. *Though only 12 per cent of the movement was interstate, that number worked out to 54 million persons.*

Much of this migration was to unfamiliar places, often outside the home state, leading to difficulties in obtaining entitlements such as subsidized food grains, school education for children and health care. Housing at the

13 http://mospi.nic.in/sites/default/files/publication_reports/NSS_KI_73_2.34.pdf

14 https://www.researchgate.net/publication/24083952_Township_and_Village_Enterprises_in_China

Table 1.3: Attributes of Registered Factories by Worker Size (2017–2018)

No. of Workers→ Feature:↓	0–19	20–99	100–499	500–4,999	At least 5,000
% of total factories	47.1	33.8	14.3	4.4	0.3
Fixed capital utilized	3.5%	8.2%	19.6%	44.7%	24.1%
Persons engaged	5.0%	18.4%	32.1%	35.9%	8.6%
Output produced	4.1%	15.3%	25.8%	40.1%	14.6%
Net value added	2.2%	11.7%	25.0%	47.5%	13.6%

Source: MOSPI (2019b); PRS.

destination was usually temporary and abysmal, with makeshift arrangements for water, sanitation and cooking. Even worse, due to the fact that many migrants could not speak the language of the destination states, they were at the mercy of contractors and agents who brought them, offering cash advances.

One of the reasons for this large migration has been a persistent disparity in growth of output and employment across states. As per a study by Sanjeev Kumar and Falguni Pattanaik (2020), states in the southern and western regions of India have grown well on both accounts, whereas states in the central, eastern and north-eastern regions have lagged behind. This has been the cause of a flood of migrants going from Bihar to Punjab, from eastern Uttar Pradesh to Mumbai, from Odisha to Surat in Gujarat and from the north-eastern states to places as far as Tamil Nadu and Kerala.

Much has been written[15] in the last few months about the recent reverse migration from workplaces in cities to home villages during the COVID pandemic and we will not repeat it here, except to say that it was a tragedy of epic proportions and a blot on our society. What we need is a firm resolve that this should never be repeated in India's history.

1.2.4. Sectoral and Firm-level Perverse Incentives Discourage Employing Labour

Firms or enterprises are the constituents of any economic sector and they naturally tend to work to maximize their profits, subject to market competition and regulatory constraints. For an enterprise to maximize its profits, the relative prices of factors of production—land, labour and capital—are important determinants in the choice of technology. One would imagine that in a labour-surplus and capital-short economy, the tendency of enterprise would be to opt for production techniques, which employ more labour and less capital and land. However, in practice, this is not so. *We find that in decade after decade, Indian enterprises have used more capital-intensive and more labour-saving production techniques than their relative factor prices. What could be the reasons for this?*

1.2.4.1. Labour Laws Led Larger Enterprises to Hire Less Labour

One common explanation is that the plethora of labour laws makes it difficult for employers to be flexible in response to market situation—once they hire a worker, even if demand drops, they cannot easily let the worker go. This has resulted in a bimodal response. A smaller number of larger enterprises then opt for labour-saving technologies, investing in equipment and machinery. This investment was facilitated by access to relatively cheap institutional finance for those who could get it.

As can be seen from Table 1.3, the largest factories used a quarter of all the fixed capital employed and yet employed only one-twelfth of all workers in factories and accounted for only one-eighth of all value added by factories.

The majority of small enterprises, however, tend to use more labour-intensive production techniques because of capital constraints. However, they try to save on labour costs by paying lower wages, not giving any benefits and not investing in reducing drudgery and risk or in improving working conditions.

It was hard to enforce labour laws in small enterprises even earlier. The recently enacted four labour codes make enforcement even more difficult as the thresholds of applicability in terms of number of workers have been increased and onsite visits by officials have been made difficult, requiring internal approvals

15 https://www.prsindia.org/theprsblog/migration-india-and-impact-lockdown-migra

Box 1.3: Impact of the New Labour Codes on Informal and Migrant Workers

When asked by Civil Society magazine,* 'Do you think the new Labour Codes will improve employment as industry says it will?', Rajiv Khandelwal, founder of the Aajeevika Bureau said, 'Categorically, no. What industry is happy about is that a significant part of its own constituency is being put out of the purview of regulation—by redefining what formalization means and by changing the potential for industrial action by making unions almost redundant. It's really very paradoxical that the Codes have been passed just when this migrant crisis happened. At this time we needed pro-worker responses. What the Codes are doing is taking away very fundamental worker protection. Labour laws are not implemented very well, anyway. They do not come in the way of industrial growth. The Codes are an even sharper signal to industry to go ahead and continue to do what they do with labour, but maybe with more impunity'.

* https://www.civilsocietyonline.com/interviews/basic-worker-protections-taken-away-under-new-labour-codes/

before visits. Most of the compliance has been made easy for employers on a self-reporting, self-certification basis. Coupled with the fact that most informal workers are not members of organized trade unions, this leaves them at the mercy of employers.

1.2.4.2. Efforts for Skill and Entrepreneurship Development Need to Be Redoubled

The proportion of unskilled workers in the informal sector is high. Most workers learned the minimal required skills on the job, often from earlier workers, who were often relatives or friends. There were some semi-formal practices for skill transfer from ustads (adept workers, trainers) to *shagirds (apprentices). The proportion of formally skilled workers in India was extremely low, at 4.7 per cent of the workforce as compared to 24 per cent in China, 75 per cent in Germany and 96 per cent in South Korea.*

In response to this, GoI built a new ecosystem for skill development, starting with the National Skill Development Agency in 2009. A National Skill Development Corporation was established in 2010 and a National Skill Qualifications Framework was adopted. A lot of skill training programmes were organized. However, the effects on employment were limited, partly as not enough jobs were being created in the economy.

As per a report by the People Research on India's Consumer Economy, 2016 Survey,[16] while 30 per cent of the workers constitute Skill Level 1 (unskilled, just engaged in routine, manual functions), 56 per cent of the workforce was classified at Skill Level 2 (being able to use machinery and equipment). Nearly 11 per cent of the population was classified at Skill Level 3 (some writing and numeric skills in addition to Level 2 skills), while the Skill Level 4 workers (professional skills) were only 3 per cent. Slightly more than over half of Skill Level 1 individuals were in the 15–35 years age group, whereas this group constituted about 40 per cent of the other skill level types. *This meant the younger workers were less skilled. Over one-third of Skill Level 4 individuals belonged to the 36–45 years age group. Also, the higher skill level individuals resided in urban areas as against a mere 26 per cent of Skill Level 2 in urban areas.*

Only 13 per cent of Skill Level 1 workers were regular salaried workers. In contrast, 60 per cent of Skill Level 4 earned regular salaries. One would imagine that this would be a great incentive for investing by the families of youngsters in their skill development. In contrast, most professionals in skill development complain that they have to spend an inordinate amount of effort to get youngsters to enrol in skill development programmes, even if these are free or highly subsidized.

Why is this so? The answer comes when one speaks to the young people who have passed out of skill programmes. They rarely get a job, which meets their wage aspirations. This discourages young people from seeking skill training, let alone paying for it. In turn, this leads to the skill

16 http://www.ice360.in/uploads/files/ice360-survey-2016-design-and-validation_1.pdf

provider providing the least minimum input enough for them to be paid by a government programme for skill training. Therefore, the whole skilling field has sunk into a quagmire.

So to promote self-employment, the idea of entrepreneurship was added and Ministry of Skill and Entrepreneurship Development was established and a National Policy on Skill Development and Entrepreneurship was launched in 2015. Since self-employment required access to credit, a major new thrust was planned to enhance credit to microentrepreneurs.

1.2.4.3. Access to Credit Increased but with Little Impact on Employment

Other sectoral policies militate against livelihoods. The most important is the financial sector. A critical factor limiting the performance potential of micro, small and medium enterprises (MSMEs) is access to finance. Credit gaps result from both demand and supply side factors. On the demand side, many MSMEs cannot access credit because of the financial documentation and collateral requirements for obtaining a loan, high interest rates and long loan approval procedures, among others. On the supply side, banks consider MSMEs as high-risk and high-cost clients to acquire, underwrite and serve. These factors deter banks from lending to MSMEs and focus on bigger firms.

GoI has had a long history of programmes to enhance the flow of credit to MSMEs since the 1950s. The present government launched the Pradhan Mantri MUDRA Yojana (PMMY) scheme in April 2015, for non-farm income-generating loans up to ₹0.1 crore to be given by banks and other financial institutions. There are three categories of loans in the scheme: *Shishu, Kishor and Tarun,* with the first for loans up to ₹50,000, the second for between ₹50,000 and ₹500,000 and the third from ₹500,000 to ₹0.1 crore.

PMMY offered unsecured loans for MSMEs requiring credit for investments in existing businesses, as well as for new start-ups. A vast majority of loans were of the smallest category, below ₹50,000. The total number of PMMY loans was 211.3 million and the amount disbursed was ₹10.59 lakh crore, from the beginning of PMMY in 2015 until the end of 2019.

However, the impact of these loans on employment was limited. The labour ministry survey covering 97,000 PMMY borrowers was conducted between April 2015 and December 2017, the first 33 months following the roll-out of the scheme *(Indian Express, 2019)*. The draft report found that 1.10 crore additional jobs were created during April 2015–December 2017. Of these, 51.06 lakh were self-employed or working owners and their family members while, 60.94 lakh were employees or hired workers. The report also said that only one out of five borrowers (20.6%) availed the PMMY loan for starting a new business, while the remaining applicants used the PMMY money for expanding their existing business. As a result, the number of additional jobs created was less than 10 per cent of the total number of loans given.

During the first three years, ₹5.71 lakh crore of loan was sanctioned under PMMY. The loans provided under Shishu category led to the creation of 66 per cent new jobs. The new job creation percentage for loans under Kishor and Tarun categories were 18.85 and 15.51, respectively. *Dividing the total amount of loan disbursed by the number of additional jobs created, one concludes that around ₹5.1 lakh was extended as a loan for creation of each additional job.*

1.2.4.4. Opening Up the Economy Caused a Shift in the Type of Livelihoods

Another example of a sectoral policy that militates against livelihoods is the trade policy. In pursuit of its obligations under the World Trade Organization, India has had to reduce tariffs and open up its domestic markets to imports. In return, India has enhanced access to world markets, particularly in services. That led to a boom in Indian exports of software and other information technology (IT)-enabled services such as business process outsourcing, with exports going up from $12.9 billion in 2003–2004 to $99 billion in 2014–2015[17].

17 NASSCOM IT-BPM overview and exports for 2003–2004 and 2014–2015

Box 1.4: Cluster for Japanese Manufacturing Companies in Neemrana, Rajasthan

The success of Maruti Udyog Ltd as an Indo-Japanese venture attracted about 1,000 Japanese companies to India, many in the automotive component and consumer goods manufacturing. Neemrana, 120 km from Delhi in the Alwar district of Rajasthan, was established as a 1,200-acre facility with the initiative of the Rajasthan Industrial Investment Corporation and the Japan External Trade Organization in 2014 (Motohashi, 2015).

By 2020, there are over 50 large Japanese company plants there with an investment of over $100 billion and about 150,000 jobs have been created in these and in supporting services such as hotels and restaurants. An Industrial Training Institute and several private universities like the NIIT have established an educational hub here. As part of the Delhi Mumbai Industrial Corridor, a container hub and one of India's largest dry ports is coming up.

A United Nations Conference on Trade and Development (2008)[18] study found, the extent of employment generated in 46 subsectors of the economy due to increase in exports from 2003–04 to 2006–07 … A rise in exports in the period 2003–04 to 2006–07 increased employment by 26 million person years. Additional employment of 6 million was generated in agriculture, which has the maximum number of poor.

> However, at the same time, the import of consumer goods from China and East Asian countries led to a severe decline in the domestic manufacturing sector and loss of livelihoods in it. Therefore, what was a boon for the Indian consumers, and for Indian trading enterprises, turned out to be a bane for the manufacturing enterprises and their workers.

As per Goldhar (2009), [19]

Twelve four-digit industries experienced a fall in employment at the rate of 5 to 10 per cent per annum. These industries include manufacture of vegetable and animal oils and fats; manufacture of cutlery, hand-tools and general hardware; manufacture of electric lamps and lighting equipment; radio, television, and sound and video recording equipment; and preparation and spinning of textile fibers.

The government did try to counter this trend. It invited foreign direct investment in manufacturing, which not only brought capital but also technology and access to markets and crated higher skill jobs.

Yet such examples were not heeded, partly because the industries which were not able to compete. This opening up exacerbated the adverse impact on employment in the 2011–2020 decade, and it resulted in pressure on the government to impose protective tariffs and not sign free trade agreements. Though this was done ostensibly to protect employment in these industries, all it does in the long run is make these industries even less competitive, thereby making them vulnerable to sudden closures, as and when imports reopen.

GoI has in 2020 introduced the Production-linked Incentive (PLI) scheme with an outlay of ₹145,980 crore in 10 key sectors for enhancing India's manufacturing capabilities and exports. However, by staying out of the Regional Comprehensive Economic Partnership, the world's biggest trade bloc with 30 per cent of the global GDP and population, *India seems to say it wants to export but not import. That is not feasible, as there is no such thing as one-way opening up.*

1.3. Livelihood Challenges for This Decade

In this section, we look at the quantitative feasibility of the economy generating 120 million new livelihoods in the coming 2021–2030 decade. The author has computed these numbers. No

18 NASSCOM IT-BPM overview and exports for 2003–2004 and 2014–2015

19 http://iegindia.org/upload/pdf/wp297.pdf

doubt, demographers and labour economists will be able to make more accurate estimates and projections. However, we are making an initial attempt because of the dire necessity to do so.

1.3.1. Ensuring Livelihoods for All by 2030

How many livelihoods does India need to generate in the decade 2021–2030 to ensure livelihoods for all? This depends a lot on what number is assumed for the growth rate in LFPR. As open unemployment increased post COVID, more people in the prime age of their working life got disheartened and dropped out of the labour market altogether. *We believe, however, with enhanced economic stress due to the COVID pandemic, the declining trend in LFPR may be reversed as more women and youth enter the workforce to supplement household incomes.* At the same time, the increment in the labour force will be lower than in the previous decade, since the population growth rate fell in the 2001–2011 decade to 17.64 per cent from 21.15 per cent in the decade of 1991–2001. Children born in the 2001–2011 decade will be entering the labour force in 2021–2030.

Reconciling these two contradictory trends, we assume the labour force growth will reflect the population growth rate two decades ago. Thus, we project the labour force will go up from 519.7 million in 2021 to 611.4 million in 2030, a net increase of 91.7 million persons (author's computations, available for scrutiny).

If we instead make the assumption that the labour force will grow at the same CAGR as the 2000–2020 period, which was 1.17 per cent per annum, then the labour force will grow to 583.9 million by 2030, still a net increase of 64.1 million.

CMIE estimated the number of unemployed persons as of 31 December 2020 was 47.3 million. Thus, the workforce at the beginning of 2021 was 471.4 million. Now let us compute the workforce in 2030. There is bound to be some unemployment at any time in an economy. Assuming a base rate of unemployment of 3 per cent of the 611.4 million labour force in 2030, it means 18.33 million unemployed in 2030. Thus, we project the workforce in 2030 to be 593.1 million if we assume the population-based CAGR of 1.64 per cent or 566.4 million if we go by the 2000–2020 CAGR of 1.17 per cent. We are inclined to believe that LFPR will go up, partly as female LFPR will go up and partly as the pressure to earn goes up among the youth. *Therefore, we believe the number of incremental livelihoods needed in 2021–2030 is 121.7 million. Simply put, India needs to add 120 million new livelihoods in the 2021–2030 decade.*

We continue with the earlier four facets of the livelihood crisis and apply it to this aggregate number of 120 million new livelihoods, namely demographic distribution of livelihoods, occupational status of workers, geographic distribution and the sectoral growth based livelihoods.

i. Demographically, these livelihoods are mainly needed for women and younger workers (15–29 years), LFPR was lower than the average in 2018. Youth LFPR was 38.2 per cent, much lower than LFPR of 49.8 per cent for the overall working-age (15–59 years) population.
ii. Occupational status wise, the vast majority of these livelihoods will be in either the form of self-employment or casual and contract workers. Though steady, lifelong livelihoods in the formal sector are unlikely to be a major proportion even in 2030; wages, social security benefits and working conditions must be improved for those not in formal jobs.
iii. Geographically, these livelihoods will have to be in urban areas, but not in the metros only. These livelihoods need to be in second-rung cities, district headquarters and smaller towns. We need to think of district-level employment plans.
iv. Sectorally, these livelihoods will have to be agro-processing, microenterprises in crafts and manufacturing, housing and small infrastructure construction and services of all kinds—from trade, transport and storage to health, education and business services.

1.3.2. Promoting Growth in Employment for the Neglected Demographic Segments

In this section, we look at how much employment needs to be generated for women and youth.

Table 1.4: Targeted Employment Growth by Gender for 2021–2030

Particulars	World Bank Data Bank, 2020		Projections for the Year 2030–2031		Increase in 2020–2031
	In %	In Million	2030–2031	In Million	In Million
Male workers	80.1	377.6	70.0%	415.2	37.6
Female workers	19.9	93.8	30.0%	177.9	84.1
Total number of workers	100.0	471.4	100.0%	593.1	121.7

Source: Author's computations based on aspirational targets for 2030 PLFS data for 2017–2018.

1.3.2.1. Employment by Gender

Likewise, the growth of jobs for women workers needs to be more than for men. We have given an aspirational target here of the share of women in the workforce going up from 20 per cent to 30 per cent in this decade (see Table 1.4). How can these targets be achieved is dealt with in the next section. This will require a number of gender-specific strategies.

No projections were made as no data is available on trans workers. They are mentioned as they need special attention. The Census Office[20] has estimated 0.49 million trans persons in 2011. We await the 2021 Census. Even if their number is about a million, they will need more than proportionate attention to ensure dignified livelihoods for all of them.

1.3.2.2. Persons with Disability

According to the Census 2011, there were 26.8 million (2.21%) persons with disabilities in India. As per the National Centre for Promotion of Employment for Disabled People, however, the actual number of people with disabilities is far greater than what has emerged in the Census—the estimates range from 5 per cent to 15 per cent of the population.

Though the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act was adopted in 1995, the average employment rate of people with disabilities was far lower than proportionate. The International Labour Organization's (ILO) 2011 report, 'Persons with Disability and the India Labour Market: Challenges and Opportunities', stated that 73.6 per cent of the disabled in India are still outside the labour force. Of these, those with mental disability, disabled women and those in rural areas were the most neglected.

The aspirational target for employment of disabled persons should therefore be a worker population ratio comparable to the rest of the population. This means about 12 million disabled persons should get work in the coming decade. This is about 10 per cent of the total incremental livelihoods. That is clearly going to be difficult. It is perhaps more realistic to adopt a target of 6 million livelihoods for the disabled.

1.3.2.3. Employment by Age Groups

We not only have to worry about generating 12 crore more livelihoods in total but also have to ensure that the growth of livelihoods for younger workers (15–29 years of age) grow faster than those for workers in the prime age of 30–64 years. We also have to ensure that numbers of those who are below 15, child labour, and those above 64, working for subsistence, must come down. Accordingly, we have put certain aspirational targets (see Table 1.5) for higher growth in employment for the young workers and actually a decline in employment of non-working age persons. Given that 78 per cent of India's senior citizens do not get any pension, we will have to establish that system separately. How can these targets be achieved is dealt with in the next section.

1.3.2.4. Employment by Contractual Status: Self-employed, Regular or Casual Worker

The growth of jobs for self-employed workers and for regular wage/salaried workers is higher as

20 https://www.census2011.co.in/transgender.php

Table 1.5: Targeted Employment Growth by Age Groups

Particulars	Targets and Projections for 2030–2031				
	Rural	Urban	Rural	Urban	Total
Young workers (15–29 years)	21.6	34.1	28.6%	45.6%	34.0%
Prime age workers (30–64 years)	70.2	57.7	73.2%	55.2%	67.5%
Workers below 15 and above 64 years	8.2	8.2	−1.8%	−0.8%	−1.5%
Total number of workers in million	339.0	132.4	404.6	188.5	593.1
Young workers (15–29 years)	73.2	45.1	115.7	86.0	201.7
Prime age workers (30–64 years)	238.0	76.4	296.2	104.1	400.2
Workers below 15 and above 64 years	27.8	10.9	−7.3	−1.5	−8.8
Additional young workers to be employed by 2030 in million			42.5	40.8	83.3
Additional prime age workers to be employed by 2030 in million			58.2	27.7	85.9
Non-working age workers disemployed by 2030 in million			−35.1	−12.4	−47.4

Source: Author's computations based on aspirational targets for 2030 PLFS data for 2017–2018.

the economy makes the transition to a middle-income status in the coming decade. We have given only slightly higher than 2020 levels as their share in the workforce going up in this decade. We have targeted a decline in the share of casual workers, though their absolute number will grow marginally (see Table 1.6). How can these targets be achieved is dealt with in the next section.

1.3.2.5. Employment by Skill Level

The growth of jobs for Skill Levels 2 and 3 workers and for Level 4 professional workers will be higher as the economy makes the transition to a middle-income status in the coming decade. Accordingly, we have suggested targets for these three levels higher than 2020 levels. In contrast, we are planning for a decline in the share of Level 1 workers who only have manual and routine skills, particularly as these jobs are most likely going to get eliminated by automation and artificial intelligence (see Table 1.7). How can these targets be achieved is dealt with in the next section.

1.3.3. Enhancing Spatial Spread of Employment Opportunities

We not only have to plan for generating 120 million more livelihoods in total but also have to ensure that the growth of jobs for urban (small town and district headquarters) is higher than for metros and for rural areas. Learning the lessons from COVID reverse migration during the COVID lockdown, we recommend an aspirational target that by 2030, as much as 25 per cent of the workforce be in small towns and district headquarters, as against a mere 14.8 per cent now. The detailed numbers are shown in Table 1.8. The strategy for this is dealt with in the next section.

1.3.3.1. Addressing Interstate Disparities in Employment Growth

We had also pointed out the interstate disparities in employment growth in Section 1.1.3 earlier. This persistent pattern has to be broken. We are not specifying any quantitative

Table 1.6: Targeted Employment Growth by Status: Self-employed, Regular or Casual Worker

Particulars	2017–2018 PLFS % Applied to 2020			Targets and Projections for 2030–2031		
	Rural	Urban	Total	Rural	Urban	Total
Self-employed	57.8	38.3	26.6	60.0%	40.0%	53.6%
Regular wage/salaried employees	13.3	47.0	67.2	15.0%	48.0%	25.5%
Casual labour	28.9	14.7	6.2	25.0%	12.0%	20.9%
Total number of workers in million	339.02	132.37	471.4	404.6	188.5	593.1
Self-employed workers in million	195.95	50.70	125.4	242.8	75.4	318.2
Regular wage/salaried employees in million	45.09	62.21	316.8	46.8	24.7	71.5
Casual labour in million	97.98	19.46	29.2	101.2	22.6	123.8
Additional to be self-employed by 2030 in million				15.6	28.3	43.9
Additional to be regular employed by 2030 in million				3.2	3.2	6.3
Additional to be casual employed by 2030 in million				–12.4	–47.4	

Source: Author's computations based on aspirational targets for 2030 PLFS data for 2017-18.

targets for this as that will require a lot of delving into interstate resource allocation issues of government funds. The government, recognizing this, had launched the 'Bringing Green Revolution to Eastern India' programme in 2010–2011 to address the constraints limiting the productivity of rice-based cropping systems in Eastern India comprising seven states, namely Assam, Bihar, Chhattisgarh, Jharkhand, Odisha, Eastern Uttar Pradesh and West Bengal. This was later made part of the Rashtriya Krishi Vikas Yojana.

Another way by which regional disparities can be addressed is investing in infrastructure. The National Bank for Agriculture and Rural Development (NABARD) has financed a total of ₹378,384 crore mainly on rural roads, bridges and irrigation under the Rural Infrastructure Development Fund (RIDF) established in 1995. The next step is to invest in microenterprises and for this the PMMY bank loans can be focused in these states. *For small enterprises, the Small Industries Development Bank of India established the Samridhi Fund to provide capital to enterprises in eight lagging states of Bihar, Uttar Pradesh, Madhya Pradesh, Odisha, Chhattisgarh, Jharkhand, Rajasthan and West Bengal. A similar fund was suggested by the author for the mountain states during the Sustainable Mountain Development Summit organized by the Integrated Mountain Initiative.*

Table 1.7: Targeted Employment Growth by Skill Level

Particulars	2017–2018 PLFS % Applied to 2020	Targets and Projections for 2030–2031	Additions in 2021–30 in Million
Per cent of workers of Skill Level 1	30.0	14.0%	
Per cent of workers of Skill Level 2	56.0	60.0%	
Per cent of workers of Skill Level 3	11.0	20.0%	
Per cent of workers of Skill Level 4	3.0	6.0%	
Total number of workers in million	471.4	593.1	
Workers of Skill Level 1	141.4	83.0	–58.4
Workers of Skill Level 2	264.0	355.9	91.9
Workers of Skill Level 3	51.9	118.6	66.8
Workers of Skill Level 4	14.1	35.6	21.4

Source: Author's computations based on aspirational targets for 2030 PLFS data for 2017–2018.

1.3.4. Targeting High Growth Sectors for Generating Employment

Sectorally, we have to ensure that the job growth rate in the primary sectors—agriculture, animal husbandry, fishery, forestry and mining—

Table 1.8: Targeted Employment Growth by Location on Rural–Urban Continuum

Particulars	2017–2018 PLFS % Applied to 2020		Projections for the Year 2030–2031		Increase in 2020–2031
	In %	In Million	2030–2031	In Million	In Million
Rural workers	71.9	339.0	60%	355.9	16.8
Workers in small towns and district headquarters	14.8	69.5	25%	148.3	78.7
Workers in metros and big cities	13.3	62.8	15%	89.0	26.1
Total number of workers in million	100.0	471.4	100%	593.11	121.7

Source: Author's computations based on aspirational targets for 2030 PLFS data for 2017–2018.

is lower, while it is higher in manufacturing and construction, and services other than the ones which have high percentage of informal workers. The targets for sectoral growth in employment are shown in Table 1.9 and while sectoral experts can come up with more precise targets, we have checked these for broad range of feasibility from the point of view of growth in demand and investment.

1.4. PERHAPS THE GODS[21] CAN HELP

In this section, we suggest four major strategies to address India's livelihoods challenge in the coming decade and generate a large number of new jobs. These are as follows:

i. Greening of India by regenerating India's jal, jangal and jameen (water, forests and land), transforming agriculture to a sustainable model, both in terms of economics and the environment, generating decentralized renewable energy and recycling of waste material.
ii. Opportunities for new skilled jobs in high growth sectors—agricultural services, agro-processing, construction, manufacturing in the small enterprises sector as also in globally competitive larger industries and proximate services.
iii. Digital services, being offered from smaller towns, beyond metros and by a mass of digitally skilled workers, particularly the youth and women, and the disabled.
iv. Samarth zillas (capable districts), with small towns and craft clusters as centres for job creation, in place of metros, so that people can continue to live in villages yet work in the non-farm sector jobs by commuting to small towns.

1.4.1. Greening of India Will Generate Sustainable Livelihoods

There are a large number of jobs in regenerating India's jal, jangal and jameen, transforming agriculture to a sustainable model, both in terms of the economy and the environment, generating decentralized renewable energy and recycling of waste material.

Let us look at the various economic sectors first. Agriculture is the biggest employer, but millions of workers and farmers are getting out of it due to low and uncertain earnings. Yet it is possible to stem this tide if investments are made in regenerating the degraded natural resources including streams, rivers, water bodies and groundwater aquifers, cultivated lands whose soils have deteriorated due to excessive chemical fertilizers, over-irrigation or soil erosion.

1.4.1.1. Regeneration of Jal, Jangal, Jameen to Secure the Basis of Lives and Livelihoods

With over 100 million hectares of wasteland requiring regeneration, another 60 million hectares needing extensive soil and water conservation, 7.5 million hectares of lakes, ponds and reservoirs/

21 This is an acronym of greening of India, opportunities for new skilled jobs in high-growth sectors, digital services and samarth zillas with small towns and craft clusters.

Table 1.9: Targeted Employment Growth by Sectors

Details of the National Informatics Centre (NIC) Subsector	Total Workers in Million in 2020–2021	Workers in This NIC as % of Total 2020–2021	Target Growth in Rural Workers % per Annum in 2021–2030	Target Growth in Urban Workers % per Annum in 2021–2030	Rural Workers in Million 2030–2031	Urban Number in Million in 2030–2031	Total Workers in Million in 2030–2031	Workers in This NIC Category as % of Total 2030–2031
Crop cultivation	184.89	39.2	1.0	1.0	198.58	5.66	204.24	34.4
Animal husbandry	25.07	5.3	3.0	1.0	30.99	2.23	33.22	5.6
Forestry and fishery	1.75	0.4	3.0	1.0	1.77	0.48	2.25	0.4
Mining and quarrying	1.95	0.4	3.0	2.0	1.76	0.78	2.54	0.4
Manufacturing	52.05	11.0	3.0	4.0	33.12	40.57	73.69	12.4
Construction	55.01	11.7	3.0	4.0	55.47	20.33	75.80	12.8
Electricity, gas	1.58	0.3	1.0	3.0	0.84	1.10	1.94	0.3
Water supply, sewerage	1.14	0.2	1.0	3.0	0.47	0.96	1.43	0.2
Wholesale and retail trade, Motor Vehicle repairs	48.33	10.3	2.0	4.0	27.39	38.29	65.68	11.1
Transport and storage	23.57	5.0	2.0	4.0	15.38	16.21	31.59	5.3
Education	17.93	3.8	2.0	4.0	11.97	12.01	23.98	4.0
Other services	8.96	1.9	2.0	4.0	5.15	7.02	12.16	2.1
Accommodation and food services	8.75	1.9	3.0	4.0	5.41	7.00	12.40	2.1
Public administration, defence	7.66	1.6	2.0	2.0	4.26	5.08	9.34	1.6
Health and social work	5.79	1.2	3.0	3.0	2.89	4.89	7.78	1.3
Administrative	5.74	1.2	2.0	3.0	2.66	4.78	7.44	1.3
Household services	5.06	1.1	1.0	3.0	1.68	4.76	6.43	1.1
Financial services	5.07	1.1	2.0	3.0	1.85	4.78	6.63	1.1
Information and communication	4.80	1.0	2.0	3.0	0.94	5.42	6.36	1.1
Professional services	3.99	0.8	2.0	3.0	1.11	4.15	5.25	0.9
Entertainment	1.30	0.3	2.0	3.0	0.64	1.03	1.68	0.3
Real estate services	0.97	0.2	2.0	3.0	0.28	1.00	1.28	0.2
Total	471.39	100.0	NA	NA	404.61	188.50	593.11	100.0

Source: Author's computations based on aspirational targets for 2030 PLFS data for 2017–2018.

tanks needing repairs, and groundwater awaiting urgent measures to recharge, there are millions of jobs possible in regeneration of degraded natural resources. *The government has to make the bulk of investment for this because these are common property resources. Thus, the allocations for water harvesting, groundwater recharge, afforestation of denuded forestland, wasteland development, soil renewal, pasture and grazing land revival, all need to be done using public funds.*

A lot of these can be done through using MGNREGS allocations for natural resource regeneration and can be supplemented with funds from the Compensatory Afforestation Fund Management and Planning Authority (CAMPA),[22] which had ₹54,685 crore by 2018 and the District Mining Foundations,[23] which had ₹43,271 crore by the end of 2020.

The Green India Mission (GIM) is one of the eight missions outlined under the National Action Plan on Climate Change (NAPCC). It was included in NAPCC in 2014. This scheme was proposed for 10 years. It aims at protecting, restoring and enhancing India's diminishing forest cover and responding to climate change by a combination of adaptation and mitigation measures.[24] The mission has following goals to regenerate forest and land.

GIM seeks to converge with other sub-missions of NAPCC and related national schemes, programmes and missions. The government of India has recently issued guidelines for converging this mission with MGNREGA and CAMPA. As against ambitious target of regenerating 10 mha forest land, the progress of GIM has been very disappointing as of now. The financial disbursement for the mission started in 2015–2016 and as 2017–2018 only ₹144 crore was spent. As against target of improving quality of forest of 5 mha, the mission could start intervention only in 0.043 thousand hectare.[25]

Mission Objective	Target
Increase Forest/Tree Cover • Eco-restoration and afforestation of scrub, cold deserts, mangroves: 1.8 mha • Bringing urban/peri-urban land under forest and tree cover: 0.20 mha • Agro-forestry/social forestry: 3.00 mha	5 million hectares (mha)
Improve Quality of Forest/Tree Cover Improvement of forest cover and ecosystem in • Moderately dense forest: 1.5 mha • Open degraded forest: 3.0 mha • Degraded grassland: 0.4 mha • Wetlands: 0.1 mhaw	5 mha
Increase forest-based livelihood income	3 million households

In September 2020, NABARD announced new ₹15,000 crore rural infrastructure assistance to state governments to encourage states to undertake projects for regeneration of natural resources. This fund will supplement the resources available to the states for this work.

Though many schemes such as the Integrated Watershed Management Programme and the National Afforestation Programme are there for regenerating land, water and forest resources, these need to be given a fresh impetus to regenerate natural degraded resources. Currently, MGNREGS is one of the biggest programmes that provide opportunities to earn wages up to 100 days to labourers registered under this programme. Data for previous few years suggests that the average days of employment is less than 50 days per family. After the COVID pandemic, demand for MGNREGS work shot up and although the government increased the outlay, the demand far outstripped the supply of funds and works.

During the COVID pandemic, several micro-examples emerged of efforts to create livelihoods based on regeneration of natural resources in search for livelihoods. Some returnee migrants, when they came back to their native villages, started working on regenerating the degraded natural resources of their village with the hope of staying back and making a living.

According to an estimate by The Energy and Resource Institute (TERI) in 2018, land degradation through various processes in India cost around 2.5 per cent of the country's GDP in 2014–2015.[26] The study of TERI in 2018 estimated the total investment required for

22 https://factly.in/explainer-what-are-campa-funds/
23 https://mitra.ibm.gov.in/pmkkky/Pages/National_Dashboard.aspx
24 http://moef.gov.in/division/forest-divisions-2/green-india-mission-gim/about-the-mission/
25 http://164.100.47.193/lsscommittee/Estimates/16_Estimates_30.pdf
26 https://www.teriin.org/sites/default/files/2018-04/Vol per cent20I per cent20- per cent20Macroeconomic per cent20assessment per cent20of per cent20the per cent20costs per cent20of per cent20land per cent20degradation per cent20in per cent20India_0.pdf

Box 1.5: Natural Resource Regeneration by BAIF

The DHRUVA project of the Bharatiya Agro Industries Foundation (BAIF), Pune. The tribal districts of Dharampur and Valsad, on the Gujarat–Madhya Pradesh border—were at one time densely forested. By the mid-1980s, the forests had been denuded to the extent that the tribals had to migrate to the western districts like Surat for work for a few months every year. BAIF promoted the concept of *wadis*, which are homestead orchards. Tribals were trained and motivated to plant mango and cashew nut in one acre each in their homestead lands. In 10 years, BAIF-DHRUVA* promoted *wadis* in about 30,000 acres. Tribals were also trained to grow cereal, fodder and vegetable crops until the trees were small. In about 10 years, the entire economy of the area has been transformed, with a large number of village-level collection and processing units for mango and cashew nut, and a lot of vegetable and dairy production and sales. Migration to Surat stopped altogether. BAIF went on to replicate this *wadi* model with over 150,000 farmers in seven states. NABARD also assisted 552,755 tribal families with `2,302 crore of investment, mostly grants, by 31 March 2020 for wadi-type of projects.**

* http://www.baifwadi.org/download/BAIF_case_study.pdf

** https://www.nabard.org/about-departments.aspx?id=5&cid=470

reclamation of land degraded by five major processes, namely water erosion, wind erosion, forest degradation, water logging and salinity. The study found that India requires ₹2,948 billion or nearly ₹3 trillion (2014–2015 prices) to reclaim 94.53 million hectare degraded land as per latest survey by Space Applications Centre, Ahmedabad. Assuming an increase in costs since then, India needs to spend ₹4 trillion (lakh crore) or about 2 per cent of the 2019–2020 GDP to address the regeneration of degraded land resources.

Similar amounts will be needed for regenerating water and forest resources. Thus, with an investment for ₹12 lakh crore in the next few years, India can regenerate its *jal, jangal* and *jameen. The impact of this on employment will be to generate 300 days of work for about 50 million people each year for four years, apart from indirect employment since as much as 40 per cent of MGNREGS funds are spent on materials and administration. As a result, about 10 million people could additionally be engaged in agriculture, dairy, forestry, fishery, etc., more sustainably.*

1.4.1.2. Making Agriculture Profitable for the Farmer and Sustainable for the Environment

Working on regeneration of degraded natural resources—water, forests and land (soil)—is a basis for bringing back vitality into agriculture. Some more steps have to be taken to make agriculture more sustainable, both from the point of view of the environment and financial sustainability of agricultural livelihoods—of farmers and agricultural workers. Given that India has 146.45 million operational holdings, as per the Agricultural Census 2015–2016, with a net sown area of 141 million hectares, we can see that the average holding was barely 0.96 hectare (2.4 acres) in size. As there were 90 million farmer households estimated in 2012–2013, we can see that on an average, a farmer family had too little land and even that was in multiple operational holdings, each one too small, some so small that a pair of bullocks could not be turned in them at the corners.

What we need is landholding consolidation, productivity enhancement, cost saving, risk mitigation, produce diversification and establishing a system where farmers get a share of the value added in the entire value chain up to the consumer's table. Thus, the government needs to come up with a policy to encourage consolidation of farm holdings without alienation of individual titles. Already examples of this abound in Tamil Nadu, as evidenced by an advertisement in The Hindu, seeking financial participation of ₹350,000 for an acre of land, by the Mullaithinai Eco Farm Producer Company.[27] Tamil Nadu is a state where a lot of agricultural land is owned by non-cultivators, living in cities, and they thus have the land and the capital, but not labour nor know anything about agriculture. In contrast, rural residents have labour and

27 http://www.mullaithinaiecofarm.com/

Box 1.6: Returned Migrant Workers Regenerate Land and Water Resources in Their Village

The *Hindustan Times* on 30 July 2020 reported: 'As the hilly terrain of Kandhamal district has little irrigation due to high hills and dense forests, there has been mass migration to southern states like Kerala, Tamil Nadu, Karnataka and Andhra Pradesh for jobs. More than 15,000 migrant workers of the district who had returned were troubled with the thought of an uncertain future. A local NGO Kandhamal Zilla Sabuja Baidya Sangathan exhorted them to think about ways to irrigate their farmland…. Amid the distress of pandemic-triggered lockdown, more than 300 migrant workers brought cheer to hundreds of farmers, digging nearly 8-kilometre-long canal through hilly terrain to bring water to the parched farmlands.'*

*https://www.hindustantimes.com/india-news/over-300-migrant-workers-in-kandhamal-dig-canal-through-hills-to-bring-water-to-their-land/story-mXJHFifapX4fkjVQMSkKSL.html

knowledge of agriculture. Thus, it is a win-win situation for both.

To enhance productivity, in addition to consolidation of holdings, we need soil and water conservation, and in many cases, regeneration. MGNREGS funds can be used to undertake soil and water conservation work on private lands to ensure complete treatment of a watershed. Yield improvement and stabilization will be helped if we promote climate-resilient varieties and crop diversification, coupled with very good field extension services to adopt new practices. As the production of staple crops may not be as remunerative in the future as specialty crops such as vegetables, fruits, flowers, herbs, aromatic and medicinal plants, experts have offered this strategy for the middle-to-large farmers of Punjab and Haryana who are stuck in the paddy–wheat cycle, as also for the small farmers in many other states.[28]

Box 1.7: Natural Farming Promotion in Andhra Pradesh and Himachal Pradesh

Zero-budget natural farming, promoted by Shri Subhash Palekar, an agriculturalist in Vidarbha, Maharashtra, is a holistic alternative to the present paradigm of high-cost chemical inputs-based agriculture. It is very effective in addressing the uncertainties of climate change.

The Andhra Pradesh 'Zero Budget' Natural Farming Programme was launched in 2015–2016 through Rythu Sadhikara Samstha (a not-for-profit organization). The programme has multiple objectives of enhancing farmers' welfare, consumer welfare and conservation of the environment. It has covered over 500,000 farmers. See more at http://apzbnf.in/

Based on the success of this, the Himachal Pradesh State Government started the Prakritik Kheti Khushhal Kisan Yojana in 2018 to promote natural farming in the state. It provides financial assistance for construction of sheds, buying basic equipment and livestock. Over 90,000 farmers have received training on natural farming from agricultural universities apart from on field training by the Agriculture Technology Management Agency cadre. As a result, more than 5,000 ha area in the state has been converted to chemical-free agriculture.

With diversification in food beyond the staple, many livelihoods are possible in the allied sectors, particularly in dairy, poultry, piggery, sheep and goat rearing, duckery, fishery and apiary (bee keeping). This has already happened in the dairy sector. Milk production in India has been growing at CAGR of 4.5 per cent over the past 20 years making India the largest milk producer globally. The milk production of India was 188 million metric tonnes in 2018–2019, which was around 21 per cent of world milk production. Dairy accounted for around ₹8 lakh crore or 28 per cent of the agricultural GDP. The total value of milk production was more than the total value of all pulses and grain put together.[29]

Risk mitigation is the next task. Average actuarial risk in Indian agriculture is 12–15 per cent. Climate change has probably doubled it. Thus, Indian agriculture is not really an insurable risk at any reasonable cost. What we need to do is first invest in de-risking farming by building 60 million farm ponds of average 100 cu. m capacity (about 7 m by 7 m by 2 m deep farm pond would significantly de-risk farmers against long dry spells). The average cost of such a farm pond is ₹25,000. Thus, we could drought proof most of India's 60 million farms which are in rainfed zones in₹150,000 crore. As suggested earlier, this can be done using MGNREGS funds provided the allocation to MGNREGS is enhanced, as was done in 2020–2021 after the pandemic. That momentum needs to be maintained for the next three to four years. In addition, farm-specific, new-generation solutions like SecuFarm offered

28 https://thewire.in/agriculture/punjab-farmers-production-past-glory

29 https://www.financialexpress.com/opinion/how-dairy-cooperatives-have-showcased-a-model-for-realisation-of-atmanirbhar-bharat-in-post-covid-19-era/2024142/

Box 1.8: A-Sarkari Efforts in Agricultural Diversification to Support Small Producers

What was done in dairy largely with creative use of free milk powder and butter milk received as aid in the 1970s, by the National Dairy Development Board led by Dr Kurien, was done in a different way with several private enterprises in the poultry sector. These included the Venkateshwara Hatcheries Group led by Dr B. V. Rao and Suguna Foods led by B. Soundararajan and his brother G. B. Sundararajan. Suguna's turnover was over ₹9,000 crore in 2020. The non-governmental organization (NGO) PRADAN promoted central India's largest poultry producers' cluster, which is supported now by the National Smallholder Poultry Development Trust, which enables poor women in rural India to start and run successful poultry enterprises. Over 25 such coops together had a turnover of ₹500 crore. In goatery, the Goat Trust has been actively promoting productivity enhancement and income increase for small goat rearers.

by Weather Risk Management Services[30] can be used to supplement the risk coverage, using a combination of mitigation and insurance.

Still, no amount of productivity enhancement, cost saving, risk mitigation or produce diversification can match the impact on farmers' income than making them profit-sharing partners of agricultural commodity value chains. This has been done most famously in the dairy sector by the Amul pattern cooperatives and the sugar cane sector in Maharashtra.

The attempt by the government to establish farmer producer companies (FPCs), which are nothing but cooperatives under the Companies Act, is a first step in that direction. However, since FPCs can mobilize capital from farmer shareholders, these are perpetually capital constrained. Most of the 8,000 odd FPCs so far do not even have enough capital to engage in collective marketing of produce, leave alone invest in plant and machinery for producing value-added products. In the case of Amul, this constraint was overcome by the astute use of the proceeds of free milk powder received as aid from the European Union and the USA. In the case of sugar cane, it was done by a group of political leaders who were originally and continued to be sugar cane cooperative members.

However, this cannot be repeated in every sector. *Therefore, the long-term solution is to attract private capital to agricultural value chains,* while ensuring that farmers get a fair share of the profits from the value chains. The stated attempt of the recent laws was to replace state capital with private capital, while ensuring better remuneration for farmers. Nevertheless, a number of provisions in these laws give the impression that farmers will become merely contracted suppliers of primary commodities to capitalist-owned value chains.

1.4.1.3. Decentralized Renewable Energy Generation

Energy generation, particularly solar and biomass/biogas based, is again a major new opportunity. The average intensity of solar radiation received over India is 200 MW per sq. km. With a geographical area of 3.287 million sq. km, this amounts to 657.4 million MW. Of this, using today's technologies, even if 1 per cent can be tapped, it will be nearly 1,000 times the 360,000 MW installed capacity in 2019. Part of this opportunity is already being tapped in the form of solar photovoltaic power generation.

With the provision now available in most states to sell excess solar power to the grid, this can also be an income-generating proposition for farmers and others owning uncultivable land. In June 2020, Rajasthan allowed farmers to generate and sell solar power to the grid.[31]

1.4.1.4. Recycling Is Good for Employment as well as the Environment

Urban India generates 62 million tonnes of waste (MSW) annually, and it has been predicted that this will reach 165 million tonnes in 2030. 43 million tonnes of municipal solid waste is collected

30 https://wrmsglobal.com/secufarm/index.html

31 https://www.nationalheraldindia.com/india/rajasthan-farmers-can-now-produce-solar-power-on-their-non-arable-land

Box 1.9: The World's First Solar Power Cooperative

The Dhundi Solar Energy Producers' Cooperative Society was established in Kheda district of Gujarat as a pilot project of the International Water Management Institute's Indian branch at Anand, led by Professor Tushaar Shah.* Six farmers installed solar panels, having an aggregate capacity of 56.4 kilowatt peak. The farmer members used some 40,000 units for watering their seven acres and inject the balance 45,000 units into the grid, grossing over ₹3 lakh revenues from solar energy sales.**

*.http://www.iwmi.cgiar.org/iwmi-tata/PDFs/dhundi_solar_energy_producers_cooperative_society-tri-annual_report-2015-18.pdf

**.https://www.icaap.coop/icanews/dhundi-solar-pump-irrigators-cooperative

annually, out of which 31 million is dumped in landfill sites and just 11.9 million is treated.[32]

Many cities, like Indore, which has been ranked number one cleanest city of India, have set up material recovery facilities to handle such waste, not just plastic but also rubber, metals of various types, glass and even construction debris. Other cities have started using some of the waste for energy generation through incineration and still others have started using recycled material for road construction, etc. Two case studies are given in Boxes 1.11 and 1.12.

As nearly half of solid waste in India is biodegradable, manufacture of compost is another major opportunity. Given in Box 1.12 is the case study of a social enterprise which is precisely doing this for over seven years.[33]

1.4.2. Opportunities of New Skilled Jobs in High-growth Sectors

If we are aiming at a policy breakthrough in employment of all the new entrants to the labour, we need to create a large number of livelihood opportunities in agricultural services, agro and food processing, craft and creative enterprises, micro and small manufacturing and repair enterprises, housing and small infrastructure construction, energy generation and distribution and proximate services sectors.

1.4.2.1. Agricultural Services

As agriculture transforms from a production-focused, subsidy dependent, chemical intensive model adopted in the food shortage days of the 1960s to a demand-based, private investment funded, environmentally sustainable model, there may be less jobs in crop cultivation. *Many more new jobs will arise in agricultural services, all the way from land surveying and record maintenance to soil and water testing, and soil and water quality improvement. New jobs will arise in varietal selection and seed procurement, guiding farmers in appropriate agronomic practices and preparing them for resilient practices to mitigate the effects of climate change; preparation and sale of compost, biofertilizers and biopesticides; and installation and maintenance of micro-drip irrigation equipment and greenhouses/polyhouses.*

In the post-harvest stage, skilled jobs will arise in sorting, grading, drying stations for farm produce, procurement operations including accounting, quality assessment, establishing traceability, cold storage and regular warehousing.

Jobs will arise in arranging warehouse finance, dealing with traders, contract farming counterparties and agro-processors to sell the produce at the optimum price. Last but not least, many jobs will arise in managing the affairs of farmers' groups, as well as the thousands of cooperatives and the 8,000 farmer producer organizations (FPOs) which are already there and 10,000 more coming up.

1.4.2.2. Agro and Food Processing with Units Owned by FPCs

In the non-farm sector, employment has to be created in agro and food processing around agriculturally productive regions. There are a number of jobs in the dairy sector, other than in rearing cows and buffaloes. Every village

32 https://www.recycling-magazine.com/2020/05/06/waste-management-crisis-in-india/#:~:text=Urban%20India%20generates%2062%20million,just%2011.9%20million%20is%20treated

33 https://timesofindia.indiatimes.com/city/raipur/first-of-its-kind-godhan-nyay-yojana-launched-in-chhattisgarh/articleshow/77063907.cms

has people working on milk procurement and transportation. Then there are jobs in chilling, pasteurizing, producing packaged liquid milk and milk products such as curd, buttermilk, flavoured milk, butter, *ghee, srikhand,* skimmed milk powder, chocolate and cheese, and in operation and maintenance of the dairy plants and transport vehicles.

This can be replicated in other sectors. These agro-processing units should be owned 100 per cent by FPCs and managed by professionals. In the initial years as they may not be able to invest in nationwide brand building and distribution perhaps, they can get into marketing tie-ups with corporates (as Amul had with Voltas in the early years). Eventually, they must own the full value chain. That is the only way farmers will get a share.

Box 1.10: Enabling Small Farmers to Earn by Selling Cow Dung to Produce Biogas

A 2014 ILO study claimed that India can create millions of rural jobs by raising the value of gobar (cow dung) from the present ₹0.15–₹0.30 per kg wet weight to ₹1.50–₹2.00 per kg. This would bring additional income to millions of small dairy farmers who presently get little from gobar (Shah, 2020). The Chhattisgarh Government launched the Godhan Nyay Yojana, a scheme to buy gobar to enable compost making in July 2020. This was the first of its kind scheme, under which the government procures cow dung at ₹2 per kg from farmers. The gobar is then used for producing biogas and the slurry is used to produce farmyard manure, gothans or village-level cattle shelters, of which there are already over 2,000 in Chhattisgarh. GoI launched GOBAR-DHAN to provide 50 per cent, 75 per cent and 100 per cent capital cost subsidy to community-scale biogas plants managed by bulk waste generators, self-help groups (SHGs) and gram panchayats, respectively.

1.4.2.3. Construction: In Small-town Housing and Small Infrastructure

In the construction sector, there are large number of jobs possible in the housing as well infrastructure. With a significant shortage of over 20 million dwelling units and the need to upgrade existing housing stock, coupled with availability of housing finance from banks and housing finance companies, this sector needs a policy and not fiscal boost. Further, with a need to create and improve the infrastructure in the next 1,000 cities, there will be heavy demand for labour for the creation of infrastructure such as roads, bridges and public buildings such as schools, health care centres, police thanas and hospitals.

Over 80 per cent of the employment in construction constitutes minimally skilled workforce, while skilled workforce account for over 9 per cent, and the remaining are spread across work classes such as clerical, technicians and engineers. But jobs in construction are increasingly moving from unskilled head-load carrying to semi-skilled and skilled jobs such as scaffolding makers; form workers for preparing the mould or shuttering for concrete;bar benders for making the reinforced concrete cages of steel; concreters for preparing the ready-mix concrete, setting the concrete slabs, beams and columns and curing the same; bricklayers; plasterers; glaziers; painters; block layers and stone masons; landscapers; paving and surfacing workers; roofers, roof tilers and roof carpenters; and HVAC (heating, ventilation and air-conditioning) workers.

Box 1.11: Livelihoods in Recycling of Imported Plastic Waste

The 400 or so units in Dhoraji, Gujarat, are sorting waste collected from all over India. About 10–12 truckloads land here every day. The waste is segregated into bundles of HDPE, LDPE, PVC, ABS, etc. This is heated in controlled conditions to make lumps which are then extruded and twisted into thread or braids. Pipes are also extruded in a similar process for use in agriculture. Recycled products' price is generally half the level of products from virgin material. The technology for mixing plastics, as also the machinery for heating and extruding, is totally indigenous. The Patel community with land and human resources is behind the success of Dhoraji. They have no outside support, subsidies or loan. In fact, they only get problems from by way of inverted duty structure. They operate on paper-thin margins derived from their share of ₹15 per kg in the processing cost of production. Total cost is about ₹50 per kg including material and transport cost. Granules from imported plastic scrap in Kandla Free Trade Zone are an important raw material source. (Goyal, 2019)*

*https://www.forbesindia.com/article/big-bet/cover-story-sridhar-vembus-vision-from-the-village/59833/1

As the second largest employment sector in India, the problem is not numbers but skills. *The construction industry, rather than the government, has come forward to train lakhs of workers in new construction skills. For example, the construction major, Larsen and Toubro (L&T) has been engaged*

Box 1.12: Green Livelihoods by Recycling Municipal Waste and Composting in Bangalore

The Municipal Corporation of Bangalore city and various private establishments have engaged Terra Firma Biotechnologies Ltd for the collection, separation and delivery of waste into organic compost, recycled plastics and inert materials. Terra Firma owns and operates material recovery plants, with a capacity of 1,500 tons of MSW per day. It also partners with fertilizer companies and their network distributors to market and sell their compost. With a capital investment of about ₹40 million, Terra Firma employed 215 workers and produced 22,000 tons of compost in 2015. Terra Firma's activities have helped to significantly reduce Bangalore city's waste management costs, reduce human exposure to untreated waste and contribute to the livelihoods of local communities through employment generation.

in industry-driven training through their Construction Skills Training Institutes across India. Caterpillar is training operators of earth moving equipment. Asian Paints is training painters. It is a win-win situation for the company as well as the trainee to get livelihoods.

1.4.2.4. Jobs in Small Manufacturing Enterprises versus Self-employment in Own-account Enterprises

We have mentioned in the opening section, did India witnessed jobless growth and a loss of jobs in some sectors, most notably manufacturing. As per the PLFS 2017–2018 data, only 12 per cent of the workforce or 38 million workers were engaged in manufacturing. We need to increase this by 22 million workers to take it to 60 million by 2030, or about 13.5 per cent of the workforce.

A vast majority of these new manufacturing jobs will have to be in the small enterprise sector. The government had designed PMMY as a booster *for self-employment in the lowest end of the MSME sector, which is why the smallest Shishu loans of up to ₹50,000 account for 86.5 per cent of the loans by number and 46.7 per cent by amount. Shishu loans had an average loan amount of only ₹27,143, so additional income was limited and there was little additional employment.* Only 20.8 per cent of the PMMY loans went to women and only 3.5 per cent to the minorities. Only 1 out of every 12 loans was to new enterprises, so PMMY was mainly giving working capital to the existing microenterprises, a large majority of which were engaged in retail trading, or services type of enterprises, and few in manufacturing, except in some clusters for handlooms, handicrafts and food processing.

Own-account enterprises only generate self-employment and some for family members. For jobs in enterprises, we need to promote the Kishor and Tarun categories of enterprises to use PMMY terminology. Earlier we had seen that it took about ₹5 lakh of bank loan to create one job under PMMY. If we assume this was matched at least two to one with the entrepreneurs' own capital, it cost roughly ₹7.5 lakh to create one new job in the 2015–2017 period under PMMY in the microenterprise sector. Projecting this to the 2021–2030 decade, accounting for greater capital intensity, we can assume an investment of ₹10 lakh per job in the MSME sector.

This means to create 60 million new jobs in small enterprises, an investment of at least ₹60 lakh crore will be needed over the 2021–2030 decade. This number is about 30 per cent of India's GDP in 2019. Thus in each year, about 3 per cent of GDP will have to be invested in new job creation through microenterprises over the next decade. It needs to be underlined that nothing of this is expected from the government. A third of this will come from the entrepreneurs' own savings, family contribution and social aggregations such as SHGs and SHG federations. The other two-thirds will come as bank loans.

Having assured ourselves that funding will come, we need to refashion livelihood development programmes with lessons from schemes like the Start-Up Village Entrepreneurship Programme (SVEP), under the Deendayal Antyodaya Yojana–National Rural Livelihoods Mission (DAY-NRLM), that aimed to help rural households, including women, to set-up enterprises. Starting in 2017–2018, a total of over 100,000 enterprises had been promoted across 23 states. A recent independent evaluation[34] has shown very favourable outcomes in SVEP. Aspiring microentrepreneurs were able to start their enterprises without much financial support from banks. *The missing ingredient was entrepreneurial motivation. It is time we revisit David McClelland's work done at the Small Industry Extension Training Institute (now National Institute for Micro, Small and Medium Enterprises), Hyderabad and Kakinada, in the 1960s[35] and make it an integral part of the effort for promoting inclusive entrepreneurship.*

1.4.2.5. Manufacturing Jobs in Larger Globally Competitive Enterprises

For the higher end of the manufacturing sector, global competitiveness is imperative. Towards this, in 2020, GoI introduced a PLI scheme in the 10 key sectors for enhancing India's manufacturing capabilities and enhancing exports, with an outlay of ₹145,980 crore (1.45 trillion) over five years. This will add more manufacturing jobs in the globally competitive sectors.

As the investment per job in these sectors is ₹2–₹3 crore, only about 300,000 jobs would come up. For the same level of investment by the government, a hundred times as many, 30 million persons could get 100-day work under MGNREGS. There is not much more we wish to say about the impact of these sectors on the livelihood situation in India. We agree that such jobs should be created and such sectors should be encouraged, but all the investment in this should come from the private sector and no government subsidies should be given in the form of PLI or other means.

1.4.2.6. Proximate Services in All Areas: Rural and Urban

Proximate services are those services that can be delivered only if the client/user is near the service provider. An obvious example is hair cutting, but even most of retail trade, storage, transport, hotels and eating places, etc., fall under proximate services. These are distinct from teleservices or IT-enabled services, which can be delivered at a distance, usually using the Internet. Many services—education, health and public administration—which were proximate services transformed into IT-enabled teleservices during the COVID pandemic. Financial, education and entertainment services have largely switched to remote delivery and are unlikely to revert significantly to the proximate mode.

Still, a large number of proximate services remain and these will be major source of livelihoods. For encouraging livelihoods in retail trade, the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014, needs to be enforced in spirit. The new form of vending is e-commerce delivery and this occupation will continue to see a spurt in jobs.

There are many jobs possible in tourism, which is a composite services sector, including transport, hotels and restaurants, entertainment and business services. New jobs can be created in responsible tourism by developing newer destinations for rural and small-town responsible tourism to religious places, historical places and wildlife reserves. Health and education services and business and financial services can be major employers if the government makes policies that promote private participation.

1.4.3. *Digital Services Livelihoods for GenNext and Women*

IT and IT-enabled services were already a growing sector and have experienced a spurt in demand after the COVID pandemic. Business process outsourcing services, which include call centres, accounting back offices, and transcription and document capturing centres, are major employment growth sectors. The development of IT services with the involvement of MNCs requires liberalized foreign investment policy to suit the entry and growth of IT service based MNCs. These services offer a great opportunity for more equitable spread of employment—for the youth who have a high rate of unemployment

34 https://pib.gov.in/PressReleasePage.aspx?PRID=1651525

35 https://www.yourarticlelibrary.com/entrepreneurship/motivation-entrepreneurship/achievement-motivation-kakinada-experiment/40677

Box 1.13: Guwahati: The Emerging Tech Hub of Digital North East 2022

Guwahati which is also known as the gateway of Northeast India, has been a significant commercial hub and rated as being among the swiftly developing cities. The largest tech park of Northeast India has been set up in Bongara which is about 30 kilometers from Guwahati. The facility will house global companies and will be an innovation center for technologies like Artificial Intelligence, Robotics, Solar PV, Photonics, and Internet of Things…. Abhijit Bhuyan, CEO, Bohniman Infosystems, said, 'There is a big demand for our solutions in other countries. Germany is huge market for us. The vertical demands are for healthcare, finance and hospitality'.

'Digital North East 2022' is a landmark technology initiative which is shaping up in the North East India…. Prabir Kumar Das, Director, STPI-Guwahati said, 'There is a spectrum of tech initiatives that we are working upon along with the government for the "Digital North East 2022" project. These include, IoT for agriculture in Guwahati, IT in Healthcare in Gangtok, Data Analytics in Agartala, Gaming in Aizwal [sic], Augmented Reality and Virtual Reality in Imphal, Graphic designing in Kohima, Drones applications in Itanagar and Animation in Meghalaya'.[*]

* https://www.crn.in/news/guwahati-the-emerging-tech-hub-of-north-east/

and for women who have a lower LFPR due to lower access to education, vocational training and credit, as highlighted by Smita Premchander et al. in the chapter on gender in this volume.

1.4.3.1. IT Services beyond the Metros

The development of appropriate infrastructure—teleconnectivity to overseas clients, uninterrupted power and workspaces in Tier II and Tier III cities—will facilitate the emergence of more IT clusters in the country. Though Bangalore, Delhi NCR, Hyderabad, Chennai, Pune and Kolkata have emerged as the major IT centres, *we can foresee in a decade, Bangalore being 'bangalored' because its costs are too high compared to Bhubaneswar, Gangtok, Guwahati, Aizawl, Ranchi, Srinagar or even Leh. Thanks to COVID, the talent residing in those cities can afford to 'work from home'! And women with home-making responsibilities can work from home. People with mobility restrictions—many of the disabled—can benefit too.*

Another example of taking IT-enabled service enterprises to small towns is Zoho, a company which 'provides cloud-based customer relationship management solutions and over 40 apps for, among other activities, online accounting, human resource and inventory management. A few of those products, including Zoho Desk, a customer service software, were built out of the Mathalamparai office, vindicating Vembu's vision that you didn't have to be in the urban hubs to develop world-class products'. Mathalamparai is in southern Tamil Nadu, roughly 650 km from the Tamil Nadu capital.[36]

1.4.3.2. Mass Employment in Digital Services

As of 31 December 2020, India had a population of 1.38 billion people. Unique Identification or Aadhaar numbers had been issued to 95 per cent of the population[37] and the usage was at least once a month on an average. There was high growth in e-commerce, digital education and tele-medicine during the COVID pandemic. As many as 250,000 panchayats were covered under the National Optical Fibre Network by December 2016 by the nodal agency, Department of Telecommunications. In Dec 2020, GoI approved the Prime Minister's Wi-Fi Access Network Interface to create public data offices or hotspots across the country.

Thus, while there is no doubt that IT and IT-enabled services have penetrated the lives of the masses, *there is widespread belief that IT and IT-enabled services are only for employment growth for the high end of the labour market—engineers and such. However, there are numerous self-taught app developers and app-based businesses (like TikTok performers) who*

36 https://www.thehindu.com/business/staff-preference-is-for-small-rural-offices/article32364264.ece

37 https://government.economictimes.indiatimes.com/tag/dalberg

Box 1.14: Electronic Transaction Aggregation & Analysis Layer (eTaal) Portal

Over 1.51 billion mobile phone numbers were in use and there were 448 million Internet mobile smartphone users in December 2020. There were over 71 billion electronic transactions in 2020 as per the eTaal portal covering 3,995 types of services. These covered agriculture, land records, e-courts, public distribution system (rations), electricity, water and gas bill payments, income tax and GST and private business to citizen services offered by common service centres (CSCs). See more at http://etaal.gov.in

have not had higher education. Thus, IT livelihoods being for the elite is a myth. CSC (IT service kiosk) operators, known as e-Mitras in some states, are over a quarter million, most of them not college educated youth.

1.4.3.3. Spatial Redistribution of Livelihoods: Districts as Growth Centres

We also need to ensure as much employment as possible where the population lives to minimize involuntary migration. Instead of merely the rural–urban distribution, we need to think of a three-way spatial distribution of employment.

i. **Rural:** Villages with less than 5,000 population, nearly 0.6 million, where the natural resource regeneration work will be the focus initially and later diversified, sustainable agriculture and agricultural services, organized around FPCs.
ii. **District headquarters and smaller towns including manufacturing clusters:** There are expected to be about 5,000 of these by 2020, and we would recommend focus on the top 1,000.
iii. **Large cities and metros:** These are the metropolitan and million plus population cities and some others, adding up to nearly 100. These are already the main locales of livelihoods, particularly in the construction, manufacturing and services sectors. However, in this decade, we need to create counter-magnets to the 100 smart cities.

To stem rural-to-large city migration, we need to work in two ways: making rural and small-town jobs more numerous and making them more attractive. This requires local, district-level livelihoods. In addition to, or rather before smart cities, we need *samarth zillas*, districts which are capable of generating adequate livelihoods. *Samarth zilla* translates as 'capable district', that is, a district that is capable of supporting the basic needs of its population—for food, clothing, shelter, livelihoods, health and education.

Box 1.15: Nav Gurukul: An Effort to Nurture Digital Talent at the Base of the Pyramid

This organization was set up in 2016, and it specializes in identifying and training youngsters from very low-income backgrounds, often without having completed school education. With one year residential training, Nav Gurukul moulds them into expert programmers and software developers. Most of them get placed in IT firms as they finish the one-year programme and earn between ₹30,000 and ₹40,000 per month. One such young person Sunil Parcha, whose father was a worker in the North Delhi Municipal Corporation, made a living during COVID by teaching Python programming to amateur learners like the author. See more at https://navgurukul.org/

The prevailing duality of rural versus urban development has not served people in either rural or urban areas of India in achieving development levels comparable to their counterparts in Eastern or Southeast Asian countries, which were at similar levels after independence. The samarth zilla concept aims to address spatially lopsided development, wherein few cities in each state have developed rapidly. These cities attract a large number of migrants from rural areas of less-developed districts from within the state and from other less-developed states that fail to provide viable livelihood options. Within districts, clusters of microenterprises can be developed with product specialization. Uttar Pradesh has already adopted this framework of one district, one product. As per the Cluster Observatory, a project of Foundation for MSME Clusters, more than 5,600 clusters are operating in India. The largest number of clusters are in handicrafts (Table 1.10).

Table 1.10: Clusters in India

Category of Cluster	Number	Category of Cluster	Number
Industrial clusters	1,416	Handicrafts	3,403
Microenterprises mixed	154	Handloom	608

Source: Collated by the author from various sources

Manufacturing jobs can grow in these cluster towns (such as Moradabad for brass work and Tirupur for hosiery) if the SMEs here are made more productive and export oriented. There are many smaller clusters and some of which have lost their vitality due to changes in the demand conditions. But clustering remains a necessary strategy to support enterprises in such clusters. As Sreya Mozumdar has written in Chapter 6 of this volume, there is a need for 'facilitating the clustering of micro/small enterprises to enable their application and eligibility towards supplementary financing (example, grant and funds)….'

In the same chapter, there are several examples of how the traditional craft sector is using new technologies like the Internet to display its products, book orders and receive payments as well customer feedback. Others are using packaging and logistics services so that their craft products can be shipped to distant locations, including export destinations. Another example of new-generation capacity building is The Handloom School, Maheshwar, Madhya Pradesh, whose programme for young handloom weavers culminates in a 'Certificate in Design and Enterprise Management'. The classroom segment of the course lasts six months and focuses on design, communication, technology and business management. This is followed by a year-long offsite handholding phase. For marketing, there are retail store chains like Fabindia and Anokhee, as well as outlets like Dilli Haat where craftspeople can market their produce. A large number of e-commerce sites specializing in handlooms and handicrafts have come up. All these developments augur well for ensuring more remunerative livelihoods in craft enterprises.

With this, we end the section on the four major strategies to address India's livelihoods challenge in the coming decade. We now turn to the most important question how to implement these strategies, and the processes, the resources and institutions needed. We call it the eightfold path.

1.5. The Eightfold Path to Sustainable Livelihoods for All by 2030

The science policy thinker, Late Ashok Parthasarthy, made a celebrated comment in the 1970s when 'self-reliance' was often offered as an axiomatic desirable strategy for India's development. He asked, 'Self-reliance is the answer. What is the question?' Today, self-reliance has again been made into a national strategy through the AatmaNirbhar Bharat Abhiyan. Is it possible for us to be *atma nirbhar* and achieve the goal of creating 120 million new livelihoods in the coming decade? *The answer is yes, but it will require a very significant shift in the mindset of everyone—the people, the government, the corporate sector, knowledge and technology organizations and our banks and financial institutions.*

We need to get past our government dependency and our suspicion of capital, technology and opening up to international markets. We need to invest in improving our school education and vocational skill development programmes, so that the demographic deluge does not become a disappointment. We need to value those human resources who are today marginalized or excluded—based on gender, caste, religion, region and disability. We need to value the environment and adopt the mantra of reduce, reuse and recycle. We dwell on this mindset change below.

1.5.1. Transform Agriculture from Subsistence to Sustainability

Indian small and marginal farmers are already *atma nirbhar*. As per the NSS 70th Round in 2013, as many as 48 per cent of farm households had no borrowings. And 42 per cent did not get any insurance coverage under the Pradhan Mantri

Fasal Bima Yojana. As many as 94 per cent (some say 80) did not get the benefit of MSP. And despite the fact that nearly two-thirds of India's farm households are income deficit, 43 per cent had no ration cards for getting subsidized food grains and 56 per cent had no MGNREGA job cards. Of course, between 2013 and 2020, there have been improvements in each of these aspects, but the fact is that India's farm households are nowhere near sustainable, either financially or environmentally.

We have already recommended regeneration of degraded natural resources, such as silted up water bodies, dying streams, polluted rivers, spent soil, degraded grazing lands and denuded forests, all of which will create a large number of jobs in the short run. This regeneration then acts as a precursor to the revival in the agriculture, livestock, fishery and forestry sectors. *India needs to spend ₹4 trillion, or about 2 per cent of the 2019–2020 GDP, for the regeneration of degraded natural resources—jal, jangal, jameen.* As a result, about 10 million people could additionally be engaged in agriculture, dairy, forestry, fishery, etc., sustainably.

As Sivakumar has written in the chapter on agriculture in this volume,

> With general awareness improving and income levels also increasing, today's consumers are looking for more variety in food, as also better quality…. These developments offer a great opportunity to diversify farm production to more remunerative crops such as vegetables, fruits, nutri-cereals (millets), pulses and the derived products such as milk and meat. India's agricultural exports, at about $40 billion, are a mere 7 per cent of India's production. Substantial part of this is commodity exports, with only 15 per cent being processed or otherwise value added. However, given its current global market share of just 2.5 per cent, India has enormous headroom for growth. This potential can be realized by strengthening the competitiveness of crop value chains that are aligned to the global demand and where India already has a comparative advantage. Such value chains include shrimp, spices, fruits and vegetables, besides the traditional crops like rice.
>
> To gain from both these opportunities, farmers need access to new knowledge in crop management and efficient linkages to input and output markets. This means a fundamental transformation of the system from being production-driven supply chains led by government to demand-responsive value chains anchored by consumer-oriented market players.

Despite the above opportunities in agriculture, due to an excess of people engaged in it, we have to help more people to get out of agriculture to non-farm activities. This has to be adopted as a strategy for this decade, as was done by China when 100 million people were moved from agriculture to township and village enterprises between 1979 and 1989. Given our different political systems, we can at least aim for at least 20 million people to move from agriculture to non-farm activities. This requires massive investments in skilling, small-town infrastructure and market linkages.

1.5.2. Practice the Three Rs for the Greening of India

Regeneration of degraded natural resources—jal, jangal, *jameen—has already been talked of above. Though the projected percentage of workers in agriculture, animal husbandry, fishery and forestry will go down from 44.9 per cent in 2020 to 40.4 per cent in 2030, the absolute number will go up by about 29 million workers. Thus, there is no escape from investing in the natural resource base that supports agriculture, animal husbandry, fishery and forestry activities. Not only will resource regeneration generate more jobs in the next three to five years, it will also then create more permanent livelihoods in the agriculture and allied sectors.*

Apart from the greening that will happen due to this, we need to take two more steps which are as follows:

Renewable energy generation and distribution, solar as well biomass/biogas based, on a decentralized basis has to be a major priority for the nation both for economic sustainability of agriculture, manufacturing and service enterprises in the face of rising energy costs and for environmental sustainability reasons.

Recycling of solid waste in urban areas. Segregation of biodegradable and recyclable waste at source is a must for this and as that trend is catching up, the next logical step is to add the value chains for collection, processing and reuse. Likewise, the liquid waste from urban areas, mainly sewage, can be a source of both renewable energy (in the form of gas) and organic manure for improving soil humus.

Both are major job creators and improve the environment.

Apart from generating livelihoods, the three Rs—regeneration of natural resources, renewable energy generation and recycling of waste—will be very beneficial to the environment. The first will sequester atmospheric carbon dioxide, while the latter two will reduce greenhouse gas emissions. In addition, regenerating the natural habitats of various species will reduce the possibility of zoonotic diseases like COVID.

1.5.3. Make School Education, Skill and Entrepreneurship Training More Effective

In the field of school education, major advances have happened over the past two decades in terms of overall enrolment rate as well as female enrolment in secondary schools. Yet school drop-out rates remain high, as much as 40 per cent in the northern states. Also, in terms of learning outcomes, the results have been disappointing as per the Annual Status of Education Repot. In 2018, of all children enrolled in Std VIII in India, about 73 per cent could read at least a Std II level text and only about 44 per cent of all children in Std VIII could solve a 3-digit by 1-digit numerical division problem correctly.[38] Offering high-quality, universal school education has been a national goal too long, and we must achieve it in this decade.

In terms of skills, 47 per cent Chinese senior secondary students entered the vocational stream, as compared to only 3 per cent in India in 2013. Since then, with the roll out of the National Skills Qualification Framework programme in schools, there has been some improvement but we need to make serious investments in skill development at the school and higher levels. We have identified the following sectors for job growth in the coming decade:

i. Agricultural services and agro-processing
ii. Construction—for housing as well as infrastructure
iii. Manufacturing—both small scale and high end
iv. Proximate services—retail trade, e-commerce, logistics, tourism and social services
v. Digital services

We require a number of improvements in the ecosystem for skill development that was created in 2009, led by the National Skill Development Agency and an eponymous corporation. *We have to move skill training out of the umbrella of the government and make it led by industry. We also need to make training in entrepreneurship and its basis the achievement motivation.*

1.5.4. Finance the Trajectory of Inclusive Livelihoods Using Multiple Sources

1.5.4.1. Matching Different Uses with Sources of Finance

The total investment is estimated to be ₹120 lakh crore, about 60 per cent of India's GDP in 2021. Further, this would have to be concentrated in the first 6 years of the decade to show results by the end of the 10-year period. Thus, the investment in livelihoods for all needs only about 10 per cent of GDP per annum or about a third of the current annual investment in the economy for the first six years. All these are summarized in Table 1.11.

The financing of regeneration of natural resources will have to be done by the government budget resources and possibly agencies like NABARD, as discussed above. The financing of agricultural diversification will have to be done by farmer households and through bank loans. Financing of farmer-owned agricultural value chains will have to be done by farmer households, community collectives like FPOs, bank loans as well as and corporate finance.

38 http://img.asercentre.org/docs/ASER%202018/Release%20Material/aser2018nationalfindings.pdf

Table 1.11: Estimated Need and Possible Sources of Funds for Livelihoods for All by 2030

Source of Funds	Investment Required in ₹Crore during 2021–2026	Indivi-dual House-holds	Commu-nity Collectives	Corporate CSR	Government Budget	Banks and Financial Institutions	Corporate Investments
Regeneration of jal, jangal, jameen	1,200,000	Minor	Minor	Minor	Major	Minor	Minor
Agricultural diver-sification and value chains/collectives	800,000	Minor	Medium	Minor	Minor	Medium	Medium
Infrastructure in small towns	2,000,000	Minor	Minor	Minor	Major	Minor	Medium
Education and skill development	2,000,000	Medium	Medium	Minor	Major	Minor	Medium
Micro and small enterprises	5,000,000	Medium	Medium	Minor	Minor	Major	Medium
Digital services in non-metros	1,000,000	Medium	Medium	Minor	Minor	Major	Medium
Total investment in ₹crore in 2021–2026	12,000,000	Only a small part of this investment is expected from the government. Rest will come from other sources listed above.					

Financing of the creation of small infrastructure in small towns and district headquarters will have to be done by the government budget resources and possibly agencies like NABARD RIDF. The financing of non-farm microenterprises for self-employment will largely have to be done from personal and community resources and through bank loans of the PMMY MUDRA kind. The financing of digital service enterprises will largely have to be done through equity (own funds), bank loans and corporate finance.

1.5.4.2. Finance Start-Ups with Equity, Then Bank Loans If They Survive and Grow

As many as 90 per cent of India's microentrepreneurs were *atma nirbhar*, since they mostly started with funds from family and friends, and then from SHGs. But the cost of their *atma nirbharta* is to remain trapped in a low-income, high vulnerability situation. How to deal with that? It is a widespread belief that credit is the main constraint in setting up an enterprise. Bank loans given to start-up enterprises are prone to default because debt for new enterprises is the wrong financial product. In debt financing, the entrepreneur has to maintain the fixed instalment repayment and this leads to the loan becoming a non-performing asset (NPA). Catching up on older instalments becomes tougher.

Even as this chapter was being written, we read the announcement that the PM Udyam Mitra for Excellence in Entrepreneurship Development scheme will be launched on 1 April 2021 to provide skill training to 0.3 million youths to become entrepreneurs till 2025–2026 and then provide them loans. We need not 0.3 million but a hundred times than that, 30 million new enterprises to be set up. The investment for this will be ₹1,800,000 crore. With this level of equity capital, such enterprises will generate self-employment for the entrepreneur and wage employment for 10 others.

Given that even the best start-up cohorts have success rates of only one in three, financing new enterprises with bank loans will generate many more NPAs for banks and convert the entrepreneurs into defaulters. Instead, we should offer micro-equity (between ₹5–₹50 lakh) to small enterprise start-ups. Only a micro-equity fund mechanism can handle this. While many enterprises would go under, or would be marginally profitable, returns from the surviving and thriving enterprises would be enough to offset the investment losses.

Micro-equity funds can be registered with Securities and Exchange Board of India as Alternative Investment Funds, AIF Category I, with some tweaking on extant provisions, particularly for investing in proprietary concerns and exit options. Another route that can be used is the proposed Social Stock Exchange to finance small start-ups. It provides a mechanism for equity social enterprises. In the coming decade, we can declare any enterprise that provides 10 dignified secure jobs as a social enterprise.

Box 1.16: The Grapes Can Be Sour Unless Distilled! Mahagrapes versus Sula Vineyards

We need to learn from the story of Sula Vineyards versus Mahagrapes, a co-operative partnership firm established in 1991. It has 15 co-operative societies with a membership of almost 2,500 farmers from Sangli, Solapur, Pune and Nasik districts of Maharashtra. Its highest turnover was ₹25 crore. In contrast, Sula Vineyard, established in 2000 by Rajeev Samant, a foreign returned young entrepreneur, has a turnover of ₹500 crore and employs 1,000 people, apart from indirect employment in distribution and marketing. Sula Vineyards' shareholders are not farmers. We have to think what prevents Mahagrape farmers from having a winery?

1.5.5. Organize: Being Atma Nirbhar Does Not Mean Being Alone

1.5.5.1. Organizing FPCs

GoI has taken up the idea of FPOs as a way to organize small farmers. About 8,000 FPOs are already there and 10,000 more are going to come up. The experience of FPOs formed over the last 10 years was analysed in a multi-state study (Singh, 2020). *It showed that the biggest constraints are capital, capability, coordination and compliance.* Using FPOs only to aggregate and sell farm produce to buyers will never get them the share of the value addition that happens at the later stages. Even some of the largest ones such as the MAHA-FPC, a state-level FPC that is a consortium of 240 FPCs in Maharashtra and procured pulses worth ₹500 crore in 2020, and GUJPRO which procured over ₹200 crore of groundnut did not undertake any value addition activity.

1.5.5.2. Informal Sector and Migrant Workers

Two pieces of legislation, the Interstate Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979, and the Unorganized Workers' Social Security Act, 2008, remained on paper. Both called for registration of migrant workers and unorganized sector workers, respectively, as a first step towards extending benefits and services to them. However, the labour departments had no framework for the implementation of these laws. Now, the Occupational Security and Health Code, 2019, has subsumed the Interstate Migrants law, while the Code on Social Security, 2019, has subsumed the Unorganized Workers law. Merely moving legal provisions from one Act to another Code will not ensure improvement in implementation. The same neglect as earlier can persist unless GoI and state governments enable the departments charged with the responsibility to enforce these laws. In addition, these departments have to be held accountable both by elected representatives and by the media and civil society.

The only way to ensure accountability is to organize the informal and migrant workers. For example, in Maharashtra, informal workers have a Kashtkari Sangharsh Mahasangh,[39] a federation comprising many local associations. A major trade union, Centre of Indian Trade Unions, recently tried to register a Migrant Workers' Union in West Bengal.[40] The Aajeevika Bureau has been working with migrant workers for about three decades and undertakes both activities for supporting them and policy advocacy work. Similarly, LabourNet 'is a social enterprise that enables sustainable livelihoods for disadvantaged men, women and youth in urban and rural areas. [Its] three-pronged engine integrates social and business impact by bridging the gaps in Education, Employment and Entrepreneurship'.

We recommend a provision in the new Labour Code for recognized informal workers associations (IWAs) and for NGOs who support their formation and capacity building. This principle has been accepted earlier for women's SHGs and for farmers' FPOs. Thus, for example, IWAs of migrant workers

39 https://m.dailyhunt.in/news/nepal/marathi/max+maharashtra-epaper-maxmar/1700+garajuvant+kutumbanch+pot+bharanara+kashtakari+sangharsh+mahasangh-newsid-n179294654

40 https://www.newsclick.in/exclusive-trade-unions-for-migrant-workers-across-country

Box 1.17: SHG Movement for Savings, Credit and Empowerment of Women

The most outstanding example of this is the SHG movement. Starting with less than 100 groups in 1985, the movement has become very large in 35 years. As per NABARD,* as on 31 March 2019, there were almost 10 million SHGs in India covering 140 million families with deposits of ₹23,324 crore. Out of this, 50 per cent of the SHGs had availed credit with loans outstanding of ₹87,098 crore.

The empowerment effects of SHGs can also be replicated in collectives of informal sector workers such as construction workers at a site or street vendors' committees. The spirit of the SHG movement needs to be replicated in the farmers' collectives being established, like FPCs.

*https://www.nabard.org/auth/writereaddata/tender/NABARD%20SMFI%202019-20_compressed.pdf

can be recognized along with NGO Aajeevika Bureau, while IWAs of informal workers can be recognized along with LabourNet.

1.5.6. Depend on Yourself, Not on the Government: Self-help Is Atma Nirbhar

One of the main lessons of the COVID pandemic has been when in trouble, help yourself or seek help from your community, howsoever defined—the extended family, the caste biradri, the professional circle. In the midst of the pandemic, our prime minister announced that to overcome the effects of the pandemic, the people have to be atma nirbhar—self-dependent. This is a call to be heeded. Being atma nirbhar can be misinterpreted to mean 'each for himself/herself'. But no one can go very far if they go alone. We can hold hands with others and still be atma nirbhar, as long as all of us are striving to be atma nirbhar. We can always reach out to concentric circles of familiarity, starting with own savings, the immediate family, the extended family, the caste biradri or the SHGs.

1.5.7. Develop Samarth Zillas around Smart Cities

How 'smart' are our cities became obvious during the COVID pandemic. Even the poorest inhabitants of cities wanted to escape and go to the countryside, to the districts or the zillas. We define a zilla as *samarth* or capable, if it is able to (a) generate adequate livelihoods for its natural inhabitants, (b) provide basic services such as health, education, water, energy, roads, transport and telecom and (c) has law and order and sufficient opportunities for its citizens to engage in social, cultural and association activities.

The *samarth zillas* framework uses a regional approach to development that recognizes the continuum of rural and urban areas. Though the unit of planning could be larger such as a cluster of neighbouring districts or a river basin, the *samarth zillas* framework makes a district as the unit of development because of data availability at district level as well as the existence of all implementation mechanisms. The framework deals with the whole district, instead of a town or a village, which enables larger, integrated planning and implementation.

This framework, by virtue of its regional approach, carries an opportunity to apply systems thinking perspective to developmental efforts as against isolated interventions conceptualized to address issues in a limited manner, spatially and in scope. Within a *samarth zilla*, smaller cities provide a space for enhanced livelihood options for workers from surrounding rural areas and act as growth engines of the district. While rural areas act as a resource base for primary commodities, small towns, including crafts clusters, act as the production base for meeting rural as well as urban demand.

It is our belief that unless India invests in building the capability of its 700+ districts, the geographical skew of rural population and metro jobs will continue to haunt us. Thanks to the 73rd and the 74th Constitutional Amendments, the Article 243ZD provides for creation of a District Planning Committee (DPC) in every district with representation of rural as well as urban areas. DPCs carry a mandate to prepare development plans for the district including spatial planning, environmental conservation, etc., and submit the same to respective state governments.

We are suggesting a significant investment in building the infrastructure and economic attractiveness of about 5,000 small cities including about 700 district headquarters, as the next rung of growth magnets after the 100 smart cities.

Samarth zillas will reduce migration and substitute it with day travel to the nearer urban centres by making them capable of providing decent livelihood options through non-farm activities and the judicious use of natural resources available within a district. Samarth zillas will provide uniform standard of amenities and services throughout a district leading to overall human development and finally, providing decent livelihoods and a good quality of life to its inhabitants.

1.5.8. Catalyse a Collaborative Ecosystem

The tasks are too complex for any single organization to do them all on its own. This is the logic for partnerships or the collaborative polygon, with the community in the centre of the polygon as the target of intervention. The objective is to bring social, economic and cultural change without exploiting nature.

In Figure 1.2, the polygon is conceived as a *panchmukhi samvaay* - a pentangular collaborative partnership among five sets of institutions (a) government, (b) corporate sector and the market, (c) civil society, (d) capital market and (e) knowledge institutions. The framework seeks collaborative action by these five segments. It provides a pragmatic structure for the implementation of sustainable livelihood framework. It provides proper resource management required for the interactive support and functioning of five key stakeholders.

Figure 1.2: Collaborative Pentagon

Source: Conceived by the author

If we go by investment in livelihoods, neither the government nor the corporate sector is the largest player in generating employment. It is the people themselves—the farmers, the microentrepreneurs and the small services sector.

The government has the power to make policy to direct resource allocation in various sectors, spatial locations and for the benefit of certain segments of the population.

The corporate sector because of its fundamental concern with cost-efficiency and return on investment plays a role in the production, sale and distribution of goods and services, including providing necessary technical support.

Civil society institutions, including but not restricted to NGOs, mobilize and organize the people, develop norms of working and train on aspects of restoration and livelihoods.

The knowledge organizations such as think tanks, universities and other research bodies are required because of the need to draw on concepts, theory and technical knowledge.

Finally, despite a large amount of self-financing by farmers and microentrepreneurs, we would require vast amounts of financial resources for generating 120 million livelihoods. Since the government does not have this capacity, one would need mainstream capital, from banks and investors.

1.6. LAST AND FINAL CALL TO ACTION

India needs to generate 120 million new livelihoods in the 2021–2030 decade to ensure near full employment for its 610 million labour force by 2030. We have to move away from the paradigm of jobless growth in the past decade to jobful growth in the coming decade. We have to focus on self-employment and on the green and digital sectors. If we do not do that, we will blow the demographic dividend opportunity which comes but once in a nation's life.

If we generate additional livelihoods only at the pace of 2000–2020, about 1 per cent per annum, then we could end up with about over 90 million unemployed out of a projected labour force of 610 million in 2030. For an economy that is headed to be the third largest in PPP terms, we cannot afford to have such a large number of unemployed labour force, with all its adverse social consequences.

At the same time, in pursuit of growth in jobs, we must pay attention to sustainability, both financial and environmental. Otherwise, we will end up with neither growth nor jobs and even worse, we could end up creating an impaired government with a low tax base and high fiscal deficit, and a degraded environment unable to protect us against either climate change or zoonotic disease like COVID. Who would want to move towards such a dystopia?

Between 1992 and 1994, along with 10 other colleagues, I carried out a study of the rural non-farm sector in India, covering 8 states and 80 subsectors. That is when we encountered the example of China where over 100 million people moved from farms to TVEs. *Our report of the non-farm sector study, released in 1995, argued that India also needed to do this to ensure that the growing rural population gets work and to avoid massive migration to big cities in search of work. Yet between 2001 and 2011, 141 million more persons joined the ranks of migrants in India.*

In 2008, I had the privilege of writing the overview chapter of the first State of India's Livelihoods (SOIL) Report,[41] brought out by ACCESS Development Services, New Delhi. In the final line, I had written, 'The challenge of the decade is then not just new jobs, but to make existing livelihoods generate more income, do so in a stable and sustainable manner'. *We commended the Eleventh Five-year Plan target of generating 58 million jobs between 2007 and 2012. Instead, by 2012, employment actually declined by over 5 million persons.*

This is the third, last and final call to action. We need to generate 120 million sustainable livelihoods in this decade. Before the COVID pandemic, the phrase '20/20 vision' meant a 'perfect eyesight'. After the pandemic, the meaning of 2020 has changed to a 'bad vision'. However, we need to rethink that. Perhaps the best result of this crisis has been to give us a perfect vision for the kind of future we need to build.

Henceforth, let GDP mean green, digital and people centred, or what J. C. Kumarappa envisioned as the Economy of Permanence.[42]

41 https://livelihoods-india.org/publications/all-page-soil-report.html
42 https://www.mkgandhi.org/ebks/economy-of-permanence.pdf

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FROM POLICY MAKING TO BUILDING INSTITUTIONS

2

Ashok Kumar Sircar

2.1. Introduction

This chapter is written at a time when the country is confronted with a massive pandemic, and the Indian state is struggling, on the one hand, to respond effectively to reduce its spread and mortalities, and on the other, to make attempts to keep the economy functioning as much as possible. Livelihood in every sector has suffered an unprecedented shock from the pandemic and the harsh and prolonged lockdowns, whose impacts continue even today.

State policies and programmes on livelihood are typically meant for normal times. Responding to the crisis and building resilience for the future would require a different frame of planning and implementation. This chapter will attempt to study and comment on the policies and programmes on livelihood in that light.

A few introductory remarks on the overall livelihood scenario may be necessary to set the context of our analysis. It's well known that livelihood in India has largely remained confined to household-based activities irrespective of sectors.

- This is borne out by the fact that in agriculture, of 146.45 million operational holdings in the country in 2015–2016, as many as 68 per cents were marginal holdings of less than one hectare, operated mostly by families themselves (Agricultural Census 2015–2016a).
- There were 63.4 million non-agricultural enterprises in India in 2015–2016 (NSS 73rd Round, 2017). Of these, the smallest, own account enterprises (OAEs) constituted 84 per cent of the total (91% rural and 76% urban). Another 13 per cent of all firms (unorganized and organized sector together) employ less than five workers. Together, they constitute 97 per cent of all enterprises in India.

This data shows that policies and programmes on livelihood would naturally target households. A corollary of this is the blurring of household expenditure (or income) and firm (or farm) expenditure (or income) and concomitant vulnerabilities, risks and shocks. This gives rise to a unique situation, where programmes or policies targeted at reducing household vulnerabilities of food and cash will have a direct impact on livelihood and vice versa, implying that we need to take a holistic view of livelihood policies and programme beyond a simple sectoral view.

India is in the midst of three significant livelihood transitions-demographic, occupational and geographic.

The first transition is demographic; as more and more young people are in school, their aspiration is clearly shifting away from agriculture and even from the rural. The average age of Indian farmer today is 50.1 years (Pandey 2018), while 65 per cent of the country's population is less than 35 years old.

The second transition is occupational. Rural India is no more primarily agrarian; it's fast becoming a non-farm economy. Around 48.7 per cent of all non-farm employment is in rural areas, and it contributes to one-third of the non-farm output of the country (Chand et al. 2020). This is also corroborated by the *Time Use Survey 2019*. Only 22.4 per cent of rural persons worked in farming (crop and livestock; Government of India 2019). Both these transitions are long term and will have profound implications in the way we have to think of livelihood policies and programmes in India.

The third transition in livelihood is geographical; 70 per cent population is in rural areas, and yet most of the new jobs are in urban areas, leading to migration in search of livelihood. The economic survey of 2016–2017 mentioned about 100 million migrants in India for work (Economic Survey 2016–2017 quoted by Tumbes 2019), much of which seems to be circular. This excluded another few millions who migrate seasonally across districts or states for agricultural and allied works. Migration for work is highly skewed in India; most of the eastern states are the sources of migrant labour, and the western and southern states are their destinations.

A few cities such as Surat, Ahmedabad, Mumbai, Bangalore, Cochin, Trivandrum and Delhi-NCR account for the bulk of the destinations of the migrants coming for work. They mostly work as daily wage labour, self-employed, regular informal sector workers and casual labourers in the cities. While migration for work is not new, the last two decades have witnessed a spurt in this skewed internal migration. Coupled with household centricity as the social base, enlarging educational opportunities, urban aspirations of the youth and expansion of the non-farm rural economy, the country seems to be undergoing a profound long-term transition in livelihood.

In addition to this, the threat emanating from climate change as a result of many unsustainable growth practices points towards the need to imagine a new paradigm of livelihood based on ecological sustainability and social fairness. Building social fairness would require creating a production regime beyond family, caste and community, coupled with large-scale cooperation and reciprocity and a regulatory regime to encompass the entire production and value chain regime. Ecological sustainability would require massive investments in sustainable technologies and materials and social investments in ecologically sound life practices.

Understanding the policies and programmes is set in this larger context. Keeping in view, the annual nature of the Soil report, for the past, we will look at the policies and programmes in 2018–2019 and 2019–2020 as our time horizon, and we look at 2020–2021 mainly through the lens of COVID-19 and related shock in livelihood and the state response to draw a lesson for the future.

2.2. Livelihood in the Policy Thinking of India

Indian policy thinking on livelihood has typically taken two approaches—sectoral and spatial. Agriculture–horticulture, livestock, fisheries and forestry are emphasised in the rural areas and enterprises in manufacturing, trade, services, mining, etc., are focussed in urban and peri-urban areas. Policies and programmes, as well as data capture, follow these simple two-dimensional frameworks. As we look at the budget exercise as well as the programmatic foci, this would become clear. To start with, let us look at the components of the Indian budget captured in Table 2.1 which can be identified as livelihood centric, given our context, as described above.

Our starting observation gets confirmed from the budgetary allocations. First, except for some parts of the Green Revolution Krishonnati Yojana, National Rural Livelihood Mission, PM Krishi Sinchai Yojana, the bulk of state policy on livelihood aims at households as beneficiaries. Even though studying each of these schemes, in detail, and financial allocations against each component is beyond the scope of the chapter, it can be seen that nearly 75 per cent of the ₹186,647 crore budgeted in 2020–2021 is aimed at the livelihood of households (Sircar 2020a).

The emphasis on households can also be seen in the four yojanas, which has a very close relationship with people's livelihood. Drinking water is not only a basic human right; its provisioning has direct impacts on available labour time, water-borne diseases and health care expenditures and contingent poverty. Midday meals have helped in expansion in educational

Table 2.1: Budgetary Allocation in Major Programmes in and around Livelihood (Rupees in Crore)

Programmes	Actual 2017-18	Budgeted 2018-19	Actuals in 2018-19	Budgeted 2019-20	Revised 2019-20	Budgeted 2020-21
Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)	55,166	32,613	61,815	60,000	71,002	61,500
Pradhan Mantri (PM) Kisan Yojana	—	55,000	1,241	75,000	54,370	75,000
PM Fasal Bima Yojana (PMFBY)	9,419	13,000	11,937	14,000	13,641	15,695
Green Revolution Krishonnati Yojana	11,057	13,909	11,758	12,561	9,965	13,320
PM Krishi Sinchai Yojana	6,613	9,424	8,143	9,774	9,774	11,127
National Rural Livelihood Mission	4,926	6,060	6,282	9,682	7,896	10,005
Subtotal livelihood targeted	87,181	130,006	101,176	181,017	166,648	186,647
Rural Drinking Water Mission	7,038	7,000	5,484	10,001	10,001	11,500
Midday Meal Programme	4,926	10,500	9,514	11,000	9,912	11,000
PM Awas Yojana,	31,164	27,505	25,443	25,853	25,328	27,500
PM Gram Sadak Yojana	16,862	19,000	15,414	19,000	14,070	19,500
Subtotal infrastructure/ support	59,990	64,005	55,855	65,854	59,311	69,500
Total	147,171	194,011	157,031	246,871	225,959	256,147

Source: PRS (2020–2021 and 2019–2020).

opportunities; it has provided poor households with an additional free meal in addition to the public distribution system (PDS) food grains. Housing for the poor in rural and urban areas has provided another important livelihood support, indirectly, in building durable assets for the family. PM Gram Sadak Yojana has been hailed as the most impactful rural development schemes which facilitated market penetration and rural transformation, labour mobility, reduced geographical vulnerabilities, helped expand other rural infrastructure, etc. Of these four, a part of the drinking water provisioning is aimed at communities and institutions, and PM Gram Sadak Yojana is entirely a spatial investment. The housing and midday meals are again aimed at individuals and households.

The focus on households in these schemes can be interpreted in multiple ways in a livelihood context. We may ask how much of it is protective and how much promotional?

Looking at the nature of the support under MGNREGA, PM Kisan Yojana and Fasal Bima Yojana, it may be said that these are protective policies, while the Green Revolution Krishonnati Yojana, National Rural Livelihood Mission and PM Krishi Sinchai are promotional. A simple monetary division between them would be about 80:20, implying that budgetary allocations are clearly aimed at protection. One can add a midday meal and housing programme to this list.

Before we discuss the pros and cons of household and individual-oriented as well as protection-centric programmes, let us continue with the landscape, where we find a few new entrants during the Covid crisis, as shown in Table 2.2. We must mention here that some of them have been initiated before the Covid crisis but re-emphasized as part of the state's response to COVID-related livelihood crisis. Further, these are typically not crisis response type in nature, but programmes designed for normal times. We

Table 2.2: A Few More Livelihood Focus Programmes of the State

Name	Details	Characteristics
Agricultural Infrastructure Fund (AIF)	A loan facility for cooperatives and other community-based organizations, farmer producer organizations and public private partnership projects. Allocated ₹100,000 crore for a 10-year programme, where the facility has to be availed in three years.	Entirely promotional in nature, non- household oriented, focus on post- harvest value chain improvement.
PM Matsya Sampada Yojana	Allocation of ₹20,000 crore over five years, including a few central sector schemes and centrally sponsored schemes	60% towards individual and household centric, 40% non-household centric. Mostly promotional in nature
Van Dhan Yojana	A programme to promote collection, stocking, processing and selling of non-timber forest products through Adivasi owned Van Dhan Kendras.	Entirely promotional in nature, non-household oriented; focus is creating and sustaining production collectives for forest products.
PM Karma Yogi Mandhan Yojana	A savings-cum-pension scheme for unorganized sector workers operated by LIC. This is an entirely central sector scheme with 100% finance from the central government.	Entirely individual centric. She has to continue paying premium up to 60 years, thereafter, availing ₹3000 per month pension. Focus is on protection at old age.

Source: Sircar (2020b).

will take up specific crisis response measures in a separate section.

Among these, only AIF is a new entry; the other three were started a couple of years ago. Here again, the dominance in individual/household-centric programmes can be seen.

How do we interpret the bias on individual/household-centric programmes over structural ones? One discernible characteristic is aiming for protection and smoothening expenditures. The state providing cash transfers to the farmers, providing 100 days guarantee of work for any willing rural Indian, providing 83 per cent of the insurance premium on crops and the pension scheme for unorganized sector workers are certainly aimed at smoothening expenditures and protection from any possible shock in livelihood. On the other hand, the Green Revolution Krishonnati Yojana, National Rural Livelihood Mission, PM Matsya Sampada Yojana and Van Dhan Yojana are aimed at livelihood promotion of specific social-occupational groups such as women, fisher folks and forest dwellers. The same is the state's efforts in the Agricultural Infrastructure Fund.

The regime of protection works on a larger societal assumption that these sections of the population need the state to smoothen their income–expenditure in substantial measure. While this is certainly true in any crisis, the major programmes, we mentioned above, are for normal times, and thereby pointing towards a large structural weakness of the Indian system of livelihood. On the other hand, the livelihood promotion focussed programmes for individuals/households as well as organizations of specific social/occupational groups receive significantly less on a per capita basis, pointing towards a significantly low absorptive capacity. We will return to this point later in the chapter.

Reading the fine print, one finds another interesting facet of some of these programmes. Take, for example, National Rural Livelihood Mission, AIF, Van Dhan Kendras and some aspects of the Green Revolution Krishonnati Yojana and PM Matsya Sampada Yojana. These are mostly aimed at organizations of the specific groups, rural women, Adivasis, farmers and fisherfolks. A clear bias in these programmes is towards enhancing production, trade and income. It assumes that the organizations are already strong, vibrant, capable and knowledgeable; all they need is the state's financial support to produce, trade and earn more. I would call it monetary bias and would come back to it for a more elaborate discussion later in this chapter.

Surprisingly, the three transitions mentioned earlier do not find adequate emphasis and focus on the major livelihood policies and programmes in India.

- If the rural livelihood is shifting towards non-farm, then building non-farm physical and social infrastructure, in terms of skills, market development, business environment development, land use planning, as well as clustering would have to be thought through well. This would require a systematic mapping exercise capturing the needs associated with this transition and develop programmes to support it.

- The demographic shift is also missing in the livelihood policy/programme landscape. Apart from the national skill development mission, aiming to provide employable skills for school dropouts, mostly under the PM Kaushal Vikas Yojana, there is no other strategy to create sustainable employment opportunities.
- Finally, none of the programmes mentioned above has anything to do with the increasing migrant population.

2.3. Implementation Landscape of Livelihood Programmes

At the outset, we must record two basic difficulties in trying to assess the performance of some of the livelihood programmes. The first relates to data. Most of what gets captured through the system are input-, process- and output-level data in absolute numbers. In the absence of a clear set of denominators in terms of total numbers who needed that support, it's difficult to put this data into perspective resulting in an unclear understanding of the performance. Second, robust impact assessments are generally missing for these programmes, barring a few exceptions; therefore, it's difficult to know what kind of transformations have taken place on the ground. We will, therefore, only try to point out key concerns, if any, regarding some of the major programmes.

2.3.1. MGNREGA

MGNREGA has been a relatively low priority for a while, as reflected in the budgetary allocation and implementation push. Looking at the 'At a Glance' section of the MGNREGA website for 2017–2018, 2018–2019, 2019–2020 and 2020–2021, we make a few overarching observations (Sircar 2020c).

First, if we take the active job cardholders at 13.79 crore, we find that about 7.75 crore individuals have worked in all the three previous years, which has gone up to more than a crore this year, an increase clearly as a consequence of loss of livelihood. Second, against a promise of 100 days' work guarantee of work to each rural household on demand, the actual average number of days a household got the work in the three previous years hovered around 46, with an exception in 2018–2019 when it went up to 52. Six months into the current year, we see the number as 38, indicating a possible significant increase over the full year. This again seems a result of the loss of livelihood due to Covid. The same is reflected in the person days generated. This year's figure is 238 crore person days for the first six months, against yearly achievements of approximately 260 crore person days in three previous years. By all means, people have resorted to MGNREGA as the protection against the livelihood lost due to lockdown and Covid.

However, several practical issues cropped up. While the first big tranche of the release of MGNREGA funds helped in speedy implementation of projects, half the funds were exhausted in just four months, and the release became slower thereafter (Nandi 2020). On the other hand, Gaon Connection and Lokniti-Centre for the Study of Developing Societies poll recorded that only 20 per cent of whoever asked for work got work (Kapoor 2020). Several media reports pointed out to lack of MGNREGA cards of returnee migrants, who needed work.

2.3.2. PM Kisan Yojana

One of the biggest allocations of the central government is in the PM Kisan Yojana for the last two years. It promises a transfer of ₹6,000/- cash in a year in three instalments to landowning farmers of any size class. It's not tied with any output and outcome expectations; it's a simple cash transfer programme for landowning farmers. The Yojana has a registration of 111.7 million members (Table 2.3).

From the relevant website (PM-Kisan Samman Nidhi 2020), we can see how many farmers have been reached so far continuously. It's interesting to note that six instalments have been released so far, and in each, the number of beneficiaries has been less than the previous one.

Table 2.3: Number of Farmers Availing PM Kisan Yojana

Installment	No. of Farmers (in Crore)
1st	10.26
2nd	9.89
3rd	9.00
4th	7.73
5th Instalment	6.48
6th Installment	03.77 Cr. Farmers

Source: Compilation from https://pmkisan.gov.in/gisdash-board/ChartMap.aspx (accessed on 15 November 2020).

The last one has reached only 3.77 of the 11.17 registered members, 33.75 per cent! In every state, from where data is available, the number of beneficiaries receiving all the six instalments has drastically declined. Media reports point out anomalies appeared in the self-registration process; for example, 0.9 million ineligible beneficiaries got registered in Assam, or ₹110 crore scam was unearthed in Tamil Nadu (The Hindu 2020; India Today 2020), but the real challenge is to identify landowning farmers having a Jan Dhan account in the same name.

The agricultural census gives us the number of holdings as 146.4 million (Agricultural Census 2015–2016b); the Land Records Modernization Programme of the Department of Land Resources identifies 264.8 million records of rights (PRS 2017). Since agricultural census data relates to operational holdings and records of rights to any land plot, it doesn't give a clear indication of landowning farmers. Therefore, the actual number of potential beneficiaries will only be gradually known through a process of validation and due diligence. However, it's not clear why the number of actual beneficiaries is reducing with every instalment.

2.3.3. PM Fasal Bima Yojana

Under crop insurance, there are two schemes—PMFBY and Weather Based Crop Insurance Scheme. The coverage of the latter is far too small compared to the former; so, for the sake of space and priority, we will discuss here only the Fasal Bima scheme. The scheme covers insurance for landowning, sharecropper and tenant farmers for food crops (excluding vegetables), oilseeds and annual commercial crops.

It's a comprehensive cover for low germination or prevention of sowing due to low rainfall, loss of standing crop due to all the usual reasons, post-harvest loss up to two weeks due to hailstorm or excess rain or other reasons, local calamities, etc. The premium is shared equally between central and state government to the extent of 87.5 per cent, and farmers pay 12.75 per cent for the Kharif season. Insurance companies get the contract from the government through an open bidding process. Taking insurance is a must for loanee farmers and voluntary for non-loanee farmers.

The most puzzling aspect of the PMFBY is the low number of farmers availing of this scheme, coupled with falling numbers over the years as seen from Table 2.4 (Sircar 2020d). Let us look at it in some details. While potential beneficiaries of PM Kisan Yojana are only landowning families, the potential beneficiaries on PMFBY include the sharecroppers and tenant farmers.

Table 2.4: Number of Farmers Availing the PMFBY

	Kharif	Rabi
2018–2019	20,582,788	14,349,585
2019–2020	18,728,029	9,347,156
2020–2021	16,582,200	

Source: Compilation from PMFBY Dashboard; https://pmfby.gov.in/ceo/dashboard (accessed on 15 November 2020).

Therefore, the potential beneficiaries of PMFBY are greater than that of PM Kisan Yojana, and yet while PM Kisan Yojana can reach 80–90 million farmers, the PMFBY attracts only around two crore farmers, just about 25 per cent! While sowing of Kharif crop is reported to be 110.4 million hectare in 2020, the area came under PMFBY in Kharif in 2020 is just 27 million hectare (Sircar 2020e) about 24.4 per cent only!

This calls for a serious review of PMFBY as to why it fails to attract the bulk of Indian farmers. Observer Research Foundation has done an assessment (Rai 2019) and found a few serious flaws in the design creating a trust deficit among the farmers. The report observes the state has the discretion to declare the amount of land to bring under the insurance regime; the administrative process of selecting which crop to select for insurance in a season is still unclear; lessee farmers in Kerala, Jammu and Kashmir, Madhya Pradesh, Uttar Pradesh, Bihar and Telangana can't buy the insurance due to conditions associated with leasing; also since the insurance is linked with yield reduction, it does not protect the farmers from revenue loss.

State governments not paying their premium component is also observed in their report. The Parliamentary Standing Committee, on the other hand, has been more critical. While for three years from 2016 to 2019, the gross premium paid to the Insurance Companies is above ₹76,000 crore, the actual amount settled by the insurance companies was only ₹55,000 crore for the same period. Taking note of several Institutional lacunae, the committee noted:

'…that farmers are facing problems in lodging complaints with the Insurance Companies due to absence of local offices of Insurance Companies at District and Block level. The farmers also face problems in lodging complaints of loss of their crops to 49 Insurance Companies within the stipulated period in cases of natural calamities such as flood and limited knowledge of computers, web app, and mobile connectivity in remote locations. The Committee also feels that present rules for fixing unit of loss at Gram sabha level for the majority of crops, limited crop cutting experiments, the process of claim settlement, absence of offices of Insurance Companies at the local level, etc. tilting the major benefit of Scheme in the forum of the Insurance Companies rather than the farmers. The Committee is of view that there is a need for comprehensive changes in rules for implementation of PM Fasal Bima Yojana to make it more farmer-friendly.' (Ministry of Agriculture and Farmers Welfare 2019)

2.3.4. PM Karmayogi Mandhan Yojana (PMKMY)

As mentioned before, this programme is for unorganized sector workers, who can register in this scheme, keep paying a monthly premium and then can get the benefit of ₹3,000/- pension per month or more on attaining the age of 60. The dashboard of the scheme provides data from March 2019 to October 2020 on a daily basis. About 1.769 million workers were already enrolled in early March 2019, which increased to 4.464 million enrolments as at the end of October 2020, an increase of 2.695 million workers (Table 2.5).

While this, in itself, may seem good progress, we need to see this in context.

Out of this 2.695 million increased workers, about 2.595 million have enrolled in the FY 2019–2020, and thereafter, the increment up to October is just about 0.1 million only. It's obvious that the pace of enrolment has drastically slowed down from April 2020 onwards. This may be understandable because of lockdown, loss of jobs and other exigencies faced by the workers.

Table 2.5: State-wise Enrolment in PMKMY as on 29th October 2020

State	No. of Enrolment	State	No. of Enrolment
Haryana	802,244	Rajasthan	101,628
Uttar Pradesh	610,062	Karnataka	96,187
Maharashtra	586,498	West Bengal	72,537
Gujarat	368,273	Tamil Nadu	56,386
Chhattisgarh	207,809	Himachal Pradesh	41,437
Bihar	190,890	Uttarakhand	34,185
Odisha	161,387	Punjab	32,552
Jharkhand	128,799	Telangana	31,484
Madhya Pradesh	123,147	Kerala	10,180
Andhra Pradesh	150,304	Assam	20,736

Source: Sircar (2020f).

Second, the state-wide variation is wide—0.8+ million enrolments in Haryana to just about 0.13 million in Bihar and even 0.07 million in West Bengal. The number of unorganized sector workers is approximately 453 million. The International Labour Organization estimated the urban median daily wage in 2012 was 214

(International Labour Organization 2018). Even if we take this wage for the whole country, currently, this would be around ₹550/-. If we assume that a person gets work for 25 days, we get the ceiling limit of eligibility of this scheme, that is, ₹15,000/- per month. This implies that almost all of India's unorganized sector workers will be eligible for this scheme. By that account, the enrolment of fewer than 4.5 million is just about 1 per cent. There are about 0.352 million service centres where workers can register. Assuming all of them are functional, the enrolment average for each centre is just around 15!

2.3.5. PM Khanij Kshetra Kalyan Yojana (PMKKY)

This programme was initiated in 2015 as a result of the amendments to the Indian Mines and Mineral (Development and Regulation) Act, 1957, to enable state governments to set up District Mineral Foundation (DMF) funds collecting 30 per cent of the royalties for mining leases given before 2015, and 10 per cent of the royalty for mining leases given after 2015. The fund has been set up in 570 out of 725 districts of the country between 2015 and 2017. This fund is given to a statutory trust body in these districts called DMF. The fund is set up to ameliorate the human conditions of the people affected by mining activities.

The PMKKKY delineates the expenditure priorities, which sets 60 per cent of the fund at each district must be spent on what it calls priority sectors in directly affected areas and families, including displaced families. The priority sector includes drinking water, health care, education, skill development, improvement of the environment, etc. The rest 40 per cent can be spent on infrastructure projects in roads, irrigation, etc.

The total accrual so far across all such relevant districts stands at ₹41,650 crore (Sircar 2020g), as per the dashboard of the PMKKY. However, the expenditure so far is only ₹6,944 crore, as per the same dashboard. Even the works sanctioned so far are to the tune of ₹22,000+ crore only. Table 2.5 captures the details of DMF accrual and expenditure data for 12 states large mining areas (District Mineral Fund 2020). This data as on 31 January 2020 states only 35 per cent of expenditures so far in five years (Table 2.6).

A study done in Karnataka, Odisha and

Table 2.6: Fund Collection and Utilization under Pradhan Mantri Khanij Kshetra Kalyan Yojana

S.No.	States	Amount Collected (Rupees in Crore.)	Amount Allocated for Projects (Rupees. in Crore.)	Amount Spent (Rupees. in Crore.)	% of Amount Spent to Amount Collected
1	Andhra Pradesh	905.62	752.62	169.85	19
2	Chhattisgarh	4,980.73	4,829.84	3,358.45	67
3	Goa	188.65	7.38	4.06	2
4	Gujarat	668.11	651.23	236.56	35
5	Jharkhand	5,181.04	4,979.96	2,409.22	47
6	Karnataka	1,842.39	1,815.53	320.29	17
7	Maharashtra	1,728.45	1,181.62	608.92	35
8	Madhya Pradesh	2,864.32	2,173.25	852.96	30
9	Odisha	9,501.48	9,084.84	2,794.19	29
10	Rajasthan	3,514.15	2,641.99	748.63	21
11	Tamilnadu	610.3	416.81	228.56	37
12	Telangana	2774	1739.41	492.04	18
		34759.24	30274.38	12223.72	35

Source: PRS (2020–2021 and 2019–2020).

Goa by the activist group Mines, Minerals and People together with SETU Abhiyan points out several lacunae. The DMF Trust is composed of only with district-level bureaucrats of various line departments, with insignificant people's representation, not to speak of the representation of the affected families for whom the fund is constituted. Secondly, the process of identifying projects lacks any participatory processes, involving mining-affected families. No credible processes of identifying affected areas and affected families exist, no enumeration is ever done.

All across the study areas, very low awareness was found to be common among the affected communities (SETU 2019). The study suggests a few simple but effective institutional interventions such as the compulsory role of Gram Sabha in overall decision-making of projects, a Gram Sabha level committee in line with School Management Committee, setting up DMF offices in nearby affected areas (not necessarily at the district headquarters) and integrate DMF planning with Gram Panchayat planning.

The above five examples point towards an important missing link in the implementation landscape of the policies/programmes aimed at individuals and households. It's the implementation architecture of the programmes in the country, for example, unorganized sector workers' pension. These are workers in construction sites, domestic workers in apartment housing, street vendors, casual workers in industrial hubs, railway hawkers, sellers in city markets, etc. Many of them are migrants. What institutional architecture do we have to enthuse them to regularly deposit in this account, keep on tracking the deposit and finally avail the pension?

The same kind of question arises for crop insurance. Why would a farmer think, if they have to take the insurance, and therefore, take the necessary steps to pay the premium, while knowing that the state and the centre have paid their premium? And how easy it is for a farmer to claim and get the insurance sum when needed? For a simple cash transfer programme PM Kisan Yojana, it's crucial to determine who has the right land record matched with Aadhar and bank account. This is proving to be a herculean job.

Even after 14 years of implementation through an extremely decentralized but digitally linked work-log-payment architecture, the pending MNREGA payments amount to ₹10,000 crore, which is almost 15 per cent of the MNREGA allocation. The disconnect between the DMF and the mining-affected people of the area is notable. Even at the level of district and below, a policy and institutional arrangement specifically for identifiable vulnerable groups of mining-affected people, the institutional architecture remains imprisoned within the bureaucracy and its paraphernalia.

Policymaking has a fundamental disconnect with policy practice in this country. Policymaking is an exercise in quantitative data, law, economics and public administration. The policy practice is an exercise in culture, power, sociology and social work in addition to through administrative planning. The formal public and private institutions mostly work on the principles of public administration, procedures, law and some formal data. The reasons behind deficiencies lie mostly in the cultural beliefs and practices of people, equations of power at the local and non-local levels, barriers in social structures and lack of social trust. We will come back to this again at the end of the chapter.

2.4. Policymaking in Livelihood

2.4.1. Labour Code

The two most important recent policies which might have far-reaching impacts on individual livelihood are the labour code and PDS portability. The labour code has four components—wage code, code on industrial relations, code on social security and welfare and code on working conditions and safety of labour. We will briefly discuss the regulatory and promotional aspects of the labour code. First, we will discuss the following most salient new features:

- All establishments employing at least 300 workers to prepare standing orders on matters relating to (a) classification of workers, (b) manner of informing workers about work hours, holidays, paydays and wage rates, (c) termination of employment and (d) grievance redressal mechanisms for workers. This will exclude more than 98 per cent of the establishments.

- Government's permission to lay off workers is required only for establishments employing 300 or more workers. This, too, will exclude most establishments.
- Mines are now included in the definition of the factory, which remains unchanged.
- The threshold for sole negotiating labour union is now reduced to one having 51 per cent of members from earlier 75 per cent. In case no union has that number, the negotiating council can now be formed with unions having 20 per cent members from earlier 10 per cent members.
- The Social Security Board and the fund created thereof at the central and the state levels include unorganized workers, gig workers and platform workers. The latter two are increasingly becoming relevant today.
- A new category of stakeholder is included in social security code, that is, aggregators. This refers to ride-sharing services, food-grocery delivery services and seven others.
- The code prohibits contract labour in core activities, except where (a) the normal functioning of the establishment is such that the activity is ordinarily done through a contractor, (b) the activities are such that they do not require full-time workers for the major portion of the day or (c) there is a sudden increase in the volume work in the core activity which needs to be completed in a specified time.
- Women are now entitled to be employed in all establishments and in all works, removing earlier restrictions.
- The code provides certain benefits for interstate migrant workers. These include (a) option to avail the benefits of the public distribution system either in the native state or the state of employment, (b) availability of benefits available under the building and other construction cess fund in the state of employment and (c) insurance and provident fund benefits available to other workers in the same establishment.
- The code allows fixed-term employment, in which employers can now engage workers for a fixed term and not on a permanent vacancy.

These and many other changes initiated by the government in 2018 are aimed at liberalizing the labour laws to improve the ease of doing business. It may be noted that Indian labour laws were framed in the early 1950s and, over time, became too restrictive for the employers to adjust their business with fast-changing business ecosystems. Labour, being a concurrent subject, has witnessed the proliferation of over 40 different laws, which too required some harmonization. Finally, the labour ecosystem, too, has changed with the introduction of flexible work, home-based work, platform-based work, etc., which remain unregulated. Therefore, some labour reform was certainly called for.

How would livelihood be impacted by these changes? Bringing the gig workers, platform workers, home workers as well as aggregators into a regulatory regime is certainly a welcome step towards social security provisions for them. For women too, it fulfils a long-standing demand for removing employment restrictions for women. Including mines in the definition of a factory, too, is a welcome step. On the other hand, employers always wanted a simple hire-and-fire regime for workers, and the code clears that pathway. The workers can now be employed on contract; lay off is easier now, and the contractor's labour can now be engaged more freely.

Will the broader labour regime undergo any substantive transformation? As we said before, more than 97 per cent of all enterprises in India in the organized and unorganized sector together employ less than five labourers, mostly in family enterprises. By any account, the labour employed in these enterprises is over 400 million. Here, the code of labour engagement, employer–employee relation, security, working conditions, etc., is constructed within a framework of social, familial, ethnic, caste ties of reciprocity, mutualism and trust. The authority of the state is already minimal in this context and will remain so in the given construct. This is a key point; the labour code has missed altogether.

How to imagine a labour code of security in this context? The country needs a robust institutional infrastructure at the state and local level to locate and identify informal workers of all types and facilitate the process of advancing social security measures. Currently, that infrastructure does not exist. These 400+ million workers are either self-employed, casual labourer, daily labourers or regular informal workers engaged in construction, trade-accommodation-food services, domestic services, professional services and other services; a good part of them are not sedentary, and therefore, while the money transaction platform has to be accessible from any part of the country, the physical location, identification, access, and redressal platforms must be very local at the municipal/ward levels. Over and above, the social process of trust-building requires the involvement of civil society.

The question of collective bargaining and labour rights has surely taken a pro-employer turn in the new labour code. This is a matter of concern. At the outset, only a small section of the labour in India enjoys the power of collective bargaining; the code intends to take that away from them.

2.4.2. Agricultural Infrastructure Fund

While much of the state interventions in livelihood still are households centric, AIF is a notable exception. Announced in July 2020, the AIF aims to provide debt financing facility to farmers' organizations such as the primary agricultural credit societies, farmer producer organizations and marketing cooperative societies to build the post-production infrastructure. This includes supply chain services such as (a) e-marketing platforms, warehouses, silos, pack houses, assaying units, sorting and grading units, cold chains, logistics facilities, primary processing centres and ripening chambers (Department of Agriculture, Cooperation and Farmers' Welfare 2020).

The fund provides for a 3 per cent interest subvention. The AIF will do an investment of ₹10,000 crore this year, followed by ₹30,000 crore each for the next three years.

Needless to say, this is a very welcome step, though it may not be adequate. For decades, India's investments in agriculture have been in increasing productivity with high-yielding variety seeds, mechanization and improved package of practices. Thus, we have, today, food grain production reaching 295 million ton (MT), horticulture production at 320 MT, milk at 198 MT, vegetables at 185 MT and sugar 26 MT. In contrast, the warehousing facility is at 121 MT, cold storage at 31 MT. Apart from milk, the country has not developed a countrywide infrastructure of storage, cold chain and logistics facility for other produce. All the farmers' organizations have generally focussed on providing inputs to and aggregation of production. In relative terms, these organizations have always believed that storage, cold chain, agro-processing, etc., are state and market's responsibility, while theirs is limited only to organizations. AIF provides an opportunity for the farmers' organizations to think beyond productivity and costs of production to engage in the post-production infrastructure.

The post-production infrastructure has two parts, logistics and marketing. The logistics refer to near-farm aggregation, transport to storage, cold storage and cold chain as applicable, transport to consumer destination and then marketing. Besides, for fruits, ripening chambers are needed. Marketing, on the other hand, refers to the availability of market information, market development, access of farmers to markets, warehousing, etc. In a nice graphics, the Down to Earth taking data from the *Ashok Dalwai Committee Report* shows the gap in Table 2.7 (Mahapatra 2020).

Various marketing institutions have been developed over time. Apna Mandi, Rythu Bazar, Raitha Santhe, Shetkari Bazar, etc., are examples of direct marketing, where farmers directly interact with the consumers in farmers' markets. The Dalwai Report mentions 488 farmers' markets are now operating in this country (Ministry of Agriculture and Farmers Welfare 2017). Another marketing institution growing fast in this country is what is known as contract farming, in which the farmers enter into production and supply agreement with buyers. This could be for further processing or direct sale. A third mechanism is being tried in Maharashtra, Gujarat and Karnataka, which is known as private wholesale markets. And finally,

Table 2.7: Shortfall in Cold Storage and Logistics for Perishable Goods

Particulars	Pack Houses Near Farms	Reefer Trucks	Cold Storage	Ripening Units for Fruits
Number required	70,000	61,286	35.1 MT	9131
Number existing	340	Less than 10,000	31.8 MT	812
Funds required	₹ 66,340 crore	₹ 15,848 crore	₹ 3,860 crore	₹ 3,328 crore
Near farm job potential	2,800,000	186,000	21,900	40,000
Jharkhand	5,181.04	4,979.96	2,409.22	47

Note: Purported benefit: As 97 per cent of horticultural produce is transported by road, transport by trains would reduce the transit loss substantially.
Source: Mahapatra (2020).

the latest in the league is the farmers' producers companies who act as aggregators.

However, several challenges remain. The Dalwai Report points out six serious challenges such as market density, quality infrastructure, high-market charges and high-marketing costs for small and marginal farmers. Since a separate chapter in this report is dealing with agriculture, I will only take this opportunity to make some specific observations.

The financing approach, while necessary, can't be the only approach. An important aspect of post-production infrastructure is to build a complex web of institutions/organizations with adequate and qualified human resources, physical infrastructure, established business models and appropriate institutional density, as well as relevant research. For example, while we have multiple kinds of markets, it's not clear which is working at what scale and why and vice versa. The farmers' producer companies, the latest addition to the institution-building efforts is a case in point. While more than 7,000 such companies are in operation, a recent study captures the deficiencies clearly:

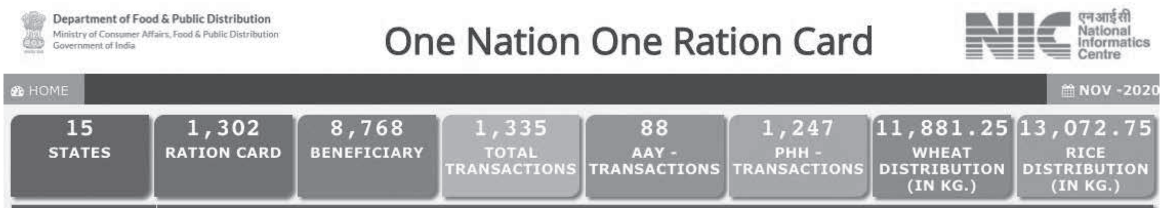
'Producer companies face several challenges such as a weak sense of ownership among producer-shareholders, undercapitalization, inadequate business skills, poor governance and the lack of an enabling ecosystem. We found that these challenges are partly a result of incongruities in stakeholder imaginations of the purpose of producer companies. (Govil et al. 2020)

These deficiencies can't be addressed only through a financing mechanism. The question of human resources and entrepreneurship is another case in point. While India has a strong educational-research-innovation-incubation ecosystem for formal and large industrial-services sectors, the equivalent in the realm of post-harvest infrastructure in logistics, marketing, processing, storage, etc., does not exist. The technology and management institutions have served a vital purpose in supporting the industrial-services-mining infrastructure. The absence of such institutions in the field of agri-horticulture results in unsystematic trials and errors. Going forward, this lacuna needs to be rectified.

Another case in point is the imagination of scale in the post-harvest infrastructure. Considering the bulk of agriculture-horticulture is about the plate (cereals, vegetables, millets, drinks, fruits, masala and other ingredients), it's important to think of the scale carefully. Do we want an infrastructure to create national markets for all items or carefully calibrate the scale of market considering the cultural diversity of food systems, as well as ecological implications of a national market? While, for some such as rice, wheat and sugar, the national scale is obvious, it need not be so for every item produced in the field.

2.4.3. PDS Portability

The massive reverse migration witnessed during the lockdown points out a specific policy deficiency of the lack of portability of welfare entitlements like the PDS. The migrants had to return home, for three reasons—lack of work and wage, lack of ability to pay rent and lack of food due to the inaccessibility of the PDS system. While the migrants do have a ration card, these cards are (a) one card for a family and (b) valid



Picture 2.1: Important Statistics from One Nation One Ration Card Scheme

Source: http://www.impds.nic.in/portal (accessed on 15 November 2020).

in their state of origin and not in their state of destination. Had their cards been portable, many argued, a significant majority of them might not have to take an arduous journey back home.

The pilot project was announced in August 2019, and 15 states have so far been added to the Integrated Management of PDS network (Figure 2.1). The idea is that a migrant worker having a ration card should be able to withdraw her ration in any other state, from the current system of the same only at the specific ration shops where her name is registered. While this is certainly a welcome move, it's not easy. Out of the nearly 800 million ration cards, more than 90 per cent of them are one card per family, the notable exception being West Bengal. This means such cards can be used only when the whole family is a migrant. Second, the formats, including the language of the ration card, differ a lot between states. For the ration shop owner to recognize the card, some uniformity needs to be brought in.

Third, authentication of the person has to happen with an Aadhar card and biometric identification at the electronic point-of-sale devices. Biometric identification poses practical problems for people who are engaged in largely manual labour, due to the change of their fingerprints. Fourth, to make it work, all ration shops must have electronic point-of-sale devices connected with the Internet, which is a tall order. Fifth, if the cards have to be uniformly formatted to avail the benefit of portability, fresh cards have to be issued to millions of households. Sixth, since the PDS system is administered and owned by the states, the states have to be an equal partner in this exercise. In this context, one must remember that several states provide more items in PDS, as well as more quantities. How will the national network of Integrated Management of PDS provide these additional items? The progress, as of November 2020, is shown in Figure 2.1. As one can see, it's yet to make an effective start. A total of 1,302 ration cards have been registered, a total of 1,247 transactions have taken place, away from the ration cardholders' residences. Needless to say, it has a long way to go.

2.5. Policy Response in Covid Times

India was among only a few countries across the world that resorted to long and total lockdown in response to Covid. The entire country was shut for months, forcing people to lose work and jobs on a massive scale across all sectors. It was obvious that the government preferred saving human lives instead of livelihood. In a country, where most people live on modest incomes, the choice between lives and livelihood is often a Hobson's choice. Therefore, any responsible government has to come out with policies of livelihood protection by providing income and other supports to affected households. What the Indian government did become known as Nirmala Seetharaman Package after the name of the Union Finance Minister. The central elements of her package related to livelihood are the following.

- Additional allocation of ₹40,000 crore for MGNREGA, wages increased to ₹202/- per person per day.
- Additional provisioning of 5 kg rice or wheat and 1 kg of pulses per family per month free for eight months up to November 2020 under Antyodaya Anna Yojana.
- Employees' Provident Fund holders can withdraw 75 per cent of their savings or three months of wage whichever is lower under a special Covid withdrawal window.
- Rupees 500/- support three times to women Jan Dhan Yojana holders.
- Three LPG cylinders free to LPG gas holders under Pradhan Mantri Ujjwala Yojana.

- Rupees 2,000/- as the first instalment in April under PM Kisan Yojana.
- An ex gratia of ₹1,000 to 30 million poor senior citizen, poor widows and poor disabled.

Table 2.8 captures the government's claim of the performance of these policies (Sircar 2020h).

While the data, by itself, may look reasonably good, it's not possible to evaluate the performance unless appropriate comparisons are made concerning the past year, the number of projected beneficiaries and interstate variations. In the absence of any rigorous analysis, a few conjectures can be made. First, out of 45+ million active PF holders, only 3.6 million persons have taken the Covid withdrawal facility, which is a minuscule percentage but reflects a significant large absolute number. MGNREGA, on the other hand, has almost exhausted the original budget allocation of ₹61,500 crore in six months, indicating a huge spike in demand for MGNREGA work. Therefore, allocating another ₹40,000 crore was certainly the right policy. The next spate in demand is likely during the months of November-December-January, and the additional allocation may fall short of the need on the ground.

Table 2.8: Funds Disbursement and Beneficiaries under Various Schemes Towards Covid-19 Response

Yojana	Details	Amount (Rupees in Crore)	Beneficiary (Numbers in Crore)
PM Kisan Yojana		17,891	8.94
PM Jan Dhan Yojana	1st install.	10,325	20.65
	2nd install.	10,315	20.63
	3rd install.	10,312	20.62
Old-age pension	Two Install.	2,814	2.81
Construction workers		4,987	1.82
		Lakh MT	Beneficiary (Numbers in Crore)
Antyodaya Anna Yojana (food grains)	April	37.52	75.04
	May	37.46	74.92
	June	36.62	73.24
	July	36.09 lakh MT	72.18
	Aug	30.22 lakh MT	60.44
Provident Fund (PF) withdrawal		9,543 crore	36.05 lakh
MGNREGA	April-Sept	59,618 crore	195 crore Person-days

Source: Compilation from PIB Press Release dated 20 June 2020.

There are a total of 220 million women who are Jan Dhan account holders out of a total of 412.01 million holders of Jan Dhan account. The relief of ₹500/- thrice has reached to 200 million of such accounts, which is a good achievement as per the policy promise. On the other hand, the national social assistance programme benefited 28.2 million under Covid assistance, whereas the number of beneficiaries under the central and state schemes together is 40.59 million. This means a good number has not been reached. PM Kisan Yojana is a mixed bag as we discussed earlier in the report. It is not understood why.

On PDS food grains, various computations point to about 810 million PDS beneficiaries in the country, of which, the government seems to have covered 750 million in April 2020, which reduced to 600 million in August 2020. Why the coverage has diminished in every tranche of release is not clear. The larger point, however, is that number of PDS beneficiaries as 75 per cent of rural and 50 per cent of the urban population is based on the 2011 census. If population growth is taken into account, Reetika Khera calculates the population in 2020 is expectedly 13720 million, and therefore, 810 million is about 59 per cent of the population, way below the promise of the National Food Security Act, 2013. This is why, post-Covid, several states such as Rajasthan, Odisha, Jharkhand and Uttar Pradesh reported adding new beneficiaries to the PDS system to help them tide over the crisis (Khera & Somanchi 2020).

A special case to consider in this context is the Building and Other Construction Workers Act, 1996 (BOCW Act), and the BOCW Cess Act, 1996, meant to provide welfare support to 51+ million construction workers. The BOCW Act applies to all construction work, other than those covered under the Factories Act, 1948, and Mines Act, 1952, employing more than 10 workers directly or indirectly. The state governments collect a cess of 1–2 per cent of the costs of construction. It's meant to be spent in health care, education, social security of the construction workers, etc. The state governments have constituted the Building and Other Construction Workers Welfare Boards in this regard. For construction workers to get any benefit, they have to first register with the Board and have a bank account, which needs to be linked with Aadhar. In some states, the registration has to be renewed every three years.

Over the years, the state governments have accumulated an amount of over ₹61,000 crore as cess according to the letter written by the Union Labour Secretary to all states on 14 July 2020 (Samaria 2020). The same letter mentions an estimated 50 million construction workers, of which only 34.7 million have been registered at any point in time, of which only 25.7 million is supposedly active, and Covid assistance of ₹1,000/- can possibly be reached only to 18.3 million workers for bank account and Aadhar linkage issues (Ministry of Labour and Employment 2020). Table 2.9 captures the various issues as reported by the Huffington Post (Sircar 2020i). As a result, various state governments could only disburse only a fraction of their collected funds at times of such a deep crisis.

Table 2.9: Issues in Registration of BOCW Across Different States

State	Period	Issue
Madhya Pradesh	September 2019–July 2020	Reduction of workers by 1.8 million
Telangana	Renewal in 2020	364% increase
Assam	November 2019–July 2020	No. of registered workers is less than active workers by 25,000
West Bengal	2018–2020	No change in number of construction workers
Karnataka	November 2019–July 2020	Reduction of workers by 0.635 million
Maharashtra	November 2019–July 2020	Reduction of workers by 0.421 million
Gujarat	November 2019–July 2020	Registered workers 0.638 million, all got the Covid relief

Source: Author's compilation from Betwa Sharma 'Gujarat: Lakhs of Workers are Still Waiting for Rs 1,000 Promised in Coronavirus Lockdown 1.0'. Huffington Post, 29 July 2020.

The studies point out the lack of any institutional architecture to regularly register, renew and facilitate bank linkage, Aadhar seeding and providing construction workers with relevant services. In addition, since a significant portion of the construction workers is migrants, the issue of portability becomes relevant. Even when the construction workers are not migrants, they are mobile and do not stay at the same construction site beyond one–two years. Kerala, for example, has strong local governments who could locate the workers and thereby do the required facilitation. In all other states, the local governments, who are the nearest to the construction sites, are not in the picture.

Beyond a simple cash transfer for Covid relief, the welfare of the construction workers includes health care, education of children and social security. For mobile and migrant construction workers, providing these basic welfare facilities can only be done if the local governments/ward committees are looped in by the state in all the relevant cities and towns to have construction workers facilitation units. These units can register these workers, ensure PDS and social security portability, assist in admission in schools and provide regular health check-ups, monitor hygiene of the workers' residences and so on. Municipal services must include construction workers' facilitation services.

2.6. The Way Forward

The way forward in imagining livelihood policies and programmes can be conceptualized in the following three key buckets:

- Building appropriate institutions
- Livelihood beyond maximizing yield, productivity, efficiency and income
- Prioritizing the future of non-farm livelihood in India

It is critical to build appropriate institutions in response to the emerging realities. Our institutions are mostly designed for formal sector work, which is sedentary, stable, codified and secure, whereas the emerging reality of work is mobile, multiple, uncodified, insecure and even precarious. Enterprises employing less than five workers constitute 97 per cent of all enterprises at a very low educational-skill-capital level. Our enterprise-related institutions of skills, technology, management and innovation cater to a tiny segment of the enterprises, and even formal finance reaches about 16 per cent of micro, small and medium enterprises (IFC 2018).

While rural areas are fast becoming non-agricultural, our imagination of the institutions of livelihood still revolves around agriculture-, horticulture-, fisheries-, poultry-, and livestock-related livelihood and microfinance. Our data institutions do not have a clue about the vast informal sector work and livelihood, and we extrapolate our formal sector data to the informal sector. Even in agriculture, our focus is still the household production and yield, and as a result, adequate investment has not happened in post-harvest infrastructure. Our research knowledge of enterprises and businesses are skewed in favour of the formal sector medium and large organizations; our MBAs do not even have the sensitivities to be able to determine a monthly cash flow of a pakora seller, because their cash flow of the business is intertwined with their household cash flow. There is no business school for the informal sector.

This calls for a radical re-imagination of the institutional landscape to respond to these emerging realities. Microfinance institutions are one such re-imagination, so are the self-help group federations and platform companies, online retail, farmers' markets, etc. But our mainstream banking, agricultural universities, business schools and the Indian Institutes of Technology need to be shaken up. So far, these institutions, barring agricultural universities in the 1960s and 1970s, have focussed on the well-oiled segment of the formal sector. The Indian Institutes of Technology have not paid attention to the technological needs of micro and small enterprises, the Indian Institutes of Management have not devised business education for the vast numbers of micro-small entrepreneurs, the Agricultural Universities have not addressed the questions of post-harvest supply chain-related challenges, particularly for small farmers and our Banks have neglected microenterprises. Thanks to the Microfinance institutions, bank finance reaches nearly 60 million borrowers, but livelihood-centric innovation in formal banking is still missing.

At the same time, dignity at work, social security, insurance and resilience from shocks would require a more embedded, less hierarchical, less bureaucratic network of public and civil society institutions. Social security of unorganized sector workers, insurance for farmers, livelihood support to mining-affected people, social support to migrant workers in a new city, grievance redressal regarding MGNREGA work, cash transfers, PDS, etc., require very dynamic, caring and transparent local institutions that can reach out to the concerned people, facilitate all processes, provide information in a transparent way, resolve questions and grievances, listen to the voices and adapt to local situations as necessary with a mindset of inclusion and not exclusion.

The second will have to be a conceptualization of livelihood beyond maximizing yield, productivity, efficiency and income. For almost a century now, livelihood has been conceptualized on the basis of maximizing household income, and how various household endowments such as economic assets, education and skills, social ties and finance can boost it. This is certainly a valid goal in a country, where much of the population make a modest living. At the same time, the social and environmental costs of this approach can't be ignored any further. Maximizing productivity, yield and income have led to soil erosion, depletion of the water table, air and water pollution, loss of biodiversity and climate change. This has further accentuated social and economic inequalities in terms of education, health care, assets formation, social mobility and others. In agriculture, horticulture and fisheries, the re-imagination calls for adaption of various well-known sustainable crop management processes; in post-production infrastructure, logistics and markets have to be planned with regions in mind, not necessarily a national market.

This needs to be coupled with a re-imagination of urbanization, which unfortunately has been too metropolis and large city-centric, whereas the future lies in sustainable small town and cities strewn over the country. This will create a much efficient migration and commutation network. To put it simply, it's possible to think of developing all the 725 district towns and hundreds of smaller towns into a set of well laid, organized and sustainable towns laden with the educational, business, market, logistics, housing, hospitality, sports and transport infrastructure. This can be done at much fewer costs. This will generate far more opportunities for livelihood and work at a much lower investment, will change the course of migration and will have far stronger integration between urban, peri-urban and rural areas.

The third direction refers to prioritizing the future of non-farm livelihood in India. It encompasses secure salaried jobs, wage work, casual work, regular but insecure work and the self-employed. As we said before, more than 95 per cent of such work is organized in OAEs and those employing less than five labour. This is probably due to the very low level of social trust in Indian society based on caste, village, region, family, kinship, etc. These enterprises run on the basis of socially trustable labour in contrast to the formal contract, and even their supply chains are dependent on social trust instead of merit, efficiency and costs.

Aseem Prakash (Prakash 2018), in a path-breaking study of Dalit entrepreneurs, captured the control of supply chain by caste groups in various contexts. Applying social network and trust theory, he explains how business in the local setting is embedded in caste-driven trust and networks. Being small and being too many, the market size per unit of such an organization remains very small and therefore remains vulnerable. It's unlikely that the nature of organizations will change in the near or medium-term future on its own.

In this scenario, we are left with three choices-technology/skill upgradation, aggregation and diversification. Although we see some effort aggregation in food, domestic and business-to-business services (e.g., Swiggy, UrbanClap, nurse supply centre, driver supply centres, etc.), a lot more needs to happen in technology/skill upgradation and diversification.

For example, thousands of women individually and in collectives have entered the market as producers through microfinance and self-help group federation mechanism. They operate in micro to small scale, with very traditional technologies of processing, packing, transportation and marketing and with low skills. Same is the situation, with hundreds of thousands of family-owned businesses in small- and micro- and even in some medium-scale enterprises. When low-skill labour is available in abundance, businesses, including self-employment, create their own path dependencies.

It took more than 65 years to have battery operated 4–6 seater rickshaws (replacing cycle rickshaws and hand-pulled two-seater rickshaws) which reduce toil, increase income and cost effective for passengers. Unfortunately, the country does not have technology institutions for this market, neither do we have business development services for these vast numbers of small enterprises, and this would have to be a priority area for the future.

We stated at the beginning that it is critical to build appropriate institutions in response to the emerging realities. But individual institutions on their own cannot address these problems adequately. What is needed is an ecosystem approach, where diverse institutions play mutually supportive roles and together make a difference. Ecosystems do not get built easily, nor quickly, but any shortcuts will only lead to the kind of schematic ineffectiveness that we have seen in sections 3.5, 4.3 and 5 of this chapter. The real investment we need make is in building a new generation of participatory, collaborative and accountable institutions for livelihood promotion.

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State of Livelihoods in Indian Agriculture: Challenges, Opportunities and Way Forward

3

S. SIVAKUMAR

3.1. Background

Agriculture sustains lives and livelihoods in the country like no other sector of the economy but sadly, remains the most beleaguered. It is the primary source of livelihood for half of India's population, but the average income of farmers is less than a quarter of the country's per capita in other sectors. Despite deploying half of country's land in farming, along with 90 per cent of fresh water and a fifth of electricity consumption, besides half the workforce, agriculture contributes less than 15 per cent to the national gross domestic product (GDP).

At a macro level, Indian agriculture delivered the most important expectation from the sector by making the country self-sufficient in food grains. Notably, India is a net exporter of agricultural produce, generating sufficient foreign exchange to pay for imports of some agricultural commodities like vegetable oil, where global supplies are available relatively cheaper. Yet Indian farmers, going by the levels of income, did not get a reward commensurate with such a contribution.

In what is primarily a production-driven agricultural system that was built with the objective of food self-sufficiency, government took the lead role in a range of activities such as agricultural research and extension services, setting up irrigation infrastructure, production of seeds and fertilizers, building an auction system for sale of agricultural produce, procurement of food grains and public distribution of food. In that era of shortages, this ecosystem was adequate and there was no felt need for strong linkages along the value chain from consumer to the farmer either in terms of dynamic demand signals or any other drivers. The same system served other crops also in due course, and these poorly connected chains sucked away value along the multiple nodes, transferring only a small share of the consumer price to the producer, leading to low farmer incomes.

Ironically, a majority of the farmers and their families, who produce food for the whole nation, cannot afford the cost of basic diet recommended for even essential nutrition because of such low incomes as can be seen in Table 3.1 and 3.2. Further, the situation of farmers in drylands and remote hilly areas is worse and the averages do not explain the vulnerability of these segments. So is the case of marginal farmers who are engaged in subsistence farming with no marketable surplus.

Table 3.1: Annual Household Income of Farmers by Size Classes in 2015–2016 at Current Prices (₹)

Farmer Size Class	Cultivation	Livestock	Non-farm Business	Wages and Salaries
Small and marginal farmers	29,132	11,817	7,341	31,490
Medium and semi-medium farmers	142,362	23,080	9,580	26,061
Large Farmers	517,517	42,009	26,594	19,273
All sizes	45,824	12,422	7,700	30,757

Source: DFI Committee's estimates.

Table 3.2: Trends in Farmer's Income and per Capita GDP in India

Year	Farm Income per Cultivator (₹) at Real Prices	Per Capita GDP (₹) at Constant Prices
2011–2012	43,258	71,609
2012–2013	41,553	74,559
2013–2014	42,760	78,348
2014–2015	43,106	83,091
2015–2016	44,027	88,746

Source: NITI Aayog (2017); MOSPI (2018).

What's more, even these low levels of incomes are likely to come under further stress with rapidly depleting natural resources such as groundwater and topsoil, and the added impact of extreme weather episodes caused by climate change. As it is, India has only 2.4 per cent of arable land and 4 per cent of world's fresh water, against a population share of 17 per cent.

Agriculture is also inherently exposed to severe production and price risks because of unpredictable weather, among other causes. The low incomes do not leave the farmers with any capacity to absorb these shocks, pushing them towards indebtedness (Table 3.3).

Table 3.3: Indebtedness

Indebtedness	Agricultural Households	Non-agricultural Households	All Households
Incidence of indebtedness (%)	52.5	42.8	47.4
Average outstanding debt per indebted households (₹)	104,602	76,731	91,407

Source: *NAFIS (2018).*

With not too many jobs available outside the agricultural sector, the scope for outward migration is also limited, leaving no option but to urgently work towards raising incomes within the sector.

Understandably, the subject has been receiving its due share of attention from the successive governments at both centre and the states since Independence. But the sector is so complex that many well-meaning policies ended up creating new problems while solving the intended ones. For example, the power and water subsidies originally introduced to bring down the cost of cultivation for the farmers ended up drawing groundwater beyond sustainable levels in some regions. Such unintended consequences are in addition to the natural conflicts. For example, higher farmgate prices that help the producer often expectedly draw consumer ire, forcing governments to take steps to curtail prices.

Fortunately, the significant changes in the needs of the consumers of food and other agricultural produce, together with the recent advances in digital technologies and developments in agri-sciences, offer an unprecedented opportunity to raise farmer incomes. Recognizing such a possibility, the government has announced several initiatives in the recent past, setting the much-needed transformation in motion.

3.2. The Challenge: How to Convert a Problem into an Opportunity?

Access to basic staples is not any more a concern for a large majority of Indian consumers.

With general awareness improving and income levels also increasing, today's consumers are looking for more variety in food, as also better quality. There is also a preference for processed and packaged food as they offer convenience while buying as well as consumption. A sizeable segment of today's consumers is willing to pay higher price for healthy and nutritious food and is also seeking assurance on safety and hygiene. These developments offer a great opportunity to diversify farm production to more remunerative crops such as vegetables, fruits, nutri-cereals (millets), pulses and the derived products such as milk and meat.

3.2.1. What Is the Opportunity?

It is imperative that agri-exports play a crucial role in raising farmers' incomes because the domestic market alone is unlikely to absorb the expanding production without a downward pressure on prices. India's agri-exports, at about $40 billion, are a mere 7 per cent of India's production. Substantial part of this is commodity exports, with only 15 per cent being processed or otherwise value added. However, given its current global market share of just 2.5 per cent, India has enormous headroom for growth. This potential can be realized by strengthening the competitiveness of crop value chains that are aligned to the global demand and where India already has a comparative advantage. Such value chains include shrimp, spices, fruits and vegetables, besides the traditional crops like rice.

To gain from both these opportunities, farmers need access to new knowledge in crop management and efficient linkages to input and output markets. This means a fundamental transformation of the system from being production-driven supply chains led by government to demand-responsive value chains anchored by consumer-oriented market players.

3.2.2 What Is the Problem?

Given that many of these crops are more perishable than cereals, this also means new investments in processing, storage and handling infrastructure. Such systemic transformation, forging of linkages along the value chain and investments in infrastructure are precisely what the laws, institutions and instruments of the past obstructed, because they were originally crafted to suit the context that was relevant at a different point of time.

Agricultural Produce & Livestock Market Committee (APMC) Mandi, a vital institution in the agricultural marketing system, was designed for competitive price discovery in an environment where the farmers are small, located in sparsely populated villages that are geographically dispersed, producing crops of varied quality based on the respective factor conditions on each farm. The mandis did well to free the farmers from selling at low prices to traders within their villages—typically, just one or two in a village leaving no scope for bargaining, further constrained by lack of visibility to comparable market prices. However, because the mandis are located in far-away towns in many states, the sunk cost of transport inevitably put pressure on the farmer to often sell off at unfair prices because taking the produce back to village is not a viable option, with no guarantee that the price would be any better even the next time around. Also, because mandi is a post-production price discovery mechanism, farmers end up losing heavily, especially when they perform well to produce large crop, because of the natural supply–demand imbalance immediately after harvest. Moreover, in this system, the relationship between a farmer and a buyer is reduced to one transaction at a time, with no incentive to the buyer to engage with farmer through the crop cycle to transmit demand signals or partner with farmer to improve crop productivity.

In this backdrop, the Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020, enacted by the central government offers more choices to farmers in selling their produce over and above the current system, including a framework for e-trading. While the state APMC Acts and mandis will continue to operate, this new law will effectively remove their monopoly. The resultant competition will make the mandis more efficient to perform their intended role. The jurisdiction of APMC will be limited to the mandi premises, and the food processors or retailers will be free to engage with the farmers outside the mandis to build stronger and longer-term relationships that go beyond the auction transactions. Such engagement will lead to better alignment of crops and varieties with consumer trends. Farmers will grow what the markets want, rather than trying to sell whatever they produced. It is in the interest of the processors and retailers to help farmers raise their productivity, manage crops to produce the desired quality and ensure appropriate post-harvest practices to preserve the product integrity, all of which lead to better farmgate price realization. Such a reciprocal dependency can create mutual value that is more sustainable.

Minimum support price (MSP), a pre-planting price assurance given by the government to the farmers to protect them from the risk of post-production price collapse, complemented the APMC mandi. MSP is fixed on a cost-plus formula, ensuring a minimum return over the costs paid out by the farmer and the imputed value of unpaid family labour. In case the market price for the commodity falls below the announced minimum price due to demand–supply mismatch, government is obliged to procure the entire quantity offered by the farmers at the announced minimum price.

MSP is currently fixed for 23 commodities, namely 7 cereals (paddy, wheat, maize, sorghum, pearl millet, barley and ragi), 5 pulses (gram, tur, moong, urad and lentil), 7 oilseeds (groundnut, rapeseed-mustard, soybean, sesamum, sunflower, safflower and niger) and 4 commercial crops (copra, sugar cane, cotton and raw jute). All of these, however, add up only to a quarter of the value of agricultural production. The other three quarters rely on the open market and are subject to the price dynamics.

In any case, given the limited procurement infrastructure that government has set up—both in terms of crops and the states—it is estimated that hardly 10 per cent of the farmers actually benefit from this instrument currently, although the prices do drop below MSP often.

After the government announced reforms in agricultural marketing recently, there are demands for making the MSP obligation universal, that is, even the private trade should be mandated to buy at MSP or above. On the face of it, while this may sound like a plausible measure to raise farmer incomes, it will have disastrous consequences for the whole economy, besides hurting the farmers too, for the following reasons:

- Demand will cease to be a factor when farmers take planting decisions of different crops, as the procurement is supposedly assured; private trade will stay away from crops where supply exceeds demand, forcing the government to buy and pile up stocks resulting in ballooning subsidy bills.
- With sales supposedly assured at a cost-plus price, there is no incentive to improve efficiencies; consumer prices will increase; no exports possible either at uncompetitive costs, unless supported by large subsidies.
- With assured profitability in whatever crops are being grown, there's no incentive to diversify into crops that are water and soil efficient; this leads to rapid depletion of valuable natural resources, putting the very sustainability of agriculture at stake.

Nonetheless, given the current level of farm incomes, farmers certainly need to be supported. However, it should be done in a manner that does not distort the market and that actually raises the long-term competitiveness of Indian agriculture. For example,

- If the support to farmer is in the form of direct cash transfer, then he/she can use it in any of the inputs to improve productivity and quality. Since such support would be crop agnostic, the planting decisions will be based on market demand as also the sustainability of natural resources.
- In the short run, part of the support may also be given in the form of inputs such as seeds and micro irrigation, wherever induction of such technologies has to happen on a mission mode.

MSP, as an instrument, could be used more discretely in stepping up production of crops on an urgent basis for tactical reasons (e.g., pulses and oilseeds, as was done in the recent past), besides the requirement of buffer stocks for food security purpose. Even here, the focus could be on incentivizing technology induction for raising productivity in the long run. Where MSP needs to be used beyond the above two contexts, the implementation could be done through Price Deficiency Payment Schemes so that the market distortion is minimized.

This is the context in which the Farmers' (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020, is designed. It is intended to help farmers discover prices before planting through contracts with the buyers. Since the buyers do factor demand signals into such pricing, the production system naturally becomes more demand responsive. Contract farming has been practised successfully for a long time in production of specialty crops like seeds, or crops requiring certification like organic or certain processing varieties. It was felt that farmers of generic commodity crops do not get the benefits of such contract farming because of their weak bargaining power with the buyers. This Act prescribes terms that shift the balance in favour of farmers. It is possible to embed MSP-like options also into the forward prices being fixed under this Act. But that requires deeper markets in derivatives—futures and options—for the buyers in turn to hedge the risks arising out of such contracts. In crops that are not amenable to derivative markets, a stronger food processing industry for high value addition can absorb the risk of price volatility and offer assured prices to farmers.

A recent reform by central government in the Securities Contracts (Regulation) Act to permit options in goods in addition to options in futures makes it easier for the farmers to take advantage of such instruments even directly. The premium on options, however, tends to be usually high, making them unattractive. It will be necessary for government and other stakeholders in the agri-food value chains to absorb a part of the premia before options become popular.

These marketing reforms are in continuation to the input-side schemes introduced by the government in the earlier years. Notably, the Pradhan Mantri Krishi Sinchayee Yojana has focused on extending the coverage of irrigation through har khet ko pani and improving water use efficiency through more crop per drop, while the Pradhan Mantri Fasal Bima Yojana scheme provides financial support to farmers suffering from crop losses or damages arising out of unforeseen events.

As argued in the earlier paragraphs, some of the subsidies do distort behaviour—overexploitation of groundwater being the most prominent. As per the Central Ground Water Board's 'Groundwater Resources Assessment Report of 2017', 36 per cent of the country is under semi-critical to overexploited category in terms of groundwater extraction. The overexploited areas are mostly concentrated in the north western part of the country including parts of Punjab, Haryana and Western Uttar Pradesh, where even though the replenishable resources are abundant, there have been indiscriminate withdrawals of groundwater leading to overexploitation.

In any case, in the western part of the country, particularly in parts of Rajasthan and Gujarat, where due to arid climate, groundwater recharge itself is limited, leading to stress on the resource. In the southern part of peninsular India including parts of Karnataka, Andhra Pradesh, Telangana and Tamil Nadu, the groundwater availability itself is low due to crystalline aquifers (Picture 3.1).

Notwithstanding this crisis-like situation in many parts of India, withdrawing the subsidies on water and

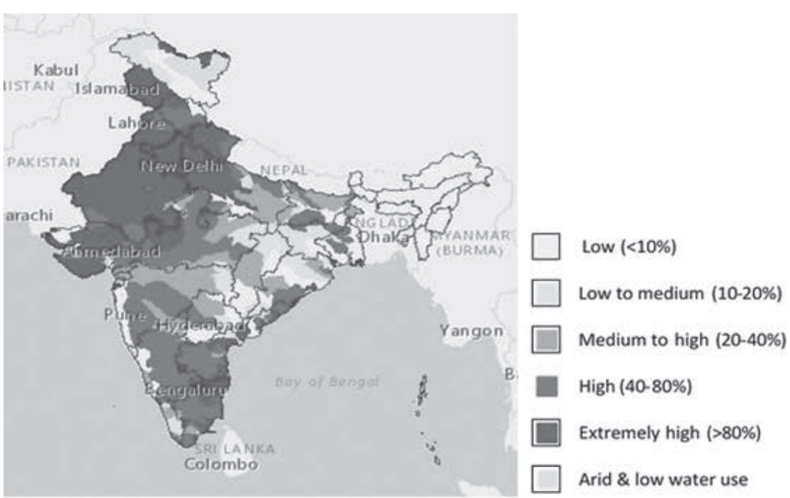


Figure 3.1: State-wise Groundwater Availability in India

Source: www.Indiawatertool.in (accessed on 19 December 2020).

power is not a choice, given the low farmer incomes. Governments have been experimenting with other ways of dealing with the situation. For example, in Haryana's *Mera Pani Meri Virasat* scheme, farmers are given an incentive for switching over to an alternative crop in place of paddy. Punjab's *Pani Bachao Paise Kamao* scheme is targeted towards proper utilization and conservation of water and electricity, where farmers can earn money for every unit of electricity they save compared to a benchmark level of consumption per acre. Such schemes are the most practical way forward to minimize distortion caused by the earlier regime of subsidies.

3.2.3. Focus on Opportunity

This also brings us to the question of *precision farming and role of technology.* For times immemorial, farmers used their personal experience of how crops respond to different agronomy practices in dealing with the changing external conditions like weather or pest attacks. As the number of crops expanded with shifting consumer demand, and as the external conditions became more erratic due to the impact of climate change, the complexity involved in such decision-making increased exponentially for the farmers. Depleting natural resources like water added to the challenge, leaving no option but to farm with more precision.

But the challenge is twofold: (a) most of the tech-based ideas are point solutions, and they need to be stitched together as end-to-end propositions for the farmers and (b) all the farmers are not well-equipped to access such solutions directly because of limited ownership of smart mobile devices and the level of literacy/ comprehension.

If we can integrate the hundreds of data points farmers produce on the ground with relevant external data sourced from a range of other stakeholders and develop algorithms that can deliver decision support back to them real-time using digital technologies, precision farming will be a reality even for our small farmers. Several agri-tech start-ups indeed have solutions that enable high-yielding, early-warning, waste-mitigating (through the Internet of Things [IoT], image recognition, predictive analytics, etc.) agriculture. An illustrative list can be seen in Table 3.4.

Village-level agri-services entrepreneurs can deal with both these challenges by providing shared access of integrated solutions, in turn accessing them from the aggregating digital platforms such as ITC e-Choupal. *At an average of five such entrepreneurs per village, it is estimated that as many as three million rural youth can take up these jobs around the country*. The different services such entrepreneurs can provide to farmers (Picture 3.3) include the following:

Information: Weather forecasts, commodity prices, news that impact prices, directory of local shops and service providers, advance alerts on crop diseases and epidemics

Knowledge: Farm management best practices in the form of demonstration plots as well as audio-visuals, access to experts for dealing with higher order problems, disease diagnostics through image processing (mobile phone camera-based apps)

Inputs: Farm inputs such as seeds, nutrients, crop-protection chemicals—organic or otherwise; nurseries for planting material; growing media for seed trays; credit, crop insurance; farm machinery, skilled-labour services for specialized activities

Output markets: Quality-linked price discovery for the produce, rapid quality testing equipment, warehousing and transportation after produce aggregation where necessary, access to commodity futures and options, services related to farm/produce certifications such as Organic, Rain Forest Alliance, Forest Stewardship, Fairtrade and Integrated Pest Management/ Integrated Crop Management, and linking the farmers to food processors, exporters, etc.

With digital services gaining traction in agriculture, there are also opportunities for operators of shared agri-equipment from tractors to drone-based sprayers to harvesters. The broader ecosystem for this stream will also include employment opportunities on equipment repair services and operator training. *At an average of 1 such skilled operator per 50 farmers, there is an opportunity for 1 million such new jobs, even if only 50 million farmers use these services.*

Table 3.4: Service Offerings of Agri-tech Start-ups

Space	Agri-tech Start-up	Services Offering
Crop advisory	BharatAgri	One stop advisory channel for farmers—package of best practices; queries on disease, pest attack, weather and market information
Crop agronomy	FIB-SOL	Building innovative agri-inputs—nano fertilizers, etc.
	Arogyam Organic	End-to-end services for production, certification and marketing of organic crops
Farm management	TraceX, SourceTrace,CropIn	Crop monitoring and traceability solution
	Jivabhumi	Farm management (trackability and traceability) as a solution with block chain connected nodes
	Stellapps	End-to-End digital platform for milk producers—cattle management, traceability and analytics
Financing	Samunnati, Jai Kisan, FarMart, Bijak	Providing digital financial inclusion to farmers—for inputs, farm machinery purchases, market linkages, etc.
	Intellecap	Digital financial inclusion for agri value chains
	Mastercard Farmer Network	Insurance and banking solutions to farmers through the platform approach
Inputs	AgroStar and BigHAAT	A 'direct to farmer' m-commerce platform which provides relevant agri-information for farmers
	Gramophone	Bringing timely information, technology and right kind of inputs to achieve better yields for farmers
	Unnati	Offers support services to farmers to improve yield. It also connects them to local retailers to procure agri-inputs such as sugarcane, corn, paddy, soybean, wheat and vegetable
	AgroNxt	AgroNxt provides farmers access to agri-innovations—going directly from research labs to farms
	Kisan Kart	E-commerce platform for farmers, traders, retailers, farm workers where they can buy/sell/rent/lease any agri-products or assets
	Krishi Trade	Online marketing platform and supply chain services
Market linkages	DeHaat	A physical infrastructure + mobile app based model to provide market linkages to farmers
	TechnifyBiz, Procol, INI, Crofarm, Agribolo, Gram Unnati, KrishiHub, AgriGator, Kamatan	Facilitating market linkages to farmers
	Ninjacart, WayCool, Leaf	Facilitating market linkages to farmers and connecting the produce to HoReCas
	AgriBazaar	An online agri-marketplace connecting farmers, traders and processing companies
Mechanization/ Novel farming	EM3 and FutureFarms	Building custom farm machines and setting up custom hire centres
	KamalKisan	
	Gold Farm	
	FutureFarms	Advances in hydroponics—hi-tech soil-less farming
Precision agriculture	Bharat Rohan	Farm data analytics through Drone, satellite and remote sensing techniques
	Cultyvate	Smart irrigation to improve productivity and quality
	SatSure, geoBHUMI, SkyMap Global, VegaMx	Farm data analytics through satellite and remote sensing techniques
	Plantix	Image analytics to identify disease/damages to crops
Precision agriculture	Mantle Labs and Prakshep	Farm data analytics through satellite and remote sensing techniques
	KisanRaja	Smart irrigation technologies—controlling motor pump from mobile and by employing sensors for detection of water level, rainfall, weather forecasting and soil nutritional analysis
	mKRISHI	Provides service using satellite imagery for crop heath monitoring, crop disease identification and crop yield estimation
	Oorja	Develops solar-powered solutions such as irrigation pumps, cold storages and agri-processing equipment
Quality testing	Intello Labs	Rapid quality testing through artificial intelligence (AI)/machine learning (ML) and other innovative techniques
	Agricx	Rapid quality testing through AI/ML and other innovative techniques
	Nebulaa Innovations	Agri-produce quality estimation through image analytics
Weather forecast	CustomWeather, OpenWeather, AccuWeather, Skymetweather	Weather forecasting services—seasonal, fortnightly, daily and hourly

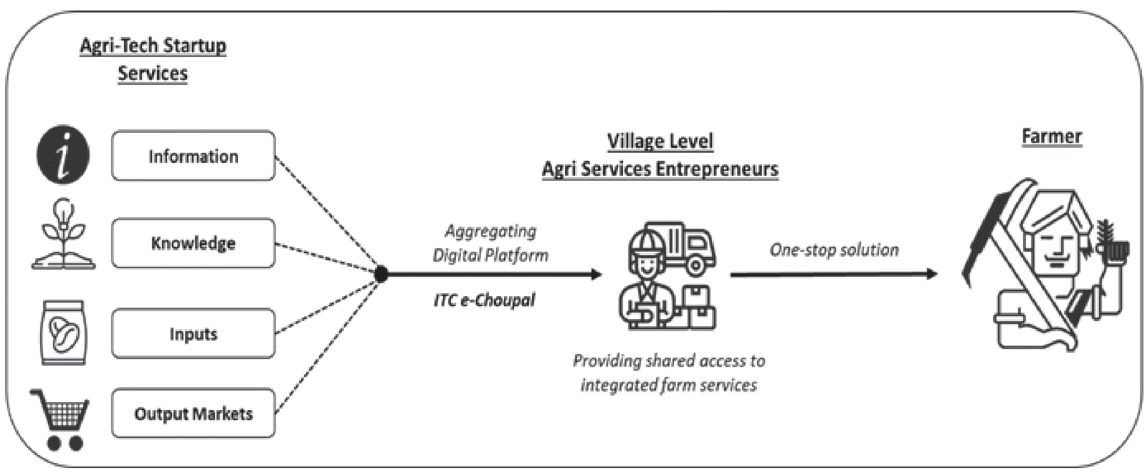
Source: Compiled by the Author from Various Sources

The digital agri-stack proposed by the government will be a key enabler of this transformation (Picture 3.3). This is being built on the foundation of farmers' database that government already has through the different schemes being implemented. This data will be linked to the land records which are in turn mapped to the Geographical Information System. Data standardization for onboarding information from satellite imagery, IoT devices and databases both in private and public domain together, as also interoperability norms and open APIs, will govern the new digital ecosystem of agriculture for rapid adoption and scaling.

3.3. Implementation

With all these building blocks falling into place, the focus should now shift to proper implementation to be able to realize the intended benefits.

Implementing many well-meaning ideas in a siloed manner has been a challenge in the past, leading to wasted resources or suboptimal outcomes. The new building blocks outlined in the previous section will *deal with the problems of crop value chains holistically, when the implementation is done using a value chain cluster (VCC) approach.* The cluster model serves to build 'vertical' relationships, along the crop value chain, among input suppliers, processors, marketers/exporters and buyers. It also builds 'horizontal' relationships at every link between producers and facilitating organizations such as technology providers, research institutions, trainers and commodity boards. By working together, these stakeholders will be able to reduce all the factor costs of production and establish market linkages, thus benefitting farmers and consumers alike. Farmer producer organizations and digital business models supported by village-level entrepreneurs will ensure empowered farmer participation.

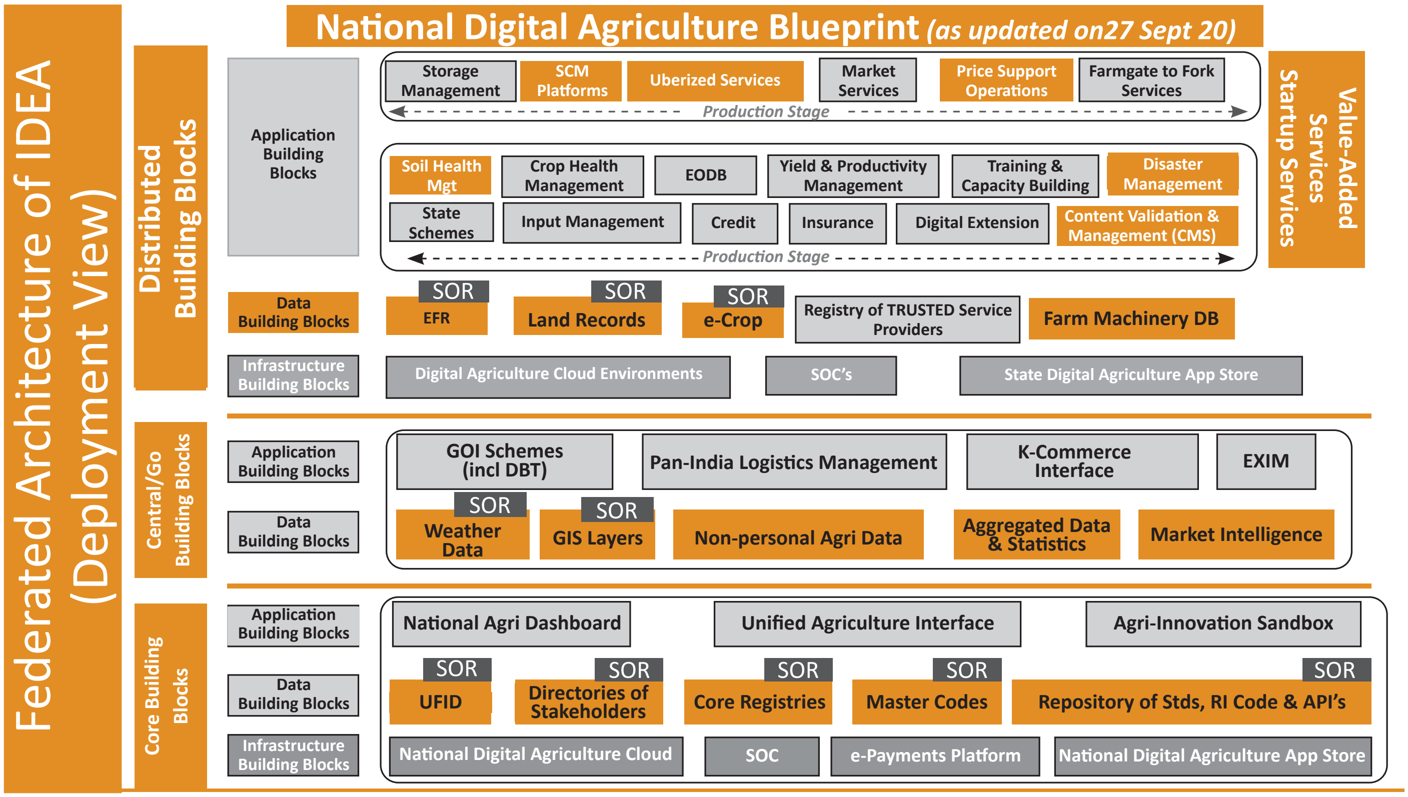


Picture 3.2: Different Services Provided by Agri-tech Entrepreneurs to Farmers

Source: Illustrated by the Author, drawing from the experience of implementing ITC e-Choupal

VCCs must be anchored by the players who can ensure market orientation through value-added products and provide the required transformation impetus. Such players could be from the private sector or the collectives of farmers willing to make the required investments along the value chains. The financing facility of ₹100,000 crore recently announced by the government for funding agriculture infrastructure projects at farmgate and aggregation points will facilitate development of the complementary post-harvest management infrastructure.

As the primary actor in agriculture, states must lead this effort by building comprehensive plans for developing VCCs of the focus crops and converge the various government spends and schemes to (a) build necessary infrastructure at competitive costs, (b) strengthen farmer capacity, (c) promote research



Picture 3.3: National Digital Agriculture Blueprint

Source: IDEA Consultation Deck of the Ministry of Agriculture, Cooperation & Farmers Welfare.

and development and (d) create conducive conditions for private sector/farmer collectives participation as anchors.

This model of public–private–producer partnership has demonstrated early success in the state of Andhra Pradesh in chilli value chain (Box 3.1).

3.4. Subsistence Farmers

All the discussion above is focused on the farmers who produce crops for selling in the market. There are almost as many non-commercial subsistence farmers, especially in dryland areas, who need urgent attention too.

These farmers largely depend on single crop and often face production losses due to droughts or erratic rainfall. Building their resilience to weather risk as also developing other sources of income are important to reduce their vulnerability.

Farm ponds provide surface water storage and support critical irrigation needs of the crops. Being low-cost water harvesting structures, these are ideal for small farmers in drylands. While Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) supports funding of farm ponds, considering the large need for farm ponds and the competing demands for MGNREGS funds, carving out a separate fund for building resilience of the dryland farmers along the lines of the recent Agri Infrastructure Fund can go a long way.

Such fund can support other resilience-building measures too, going beyond farm ponds. ITC's Climate-Smart Village (CSV) programme in collaboration with the CGIAR Research Programme on Climate Change, Agriculture and Food Security is a pilot-at-scale being implemented in 600 villages across three states- Maharashtra, Madhya Pradesh and Rajasthan- covering 15,000 farmers (Box 3.2).

Some of the context-specific additional income-generating opportunities that can be examined for this segment of farmers are as follows:

Box 3.1: PPP Partnership in Chilli Value Chain in Andhra Pradesh

In 2016–2017, the Horticulture Department of the Government of Andhra Pradesh and ITC Limited created a public–private partnership (PPP) to jointly develop the chilli value chain by disseminating best agriculture practices and providing advice to the participating farmers to improve chilli crop productivity and quality to meet export standards, and better price realization to ensure better farmer income on a sustainable basis. The programme resulted in an increase in farm productivity by 13 per cent and improvement in quality leading to an additional realization for the farmer to the extent of ₹23,000 per acre (32% in aggregate). In 2019–2020, the memorandum of understanding was extended to develop the chilli farm value chain to cover 1 lakh acres by year 5. The government will provide 65 per cent of the project funding with the rest funded by ITC. The PPP programme converges existing state and central schemes, including the Mission for Integrated Development of Horticulture, Rashtriya Krishi Vikas Yojana and Andhra Pradesh Micro Irrigation Project. This illustrates how the state can leverage private sector anchors and converge its resources to strengthen competitiveness in a prioritized crop value chain. ITC uses e-Choupal to integrate solutions from several tech start-ups and other conventional service providers in a farmer-centric platform design and links them to the markets.

Source: Summarised by the Author from ITC's internal documents; Growing India's agricultural exports through crop-specific, state-led plans - Report submitted by the High Level Expert Group on Agriculture to the XV Finance Commission, 2020

- Promotion of commercial tree species such as teak, eucalyptus, bamboo, etc. Considering the small landholdings, a thrust on agroforestry will help farmers to get benefits from both regular field crops and trees in terms of fuel, fodder and bulk incomes on harvest. The last is particularly important because it gives them an opportunity to make investments in land.
- In locations where households have access to homestead land, small nutrition gardens can be promoted that will not only provide a source of nourishment for the families but could become a source of income through sale of surplus produce.
- Since goat rearing requires less fodder, water and investment in comparison to large ruminants and multiplies in a short span, it is an ideal asset for the poor. With improved practices, this income can be increased severalfold. This is possible through focus on promotion of best practices for improving productivity and by increasing the herd size.
- By and large, small holders have been found to own non-descript large ruminants with very low productivity. Cross breeding through AI with exotic high-yielding species increases milk yields severalfold even in the absence of improved feeding and animal management practices.
- Restoration of village tanks and giving fishing rights to the smallholder against fees paid to the panchayat enhances incomes significantly. Construction of farm ponds, mentioned above, and promotion of scientific pisciculture are also a cost-effective way of rapidly enhancing household incomes. To actualize it, farmers have to be trained on variety selection, feeding, pond management and hatching practices.
- Solar power generation in low-productive lands. Farmers producing solar power and feeding to grid is one of the components of KUSUM programme launched by the government last year.

Box 3.2: ITC's Climate-Smart Village Programme

Objective: Reduce vulnerability and increase resilience of smallholders while reducing emissions and promoting food security. A village becomes climate smart by ensuring that majority of the farmers adopt smart and efficient practices across five areas:

- Weather smart (e.g., ICT-based agro-advisories, agriculture insurance and water stress tolerant crop varieties)
- Water smart (e.g., rainwater harvesting, laser land levelling, micro-irrigation, raised bed planting and change in crop establishment methods)
- Seed/breed smart (e.g., adapted crop varieties, adapted animal breeds and local seed banks
- Carbon/nutrient smart (e.g., site-specific nutrient management, precision fertilizers and residue management, legume catch cropping, agroforestry, conservation tillage and livestock management)
- Institutional/market smart (e.g., local institutions, community-based custom hiring centres and cooperatives, market information and off-farm risk management)

Source: Summarised by the Author from ITC's internal documents; Also drawn from 'Crafting climate-smart villages at the heart of India', a CCAFS publication on Climate Smart Technologies and Practices, 2017

3.5. Conclusion

Changing consumer demand offers an unprecedented opportunity to raise farmer incomes. Adoption of a demand-responsive and farmer-centric VCC model leveraging the emerging digital technologies, anchored by market-oriented players, is the best way forward. State governments can catalyse the process by converging the spends on infrastructure and farmer capacity building in these clusters. This approach will also create four to five million new jobs in agri-services.

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Putting Informal Workers Back on Our Collective Agenda

4

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4.1. Characterizing Informal Workers

4.1.1. How Do We Define the Informal?

Absence of reliable statistics on the size and economic contribution of informal economy was considered to be a major impediment in its inclusion in government policies. National Commission for Enterprises in the Un-organised Sector (NCEUS) in 2007 was among the first to address the issues in the sector. Following the Commission, we shall understand informal sector as 'consisting of all unincorporated private enterprises owned by individuals or households engaged in production and sale of goods and services operated on a proprietary or partnership basis and employing less than 10 workers'. This definition of the sector leaves out more experiential aspects of informality such as lack of employment security, and legal and social protection of workers. To address this gap, the Commission made a distinction between *informal sector and informal workers*—a distinction that has since become very important in characterizing the nature of informalization seen by the Indian economy. Following the Commission, we shall understand informal workers as consisting of those working in the informal sector or households (excluding all those workers who have social security benefits) as well as workers in the formal sector without any employment or social security benefits provided by their employers. The definition provided by the Commission was later adopted by National Sample Survey Office (NSSO) that collects periodic statistics for the labour force in the country.

Simply put, informal workers are those *who lack access to*:

- Employment security (their employment can be terminated at will)
- Work security/safety (no provisions for protection against occupational illnesses or accidents at work)
- Social security (no access to basic welfare benefits such as pension, gratuity and health care)

Without any employment security, work safety and social security, informal sector not only becomes the refuge of the very poor, but it also perpetuates the marginal and vulnerable character of those who engage in it. Due to the preponderance of oral work contracts, informal workers are likely to remain excluded and invisible from legal and regulatory frameworks. Lack of written documentation, difficulty in establishing employer–employee relationships, non-waged/piece-rated form of labour compensation—these add up to a troubled reality of frequent wage frauds, denied and delayed or discounted payments.

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The heterogeneity of the informal sector makes it difficult to enumerate and classify. It is noted that there is a higher proportion of female workers among the informal workers in the manufacturing sector, while male workers dominate repairs and trade subsectors.

4.1.2. Size of the Informal Economy

The informal sector accounts for 91 per cent (435 in 474 million workers) of the total employment in the country and generates about half the gross domestic product in the country. The share of informal workers in the total employment varies somewhat across states and, predictably, is larger in states with poor industrialization.

Table 4.1: Formal and Informal Employment across Organized and Unorganized Sectors (2004–2005 and 2011–2012)

	2004-05		
	Organised	**Unorganised**	**Total**
Formal	32.06 (52)	1.35 (0.3)	33.41 (7.3)
Informal	29.54	396.66	426.20
Total	61.61 (13)	398.01 (87)	459.61 (100)
	2011-12		
	Organised	**Unorganised**	**Total**
Formal	37.18 (45.4	1.39 (0.4)	33.41 (8.1)
Informal	44.74 (54.6)	390.92 (99.6)	435.66 (91.9)
Total	81.92 (17.3)	392.31 (82.7)	474.23 (100)

Source: Computed using unit-level data of NSSO various rounds.

Note: Population projected for the years 2004–2005 and 2011–2012 using decadal population growth rate between Census 2001 and 2011. Figures in brackets indicate per cent share.

These numbers outline what can be termed as informalization of the formal sector, where additional employment generation has meant addition of regular workers without social security and of casual/contract workers without any welfare benefits that workers in the formal sector would otherwise be entitled to.

The informal sector is represented in both farm and non-farm sectors, organized and unorganized economic activities, and is present in rural and urban areas. In general, agriculture accounts for an overwhelming 70 per cent of the total informal sector workers. Rural areas have more informal workers than urban areas, principally, because of the preponderance of agriculture in rural areas. With the decline of the agricultural economy over time, the informal workforce is rapidly shrinking from the rural areas. As illustrated in Table 4.1, the overall employment in the economy increased from 459 million to 474 million between 2004–2005 and 2011–2012. Nearly two-thirds of the increase are ascribed to informal jobs, with only one-third coming from formal jobs. It is disturbing that the percentage of formal jobs in organized sector has come down from 52 per cent to 45 per cent. The corresponding movement of informal jobs within the organized sector, from 48 per cent to nearly 55 per cent, shows us an irrefutable trend, that is, informalization of the formal sector.

4.1.3. Industry-Wise Employment and the Condition of Informality

A broad axis for classification of the informal economy is its spread across the farm and non-farm sectors. The agricultural sector had a total share of 44.1 per cent in the year 2017–2018 which has gone down to 42.5 per cent in the year 2018–2019. On the other hand, the construction sector has seen a rise in employment from 11.7 per cent to 12.1 per cent followed by the trade and hotel industry from 12.0 per cent to 12.6 per cent in the same period. Therefore, as the agricultural sector is declining, it is directly replicating in the non-agricultural sector such as the construction and hotel industries that shows an urban migration of the workforce.

4.1.4. Overlap of Informality with Urbanization and High Economic Growth

When we delve into the conditions of informal workforce, we understand how informality is played out. Absence of written job contracts, no paid leaves, missing social security cover are some of the most telling indicators of informal work. States such as Gujarat, Rajasthan, Punjab, Karnataka and Telangana share the highest percentage of the informal labour force in the country. These states represent high urbanization and high economic growth and are generally quoted as models of good development in the country. The economic growth of states and cities is increasingly centred on the use of informal labour force.

The levels of informal employment continue to be more than 90 per cent of all employment, but their texture is changing from agriculture to non-manufacturing (like construction) and services. These are important trends for policymakers to note since these will require fresh thinking about high-growth sectors that are generating employment but may also be thriving on extractive forms of work (Table 4.2).

Table 4.2: Informal and Formal Employment across Broads Sectors (2004–2005 and 2011-2012)

2004-05	Organised Sector		Unorganised Sector		Total
	Formal	Informal	Formal	Informal	
Agriculture	0.76	0.99	0.00	56.75	58.50
Manufacturing	1.21	2.10	0.10	8.33	11.73
Non-manufacturing	0.53	1.45	0.00	4.42	6.41
Services	4.48	1.89	0.19	16.80	23.36
Total	6.98	6.43	0.29	86.30	100.00
2011-12	**Organised Sector**		**Unorganised Sector**		**Total**
	Formal	Informal	Formal	Informal	
Agriculture	0.06	0.16	0.00	48.69	48.90
Manufacturing	1.48	2.79	0.06	8.28	12.60
Non-manufacturing	0.69	3.77	0.01	7.18	11.65
Services	5.62	2.72	0.22	18.29	26.84
Total	7.84	9.48	0.29	82.43	100.00

Source: Computed using unit level data of NSSO various rounds

4.2. Key Informal Sectors: Case of the Big Six

Drawing from the analysis above, we unpack six work sectors. These represent the diversity and complexity of informal work sectors in India, capturing the variety in terms of employment, gender and socio-religious composition. We have selected manufacturing, construction, domestic work (within employment in private households), street vending, hotel and hospitality, and security services. These have been selected as these are key employers of migrant workers—often absorbing new entry into labour markets with low entry barriers. Of the six selected sectors, construction, street vending and manufacturing have some form of existing policy frameworks, while none exist for domestic work, security services, and hotel and restaurant workers. The narration of conditions in these sectors helps readers appreciate the diversity of challenges faced by informal workers. Despite their deep human pathos, lack of proper existing data and documentation leads to their exclusion from any formal discussion. The key characteristics common across these six sectors are the inherent marginalization and insecurity. We would like to highlight the heterogeneity of work and complex work structures, and the resultant vast scope of the topic.

4.2.1. Workers in Manufacturing Sector

The Annual Survey of Industries 2017–2018 revealed that registered factories employed 12.2 million workers, while the Periodic Labour Force Survey in the same period reported 60 million workers employed overall in the manufacturing sector (Kumar & Sharma, 2020; Ministry of Statistics and Programme Implementation, 2018). This enormous gap represents the informal manufacturing workforce that works in smaller, unregulated manufacturing and recycling units, producing textiles, chemical products, machinery, automobile parts, paper products, tobacco, leather, beverages, rubber, plastics, food products, etc. The absence of work safety is the chief hazard in this sector. Fatal fires in dense, poorly ventilated units are common, as are crush injuries, fractures, electrocutions and exposure to hazardous chemicals. The Labour Ministry's own data suggests that 3 fatal and 47 non-fatal accidents occur in India's factories every day (Jadhav, 2020). These numbers are grossly underestimated. They not only ignore unreported large accidents in small units—which remain hidden from public attention—but also do not include everyday cuts, bruises and minor shocks that are far more prevalent (Parpiani, 2020).

Contracting, work outsourcing and similar complexity in the sector make it difficult to hold large players accountable for worksite violations that occur at the lowest ends of value chains. Since the 1990s, the sector has become increasingly fragmented, with various parts of a single product manufactured in units that have no formal, accountable relationship with each other. The supply chains include formally registered factories, contractors, informal or formal small and medium units. Further down the chain, we find informal micro units and home-based workers.

This means that on a daily basis, marginal and vulnerable actors are compelled to negotiate and engage with each other, while principal employers remain unaccountable to workplace practices. A majority of labour regulations in India apply only to registered units with more than 10 or 20 workers. A loophole emerging from this is the fragmentation of workspaces—units are often registered under different (related) employers to ensure they fall under that threshold and, therefore, keep labour costs low. Sub-contracting and outsourcing of work to petty players reduce the liability of bigger manufacturers, thus leading to the marginalization of the workers they indirectly engage.

Smaller and informally run units in city peripheries remain outside the purview of urban governance. Informal workers fall through the cracks of state and industry provisioning. As a result, despite intense productivity demands culminating in 12–16-hour workdays, workers must spend additional hours procuring drinking water, accessing sanitation, food, cooking fuel, etc (Aajeevika Bureau, 2020). Timely payment of wages and non-payment of minimum wages with overtime remain an issue plaguing informal workers in manufacturing. Working relationships are often flexible, and workers are hired and fired at will (as demand fluctuates). This denies them socio-economic mobility and increments in wages. These burdens are disproportionately felt by women and marginalized communities (the Scheduled Castes, the Scheduled Tribes and the Muslims), who perform the most labour-intensive and hazardous manufacturing work.

4.2.2. Construction Workers

The construction sector is considered the third largest employing sector. It is growing rapidly to fulfil the home-owning aspirations of a new India. According to the 68th Round of NSS, the construction sector in India employs about 46 million workers.[1] A majority of the construction workers are informal workers and seasonal migrants. The sector is characterized by opaqueness of wages, long working hours, horrible neglect of safety and absence of benefits such as provident fund, holidays and entitlements. Workers are employed on construction sites through a series of contractors and sub-contractors—both task-based and labour suppliers. Often a more senior member of the same village/community acts as a petty contractor to recruit younger workers. Payment

1 https://indiahousingreport.in/wp-content/uploads/sites/10/2020/08/Living-at-Worksites.pdf

of wages is extremely irregular, and workers often face wage fraud. Working relationships are seldom (almost never) based on a written contract, especially since the employment relationship is based on social ties.

This creates an exploitative system, as no one appears to be responsible for lower-than-minimum wages, denial of welfare measures and work safety. For migrant families staying together on sites or nearby, the add-on work at the same site for other members of the household is usually convenient, but comes at the cost of low wages and even invisibility from the musters. A fallout of this variety of work is the denial of education to children, further compounded by the transitory nature of their parents' employment, which terminates with the completion of the project. There is also prevalence of gender stereotyping in the jobs performed by men and women. Women end up performing low-value tasks and subsequently get paid lower. Women also bear widely prevalent sexual exploitation in this sector.

The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996, was enacted as a special legislation responding to the distinct context of this sector. It seems to regulate workplace conditions, conditions of engagement or workers, and establishes welfare boards for the administration of social security of building and other construction workers. The intent of providing construction workers with social security cover has been negated by weak implementation of the Act. Only 52.7 per cent workers are registered under the Act.[2] A sister legislation to it, which enables the collection of a cess from building and construction work projects in order to fund social security measures for workers, suffers from poor implementation. The 38th Parliamentary Standing Committee on Labour has made its observation that there is a lack of a proper mechanism for collection and use of the cess.[3] Just 23 per cent utilization of the total cess collected in the last 20 years up to 2015 has so far been used. The national average of cess distribution is just ₹499 per worker per year.[4] Despite clear directions from the Supreme Court for preventing the misapplication, underutilization and misappropriation of the accumulated cess amounts at the state level (National Campaign Committee for Central Legislation on Construction Labour vs. Union of India, 2006), the administration of social security for this category of workers has been dismal.

4.2.3. Hotel and Restaurant Workers

The workers in hotels, restaurant and dhabas are more neglected than the other informal workforce. Lack of data and research in this sector, possibly, causes the neglect of this workforce. Not surprisingly, this sector appears to attract a large number of child labour. NSSO estimates that there are about 8.7 million workers employed in the hotel and restaurant sector,[5] however, the total number of workers could be much higher.

Increased traffic levels pushing up demand and low entry barriers have resulted in a massive growth in hotel and restaurant industry. The availability of a wide range of jobs, depending on skill level, has made this a magnet for unskilled workers. This is amplified due to the fact that there is an opportunity to learn on the job in this sector. This also makes it the hotbed of exploitation since there is a job for nearly everyone, irrespective of age, sex and skill level. The NCEUS report of 2004–2005 states that the hotel and restaurant sector employs 2.5 per cent of the total child labour (8.3 million) in the country.[6]

Employers in this sector usually claim to provide food and accommodation to their employees. This pretext appears to justify very low wages. They endure long hours work shifts, which start early morning and end late in the night. Living spaces inside the hotel and dhabas can be overcrowded. These places are often

2 https://www.epw.in/journal/2020/17/commentary/covid-19-relief-package.html
3 https://www.epw.in/journal/2020/17/commentary/covid-19-relief-package.html
4 https://www.indiaspend.com/why-construction-workers-missed-government-welfare-benefits-for-23-years/
5 https://cse.azimpremjiuniversity.edu.in/wp-content/uploads/2019/11/Mehrotra_Parida_India_Employment_Crisis.pdf
6 http://sanhati.com/wp-content/uploads/2013/10/NCEUS-2007-Report-on-conditions-of-work-and-promotion-of-livelihoods-in-the-unorganised-sector.pdf

without adequate sanitation facilities. Abuse at the hands of employers and even customers is common. Workers are often denied hard-earned wages, as wages are rarely disbursed on a weekly or monthly basis. Workers are often paid their accumulated wages at the end of many months, just before they plan to visit their hometowns for festive occasions. This arrangement leads to wage fraud and exploitation. The hotel and hospitality industry extracts forced labour from minors, who find themselves trapped in exploitative conditions due to the denial of regular wage payment. In more dire circumstances, these workers may also face unlawful imprisonment by the employers and be denied any access to spaces outside the workplace.

There is no dedicated policy that responds to the conditions of these workers. It is revealing to note that this workforce is not even mentioned in the newly passed labour code which promises to provide statutory protection to all workers. Each dhaba or restaurant employs very few persons, though the gross number may be large. The way the threshold limits are defined in the new labour code also effectively leaves out the hotel and dhaba workers.[7]

4.2.4. Retail Trade Workers and Street Vendors

Retail trade is a major source of livelihoods, some of it in self-employment and some as wage employment. The nature of establishments in this sector falls far outside the traditional workplace imagined by labour law—few of retail establishments have pucca premises. A large segment of the workforce is also engaged in street vending.

The National Policy for Urban Street Vendors, 2009, estimates the number of street vendors to be around 10 million[8] with a significant number of women and children.[9] The Street Vendors Act, 2014, which seeks to provide vending space in cities for dignified and safe work, is based on the same estimation.[10] However, the National Hawker Federation estimates the number to be 40 million.[11] The difference is significant and needs further attention. The practice of hawking is considered one of the most important mechanisms to combat poverty, given the high level of unemployment prevalent in India. The dual experiences of illegality and informality dominate street vending in the country. Despite the Street Vendors Act, 2014, street vendors continue to be harassed at the hands of local administration and police. During the current pandemic, thousands of those who have lost their jobs are now relying on street vending to support themselves. With the increase in hawker numbers, municipal authorities are pushing them back on grounds of missing licences for vending.

The enactment of the Street Vendors Act, 2014, was a huge achievement for street hawkers, but its main agenda of safeguarding the vendors remains a distant goal. The implementation of the 2014 Act has been very poor in the last few years. A report published by YUVA and NHF states that no states have been able to appropriately and completely implement the policy so far.[12] Therefore, the dialogue with administrative bodies has assumed a greater significance, especially after the passage of the 2014 Act.[13]

The reasons for the limited effectiveness of the Act are multiple and complex. The formulation of the policy itself did not take into consideration future additions to the hawker population while making the provision for space allocation for vending.[14] The Act, through mandatory provision of licence for vending and earmarking of a fixed place, brings vendors within the purview of municipal authorities. This formalization exposes them to exploitation by slum or street lords and bribery. The unintended consequence of this mechanism is rigorous competition for limited

7 https://scroll.in/article/973877/why-the-new-labour-codes-leave-workers-even-more-precariously-poised-than-before
8 https://www.orfonline.org/research/strengthening-urban-indias-informal-economy-the-case-of-street-vending/
9 https://www.prsindia.org/sites/default/files/bill_files/bill82_2006123082_National_Policy_for_Urban_Street_Vendors.pdf
10 https://www.orfonline.org/research/strengthening-urban-indias-informal-economy-the-case-of-street-vending/
11 http://www.nationalhawkerfederation.com/
12 http://yuvaindia.org/wp-content/uploads/2017/03/Street-Vendors-Report..pdf
13 https://journals.openedition.org/articulo/3383
14 https://www.orfonline.org/research/strengthening-urban-indias-informal-economy-the-case-of-street-vending/

spaces in cities, emergence of rent seekers, thus defeating the very purpose of protection for vendors.[15]

4.2.5. Domestic Workers

The official figure for domestic workers in India is estimated to be around 4.75 million, out of which 3 million are women.[16] The actual number may be in the staggering range of 20–80 million. Domestic work also involves children in large numbers. Since the domestic sphere falls outside the traditional imagination of a workplace, domestic workers fall outside the traditional imagination of labour, and the coverage of most laws governing employment. Their invisibility exposes them to great vulnerability in the form of non-payment of minimum wages (most states do not even notify minimum wages for this category of workers), denial of due wages, abuse and harassment, and workplace injuries arising from the manual nature of work and exposure to cleaning solvents. Live-in domestic workers are even more vulnerable and can rarely refuse long hours of work, far beyond 8 hours a day (which the law recognizes as the standard working day).

An estimation states that about 0.185 million children are engaged in domestic work or roadside dhabas across the country.[17] Among the resident women domestic workers, majority come from the states of Jharkhand, Bihar, Bengal and Odisha, belonging to the Dalit or Adivasi communities. Resident women domestic workers could face multiple types of exploitation including physical abuse. Women workers also report various kind of physical and sexual abuses in the absence of state protection.[18] The number of employers in this sector is very large. Worse, several households often 'time share' the same worker. This makes domestic work one of the most invisible occupations. Domestic work is also seen as an occupation not requiring much skill, further undermining the value of this work.

The Unorganized Workers' Social Security Act, 2008, Sexual Harassment of Women at Workplace Act, 2013, and domestic workers welfare boards are some existing frameworks to protect domestic workers but in practice they leave much to be desired.[19]

2.4.6. Workers in Security Services

With over 9 million workers employed in the industry, India has the highest number of private security guards in the world (Bhattacharya, 2020). The industry is six times larger than the public police force and, owing to a variety of factors, it has become one of the fastest growing sectors of the economy (Gooptu, 2020, p. 16). Compared to other sectors, however, it has been understudied and the particularities of worker vulnerabilities are relatively unexplored.

The sector consists of a vastly diverse group of workers. Unarmed or armed workers are hired for residential areas, malls, offices, airports, train stations, religious sites, etc., usually through one of India's over 15,000 security service agencies (Gooptu, 2020, p. 13). Workers' formal duties also vary, but usually involve preventive patrolling, surveillance and active security enforcement in certain cases. Overall, the industry is extremely fragmented, with workers employed on individual sites frequently moved from one site to another, and with little to no possibility for collective demand making. In many ways, it works like a business-to-business (B2B) platform service (between security service agencies and the factory/building/society that is going to use the service), where jobs are available only through platform owners (security service agencies).

While some security guards have described the profession as aspirational—especially relative to unskilled manual labour—they also acknowledge the harsh and exploitative work conditions in this 'service sector' job (Gooptu, 2020, p. 29). A large number of them are migrants, and thus already excluded from a range of domicile welfare schemes (Upadhyaya, 2011). They are paid wages

15 http://www.shram.org/blogs/?p=846
16 https://www.ilo.org/newdelhi/areasofwork/WCMS_141187/lang--en/index.htm
17 http://ndwm.org/domestic-workers/
18 https://in.one.un.org/page/rights-for-domestic-workers/
19 https://www.epw.in/engage/article/domestic-workers-rights

not through the individuals or groups they interact with daily, but by the agencies. Meagre wages fail to provide for basic consumption, let alone any investment in upward mobility. Security guards often work two 12-hour shifts to make ends meet (Boga, 2012). The high attrition rate—a product of companies attempting to prevent unionizing—also means that guards often forego provident fund benefits. This is despite the fact that they are covered under the (former) Minimum Wages Act, Industrial Disputes Act, Contract Labour Act, etc., that have now been subsumed under the Labour Codes. Their contracts rarely come with social security provisioning like insurance or Employees' State Insurance Corporation benefits.

This kind of informal work involves specific precarious situations. Guards are trained and compelled to perform non-standard labour on site, often under surveillance by their own companies, and perform unpaid errands and tasks on a daily basis. Often, they must deal with the assumption of guilt without proof from their clients in case of incidents at the worksite (Gooptu, 2020, p. 28). While the Private Security Agencies (Regulation) Act, 2005, along with its 2019 amendments, is in theory required to regulate the licensing and employment of guards, norms are regularly flouted. The Act itself places the burden of responsibility and stigma on the vulnerable informal workforce by requiring that the guard 'satisfies the agency about his character', and including a specific penalty to the contractor if the guard 'were found habitually drunk or undisciplined' (a very vague and broad ground for penalty). In addition to the precarious

Table 4.3: The World of Work for the Big Six

Sector	Size of Industry	Characteristics, Working Conditions and Challenges	Legislation
Manufacturing workers	50 million	• Small, unregulated manufacturing and recycling units, producing textiles, chemical products, machinery, automobile parts, paper products, tobacco, leather, beverages, rubber, plastics, food products, etc. • Delayed and denied wages, lack of social security and no clear employer–employee relationship. • Physical hazards—fires in dense, poorly ventilated units; crush injuries; fractures; electrocutions and exposure to hazardous chemicals. • Informalization of formal sector—visible in lengthening of supply chains and hazardous work being moved to informal entities; formal sector subcontracting jobs carrying potential liability to informal sector and workers.	• Recently passed Labour Codes. • The Occupational Safety, Health and Working Conditions Code, 2020, does not lay down minimum standards for health and safety, and only applies to establishments with 10 or more workers. • This excludes the millions of workers in micro units and home-based workers who are employed in the most hazardous work. • Moreover, the state has the power to exempt new factories from safety norms in 'public interest,' which opens up the possibility for unconditional exemptions for industry at the expense of informal workers.
Construction workers	46 million	• Opaqueness of wages, working hours and other benefits such as provident fund, holidays and entitlements. • Contract labour system where the workers get work through a contractor, creating an exploitative system perpetrating low wages, denial of welfare measures and lack of accountability by both the contractor and construction site owner. • Gender stereotyping in the jobs. Women end up performing low-value tasks and subsequently get paid lower. Even for the same work done, women are likely to get paid lower wages than men.	• Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act has had limited impact due to low worker registration levels, compounded by poor utilization levels of the already collected cess. • The new labour code has excluded a large number of construction workers in either small set-ups or as independent workers.
Hotel and restaurant workers	8.7 million (could be much larger)	• Easy availability of work at low skill levels makes it an attractive industry. • Provision of free food and accommodation are added incentives for migrant workers; they are also the excuse for low wages. • The industry has arguably the worst working hours owing to its service nature and accommodation fusing with place of work.	• No dedicated policy framework available. • Excluded from labour codes due to predominantly smaller-sized enterprises with less than 10 employees.

Street vendors	40 million	• Inherent conflict between public space as workplace and licensing requirements. • Poor implementation of policy (licensing, fixed place allocation) leading to arbitrary intervention and harassment by multiple players. • Low entry barriers lead to continuous inflow of vendors, rendering any spatial planning challenging. • Current efforts working like patchwork on existing policy and planning frameworks	• Street Vendors Act, 2014, a big achievement for the street hawkers but its main agenda of safeguarding the vendors still remains a distant goal. The implementation of the 2014 Act has been very poor.
Domestic workers	4.75 million (could be much larger)	• High women participation (~65%), child labour prevalent. • Majority women are migrants from Eastern India. • Home as workplace and migrant profile, create conditions for sexual and other physical forms of abuse. • Even in countries with stringent regulation, domestic workers are a vulnerable segment.	Exclusion of home as workplace from legal and regulatory frameworks.
Security services workers	9 million	• B2B nature: Security services firms providing guards to clients. • Exploitative conditions due to hiring only through channel. • Poor working conditions, low wages but highly responsible role. • Occupational hazard of 'guilty till proven innocent'.	Covered under the (former) Minimum Wages Act, Industrial Disputes Act, Contract Labour Act, etc., that have now been subsumed under the Labour Codes.

Source: Compiled by the Authors from area sources.

situations associated with informal work, security guards must deal with specific emotional and affective burdens at work.

4.3. COVID-19 and India's Informal Workers

Urban informal sector is the huge sponge that absorbs surplus rural and urban labour to fulfil the demands of the urban market. The nature of employment relations in this sector leads to its neglect in public policy (and often proactive oppression by state agencies). The COVID pandemic, the ensuing lockdowns and the resultant social and economic paranoia have all contributed to a sudden breakdown in the old and unfavourable order for workers in the informal sector. Yet the pandemic also offers an opportunity to reimagine what can be done to balance the demand for efficient labour use and the just and human needs of the millions of workers. This chapter explores these possibilities.

The COVID-19 lockdown in India was among the most restrictive in the world, with a nationwide halt on mobility on March 23, extended with stringency for over two months.[20] The dual shocks of a public health emergency and an economic shutdown disproportionately affected millions working in India's informal economy. According to some estimates, over 91 million daily-wage workers and small traders lost employment in April 2020 alone, with the overall unemployment rate at 23.5 per cent (Vyas, 2020). Most were compelled to rely on meagre savings and often forced to borrow at usurious terms from moneylenders, employers, relatives and other sources. Rapid surveys suggest that on average, 77 per cent of informal workers were consuming less food than before the lockdown (Azim Premji University, 2020), and 65 per cent of those in urban areas could not purchase more than one week of food rations (Lahoti et al., 2020). The hunger crisis was particularly acute for India's internal migrant workforce, which is excluded from the Public Distribution System (PDS), and even ordinarily spends nearly half

20 Oxford University's stringency index accorded India a 100/100 ranking for March on its measurement scale. This remained over 80/100 until May 2020. https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker

their wages on purchasing food from private markets (Aajeevika Bureau, 2020).

Systemic state-led interventions were delayed, inadequate and continued to exclude the most vulnerable among the workforce. Workers living in rented accommodation received no support from state governments, who issued only non-binding 'recommendations' for rent moratoriums. Even marginal employers running small enterprises were compelled to pay rent without production (Mehrotra & Parpiani, 2020). Lack of binding rent-relief guidance pushed thousands of workers first on to the urban streets and eventually on the long road back to their villages.

Food and cash schemes announced by the government were unsustainable and inadequate. For instance, workers registered under the Building and Other Construction Workers Act were entitled to a one-time ₹2,500 cash transfer per person, which can barely meet the monthly living expense for a family (Sinha, 2020). Even the Supreme Court forfeited an opportunity to protect informal workers by allowing industry to 'negotiate' wages instead of mandating a floor income for workers who were struggling to survive in cities.

In the absence of state support and industry provisioning, migrant informal workers in cities ordinarily relied on social networks for access to basic provisioning, including water, sanitation and housing. In cities, workers create these relationships with urban poor actors by negotiating with security guards and petty contractors (Aajeevika Bureau, 2020). Even these slightly better off yet marginal actors suffered grave losses of income and stability during the lockdown, breaking down migrants' support systems and forcing them to undertake hazardous, life-threatening journeys home.

As a result, millions of workers not only faced income losses but also bore immense physical, mental and emotional costs during this period. Those on the move were stigmatized in both urban and rural areas. In cities, street vendors and delivery personnel were considered super spreaders and slums, where informal workers often live, were held responsible for the spread of the virus. Workers were stigmatized upon their return to their rural homes as virus carriers, even subject to dehumanizing 'disinfection' procedures (Turaga et al., 2020).

The three levels of shock—being forced out of their accommodation, later forced to take the road back home and, finally, not receiving the money and aid announced—have shaken the extremely delicate axis on which the livelihoods of workers, especially migrant workers, is balanced. This category was literally rendered homeless in the physical sense and further vilified for travelling back to their villages and exposing the others to the virus in the emotional sense. And this act was playing out while students from educational hubs like Kota and NRIs were being repatriated and the system being lauded for pulling it off. There can hardly be a better example which exposes the fault lines in our society.

While 'informal worker' is used as a single conceptual category, experiences of the informal workforce vary by caste, class, gender, religion, geography, industry, etc. The informal worker takes on multiple identities both at the destination of work and the home. Dalit migrants who returned to their native homes during the lockdown, for instance, faced hurdles in accessing Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) work, usually assigned by village power groups to upper-caste residents.[21] Women workers—ordinarily employed in the most precarious tasks at worksites—faced constant threats of domestic violence, which reached a 10-year high during this period,[22] even the burdens of unpaid care work surged during and immediately after the lockdown (Adhikari et al., 2020). In general, Muslims, Dalits, women and those with lower levels of education faced a more severe impact of food insecurity and unemployment during this period (Lahoti et al., 2020).

The crises of hunger, wages, livelihoods, housing, etc., are not the linear product of

21 https://www.bloombergquint.com/politics/millions-escaped-caste-discrimination-covid-19-brought-it-back

22 https://www.thehindu.com/data/data-domestic-violence-complaints-at-a-10-year-high-during-covid-19-lockdown/article31885001.ece

this singular moment. The structural barriers to ensuring dignified working conditions and welfare provisioning for informal workers have continued to remain unaddressed, resulting in subsistence wages for workers and razor-thin margins for those at the lowest ends of value chains. Micro, small and medium enterprises were underfunded well before the pandemic with limited or no access to credit schemes or government subsidies. Small and own-account enterprises, accounting for over 110 million workers—mostly informal—were left vulnerable to this sudden shock (Misra, 2020)

Broken supply chains, rent and utility burdens, liquidity crunches, and declining demand and consumer spending—all exacerbated during the pandemic—will continue to affect the informal workforce in the long term. These will be layered on existing issues of underpaid or unpaid work, hazardous working conditions, lack of bargaining power, along with the harsh reality of belonging to vulnerable communities living in hostile spaces.

In the subsequent chapters, we unpack the term informal sector workers. Any attempt to formulate a policy response to support and advance its potential requires a disaggregated analysis of the economy across occupational categories, types of work, gender and socio-religious profiles. The subsequent analysis attempts such a characterization, identifying trends and patterns across geographies, time and social identities, while establishing the excessive overlap of informal work with poverty and vulnerability in the country.

> Vulnerability of workers, especially migrant workers, exposed at multiple levels: employment, accommodation, negative portrayal in society, sense of not belonging in cities and of being disowned back home.
>
> The momentary focus on lack of systemic structures to recognize and, therefore, support the informal workers and their ecosystems may have been triggered by COVID-19, but it is an outcome of a much longer period of neglect and invisibility.

4.4. Reading the Signs of Change, Post-COVID

In their wake, disasters often offer new paradigms of reset and renewal. The impact of COVID on India's workforce is presenting to us an opportunity to go back to the very fundamentals of how work ought to be conceived, created, compensated and governed. Several recent and significant developments are showing us signals on which longer-term change might be constructed. This section discusses these and explores the potential they represent for informal workers.

4.4.1. Migrant Returnees in Rural Areas Add to Livelihood Demand

As noted earlier, the lockdown-induced distress compelled millions of migrants to return to their homes in rural India, facing unprecedented hardships. This was compounded by the utter failure of public policy, on the one hand, and abdication of responsibilities by employers, on the other. However, absence of work opportunities has now forced these migrant workers to return to their worksites (Kumar & Sharma, 2020). Yet with work contraction and continuation of the economic slowdown, work opportunities have not kept pace with the flow of returning migrants. At the rural end, this has contributed to the stock of workforce available in rural areas at levels much above what was seen in those months in earlier years.

While MNREGA did provide some work to those seeking employment, it fell short both of the quantum of work demanded and the quality of work which these workers desired—MNREGA seems to have been able to absorb only about 20 per cent of such workers (Kapoor, 2020). The economy has been slowly picking up and transport facilities improving in frequency and reliability over time and it is possible that the level of 'surplus' workforce in rural areas may have come down, though no recent data is available.

The beginning of 'unlock' also coincided with the start of the kharif agricultural season. Migrants who had returned to villages during the lockdown chose to invest in agriculture since the monsoons are a lean season for construction workers in particular. In fact, data shared on 17 July by the Ministry of Agriculture and Family Welfare[23] suggests that the sowing area of kharif crops in 2020 was 21.2 per cent more than the previous year. This is also reflected in the healthy sales of tractors and fertilizers in India's rural hinterland (Joshi & Verma, 2020). Any surplus cash was also invested by migrant households in bringing more land under cultivation or creating better irrigation facilities. The lockdown and resultant loss in employment prompted several rural migrant households to turn their focus to building food security first and in other cases, exploring agriculture as a potential source of diversifying incomes from migration.

It needs to be underlined that the presence of surplus labour force in rural areas could also present an opportunity to revive local economies. For instance, migrants who were previously employed as skilled workers or work contractors in the construction sector reported being able to undertake work of a similar nature in rural areas, though in smaller measure. Mapping of skills currently present in rural areas and matching them with opportunities for fuller employment may well provide a trigger to revive local economies.

4.4.2. Metros are Retro: Hope Lies in District HQs and Growth Centre Towns

The flight of migrants from cities brought into sharp focus the appalling conditions of their existence in Indian cities. Congested shelters, inside worksites or in informal settlements, devoid of basic infrastructure meant that workers had no option but to exit the cities once the lockdown began. While constrained access to PDS, public health care and transportation facilities compound their hardships in cities, vast segments of women workers also endure highly gendered risks around safety, privacy and the burdens of reproducing domestic care and duty in very constrained conditions.

As cities reopened and workers made their way back from their villages, these issues continue to remain unresolved. In fact, the urban situation has been rendered additionally problematic by the reality of Corona that continues to ravage populations unable to maintain social distancing or observe sanitary conditions at home or work.

Through the pandemic, urban scholars and thinkers have held extensive discussions about making cities more inclusive for informal workers, especially migrants. There is a rich body of knowledge and policy perspective on reimagining cities to provide housing, nutrition, sanitation, transportation and access to the millions of workers who contribute to its economy but remain on urban margins. The positive correlation between inclusive urban spaces and workforce productivity has strongly been made. It has also been forcefully argued that remedial action on the very missing pieces of survival in urban areas will ease the full return of workers to the cities.

Urban policymaking and efforts for dialogues with stakeholders at different levels of governance suggest that fresh attempts are being made to purposefully include migrants into the fold of urban development initiatives. For instance, a rental housing policy has been drafted which aims to provide proto rental-housing vouchers for low-income households to be used like food vouchers. Urban local bodies are assigned the task of allocating land for affordable rental housing and to supervise construction.

Some examples of enumeration and registration of migrants have emerged in cities such as Surat, where the Municipal Corporation is embarking on an enrolment drive for building its migrant database. Such initiatives could form an important foundation for extension of basic public provisioning for informal sector workers. For instance, amenities near commercial hubs for head-loading workers and ward-level restrooms for domestic workers and street vendors could be set up through public–private partnership models involving collaborations between state, industry and local non-governmental organizations (NGOs). These could potentially serve the purpose of institutionalizing the imperatives of security and dignity for informal workers in urban landscapes.

23 https://pib.gov.in/PressReleasePage.aspx?PRID=1639340

4.4.3. Response of Industry to Informal Workers' Conditions

One of the fault lines that the lockdown exposed has been the precariousness faced by the bottom rung of India's workforce on account of informal work relations and exclusion from social protection. The government, at its end, passed several orders directing employers to make wage payments in full, which was also upheld by the judiciary in the early stages of the lockdown. However, seeped in a massive liquidity crunch due to severe slump in demand, most businesses that employ informal workers in large numbers failed quite miserably in complying with these orders, resulting in massive wage defaults.

Many larger players in the industry did reach out to their workers by providing them with ration and support for transportation. And there are signals that many conscientious industry leaders are introspecting deeply about measures to bring more lasting change to the welfare of the workers informally employed in their ecosystem. Initiatives like the Social Compact championed by several manufacturing giants in the country are inspiring examples. Through these, attempts are being made to influence employment practices and work conditions for informal workers employed at bottom ends of value chains.

Examples such as these present a powerful opportunity to industry associations—beginning with the obvious role of amplifying such high-impact practices across different sectors and geographies, the industry associations could also potentially step in to absorb or subsidize some of the costs associated with creating fairer conditions for informal workers. These could also provide a fresh mandate for cells like Project Uptech which were set up with the objective of upgrading technical facilities for industrial clusters. Such efforts could be further catalysed by the articulation of a business case for the industry to improve its reliability, quality and productivity by making systematic investments in labour welfare.

4.4.4. Changes in Labour Legislation That Impact the Informal Workforce

The labour reform process that has been underway for the last few years finally culminated in the passing of the Labour Codes into law in the last week of September. While the code on wages had already been passed last year, the three other codes—on social security, on occupational safety, health and working conditions, and on industrial relations—were pushed through this year after several rounds of revisions. Twenty-nine labour legislations have been codified into these four codes, with the purported objectives of simplification, rationalization and ease of doing business. While the government has claimed that the newly revised codes substantially widen labour protection for millions of informal sector workers, several central trade unions and worker collectives across the country have been vocal about how the codes can be detrimental to the core ideas of employment security and social protection for workers.

Representatives from workers' organizations contend that the codes substantially narrow down the ambit of legal protection available to a vast majority of informal sector workers by increasing the threshold for applicability of important provisions. Provisions such as fixed-term employment and dilution of provisions for complaint-based labour inspections are also likely to weaken the mandate for enforcement of legal provisions.[24]

However, it needs to be acknowledged that the codes do put forth certain progressive propositions. For instance, the social security code recognizes workers in the gig economy as a separate category of workers. It also mandates that the central and state governments set up funds for unorganized sector workers, including home-based and self-employed workers, as well as facilitate their registration. Further, the definition of interstate migrant workers has been widened beyond those recruited by contractors alone to include workers who migrate on their own, through social networks as well as those

24 https://indianexpress.com/article/opinion/columns/economic-crisis-migrant-labour-bills-covid-19-change-6671565/

that are self-employed.[25] It also provides for their registration through mechanisms that are to be instituted by the state.

Labour being a concurrent subject, states now have a real opportunity to formulate specific rules that can promote security and welfare for the informal sector workers. States must take the lead in reimagining the false binary between industrial growth and labour welfare through bringing in state-specific legislations that can restore both livelihood potential and social protection for the vast informal workforce in the country.

4.4.5. Heightened Public Consciousness

'Some epidemics do become a part of the historical consciousness of a region' (Katju, 2020). The visual images of migrants and their children walking back home in the harsh summer heat moved ordinary Indians into action during the lockdown. Never before has the plight of informal workers in the country received such an empathetic or compassionate response. Citizens supported workers with food, water, first aid, cash relief and helped organize dignified transportation back home. The public's response to the crisis indicated an inherent desire in ordinary citizens to do good and respond to those in distress with humanity. In its early beginnings, as witnessed during the lockdown, the public's empathy for workers was triggered due to humanitarian concerns. However, it remains to be seen whether more insidious issues plaguing migrants, particularly the implications of informality and their exclusion from social safety nets, will become part of mainstream public knowledge and expression. Will consumers of various products demand transparency on the wages that were paid to workers, their conditions of employment and basic social protections accorded to them? Will industry be compelled to enact and enforce protective labour practices as a result of a growing public consciousness, including their own? Will urban communities become less xenophobic towards and more inclusive of our own workers? Will the state at various levels be compelled to respond to public empathy by scripting more progressive policies ensuring protection of informal sector workers?

The COVID-19 pandemic and more specifically the economic impact of the subsequent lockdown will perhaps be carved more permanently into public memory. However, the public discourse on the political response to the conditions of migrants and informal workers is yet malleable. Such nationwide empathy for a highly invisible group presents an excellent opportunity to preserve and sharpen the public's own understanding of the plight of India's informal workers. Moreover, it possesses the potential to create a collective movement to build state accountability and drive political reform that accords basic protection to informal workers.

4.5. Propositions for Building a Different Future

The ubiquity of informal work and its associated hardships will not be reversed unless we dedicate ourselves to correcting several structural anomalies that we have normalized over decades of economic and public policy. The propositions for future, therefore, draw from an urgent reiteration of what we have known as rights-based, humanistic and impactful responses to solving the problems confronting informal workers. These range from creating stronger livelihood alternatives closer to rural homes of workers to the idea of universalizing public provisioning and services in urban areas.

4.5.1. Promoting Rural Livelihoods by Regenerating Natural Resources

Bolstering rural livelihoods through intensified natural resource management and agriculture change will remain the single most effective antidote to the hapless slide of rural migrants into low wage, hazardous and insecure work.[26] Increased attention to MNREGA and its application to building core natural infrastructure can have an enormous impact. It holds the potential to create precious local wage

25 https://scroll.in/article/974137/indias-new-labour-codes-fail-migrant-workers-whose-vulnerability-was-highlighted-by-lockdown-crisis

26 https://www.rgics.org/wp-content/uploads/A-Single-Strategy-to-Fight-the-Post-COVID-Job-Crisis-and-Environmental-Degradation.pdf

opportunities and improve agriculture production for assuring food security and agriculture-based incomes. Building water resources for improving micro-irrigation and improving soil regimes by checking erosion and land degradation are well tested ingredients for improving agricultural production. These models have been successfully established by many rural NGOs and have space in policy as innovations. A renewed effort is, however, needed, especially targeting households and communities vulnerable to low value, insecure form of migration, to transform the productive potential of their land, water and commons through public investments.

MNREGA for Revival of Farm Fortunes
Farm bunding, levelling and contour trenching
Protection from crop raids and wildlife attacks
Desilting of ponds, streams and channels
Community well construction and deepening
Recovery, reforestation and protection of degraded pasture lands for improving tree–fodder availability

4.5.2. Promoting Non-farm Livelihoods in Rural and Small-Town India

A successful policy for impacting informal livelihoods will need to be squarely based on the revival of small and subsistence enterprises that employ informal workers in millions. Microenterprises must be given special impetus for growth in the form of stimulus packages that will help them revive production in a viable manner. Providing special support to existing microenterprises to help them tide over the economic slump is crucial—support in payment of wage arrears and help them comply with basic standards of occupational health and safety can ensure significant gains for its vulnerable workforce. Providing state support to subsidize rent and electricity costs through clean and affordable credit is a useful starting point and is also likely to promote registration of such units, so they can be brought under the purview of legality.

A vast number of informal workers who returned to their rural homes attempted to find entrepreneurial opportunities closer to their homes. Only a few have found local options, but most have been forced to return to their precarious work in cities for want of capital, credit, market linkages or infrastructure. An active promotion of non-farm livelihoods in rural areas will help privilege self-employment over wage employment, thus reducing the dependence on arduous forms of informal work further away in larger, congested cities.

There is an urgent need to stimulate employment creation in smaller towns and urban centres by enhancing their core infrastructural capacities of connectivity, power and transportation and creating incentives for industrialization away from larger hubs in order to decentralize labour absorption. Apart from reducing inefficiencies in production processes, this has the potential of significantly reducing high costs of migration borne by informal workers.

Small Is Possible

There is considerable scope of reigniting the small-town economy and employment potential by incentivizing and promoting manufacturing and processing hubs directed at meeting urban consumer demands. This might include production facilities with relatively lower capital investment but with high local labour absorption:

- Local garment production branded and marketed to meet urban apparel demand
- Processing and packaging local cereal-based foods
- Solar energy based assembled products—bulbs, tube light, heaters and pumps
- Repair and recycling industries creating 'value' for urban households

It is possible to undertake specific demand assessments in larger urban centres with a view to identify the potential for creating back-end supply lines to be set up in smaller towns of proximity. These can, thus, become the first port of call for rural workers. The availability of mass-produced and massively marketed goods do not leave much scope for competitive edge by smaller players. Yet market protection, investments and subsidy can help create such micro-environments of production and consumption.

4.5.3. Improving Informal Workers' Access to Public Services

As has been noted, a large majority of informal sector workers are migrants. Often, migrants travel to work destinations outside their states. The current system had enabled the host states to deny these workers access to many public provisions as they lack domicile in the locale of work. Absence of credible proof of identity, access to PDS, public housing and public health facilities in destinations have contributed hugely to the distress and difficulties faced by migrant workers.

Efforts towards building a Digital India offer a huge scope for radical improvement in provisioning of social safety net to informal sector workers. The government has already promulgated policies and initiated action towards 'one nation one ration card', which should hopefully enable access to food security to migrant workers as mandated by the Right to Food Act, 2013. The shortcomings and procedural kinks at the implementation level need to be urgently fixed. The recent announcement of digitization of all health records at community health centre and primary health centre levels in rural areas, coupled with transferability of health data using Aadhaar and Health Identity Numbers should vastly expand the reach of public health services to the informal sector workers in the cities and towns where they work. New urban/peri-urban rental housing investments are needed in order to create public housing for migrant workers, who may otherwise be forced to live in informal and unsafe settlements.

We strongly urge the central and state governments to expedite progress in these matters and improve the access to public services to informal sector workers in their locales of work, notwithstanding their permanent domicile or employment status.

4.5.4. Ensuring Decent Work Conditions

The Decent Work Agenda pronounced by the International Labour Organization follows close in the steps of the mandate articulated by the Indian Constitution on workers' rights and principles of state policy. It covers a wide range of measures to ensure access to productive work that delivers a fair income, wage and job security, and social security, and secures basic rights at work including equality of treatment, opportunities for professional advancement and opportunities to be heard. These entail both legislative and executive interventions into the world of work.

Starting with strict enforcement of statutory wages, policy measures that ensure meaningful and effective means of grievance redressal in the event of wage thefts and denial of legally mandated benefits is a significant step forward in ensuring security of work and incomes to millions of workers who are in various forms of precarious employment. In the current economic climate, where wages have been repressed and availability of work is increasingly uncertain, bold measures aimed at job security and minimum wages will go a long way in strengthening resilience among this workforce. Measures such as urban employment guarantee that has assumed much currency in recent policy discourses will contribute to restoring livelihood security to workers who continue to weather the storms of economic downturn. Most priorities of the Decent Work Agenda are already under contemplation of central labour laws—their implementation, however, remains an impediment in the fulfilment of this agenda.

Standards for combating workplace hazard, reducing risk of illness and injury are critical to ensuring workers' safety in an environment where they are constantly exposed. While such standards have been clearly articulated for the formal sector, several domains of informal sector work remain excluded from such imagination. The reliance on a numeric threshold for applicability of labour regulation perpetuates and incentivizes the exploitation of migrant informal workers. Starting with a clear articulation of the vision for occupational health, safety and work conditions for the informal sector, sector-specific standards will need to be spelled out. Implementation of these standards may be ensured by introducing a graded system of compliance with all units ensuring a basic floor of safety and better standards progressively. Social dialogue, including industrial dialogue between the employers and employees (through their representatives), is very central to Decent Work but appears to be in a steady decline in India post-liberalization.

4.5.5. Formalization to Ensure Dignity and Stability

Dignity and stability in conditions of work have the potential to address many challenges that informal workers face on multiple fronts and formalization is the most powerful vehicle to this pursuit. Formalization will need to be extended to all aspects of employment such as recruitment, tenure, contract, wage determination and modalities of payment, social security inclusion and legally mandated benefits to workers employed across all levels in the supply chain.

Being able to establish a concrete relationship with their employer will go a long way in bolstering capacities of workers to stake claims more effectively. Besides creating a means of credibly establishing their identities as workers, these will also provide an important basis for seeking legal protection in the event of non-payment of wages and other benefits. Similarly, access to formal housing, social security measures and stability of employment would bolster the socio-economic condition of migrant workers and address their vulnerabilities within the destination.

This mandate can be meaningfully extended to small enterprises and home-based workers in the bottom rungs of the supply chains through making formal procurement contracts mandatory. Establishing a trail of formal contractual relationships across supply chains will help ensure that principal employers can exercise accountability for labour standards, including minimum wage payment, occupational safety and welfare provisioning for all categories of non-waged workers who are employed downstream. The benefits of formalization can go a long way in enhancing labour productivity and retention, thus generating surplus value in the economy.

4.6. Summing Up

The last two decades have created a telling demographic–geographic mismatch. The 70:30 demographic rural to urban head count ratio does not match with 70:30 rural to urban livelihood opportunities. Agricultural livelihoods are declining due to adverse land–(wo)man ratio and declining profitability of plain primary production. Rural and household manufacturing are also declining due to lower productivity and inability to compete with lower cost factory manufactured/imported products. That leaves construction and services such as retail trade, transport, hotels and restaurants, education, health, business and administration. These experienced a boom in urban areas as purchasing power has moved there. Thus, more livelihoods have emerged in cities, while more people live in rural areas, necessitating rural-to-urban migration, often driven by distress.

The other mismatch is demographic occupational. The first is that the median age of the Indian farmers is 51, while the median age of the Indian population in general is 27. Nearly 52.5 per cent of workers are self-employed. So, they have no clear employers and any improvements in their working conditions or of social security will have to be based on their being *atma nirbhar* (self-reliant, a concept heavily emphasised in the COVID-recovery measures adopted by the union government)

Hard economic realities contradict and conflict most humanistic propositions pertaining to informal workers. We need to at least confront the reality. Onslaught of cheap imported goods and services during the first decade and half of this century is coupled with near complete commitment to unfettered trade. The imperative of retaining a competitive edge means that investments in labour welfare and protection will continue to be meagre in order to keep costs down. Small and survivalist enterprises will continue to shy away from doing more for labour if this cuts into their thin margins. A strong verbal emphasis on Make in India can only translate into Lose Money in India if industry and employers are forced to spend more on labour costs unless state spending becomes strongly and impactfully directed to reducing the costs incurred on the welfare of informal workers.

Sudden absence of easily available informal workers has also induced a significant spirit of ‘do it yourself’ as well as acquisition of mechanized devices to perform tasks earlier given to informal workers? For instance, there has been a spurt in sale of labour-saving white goods such as washing machines and vacuum cleaners in urban areas. These changes portend a future where Indian industry and urban employers will be forced to perennially push towards mechanization, contractualization, outsourcing, fragmented and distributed manufacture and casual wage workers at an ever-increasing pace.

Each of these factors contributes to the woes and travails of the informal sector workers.

We, thus, do not see any realistic possibility of ending the era of absence of work security, work safety and social security because of sudden dawn of responsible and worker-responsive behaviour on the part of the industry. Should Make in India at competitive costs has to succeed without industry having to absorb the extra labour costs, this is possible only with significant progressive stance of the public policy in which state and para-state actors step in to redress the genuine needs of the informal sector workers. However, we continue some wishful thinking about what changes would see a betterment of the situation of the informal workers recognizing as we do that what is being sought is consistent with the paradigm of humanistic employment in vogue and with which there is an agreement at verbal level.

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India Needs to Move from Microenterprise Schemes to Building an Inclusive Entrepreneurship Ecosystem

5

Shrashtant Patara, Kanika Verma and Vrinda Chopra

5.1. Introduction

The Indian economy has, over the last two decades, been characterized by wave of pivotal changes in the macroeconomy, market transitions and, more recently, a devastating pandemic caused by COVID-19, the effects of which will be felt for years to come. While there has been unprecedented growth in socio-economic well-being of the well off, socio-economically disadvantaged and vulnerable communities in rural areas, migrant workers and the urban poor, are finding it increasingly difficult to source meaningful employment. Unemployment in India is estimated to be at a 45-year high, figures that are likely to get aggravated in the economic aftermath of the pandemic. The jobs crisis underlines the need to reimagine an economic order that is equitable as well as much more resilient against catastrophes of the future.

A large body of research and practical experience validates the transformative potential of microenterprises, as a significant category, to generate multiple economic, social and environmental benefits and deliver the goods and services that shape economies. While they are acknowledged as a beacon of hope, growth in microenterprises remains sluggish. In this complex post-COVID-19 world, there is an urgent need for grassroots entrepreneurship to not just expand in scale but lead a transition from traditional to new occupations, while simultaneously 'instilling a sense of confidence, and ownership among individuals especially women and youth' (ILO, 2019).

5.2. 'Microentrepreneurship': What We See?

5.2.1. The Visibly Invisible Segment

There is widespread discourse and periodic attempts are made to address challenges faced by rural entrepreneurs. Actors across government, civil society, financial institutions and the private sector convene with regularity to deliberate over the existence, or lack of, inherent entrepreneurial traits and gaps in people's capacities. Consensus is built on new programmes and schemes that will respond to the needs of potential entrepreneurs. Very little, however, is done to recognize and capture entrepreneurial ambition. It is our view that this fundamental difference in perspective, in which people's problems are prioritized over people's strengths in development initiatives, has a debilitating effect on the emergence of rural entrepreneurship in India.

One-to-one dialogue in 2017 by the authors' team with rural communities in Uttar Pradesh revealed that in a village with approximately 1,500 adults, only 14 individuals had thought of setting up an enterprise and only 6 of them were able to do so (Verma et al., 2017). As seen over the last 3 years, in the emergence of 10–15 businesses in each village across an experimental group of 40 villages, the potential exists for more enterprises to be set up, many of which deal in new goods and services in rapidly evolving village and peri-urban economies.

More pertinent to the design of future strategies for the promotion of rural entrepreneurship, there is limited knowledge from the scantily available evidence on how entrepreneurs like Mamta (see Box 5.1) have overcome barriers to the establishment and growth of their businesses. Perhaps because their 'narratives', even while being openly visible for people to see, remain invisible from a policy perspective—lost in an extremely broad definition of who a microentrepreneur is.

More than 'Agarbattis or Achar': A Distinctive Manufacturing Enterprise in Mirzapur

I named my business, Amrita Ice Cream, after my daughter because I want her to have an even brighter future.

—Mamta, Mirzapur, Uttar Pradesh

Mamta always wanted to have an enterprise of her own. Her father had an ice cream factory and she had grown up observing and learning the art of building a business from scratch. In 2018, she decided to join the Work 4 Progress programme to co-create a business plan for setting up an ice cream factory in Dhannipatti village, on the outskirts of Mirzapur.

With her savings and enabling support from Development Alternatives, she invested in an ice cream manufacturing machine and rented space for a small factory. 'Amrita Ice Cream' was inaugurated soon after. In two years, the enterprise has grown from a single pushcart to 10, employing 12–15 residents of her village in manufacturing and sales of Amrita Ice Cream. Despite being a seasonal enterprise, her family's annual income grew threefold and she has an average monthly earning of ₹17,000. Mamta takes pride in carrying her father's legacy forward, something only her brother had been doing so far.

The new definition of a microenterprise put forth by the Ministry of Micro, Small & Medium Enterprises in 2019 combines a wide range of ventures in the category. It sees a microenterprise as one with an investment of 'not more than ₹1 crore' and an annual turnover of up to five times of the investment, that is, 'not more than ₹5 crore' (often less, in reality). A majority of rural non-farm enterprises are more accurately placed within the own-account enterprise (OAE) category as defined by the Ministry of Statistics and Programme Implementation (i.e., enterprises that do not employ any hired worker on a fairly regular basis). These enterprises have an average annual gross value added (indicative estimate of revenues) of ₹95,000 and have very little effect on local employment.

OAEs, while comprising 84 per cent of the total number of enterprises, employ just 62 per cent of the total workforce. Many studies at the global level have shown that even if the poor makes a transition to entrepreneurial activity, necessity-based entrepreneurship has very little effect on economic development, while opportunity-driven entrepreneurship has a positive and significant effect on individual and collective socio-economic outcomes (Acs, 2006). It is pertinent and of extreme importance from the point of view of livelihood security in the rural economy, therefore, to ask what it would take for such entrepreneurs to grow beyond their current level of low value added and fragile operations.

Recognizing the need for centring the definitions around people, the International Labour Organization (ILO), in 2019, revised its global definition of microentrepreneur, moving from capital- and revenue-based criteria to defining it based on the number of employees—an entity employing 2–9 persons. Bearing in mind the need for creating decent jobs and paving the way towards economic resilience of

Figure 5.1: The Spectrum of Worker Status: From Unemployed to Entrepreneurship

Source: The figure emerged during discussion on an earlier draft with the editor, Mr Vijay Mahajan.

local economies, this is the 'persona'[1] used in this chapter.

5.2.2. Connecting to the Disconnected Reality

Self-employed persons and people employed in microenterprises make up more than 80 per cent of total employment in South Asia (ILO, 2019). Additionally, about 85 per cent of the non-agriculture workforce in India is in the informal sector or trapped in disguised unemployment (Mehrotra, 2019). There is justifiable concern that these numbers might grow. Just in August 2020, job losses in rural India were estimated at 3.7 million. Of these, 0.7 million were in agriculture and the remaining 3 million in the rural non-farm sectors (CMIE, 2020).

From the vantage point of addressing development outcomes of unemployment and inequality, any intervention directed towards the promotion of 'Grampreneurs' has irrefutable potential due to high employment intensity per unit of investment, absorption of surplus labour from the agriculture sector and reduction in migration (as depicted in Figure 5.1).

Personas like Mamta's paint a future scenario, where their role is vital in the development of resilient, local economic systems. Yet village entrepreneurship in India has, from the point of view of economically marginalized people at the micro-level, primarily, been a consequence of need and subsistence goals. At the macro- and meso-levels, it is a projectized concept for agencies tasked with 'enterprise development' responsibilities. Development initiatives have, by and large, promoted enterprise development schemes rather than opportunity-driven 'entrepreneurship', where entrepreneurs can pursue their aspirations and realize their true potential, as well as add value to the local economy.

Simply put, a question that needs to be answered is: does the existing support system inhibit entrepreneurship and restrict rural entrepreneurs to survival mode? In such a scenario, how do you shift the location of substantial value creation to rural communities as a result of seizing opportunities and not necessity?

In order to address this question, for the purpose of the chapter, we are considering rural non-farm microenterprises, especially in the state of Uttar Pradesh, Madhya Pradesh and Bihar, as these states are at the lower end of the prosperity spectrum. We will also focus on emerging sectors such as logistics, telecom and e-commerce, clean energy, health services, agro and food processing, educational services, and hospitality and tourism for microentrepreneurship. This we hope will bring to the forefront many instances of innovation and alternative narratives that macro-level data, consequent analysis and policymaking do not capture.

The study has a specific focus on groups of women and youth, particularly due to their heightened vulnerabilities. According to the Periodic Labour Force Survey for 2017–2018, there has been a striking decline in women's participation in the workforce (PLFS, 2018). Only about 22 per cent of women of working age (defined as 15 years of age or more) were gainfully employed, down from about 31 per cent in 2011–2012, as estimated by the 68th Round of the National Sample Survey (NSS). Among

1 'Personas' are profiles of entrepreneurs formulated by Development Alternatives on the basis of the personality traits, aspirations and nature of enterprises being set up by potential entrepreneurs and the influence of their surroundings. They constitute, we believe, distinct target groups for proposed entrepreneurship initiatives in rural India.

youth, ILO's estimates show 4.1 million job losses just due to the pandemic, adding to the 160 million unemployed young people as per 2019 figures. Essentially, these figures imply that four in five young people work in the informal sector (ILO-ADB, 2020). The needs and aspirations of youth and women are immediate and need to be addressed with urgency.

We write this chapter in optimism and the hope that it will help build a future where we rediscover the potential of these real everyday heroes of their households, communities and the Indian economy. The journey that we have taken has connected us to three touch points:

- An exploration of entrepreneurial potential by capturing the voices of entrepreneurs and programmes that develop microentrepreneurship
- A deep dive into the existing set of institutions and their role in promoting microentrepreneurship
- A proposed solution in the form of an inclusive ecosystem and its ability to unlock the true potential of microentrepreneurship

Ultimately, the most significant question we ask ourselves is whether Mamta is an outlier. Or whether there can be millions of rural businesses run by such 'entrepreneurs of hope'.

5.3. State of the Sector

Recent academic research is realizing the value of an ecosystem lens in understanding and driving entrepreneurship (Mahajan, 2016), where a number of 'interdependent actors, factors and processes' interact to facilitate growth in entrepreneurship within a particular territory (Stam & Spigel, 2016). While we discuss the specific advantages of using an ecosystem development approach later in the chapter, the emphasis on the approach is a consequence of empirical evidence that highlights the deep impact several interconnected support services have on entrepreneurship behaviour[2] (Sreeram et al., 2015; Verma et al., 2017). Keeping the concept of an entrepreneurial ecosystem in mind, this section proposes an alternative 'map' for the microentrepreneurship ecosystem. It is structured according to the three broad domains of policy, support services and stakeholder behaviour. Through such an investigation, the aim is to highlight the gaps in the ecosystem while also demonstrating the deeply systemic nature of entrepreneurship.

5.3.1. Policy Framework

Inadequate policy architecture, detached from ground realities and troubles in implementation, has implications on the extent to which aspiring microentrepreneurs are marginalized (Gurtoo, 2009). Well-intentioned, enterprise development initiatives have largely been 'exclusive' in nature (Mahajan, 2016). Part of the issue stems from lack of a comprehensive policy for micro, small and medium enterprises (MSME). Conversations at various forums assert the need for a policy framework for entrepreneurship.

In 2014, a draft paper circulated by the Government of India[3] recognized that the sweep of the sector is extensive, diverse and differentiated, perpetuating a siloed approach to promotion of entrepreneurship-led economic growth and job creation. For instance, the paper pointed out that in the absence of an overarching policy framework, several ministries operate in the area with their own specific policies and schemes that have a bearing on the MSME sector. The draft paper further recognized the need for a central focus on the entrepreneur as a guiding force for policy and practice.

The paper, however, still awaits any action on its recommendation of an inclusive and overarching policy framework. The present situation requires practitioners to infer the policy context for MSMEs from a number of schemes

2 A study was conducted by Sreeram et al. (2015) in Palakkad district of Kerala with the objective of studying the relationship between selected profile characteristics and entrepreneurial behaviour of members of Kudumbashree neighbourhood groups (NHGs) with a sample size of 120 respondents. Ex post facto research design was followed. The correlation analysis revealed that age and credit orientation had non-significant relationship, whereas education, income, mass media exposure, social participation, training received, extension contact, marketing facilities, value orientation and management orientation had positive and significant relationship with the entrepreneurial behaviour of Kudumbashree NHG members.

3 https://msme.gov.in/sites/default/files/MSME%20Policy%20final%20document_0.pdf

and programmes of central and state ministries as well as the policy documents of regulatory authorities (such as the Reserve Bank of India, the Ministry of Finance and the Planning Commission for the period prior to 2015, when it was replaced by NITI Aayog).

Table 5.1: Distribution of Enterprises Category Wise (Numbers in lakh)

Sector	Small	Medium	Large	Total	Share (%)
Rural	324.09	0.78	0.01	324.88	51
Urban	306.43	2.53	0.04	309.00	49
All	630.52	3.31	0.05	633.88	100

Source: https://msme.gov.in/sites/default/files/FINAL_MSME_ENGLISH_AR_2019-20.pdf

It is well recognized that within the MSME sector the overall focus of sectoral policies, schemes and budget allocations is on small and medium enterprises. Within the category of microenterprises, that comprise nearly two-thirds of MSMEs in the country, a majority operate in the informal economy. As informal businesses, they face barriers with respect to credit, infrastructure, market access and technology. The policy responses that focus on this extremely small size of micro-business have, till very recently, targeted a couple of these issues on a piecemeal basis rather than viewing them as a distinct sector with its own challenges and opportunities.

In recognition of these issues and in lieu of an encompassing policy framework, certain shifts are taking place that could have a bearing on microentrepreneurship in rural areas. In recent years, the government, especially the NITI Aayog and the Ministry of Rural Development, have taken steps towards acknowledging the issues faced by OAEs. These include the following:

- Recognition of the diversity of 'nano' scale businesses and the specific challenges they face in starting up, surviving and growing
- An increase in financing arrangements that can offer credit to microentrepreneurs including micro-finance, government schemes like MUDRA Yojana, and within that Shishu loans of below ₹50,000, and community enterprise funds as under the government's Start Up Village Entrepreneurship Programme
- Increasing policy and programme thrust on women-owned and -led enterprises, thereby recognizing the existing and potential contribution of women

Despite these positive shifts, the lack of comprehensive outlook and barriers in implementation present challenges to the potential and growth of rural non-farm enterprises. These issues become clearer through the remainder of the section where we look at the current conditions in the sector in terms of schemes and programmes, support services and behaviour of actors and processes in the ecosystem.

5.3.2. Schemes and Programmes

Currently, a number of schemes and programmes are available (Table 5.1) for enterprises at the lower end of the spectrum by size of operations. However, these reach out to a very small number of people and barely translate into any significant amount of value creation in the rural non-farm sector. Official estimates show that approximately 2 per cent of unincorporated non-agricultural enterprises report receiving assistance through government programmes and schemes and only 1 per cent receive any financial support from the state (NSSO, 2015). In locations where concurrent improvements in implementation are taking place, the impact of these schemes is visible.

Official data from India's largest flagship programmes provides indications of both shortfalls and potential. On the side of shortfalls, the data from the MSME Annual Report 2019–2020 shows that the number of micro-units supported with margin money under PMEGP in 2019–2020 was 32,227, dropping from 73,427 in 2018–2019 (almost 50,000 units).

However, after the COVID-19 induced lockdown, new estimates show an increase of 44 per cent in the approval of projects between April and August 2020. These estimates indicate a jump to 1.03 lakh units supported through the programme (MMSME, 2020). The difference in year-by-year numbers demonstrate the interest in microentrepreneurship in rural areas (80% of the

Table 5.2: Relevant Schemes for Micro Enterprises in India

Scheme Name	Details
Prime Minister Employment Generation Programme (PMEGP)	Government subsidy is routed through designated banks for eventual disbursal to the entrepreneurs directly into their bank accounts. The maximum cost of the project/unit admissible in the manufacturing sector is ₹25 lakhs and, in the business, /service sector, it is ₹10 lakhs.
Pradhan Mantri MUDRA Yojana (PMMY)	Launched in April 2015, PMMY provides loans up to 10 lakh to the non-corporate, non-farm small/micro enterprises. These loans are classified as MUDRA loans under PMMY and given by Commercial Banks, RRBs, Small Finance Banks, MFIs and NBFCs.
Stand-Up India (SUI)	Launched in year in order to facilitate bank loans between Rs.10 lakh and Rs. 1 Crore to at least one Scheduled Caste (SC) or Scheduled Tribe (ST) borrower and at least one woman borrower per bank branch to set up a greenfield enterprise.
Start-up Village Entrepreneurship Programme (SVEP)	A sub-scheme under the Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM), SVEP is aimed to help rural households, including women, to set-up enterprises. Approved during 2015-16, the enterprise formation started in 2017-18. Since then, a total of over 1,00,000 enterprises were formed across 23 States

micro-units are rural according to the MMSME Annual Report 2019–2020). Additionally, it points to the impact conducive implementation structures can have in providing timely support to entrepreneurs.

The positive impact of SVEP (see Box 5.2) indicates that the aspiration for entrepreneurship in rural communities exists, and when accompanied with adequate support, microenterprises can demonstrate enterprise viability on a sustained basis (SVEP, 2019).

Other notable policy interventions are government-run skill development programmes under the National and State Rural Livelihoods Mission (NRLM and SRLM) and Rural Self Employment Training Institutes (RSETI). These programmes have deep penetration in rural India, but their impact on unleashing entrepreneurial energies of the populace is limited due to their isolated nature, rather than being a part of an interconnected network of support.

Start-Up Village Entrepreneurship Programme

Shifting focus from group-based enterprises to nurture individual-run enterprises across India.
Our entrepreneurs are now fearless about opening an enterprise, but the need now is to help them restart their businesses in the COVID-19 times.

—Mukesh Pandey, Mirzapur

SVEP is a one-of-a-kind initiative to deliver enterprise support services to women- and minority-run enterprises in rural India. More than 80 per cent of the enterprises under the programme are new and 99 per cent of these enterprises continue to make profits. SVEP has been successful in motivating and empowering aspiring women entrepreneurs from disadvantaged communities to take up entrepreneurship. As per the midterm impact assessment report, SVEP is supporting more than 1 lakh enterprises in 23 states of which two-thirds are owned and operated by women in diverse segments of the manufacturing, trading and services sectors. Furthermore, nearly 60 per cent of SVEP entrepreneurs did not study beyond 8th grade.

The programme addresses problems faced by entrepreneurs such as a missing knowledge ecosystem, a lacking incubation ecosystem and an inaccessible banking and finance ecosystem. This is mainly done through business skill training, start-up capital and loans, business and enterprise support.

The SVEP programme aims to provide support services to 1.82 lakh village enterprises and direct employment to 3.78 lakh rural people from socially and economically disadvantaged groups by 2021.

5.3.3. Support Services

Weak policy and institutional mechanisms for innovation within the rural enterprise sector have profound implications on the nature, quality and responsiveness of support services available to potential entrepreneurs. The isolated nature of support in finance, skill development and other infrastructure needs like technology is the focus of this section, with the aim to highlight the significance of an interconnected network of support.

5.3.3.1. Demand

The nature of rural demand, when seen through consumption data, reflects deep shifts since the early 1970s, with significant changes since India's liberalization in the 1990s. Demand in the rural economy for a diverse range of products and services has been growing consistently as a consequence of growing awareness and needs for different goods and services. Data shows a consistent decline in food expenditure since the early 1970s, with a corresponding rise in non-food items (Mehta & Bhide, 2018).

Disaggregated data between food and non-food consumption shows that the share of the non-food categories as a proportion of total monthly per capita expenditure in rural areas increased from 36 per cent in 1993–1994 to 51 per cent in 2011–2012 (NSSO, 2012). There was a corresponding sharp increase in the consumption of miscellaneous goods and services (with conveyance, education and health care as the three biggest contributors for the shift in the second decade) according to the NSS data (2012). The leaked data from the latest NSS 2017–2018 results corroborate the continuing nature of such shifts (Figure 5.2).

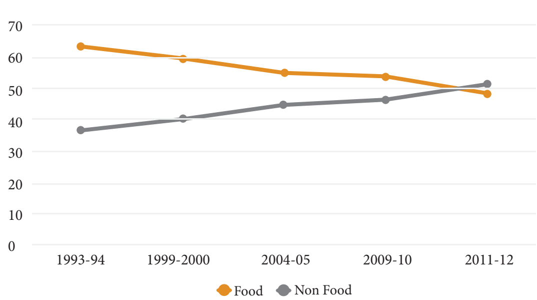


Figure 5.2: Shifting Share of Consumption in India

Source: NSS KI(68/1.0): Key indicators of household consumer expenditure in India https://www.cse.iitb.ac.in/~sohoni/TD463/KI-68th-HCE.pdf.

In general, microentrepreneurs are unable to access adequate infrastructure and skills to gauge trends in demand (Mahajan, 2016). Women and youth struggle the most to access new opportunities and grow their ventures due to a lack of access to relevant skills, capacities, information and financial support.

The growing reach of telecommunications and access of rural populations to e-commerce are largely seen as an opportunity by urban and corporate organizations to capitalize on rural consumption changes. For instance, a report by Accenture (2014) asserts that the opportunities presented by India's rural markets cannot be ignored by any high-performance business with three-fourths of the population living in villages. The same report, for instance, profiles the rural consumer as aspirational, networked and discerning, reflecting the changing realities in rural spaces.

Given these assertions then, shouldn't the rural poor be the torchbearers for local opportunities rather than urban businesses? Should they not leverage their networks and discerning nature through a conducive ecosystem to meet their aspirations (see Box 5.3)? Therefore, while most analyses highlight the need for market linkages within the microenterprise sector, we believe the critical issue is with respect to skills, capacities and infrastructure to enable rural entrepreneurs to access new opportunities.

5.3.3.2. Finance

Access to finance within the sector remains poor despite a number of public and private sector initiatives that specifically target microenterprises. According to the sixth MSME census, only 2.3 per cent MSME units in India have access to finance including NBFCs and MFIs, and only 6.9 per cent units have leveraged financial assistance from government sources (All India Report of Sixth Economic Census, 2016). Majority of microenterprises, therefore, rely on informal financial sources. According to a survey conducted by the Reserve Bank of India (2018), microenterprises with a turnover of less than ₹10 lakh have lower probabilities of accessing formal funding as the primary source of finance.

To enhance the flow of credit to microenterprises, the central government launched PMMY and the Credit Guarantee Fund Trust for Micro and Small Enterprises. While PMMY provides collateral-free credit for microenterprises, mostly very small ones (Shishu, with loan size <₹50,000), the scheme did make provision for slightly larger microenterprises, the Kishore category could get loans up to ₹5 lakh, while the Tarun category could receive loans up to ₹10 lakh.

During the period of April 2015–March 2019, the Shishu categories[4] received 86.48 per cent of the loans by number but only 46.72 per cent of the loan amount was disbursed by PMMY. Of the PMMY loans, majority went to existing enterprises, rather than new and aspiring entrepreneurs and only 14.43% went to women entrepreneurs (Mahajan & Singh, 2020).

MFIs attempt to fill gaps in support as well, particularly, in the segment where loan sizes are less than ₹50,000, making MFIs' share the largest in formal loans portfolios which stand at ₹101,663 crore, accounting for 35 per cent of the total industry portfolio of financial institutions (Bharat Micro-Finance Report, 2020). However, the penetration and spread of MFIs in rural areas are still poor, with meaningful and effective presence in only selected parts of the country.

Questions of market and financial viability limit deeper credit penetration into rural non-farm microentrepreneurship due to perceived low returns and high-risk profiles of the sector. These issues bring us back to the core systemic problem of infrastructure, skills and capacities for entrepreneurship in the rural non-farm sector.

5.3.3.3. Infrastructure, Technology and Capacity-building Support

Access to new and emerging market opportunities is constrained by a lack of

Bihar's Leading Woman Green Business Entrepreneur

It is rare to find women entrepreneurs in Bihar. When I started in 2018, I was questioned by many about my abilities to run an enterprise. Today, I own one of the largest fly ash brick manufacturing units in Bihar and employ 15 other people in my unit.

——Mikki Devi, Araria, Bihar

Mikki Devi was exploring entrepreneurship opportunities in 2017 and she connected with officials working at National Thermal Power Corporation (NTPC) Limited, Kahalgaon, to understand the feasibility of setting up a fly ash bricks manufacturing unit—an innovative enterprise model to combat climate change by substituting red clay bricks.

An ex-mukhiya (village sarpanch), Mikki turned out to be a quick learner and attended classes at NTPC and online learning platforms to understand the manufacturing process, procurement and operations. Once confident about starting up, she connected with PMEGP to access subsidy and inaugurated her enterprise 'Bhawani Shankar Fly Ash Bricks' in April 2018. She also attended community meetings on entrepreneurship to learn about the correct sizes of brick moulds, quality control of fly ash brick manufacturing and striking partnerships with local construction projects.

Today, all processes, material and finished goods at Mikki's unit are approved by the Bureau of Indian Standards. She sells 70 per cent of her bricks to private households and the remaining to support local government projects. Employing over 15 people, including migrant labourers, Mikki earns over ₹525,000 every month and has become a role model who demonstrates the potential of unleashing entrepreneurial energies to leverage new economic opportunities.

4 Under the aegis of PMMY, MUDRA has created three levels: 'Shishu', 'Kishore' and 'Tarun' to signify the stage of growth/development and funding needs of the beneficiary micro unit/entrepreneur and also provide a reference point for the next phase of graduation/growth.

enabling infrastructure. Specifically, issues persist with regard to inadequate penetration into rural contexts, lack of modern technology, particularly, digital connectivity and capacities of support service providers. These issues are not unrecognized or new. Rather, state programmes such as support for self-help group federations, Common Service Centres (CSCs) and Bank Mitras, along with the capacity-building support from RSETI, NRLM and SRLM, are all initiated to enhance livelihood security in rural areas but are plagued by lingering implementation roadblocks. For instance, a vast majority of the 270,000+ strong network (Ministry of Electronics and Information Technology, 2019) of CSCs, envisioned to enable access to information (particularly around schemes and provisions), Internet services and finance, struggle to remain viable.

For any enterprise to operate efficiently, it is essential to put in use the best and most appropriate technology available. However, selecting the best technology package from the available options is often a tricky and uninformed decision for rural microentrepreneurs. Among microentrepreneurs, and more so in rural areas, there exists a lack of exposure to ideas and an understanding of the viability of the new or upgraded technologies. Even as the world becomes hyperconnected, the use of mobile phones in rural areas has grown exponentially. As a consequence, it can be safely inferred that the use of communication platforms has also grown among enterprises as a means to effect sales and undertake simple business transactions.[5] However, the number of active users is still small. From our interventions in Uttar Pradesh we find that at present, only 15.2 per cent of entrepreneurs (mostly male) use different digital forums such as chat groups and IT-enabled services. Moreover, information of the nature and quality that would support the establishment and growth of enterprises is not available.

The evidence points to issues in the competitiveness of enterprises if they are unable to use digital technologies and infrastructure. However, the awareness of the potential of technology is tangible among young entrepreneurs. Our research in Uttar Pradesh reveals that 83 per cent of potential young entrepreneurs think that entrepreneurship is a major source of innovation and intend to start tech-based enterprises; 44 per cent of potential entrepreneurs expressed the need for support to understand and access technology to meet their aspirations (Verma et al., 2017). There is, therefore, a significant need to create a platform that enables access to newer technologies, facilitates online delivery of interactive curriculum and content to entrepreneurs and connects them to local mentors (Chatterjee et al., 2020).

In addition to technology and skills, support with respect to other infrastructure needs such as warehousing and transportation is urgent. A lack of transportation facilities, for instance, has implications on enterprise growth; NSS data shows that three-fourths of monthly expenditures of enterprises in rural areas go towards transport equipment (NSSO, 2009).

In sum, to encourage entrepreneurship in the rural non-farm sector, it is imperative to build innovative and interconnected supportive infrastructure. Otherwise, microentrepreneurs will stay stuck within the 'need' economy, dependent on formal structures to survive rather than become 'contributive' and 'productive' nodes in a thriving, connected local society (Sandel, 2020; Sanyal 2007)

5.3.4. Behaviour in the Ecosystem

Building upon insights gained from experience and earlier definitions, an entrepreneurship ecosystem could be defined as 'a set of social institutions, consisting of independent but interconnected actors and the processes they generate to directly or indirectly support the creation and growth of new ventures'. Our discussion on the policy framework, schemes and support services is largely oriented around an ecosystem lens. Seen through such a lens, the success of the ecosystem is dependent upon holistic, systems-based thinking, where the sum of parts is greater than the whole. Put differently, the effectiveness of an entrepreneurship

5 https://inc42.com/resources/the-shift-to-digital-payments-empowering-rural-businesses-to-make-transactions-seamless/; https://indiaincgroup.com/rural-bharat-leads-india-in-digital-growth/

ecosystem is closely related to behaviour of entrepreneurs, support service providers, development practitioners and other actors, as well as the processes they influence. It is essential then to discuss the underlying assumptions, norms, practices and beliefs that make up the culture of the rural non-farm microenterprise sector at macro, meso and micro scales to better understand their deeply entrenched nature.

At the macro level, despite a growing emphasis on entrepreneurship as a policy response to address unemployment, schemes and ongoing interventions are unable to support innovative and inclusive models of entrepreneurship at the micro level. Discourse like that of 'Fortune at the Bottom of the Pyramid' (BoP) seems to reiterate the logic that formal capitalist economic structures can encroach on the informal economy to satisfy their needs for expansion (Carden, 2008), seeing them solely as consumers rather than producers. The wave of social entrepreneurship has attempted to address the issues of market exploitation at BoP by corporates. However, they inadvertently perpetuate a hierarchical system of top-down power structures, rather than driving more radical possibilities of empowering communities from within (Sanyal, 2007). For instance, microfinance is often lauded for meeting financial needs of the marginalized. While this is certainly positive, recipients often remain stuck within the informal need economy. Our interactions with some of the entrepreneurs show that even when they would like to grow their businesses, they are unable to do so due to cycles of debt. Additional income goes into repayment rather than reinvestment into their businesses.

Without romanticizing the notion of informality in the microenterprise space, the inability to see its potential is ironically coupled with concepts that push the rural populace as markets rather than spaces of innovation and economic growth. As academic and empirical research on the informal sector corroborates, just because the sector lies outside the realm of formal capital, it does not mean informal enterprises are bereft of purpose (Gurtoo, 2009). Rather, if the difference between 'surviving' and 'dignified livelihoods' can be traced, it can be found that microenterprises and the informal sector cannot be assessed solely in economic indicators of competition, efficiency and profits. They include a more heterogeneous set of indicators of civic contribution with respect to trust, reciprocity, cooperation, stewardship, thrift and solidarity (Gibson-Graham, 2014).

The lack of recognition of the heterogeneity of microenterprises and entrepreneurs permeates into the divergent and unimaginative approaches at the meso scale. Government-influenced promotional and credit institutions are, as the previous sections have demonstrated, deeply dysfunctional in addressing the aspirations of the rural populace. Credit facilities especially perpetuate ideas of high risk in investing in microentrepreneurs due to their market-driven due diligence processes and siloed implementation structures. The perceptions are at odds with ground realities seen through our interventions in Uttar Pradesh, where micro credit institutions have seen over 95 per cent repayment rate even during the pandemic. Market logics of risks and returns constrain social entrepreneurs as well as they attempt to balance market considerations with social impact goals. They often need to make trade-offs, and these are in terms of the population groups they are able to reach (Bansal et al., 2020). Where they succeed, they are more evidently aligned with communities.

Some shifts are taking place within state-run programmes as in the case of SVEP and its contribution in promotion of aspiring women entrepreneurs (see Box 5.2). However, these need to be scaled out through collaborative mechanisms to other schemes and programmes to bring about the required sea change for building a culture of entrepreneurship.

Moving away from a dependency culture of seeking jobs (mostly subsistence based) to one of *swarozgar* or self-employment and aspiration-based entrepreneurship culture is a factor of behavioural barriers at the micro scale as well. Perceptions of communities with respect to entrepreneurship, especially for women and young people, can act as barriers to their participation. Entrepreneurship is often chosen as a path when all other paths to employment are exhausted, leading to establishment of typical enterprises within saturated market segments. For example, Bihar's YUVA COMPASS Opportunity Hubs

Community spaces for young entrepreneurs.

I had been working at a finance company in Indore for about six months, before I was laid off due to the pandemic. I want to start something of my own now and am confident about setting up a Common Service Centre in my village. I can invest up to 25–30 thousand but need access to good credit services to make it the best kiosk in the area.

——Jitendra, Khategaon, Madhya Pradesh

YUVA COMPASS (YC) opportunity hubs aim to catalyse the local upskilling and entrepreneurship ecosystem by co-developing solutions with youth for their skilling and business development. The YC hubs have been designed with enterprise support service providers to become a one-stop solution for aspiring youth entrepreneurs to access affordable services such as skill development, credit, technology solutions and mentoring. As spaces for open dialogue between community members, they are envisioned to build solidarity and foster networks of influence among youth.

To work towards one of its goals to increase rural household incomes, Transforming Rural India Foundation (TRIF) piloted new livelihood interventions to catalyse economic opportunities for rural youth in 2018. Since then, TRIF has co-designed and established four YC hubs with aspiring youth entrepreneurs and relevant stakeholders across four blocks of Madhya Pradesh and Jharkhand that engage with youth from 200+ villages. The YC hubs are currently working on connected 1,200+ aspiring youth entrepreneurs and job seekers with support services provided by 18 organizations.

women enterprises in sectors such as papad, pickle, masala and *agarbatti* (incense sticks) are so widespread that the employment and economic gains are diluted. Moreover, social and gender barriers prevent them from reaching markets. For instance, Nigam Devi, who manages an *agarbatti*-making unit in Bhadohi of 20 women, relies on her husband for market access. The group waits for her husband to finish his job and then sell the finished product in Gyanpur, a nearby town. The subsistence view of the space and inaccessible support prevent communities from consistently believing in its potential for dignified livelihoods (Verma et al., 2017).

In all, there is a need for acceptance of the complex and diverse systems within which entrepreneurship in rural non-farm sectors can flourish. In part this involves seeing microentrepreneurs from a civic or a solidarity lens, where they 'contribute' to strengthen their local economies. With such a frame, their abilities can be nurtured and deployed to fulfil the needs and services of their communities and provide dignity to their work (Box 5.4). In the next section, we will discuss this further.

5.4. Roadmap to the Future

In the previous section, we looked at interconnected attributes of entrepreneurship ecosystems in the rural non-farm sector. By discussing the policy imperatives, support services and behaviour of various actors currently prevalent in the ecosystem, we highlighted significant gaps and discrepancies, as well as argued for the need for a more conducive and supportive ecosystem. Forging ahead, in this section, we suggest the coordinates of a 'roadmap' that can guide us towards a more fertile entrepreneurship ecosystem.

We argue that the promotion of 'inclusive entrepreneurship' may, as an approach, be a more contextually relevant, strategically purposeful and practically useful way to induce action across scales, sectors and stakeholders for unleashing entrepreneurial energies. Going beyond the definition put forth by OECD, [6]inclusive entrepreneurship can be defined, in our view, as 'a phenomenon that is characterized by systemic change that enables under-represented groups to access entrepreneurship opportunities, thereby

6 OECD definition of inclusive entrepreneurship: 'It is entrepreneurship that contributes to social inclusion to give all people an equal opportunity to start up and operate businesses.' https://www.oecd.org/cfe/leed/inclusive-entrepreneurship.htm

Innovating Mobility Models with Women-driven Machines of Freedom

We want our initiative to become a company that every tourist, who comes to Jaipur, wants to tour with.

——Radhika Kumari, Head, The PCRC

Mobility is not gender neutral and is impacted by several social and gender norms. Restrictions on mobility restrict women's access to basic facilities such as education, health and free movement outside their homes.

Initiatives by organizations like ACCESS Development Services and Development Alternatives look at co-creating women-led e-rickshaw enterprise models and take into account the local ecosystem to cater to different social complexities. They not only provide a safe and trusted travel option to women but are also contributing to an increase in women workforce participation and decrease in dropout rates of schoolgirls. These initiatives are empowering women to become the agents of change at both rural and urban fronts and are ensuring their economic and social upliftment.

The Pink City Rickshaw Co. (PCRC) initiative of ACCESS Development Services is a not-for-profit organization run by 50 women drivers and aims to provide new employment opportunities to 200 women from low-income households in Jaipur. Women e-rickshaw entrepreneurs of Development Alternatives are providing safe transport facilities to rural girls and women and have been recognized at regional levels for their attempts towards women empowerment.

Interventions in this space have shown that social complexities can be solved by keeping people in the centre of the work we do, forming interconnections between different factors in the ecosystem and liberating communities to explore entrepreneurial energies.

leading to social inclusion and sustainable economic growth'.

The importance of this change in approach cannot be overstated. Very little is known and done with regard to the alchemic interplay of factors and processes that form an enabling environment for rural enterprises to overcome persistent barriers, particularly those that are specific to their context, size, structure and mode of operation.

5.4.1. Inclusive Entrepreneurship: Future Potential

At current estimates, even if conservative figures are taken, at least 12 million people will be added to India's workforce every year (Ministry of Finance, 2018). The percentage of people employed in the rural non-farm sector may fall over the next decade but is not likely to change dramatically from the current level of 45 per cent (NSSO, 2017). Allowing for a reduction, one can still safely assume that, with an average of 30 per cent of new workforce entrants needing employment in this sector, 3.6 million people will need to be employed in rural enterprises every year.

To this number, if we set ourselves the goal of annually improving the livelihood conditions of just 5 per cent of the 40 million people stuck in low paying, undignified rural informal sector jobs, an additional 2 million people will need to be employed in high value-adding, opportunity-based local businesses. If each enterprise typically employs an average of 2.7 persons,[7] about 2 million new businesses would have to be set up every year across 675 rural districts, that is, 3,000 per district. As discussed further, a fundamentally different way of thinking and radically different 'ecosystem' would need to be put into place to respond to this magnitude of a challenge.

7 Average number of persons employed across a sample of 850 diverse rural enterprises in the Work 4 Progress and Entrepreneurship for Empowerment programmes of Development Alternatives.

Prioritizing inclusion, in not only generating wage employment but profitable local value creation, would then become an overarching objective of entrepreneurship ecosystems, in which people stuck in dead-end informal jobs and those currently in subsistence or necessity-based income-generating activities (particularly women) would transition into entrepreneurship (Box 5.5). The big question, therefore, is how we can infuse the rural economy with the innovation and productivity required to turn villages into thriving, sustainable centres of value creation which fulfil the aspirations of many and not just the ambition of a few.

5.4.2. Shift to Inclusive Entrepreneurship

Entrepreneurship as a concept is foremost on policymakers' minds as a means of driving economic growth and development, fuelled by the popularity of Silicon Valley style start-ups and the much venerated 'change maker' discourse associated with social businesses. For a vast majority of other aspiring entrepreneurs, particularly those in rural areas who set up micro-businesses, it is presumed that they are either incapable of setting up a business or need significant amounts of assistance in order to do so. Consequently, we find ourselves in a situation where we either have 'hero-preneurs' or we have 'scheme'-driven initiatives, both of which fail to address the entrepreneurial aspirations of majority of the population groups, especially in spaces like the rural non-farm sector.

The success of Mamta Devi and Mikki Devi, whom we spoke of earlier in the chapter, highlights the possibilities for entrepreneurial success and the creation of dignified livelihoods in large numbers. There is supportive evidence for the potential for entrepreneurship as seen in programmes such as SVEP, findings from our listening exercises in Mirzapur, Bundelkhand, Uttarakhand and Bihar, and research by the Global Entrepreneurship Monitor (GEM).[8]

Rural microentrepreneurs do not have differing motivations from their urban and more resource-endowed counterparts. The lack of an enabling ecosystem pushes them into entrepreneurship based on necessity rather than aspiration. Policies and support systems amplify perceived needs and entrench these trends further. Inclusive entrepreneurship plugs into these realities and emphasizes that entrepreneurship should be accessible for all who aspire for it, including under-represented groups (Scoppetta & Geyer, 2019). The concept contrasts with assumptions of entrepreneurship for a few people with the skills, qualities and resources. Rather, it stresses that anyone who would like to pursue entrepreneurship should have the opportunity to do so.

5.4.3. Emerging Sectors for Inclusive Entrepreneurship

A strategic push towards inclusive entrepreneurship needs to include emerging sectors that provide growth opportunities and resonate with local aspirations. Macroeconomic trends and pockets of innovation put the spotlight on new enterprise solutions, often driven by IT-enabled services, community-based ownership and circular economy models that prioritize inclusion and broader sustainability concerns. We believe that the following seven sectors should be prioritized for inclusive entrepreneurship.

5.4.3.1. Logistics

Logistics in terms of processing, warehousing and transportation can be a crucial segment for non-farm entrepreneurs to tap into. In the section on state of the sector, we saw that significant enterprise expenditure in rural areas is on transportation (NSSO, 2009). The space would be important in building community-driven infrastructure to meet local needs. For instance, as seen during the lockdown, e-rickshaws run by women provided transportation services and CSCs run by youth provided much needed e-governance and e-payment services. Macroeconomic trends on earnings in the sector indicate promise as well. Data on the use of E-way bills (Department of Economic Affairs, 2020) in 2020 highlights a positive growth in earnings from logistics since that of 2019.

8 The GEM 2019–2020 report highlights that while entrepreneurs do initiate work for the financial rewards, they are actually motivated by a mix of different factors of which a sense of purpose and independence came up.

Decentralized Kiosks to Cultivate Entrepreneurship-led Job Creation

I have developed a better understanding of entrepreneurship. Earlier I used to work only for myself, but now I feel I'm more capable of helping others and am working for the whole community.

—Mangal Singh Dohre, Jhansi, Uttar Pradesh

Despite a push for digitization of key government-to-consumer services, many individuals in rural India are unable to access them due to lack of appropriate channels. Mangal Singh Dohre started one such Jan Seva Kendra, a CSC, in 2015 in village Behta, his birthplace. His kiosk soon became a local hub providing information services such as job applications, documentation support for students, a portal to register for government schemes, Aadhaar Enabled Payment System to make cash transactions, issue of Ayushman and ration cards, and address enquiries on social security schemes.

Throughout the lockdown, his home-based kiosk continued to provide ration cards for accessing relief packages to members of his community. The urban daily wagers who were forced to return to their villages with little to no savings especially benefited from the operations of the kiosk.

Since 2018, Mangal's annual household income has grown threefold from ₹110,000 to ₹320,000, thanks to a booming enterprise that is able to service 20 neighbouring villages. He represents a network of 50+ such kiosks adapting to dynamic changes in the local ecosystem while growing their business to make village economies more resilient to external macroeconomic shocks.

Mangal Singh Dohre, with support from Development Alternatives, diversified his enterprise model in 2018 beyond a CSC and was awarded by the regional government for providing quality information services to his community. Development Alternatives has co-created a network of 'Information Kiosks' with young entrepreneurs like Mangal to ensure affordable access to enterprise development solutions and digital services in rural India.

5.4.3.2. Clean Energy

In order to meet the commitment of increasing India's clean energy capacity from 134 GW to 220 GW by 2022, a significant amount of impetus will be given to clean energy value chains. The knock-on effect solar power and other forms of bioenergy businesses have in the rural economy is already visible in terms of village-level solution providers for lighting, irrigation, productive and commercial uses. Priority sector lending guidelines of the Reserve Bank of India are also supporting growth in the sector.

5.4.3.3. Telecom and E-commerce

The surge in telecom industry and e-commerce platforms is promising for entrepreneurship. Evidence from ground shows interest of young people in the digital arena, adopting similar ethos to mainstream gig economy. For instance, during the pandemic, CSCs started at home services. Other examples include mobile repair shops that are turning into a viable industry with the investment of giants like Flipkart.[9] Amazon, for example, in partnership with the State Bank of India trains entrepreneurs on e-commerce transactions.[10] Corporate interest in this segment could strengthen and standardize the ecosystem. Market aggregation and e-commerce supply chains would strengthen penetration and reach (Box 5.6).

5.4.3.4. Health Services

Health services can be a substantial sector given the policy focus in health care. Ayushman Bharat is upgrading 150,000 rural primary health centres to health and wellness centres. Moreover, demand in rural area for improved

9 https://economictimes.indiatimes.com/small-biz/startups/newsbuzz/flipkart-will-soon-offer-mobile-repair-services/articleshow/64023681.cms?from=mdr

10 https://www.amazon.in/b?ie=UTF8&node=8518335031

and easily accessible health care is on the rise, as highlighted by trends on consumption and expenditure in NSS. Instead of focusing on imports from China, practitioners could build on the successful deployment of personal protective equipment (PPE) for COVID-19 to encourage microenterprises in the area.[11]

5.4.3.5. Food Processing

The food processing industry was valued at $258 billion in 2017, and the fifth largest industry domestically in terms of production, consumption, export and expected growth. It contributes to around 14 per cent of manufacturing gross domestic product (GDP) and 13 per cent of India's total food exports. The Indian food processing industry holds tremendous potential to grow, considering the nascent levels of processing, and presents opportunities to strengthen supply chains to include rural microenterprises, building shared infrastructure like decentralized storage facilities and upskilling of workforce to adopt sustainable production processes.

5.4.3.6. Educational Services

India spends 4.6 per cent of its total GDP on education and ranks 62nd in total public expenditure on education per student. Experts have called for raising the education expenditure to 6 per cent. The recent National Education Policy proposes major changes, emphasizes supporting auxiliary services in the education sector such as affordable, accessible and quality online education and translation of content in regional languages. The online education market alone valued at ₹39 billion in 2018 is expected to reach ₹360.3 billion by 2024 and the 'EdTech' market in India is expected to reach $3.5 billion by 2022 (IBEF, 2020).[12] Thus, last mile education services, provided through local entrepreneurs, offer an important area of growth, investment and employment.

5.4.3.7. Tourism and Hospitality

In 2018, the tourism and hospitality industry accounted for 8.1 per cent of jobs and 9.2 per cent of GDP in India. It has survived through the global recession in 2007–2009, the H1N1 pandemic of 2009–2010 and recent downtrends in the world economy (*Mint*, 2019). While the sector's post-COVID future is uncertain like most sectors, with the growth in overall credit, such as through the PM Street Vendor's Atmanirbhar Nidhi scheme, a spurt in new enterprises is expected. Surges are already visible at the micro level to start businesses such as restaurants and fast food junctions.

5.5. System Change

The urgent need for expanding 'entrepreneurship' to all social groups, enable opportunities in emergent sectors and build more robust local ecosystems is evident. We speak to this challenge by highlighting the need for the existing system to transform into 'a complex process through which new products, processes or programmes are introduced, leading to a deep change in daily routines, resources' streams, power relations or values within the system (Westley & Antadze, 2010)', noting that 'complex' does not mean 'complicated' but the requisite degree of variety that can be generated by a system by way of solutions in response to the diversity of innumerable local contexts (Ashby's Law, circa 1960).

This calls for disruptive and lasting changes in the prevailing state of the enterprise ecosystem and the roles played by various actors. Is it possible to disrupt deeply entrenched systems? While COVID-19 has led to severe economic shocks, a positive correlation between entrepreneurial initiative and economic disruption has also been observed, with signs of such initiative being encouraged by other actors in the microenterprise space. Hence, we bring to the fore shifts required at precisely the three levels that were used to study the system—the extent of innovative and

11 The capacity and production of PPE for COVID-19 touched a peak of 5 lakh PPE coveralls per day in mid-May 2020. Within a period of two months, India became the world's second largest manufacturer of PPE starting from scratch—signifying the resilience and strength of India's MSMEs.

12 https://www.ibef.org/industry/education-presentation\\

collaborative behaviour exhibited by various actors, enabling support made available by the entrepreneurship ecosystem and the larger policy architecture. Keeping in mind the intrinsic value and practicality of working 'outward from within', they are presented in reverse order from that in which they were discussed earlier.

5.5.1. Behavioural Shifts for Enhanced Ecosystem Effectiveness

To engineer deep systemic changes and constitute a robust ecosystem, organizations and actors in the ecosystem need to undergo internal transformations in the way they think and act, involving a process of unlearning current assumptions and ideologies around the sector to deconstruct redundant systems, emphasizing:

- **Co-creation based on listening:** Successful experiences in rural entrepreneurship have been those that have effectively connected broader goals of transformation with local values and the community's deeper aspirational goals. Practices of deep listening and reflection can enable a narrative shift towards inclusion and innovation. Our understanding of communities of beneficiaries needs to shift to co-creators in their vision for their enterprises and local ecosystems. For example, technology can be a double-edged sword that can alienate local businesses, but technology based on human-centred design can be not only disruptive but inclusive as well.
- **Unearthing local narratives:** Moving beyond quick-fix programmes towards improved learning and knowledge flows in the system can break down the silos. Well-intentioned but dispersed approaches cannot achieve these shifts. For this, it is necessary for the ecosystems and in line with systems change, it is necessary for the ecosystems to be open to complexity, learning and adaptation. Being open to disruptive change leads to new iterations of interventions based on pilot testing and feedback. A balance is crucial between close interaction and understanding of communities and taking a step back to analyse changes and processes.
- **Actively seeking collaboration:** Collaborative behaviour is a trait that organizations will need to develop. Being cognizant of advantages that can be realized by multi-stakeholder networks enables organizations to identify mutually beneficial leverage points such as existing resources, local influencers and opportunities more effectively than before. Identification of these leverage points by organizations can be significant enablers for alternative possibilities for microentrepreneurship.

5.5.2. Support Service Shifts: From Enterprise Development towards Building an Entrepreneurial Ecosystem

Rural entrepreneurship is mostly a consequence of the contexts and social networks in which initiatives are embedded (Granovetter, 2000). These networks, if enabling and robust, can tap into existing resources, identify leverage points (or enabling structures) and collaborate to access new opportunities. An ecosystem for inclusive entrepreneurship would, therefore, allow for synergies between initiatives, stakeholders, entrepreneurs and processes. Enabling such an ecosystem, then, is not just an economic or financial venture, but needs to incorporate several other social, generational and technological aspects of the present scenario. Once the systemic issues that impede entry into entrepreneurship are resolved, the need will be to provide support services that enable enterprises to run as viable, profit-making and expanding businesses. For such a transition, the following 'service'-delivery changes are suggested:

- **Collaboration among meso-level actors:** Platforms and entities operating at this level (e.g., regional or district) would have to leverage existing resources with state departments, government agencies and civil society organizations to facilitate relational collaboration between the stakeholders to work towards a shared goal. Social innovation tools can help imagine how meso-level actors 'bridge the gap'. Platforms like the Regional Enterprise Coalition at district level, for example, can be built (Box 5.7).

- **Designing of services bearing the interconnections between them:** Services will have to be designed, bearing in mind the interconnections between them and not as isolated instruments. Examples include building model prototypes with financial institutions that bridge the finance gap for women or promoting aggregation-based businesses that enable micro businesses to realize economies of scales. Finally, crowdsourcing platforms can co-fund entrepreneurial ventures to help achieve outreach to more women and youth. Patient capital directed towards innovative rural entrepreneurs, will give space, much needed, that can enable a culture of entrepreneurship.
- **Shifting role of actors and forming peer-to-peer networks:** The fundamental shift that foreseen is to question the role of entrepreneurs as mere receivers of support. Auerswald (2014) found that 'entrepreneurs and members of entrepreneurial communities are not potted plants, they do not conform to fixed categories, and they do not remain still'. A view of microentrepreneurship could be defined as one where the support service system has multi-functional roles for entrepreneurs, often as mentors.

5.5.3. Policy Shifts: For Empowerment at the Micro- and Meso-level of the System

The fundamental premise on which the systemic shifts, directed towards empowerment at meso and micro levels, are suggested is also based on observations made by many scholars in studies on entrepreneurship. It has been argued, for example, 'There is generally not a single entity that universally directs the entrepreneurship ecosystem activities, which is important because it implies that the behaviours and structure of the system are emergent and arise from self-organization rather than "top-down" control' (Roundy et al., 2018).

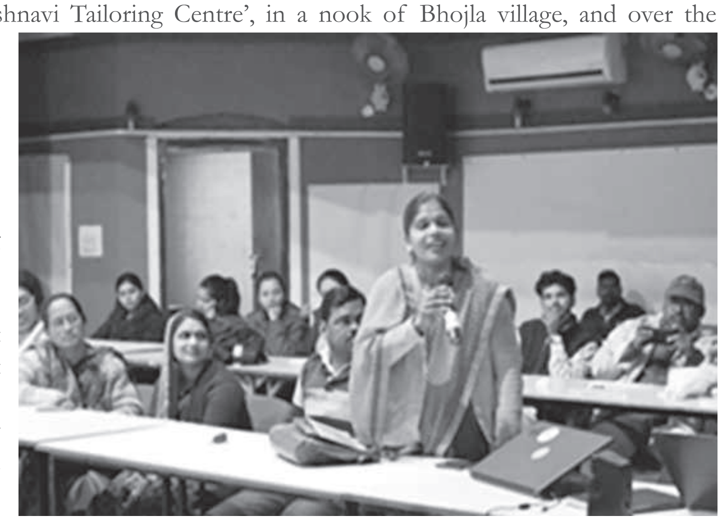
In this sense, the need for system change

Decentralized Kiosks to Cultivate Entrepreneurship-led Job Creation

The past three years of my life have been full of challenges, but also the years in which I found my independence and helped other women who have not been able to explore their potential because of similar challenges.

—Prabha Pratap, Jhansi, Uttar Pradesh

In 2017, Prabha launched her tailoring enterprise, 'Vaishnavi Tailoring Centre', in a nook of Bhojla village, and over the next three years, the reach of her products extended to marketplaces and schools in Jhansi city. What was mostly considered as an outdated enterprise, became an innovative and competitive one. A major way this became possible was because of Prabha's membership in the Work 4 Progress facilitated regional entrepreneurship coalition, through which she connected with training institutes like RSETI and formal credit institutions. As she became a more active member of the coalition, she started to voice the aspirations of her community members at the meetings, which has been attracting more support providers to service aspiring women entrepreneurs. With the independence to experiment with her ideas and ability to connect with relevant support services, Prabha's idea materialized into an enterprise, and from an enterprise into a symbol of woman leadership.



at the macro level is to reconceptualize microentrepreneurship to be more mindful of the interconnectedness among stakeholders as well as the motivations and resourcefulness of aspiring entrepreneurs. Policy measures may have to be reimagined to 'invert the pyramid' and ensure that they are shaped by deep on-ground insights. Empowering institutions at the meso level (placed between the micro and macro levels) will trigger systemic shifts in the structure of governance processes and embed innovative solutions across scales.

Desirable 'structural shifts' suggested in the design of a scheme for entrepreneurship would be:

- **Enabling infrastructure:** Providing shared infrastructure for joint action and value retention at the local level. Examples could include 'physical' points through government networks that can connect technology and market players to entrepreneurs.
- **Nurturing innovation and knowledge transfer:** Moving beyond the delivery of schemes, leveraging government resources to support innovation and source expertise. For example, nurturing emerging 'prototypes' that address the dual objectives of social inclusion and enterprise profitability. In order to enable microenterprises to be much more competitive, content and training can be sourced through private entities.
- **Guided transition to formal systems:** Enabling (long term) movement of processes towards formality through an 'informal–formal' hybrid model which would not impose formalization upon rural enterprises. But, instead, enable them to begin formalizing processes through digital disruptions in technology, access to credit and skilling.
- **Adaptive programme management:** Designing programmes to allow for greater autonomy at the meso level in governance structures and local decision-making, helping district-level agencies to connect more deeply with ground realities from which they often find themselves detached and to be cognizant of emerging needs and opportunities.

5.6. Conclusion

A new economic order, equitable growth and new pathways for change are needed as we step into the light of the post-pandemic future. Entrepreneurship will continue to be an essential enabler for many to capture new opportunities while overcoming existing challenges. As we write this chapter, a rural entrepreneur somewhere is finding hope in his/her challenges, is innovating and creating value out of very little. For entrepreneurship to reach its true potential, become a viable option for all, however, there is a need for the focus to shift towards inclusive entrepreneurship. The promotion of inclusive approaches will enable entrepreneurship to become a preferred and attainable choice for all disadvantaged groups including women, youth and even the unemployed to start and grow sustainable enterprises. We feel the need to valourize Inclusive Entrepreneurship—in capital letters—on account of the dire need to build resilient local economies as well as redefine how people find meaningful and dignified work in the future.

A fundamentally different way of thinking and radically different 'ecosystem' would need to be put into place to set up over two million new businesses in rural India every year. To address a challenge of this magnitude, changes across the entrepreneurship ecosystem would be needed at three levels in the system—the extent of innovative and collaborative behaviour exhibited by various actors, enabling support made available by the entrepreneurship ecosystem and the larger policy architecture. If instituted, the changes would make public policy driven initiatives considerably more effective in accelerating economic growth and social inclusion. The benefits of 'scaling out' and 'scaling deep' across all sections of society at the grassroots would soon be reflected in the fulfilment of India's goals for sustainable development, which, as it is now evident, are not attainable by relying only on scaling-up approaches.

Key elements of the change we wish to see include a fundamental shift from 'vertically' designed and managed enterprise development programmes to 'horizontally' organized support systems based on stronger collaboration among all actors at the meso level and the ability to co-create entrepreneurship solutions through collective intelligence born out of deep dialogue, thereby building an emergent ecosystem while removing social barriers. Perhaps not possible a decade or two ago, breakthroughs in digital technology and channels of communication make it possible to do so now. In conclusion, we wish to share this vision of a paradigm shift, on account of which narratives of entrepreneurship move from a linear, top-down, directed approach for 'target fulfilment' enterprise development to systemic responses aimed at 'unleashing' entrepreneurship at scale for far more profound, transformative change.

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REVITALIZING THE CRAFTS AND CREATIVE ENTERPRISES SECTOR

6

Sreya Mozumdar

6.1. An Overview of the Crafts Sector

To write about Indian handicrafts is almost like writing about the country itself. So vast, complex and colourful, and yet with a simplicity and charm, difficult to attain under comparable conditions.

—M. N. Upadhyay (1973)

The American neurologist, Frank Wilson, put forward an interesting hypothesis in his book, The Hand: How Its Use Shapes the Brain, Language, and Human Culture, when he says that for humans, the lifelong apprenticeship with the hand begins at birth. We are guided by our hands, and we are intrinsically shaped by the knowledge that comes to us through our use of them. The skilled hand is the focal point of culture and craftwork and for many people (i.e., craftworkers), the hand becomes the critical instrument of thought, skill, feeling and intention for a lifetime of professional work. However, this same hand work can be at a disadvantage when pitted against manufacturing with more predictable outcomes.

This has been one of the challenges being faced by the craft constituency, despite the reality of craftwork being a source of sustenance for nearly 9–10 million artisans in the country (as per a World Bank report, though unofficial estimates have the number pegged much higher). Attempts at enumerating the approximate number of craftworkers in the country have been few and far between; last attempted in 1995–1996 by the National Council of Applied Economic Research, New Delhi. Notably, the 2011 Census Survey form does not have any category specific to artisans/craftworkers or any information on the handloom/handicraft sectors.

The Sixth Economic Census Schedule has included a question on handloom/handicraft activity without, however, separating the categories and without the broad activity codes that would have allowed for more analysis of the exact number of handloom and handicraft workers. Research-based data to quantify the uncontested economic value of the crafts sector in India, hence, remains missing, aside from the efforts undertaken by the Exports Promotion Council for Handicrafts to publish annual earnings from export from the sector.

If one were to make a case for analysing the contribution of the crafts sector to the state and national exchequer, the following references are useful. According to the Twelfth Five-year Plan (Planning Commission, 2013), handicrafts and handlooms are ₹24,300 crore industry contributing ₹10,000 crore to India’s export earnings annually. A recent report by the IMARC Group (2019) says that the global handicrafts market reached a value of $583.4 billion in 2018 and is expected to grow exponentially to reach approximately $1,091.2 billion by 2024, expanding at a compound annual growth rate of more than 11 per cent during 2019–2024.

As estimated by the Indian Trade Portal, during April–November 2019, the value of handicraft exports from India stood at $2.45

billion; in 2017–2018, the exports of Indian handloom products were valued at $353.9 million (making India the second largest exporter of such products in the world). As one of the largest employment generators after agriculture, the sector is also a critical means of livelihood for India's rural and urban population.

Against this picture of untrammelled growth, the reality on the ground seems different. According to the Fourth All India Handloom Census (Ministry of Textiles, Government of India, 2019), 2019–2020, the total number of households engaged in weaving and allied activities amounts to 3.14 million; majority among whom (66.3%) earn less than ₹5,000/month. Propelled by loss of markets, declining skills and difficulty catering to new markets, a large number of artisans have also migrated in distress situations to urban centres in search of low, unskilled employment in industry. According to the United Nations, over the past 30 years, the number of Indian artisans has decreased by 30 per cent. This needs closer examination in terms of what it means for the artisan skill base in the country-whether that has also been depleting/diminishing in tandem. In all of this, what is undisputable is the need to reinvest in artisans and reimagine more sustainable means of dignified livelihood for the sector.

It is worth bearing in mind the history and the legacy of the crafts sector in India. Khadi assumed an intrinsic sociopolitical identity in the history of India owing to its origin as an expression of protest and proclamation during the freedom struggle. It was widely recognized as a driver of economic growth for the rural poor during and post-Independence, promoted variously through special Acts and allocations thereafter. After Independence, Kamaladevi Chattopadhyay pioneered the development of handicrafts in national planning, recognizing the importance of artisanal cultures and industries. The national government also emphasized the need for revival and development of the cottage industries and organized an Industries Conference in 1947. The Conference strongly recommended that the union government form a Cottage Industries Board to popularize and market products made by these traditional occupations.

This was followed in 1952 by the establishment of All India Handicrafts Board (AIHB). Chaired by Kamaladevi Chattopadhyay, AIHB laid the foundation for the policy framework as also the institutional and programmatic support that revived and promoted the handicrafts sector in the country. AIHB itself went on to be trifurcated into the Handloom, Handicrafts and Khadi, and Village Industries Boards. The offices of the development commissioner for Handicrafts and Handlooms were set up in 1980 under the Ministry of Textiles. These two bodies continue to be the primary government agencies dealing with the sector. Under their ambit, various programmes and institutions have been set up, over the years, to strengthen the sector. The Planning Commission included handicrafts among village and small-scale industries sector of the Indian economy and thus allocated outlays in the Five-year Plans (since 1951) for the development of handicrafts/handloom.

Over the years, what has exacerbated the inherent challenges of the sector and limited efforts at outreach from government and non-governmental agencies alike is its broad spectrum across a complex value chain. Artisans themselves are practitioners of their craft at various levels-from a skilled master craftsman to a wage worker, from a fully self-employed artisan to a part-time artisan. The collectivization of artisans has happened, by design or default, along several lines-from self-help groups to informal collectives, to cooperatives and to producer companies. This organization has often been facilitated by the government as well as the non-profit and private sector and with varying outcomes.

There are critical differentials in all of these levels according to gender, caste, class and religion, all of which require a nuanced understanding of both vulnerability and opportunity. Further along the value chain, there are multiple stakeholders, both enablers and inhibitors, impacting the constituency's strategic interest-the input suppliers, the traders, the middlemen, wholesalers, retailers, exporters and suchlike. What this means is that the sector cannot be viewed as a monolithic category while designing and executing policies for its benefit, especially when it comes to issues of uptake and penetration of schemes/entitlements across the layers. Also, each of these multiple stakeholders assume increasing importance in a world where long value chains are becoming necessary. Hence, their interests also need to be recognized and given credence in policy and practice.

The rapidly changing economic scenario within India is creating new threats and opportunities for the informal sector and these developments require proactive research to support policymaking to create an enabling environment for craftworkers (as part of the informal sector constituency). Also, within the market environment, compliance to international standards is emerging as a key determinant of the competitiveness of handicraft exports and the ability to access increased export opportunities. Global brands and buyers in key international markets increasingly require suppliers in lower middle-income countries like India to adhere to fair labour practices, workplace standards and environmentally sustainable production.

According to the Export Promotion Council for Handicrafts (EPCH) estimates (Ministry of Textiles, Government of India, 2011), 70 per cent of Indian handicraft exports are to compliance-conscious markets. However, a substantial section of manufacturers in India has not yet been able to ensure compliance with overseas product safety standards and substance regulations. With the growing domestic market today, which is more conscious of ethically produced environmentally sustainable products, adherence to fair, ethical, social and environmental standards is becoming extremely important in enhancing businesses.

For the crafts sector, this calls for a revisiting of traditional approaches towards income generation and livelihoods-there is a need to redefine the mechanics of work with craftworkers and look at well grounded, economically and environmentally sustainable models of social business and enterprise as a way ahead. Increasing access to new revenue streams and the encouraging of effective public–private mixes have been posited as relevant strategies for a more sustainable long-standing approach to financing the crafts sector. What this has also meant is a stricter regimen of financial accountability and sustainability from those undertaking crafts and ancillary works with this new financing-the clear expectation that there will be returns, in terms of measured social/economic development, against every single rupee invested.

6.2. The Impact of COVID on the Crafts Sector

In a qualitative survey report, 'The Unlock Edition', brought out by All India Artisans and Craftworkers Welfare Association (AIACA) detailing the impacts of COVID-19 in the crafts sector, some of the key challenges highlighted by artisans and craft enterprises pertain to cash flow crunches and wage losses. Data revealed that while there has been a unanimous demand for financial support, it is the individual artisans who are in greater distress due to almost complete absence of working capital. A total of 25 per cent enterprises, on the other hand, still had working capital. It was also discovered that individual artisans required more short-term support, while enterprises stressed on the need for support in the long run (beyond six months). Similarly, a big gap was visible in terms of raw material availability to artisans (40%) and enterprises (64%). Here too, a lack of working capital can be blamed. In fact, it seemed that the artisans had exhausted their financial resources in production, as the percentage of dead stock for enterprises and artisans was relatively similar. As artisanal work is comparatively more informal and unstructured, it is possible that there was limited or no financial planning for contingency. It was clear that the pandemic delivered a more severe blow to the business of smaller, individual artisans, who are struggling to cope with drastic changes in the economic environment.

In the British Council 'Taking the Temperature Report 1', that examines the impact of COVID on India's creative economy, the following findings remain significant: 32 per cent of micro, small and medium enterprises (MSMEs) in the creative economy were expected to lose 50 per cent of annual income in the first quarter. A total of 41 per cent of the creative sector had stopped functioning during lockdown. Broadly, the e-data indicated that approximately 74 per cent income of the surveyed organizations and artists has likely stopped or been curtailed during COVID-19. The long-term 'fear factor' around social distancing and the impact on the creative sector are clear, with 89 per cent expressing concern regarding the practical implications of social distancing and 67 per cent being seriously concerned about the long-term impact.

The Creative Dignity 'Diagnostic Report' reveals the following statistics at a macro level: data from 1,241 responders (including artisans and craft organizations) indicated that there were approximately ₹142 crore of unsold finished stocks, a working capital requirement of ₹42 billion.

Broad recommendations emerging from the sector include expectations of a stimulus from the government for craft-based enterprises, including measures such as reduction/deferral in goods and services tax (GST) across categories, soft loans and interest-free working capital loans to aid production and the easing of access to raw material supplies. The consensus was that a well-calibrated support package will be critical in enabling enterprises to continue operations and remain competitive post the crisis. Referencing similar packages announced globally, many countries have rolled out large bailout packages in the form of soft loans or government-backed collateral-free loans, tax holidays and a moratorium on liabilities to protect their small businesses.

As per the World Bank Group Map of SME-Support Measures in Response to COVID-19, the most common instruments globally for supporting enterprises/firms have been debt financing (new lending under concessional terms, deferral, restructuring and rescheduling of payments and credit guarantees), employment support (wage subsidies, support to self-employed persons and subsidies for employee sick leave) and tax support (value-added tax/GST, payroll, social security, land taxes-rate reductions, credits, waivers, deferrals-and corporate taxes-rate cuts, credits, waivers and deferrals).

The government has announced a special economic package, namely Aatma Nirbhar Bharat Abhiyaan, with relief and credit support measures for various sectors including MSMEs. This is in line with the Government of India envisioning a contribution of $2 trillion from MSMEs as India eyes becoming a $5 trillion economy by 2024, along with a target of generating 50 million additional jobs from the sector. The definition of small and micro enterprises has been changed (as per the finance minister's announcement on 13 May 2020), with a revision of upward limits, a focus on annual turnover and a removal of the differences between service and manufacturing MSMEs-this would clearly have an implication for craft enterprises in India.

The Sixth Economic Census has clearly indicated that the economic landscape of India has an overwhelming presence of small proprietary businesses that employ, on an average, less than three workers. Over 80 per cent of these enterprises were found to be self-financed and barely 2 per cent borrowed from financial institutions. Craft businesses in India do fall within the spectrum of these micro and small enterprises; however, their operations are not as organized as a typical manufacturing enterprise. This will impact their ability to access finance and credit from formal financial sector, and their compliance to and operation within the existing tax regime. The government will have to push really hard when it comes to penetration and create an ecosystem to enable expansion of crafts businesses through these outlays, if at all that is a priority.

With the announcement of collateral-free loans, the Small Industries Development Bank of India (SIDBI) proposal to mobilize debt and equity funds through special purpose vehicle and the announcement of the MSME Fund, funds are proposed to provide relief to MSMEs. Announcement of moratorium for term loans and the deferment of interest for three months (till June end 2020) by the Reserve Bank of India (RBI) is a welcome move. However, the implementation of the particulars (from payments, the accrual of interest arrears and the eligibility assessment) may differ across lenders in the absence of a clear guideline from RBI to financial institutions. Moreover, for craft businesses, already struggling with lack of demand and a reduced consumer appetite for handcrafted products, the prospect of taking on another debt can prove to be daunting in the longer run.

From AIACA's experience of working with artisans to facilitate access for MUDRA loans, pre-COVID, there have been challenges in timely repayment of these loans overall and an inability, particularly for women, to exercise control over use and repayment-related matters once these loans were taken in their name. Most of the loans applied for fell under the Shishu category (up to ₹50,000), which also corresponds with trends noticed in the official data coming in for 2018–2019. An overall analysis clearly states that there has been a 50 per cent increase in the non-performing assets of MUDRA loans in the first three quarters of the last fiscal-a fact that led to banks going slow on loans through the year and resulted in unmet targets for 2018–2019 under the Pradhan Mantri MUDRA Yojana.

6.3. Roadmap for the Sector Post COVID

6.3.1. Repositioning of the Sector

As economies develop and per capita incomes go up, there is initially a tendency for consumers to shift from handicraft products to industrial products. The most well-known example of this was the shift from handloom to power loom and mill-made cloth. Likewise, in pottery and ceramics, from handmade to machine-made mass products and so on. Even in the case creative services, there is a shift from things such as puppet shows and folk theatre to films and television/digital media. India is currently in that stage of the U curve. But as per capita incomes go up, as has happened in China, the demand for craft and creative products surges again. In high-income countries, such as the USA, Japan, the UK and the European Union, crafts and creative enterprises (CCEs) are a valued part of the economy and society looks up to workers in these sectors more than it does to blue-collar or even lower-end software workers.

Thus, it may be appropriate to reposition the sector from handicrafts and artisans to CCEs. This may help us aim at the emerging market of the millennials who seem to value different things. Five attributes of the craft and creative products and services which will appeal to them are as follows:

- Aesthetic beauty of these products, stemming from their diversity and creativity
- Functional utility in terms of day-to-day use as living traditions
- User-friendliness like breathability of handloom fabric
- Environment-friendliness like recyclability of clay pottery
- Social contribution-by supporting crafts and creative workers and the aesthetic traditions

Merely self-stating these attributes may not be enough. The CCE sector will have to work with third-party certification for asserting these attributes. This will be a critical component for developing a competitive market space for genuine craft and creative products of India. A certification is a confirmation that a product meets defined criteria of a standard. This is being recognized as an increasingly important factor to address the competition from cheap and fake products being sold in the name of authentic handicraft as well as the high level of exploitation of the actual handicraft and handloom producers of the country.

With very limited awareness about their importance, requirements and benefits, producers are not being able to take full advantage of these certifications. They are also losing hope of sustaining their skilled and traditional livelihood practices as they are not being able to leverage

How Craftmark Certification Helps?

Craftmark certifies genuine Indian handmade craft products produced in a socially responsible manner, develops sector-wide minimum standards and norms for labelling a product as a handicraft product and increases consumer awareness of distinct handicraft traditions and traceability of the products from manufacturer to end consumer. The idea is to lend authenticity and bring visibility to the maker of the handcrafted product. This has been reiterated in the recent government campaigns on #Vocal 4 Handmade for the handicrafts sector; however, more strategic and creative investment needs to be carried out in the positioning of handmade goods strongly in the consumer's imagination.

market and profit share. To bring back the face of the skilled and actual producers of handicrafts and handloom, one single standard setting system recognized and promoted by all concerned stakeholders is critical instead of launching multiple systems to achieve the same goals.

6.3.2. Reimagining the Market for CCEs

In the aftermath of COVID, globally, craft businesses and brands were expected to postpone orders in the current financial year, with a trend of initially demanding smaller order quantities at very tight margins as a step to recover from the reduced sales. Many global buyers were also expected to file for bankruptcy or go into liquidation, which would leave textile manufacturers, including those in India, with a high dependence on American and European markets, with crippling levels of bad debt. With luxury products taking the backseat in the global coronavirus crisis, sales were likely to drop to 35 per cent by the end of 2020, according to a recent report by Bain & Company (D'Arpizio et al., 2020), a management consultant firm. Coming to the domestic market in India, very low consumer sentiment was being anticipated post COVID, resulting in a steep decline in consumption in the present and coming years. As per an initial estimate by EPCH,[1] the handicrafts sector could suffer a loss of ₹8,000–₹10,000 crore post pandemic.

The artisans and weavers had their calendars set and business plans worked out around the 'selling season' which typically began around August and stretched till March each year. Around October–November, there were periods when the stocks had to be split in order to cater to overlapping events in different cities. In 2020, the artisans were building up stocks for Bihu, Vishu, Poila Basak, Ugadi and the Tamil New Year. The season of organized 'Bazaars' by Dastkar, Crafts Councils and Dastkari Haat Samiti was scheduled in full swing. Post lockdown, from March 2020, the event calendar was brought to a grinding halt. Only in September 2020, Dastkar organized the Nature 2020 Bazaar with more than 70 crafts groups participating. Craftspeople who could not travel with their products to Delhi due to COVID-19 sent in their wares which were sold on their behalf. Nearly 2,000 people attended the bazaar over 11 days, although sales and customer footfalls were only approximately 25 per cent of the usual. Since it proved to be a morale booster for craftspeople, Dastkar plans to organize at least six bazaars in New Delhi in the current financial year, maintaining all social distancing and sanitization protocols. Examples of such physical events are few and far between.

Instead, there has been an increased focus on e-commerce sales and digitization of the supply chain. Strategies on faster inventory liquidation of stock through augmentation of online sales and marketing platforms, such as the dedicated rural tribal e-commerce marketplace being developed by the Tribal Cooperative Marketing Development Federation of India and Government e-Marketplace. While the government has announced the onboarding of 5 million artisans on this portal, with 23 e-commerce entities being engaged for the online marketing of the handcrafted products, there is a need to expedite the process so that there is faster conversion into concrete business opportunities. E-commerce aggregators such as Amazon and Flipkart have also sought to leverage the rush towards onboarding of artisanal products through their Karigar and Samerth initiatives. It is too early to assess the impact of these efforts across various platforms in terms of actual sales being generated; what is clear is that these will have to be supported by additional investments in digital promotion and marketing in order to drive consumers towards purchase.

Models for E-commerce: There is also a requirement for increased education and awareness on e-commerce models for smaller artisans and craft businesses to better understand what their operations are best suited towards. The most common models are listed as follows:

1. Any artisan organization (or any organization) can sell products on the Internet through a website. Primarily, it requires the seller to upload photographs and product description on the website and the customer can buy the product

1 Taken from the following Economic Times article: https://economictimes.indiatimes.com/news/economy/foreign-trade/labour-driven-export-sectors-run-for-cover/articleshow/74900659.cms

sitting at a remote location. The product once sold can be shipped from the seller to the customer.

2. An organization can also choose to develop its own website. This will have all the custom-made features as per their individual requirements. This is often an expensive option. The seller has to ensure that customers reach their website as well as ensure that the website is in proper working condition.
3. There are several marketplaces existing where multiple sellers sell their products. Depending on the marketplace and their terms and conditions, the seller can choose the marketplace to sell from. This option is very flexible as the seller can concentrate on their products and not worry about the website traffic and maintenance. However, the marketplaces charge a commission for the service that they offer. The product has to compete with other brands and the seller has no control over the website.
4. E-commerce website builders are a third option which is a pre-existing e-commerce platform which can be customized to one's own need. The sellers who do not want to invest in building their own website architecture can choose this as an easy way forward. Wix, Shopify and Zyro are some of the existing builders for this purpose.

As e-commerce is still in its early stages in the CCE sector, the issue may arise on how design rights and design ownership are communicated and managed online. Professor Ashoke Chatterjee, former director, National Institute of Design, sounds a note of caution as he says,

I am also aware that in our sector there has also been a practice of 'exclusive supply'. That too may have its place when investors have assisted artisans in product development projects and expect that relationship to be honoured through confidentiality during the development process and through exclusive supply. The hope must be that such arrangements reflect artisans empowered to negotiate successfully, from a more level playing field which we in the sector have together helped to create. All this makes me wonder if this is a good time to come to some basic understanding of how to move into e-commerce and other opportunities with a clear sense of partnership, protection of interests and IPR (Intellectual Property Rights) professionalism in situations and relationships which may now depend on new ways of distant communication.

Following are three examples of how the CCE sector is beginning to use the digital media and e-commerce platforms to enhance its business prospects.

Profits from Product Sales to Support Craft and Creative Enterprises: Condé Nast Initiative

Condé Nast India launched 'Vogue + GQ × Myntra Behind the Mask', an initiative featuring five prominent Indian designers—Anita Dongre, Manish Malhotra, Tarun Tahiliani, Gaurav Gupta and Rahul Mishra—all of whom design a mask prototype inspired from Indian art and culture. With the resources raised from selling these masks on Myntra, GiveIndia will share the profits with organizations working towards the betterment of artisans in the country. Under the Artisan Direct campaign launched by Creative Dignity, products from artisans are being launched and showcased across multiple online platforms across the country in an attempt to influence and drive consumption of handmade crafts.

Virtual Trade Fairs by EPCH

EPCH organized two product specific shows on jewellery and accessories on 1–4 June 2020, and the Indian Handicrafts and Gifts Fair for textiles on 15–18 June 2020. 'The shows concluded successfully with combined visit of 2700 overseas buyers, beside buying agents, wholesalers and retailers and combined business enquiries of more than INR 400 crore', said Rakesh Kumar, Director General, EPCH.

Virtual trade shows are the online counterparts of physical trade shows, where exhibitors showcase their products virtually and engage with attendees through various interactive platforms. High-resolution 3D visuals are employed to replicate the environment and format of a physical trade show and ensure a realistic and immersive experience. Customized exhibition booths are placed across space and visitors can freely explore the surroundings, stop by any booth of their choice and browse its products. A range of interactive and informative tools can be employed to allow real-time communication and information sharing that delivers value to the visitors and encourages conversions. For example, visitors can view product demos, videos, chat with booth representatives, flip through brochures, etc.

Source: www.vfairs.com

Online Marketplace for Buying and Selling of Dead Stock Fabric

In collaboration with the Blinded by Colour Project, 200 million artisans have partnered with Queen of Raw—a global marketplace to easily buy and sell sustainable and dead stock fabrics—to offer India's artisan-producers a circular solution to the problem of unsold textiles during and beyond the COVID-19 crisis. The goal is to make it simple, easy and cost-effective for anyone to offload overstock and reach Queen of Raw's customer base. There are no upfront costs to participate as a supplier on the Queen of Raw platform. The only costs would be Queen of Raw's 25 per cent commission for a completed sale. The customer is responsible for shipping and sales tax (which are collected from them in full in advance). And the supplier sets the price. When an order is placed on the Queen of Raw system, the supplier will receive an email alerting him/her to the sale. That email includes the packing slip and tracking label. All that needs to be done is to put the items in a box, tape the label to the front and send it out with the regular shipments.

6.3.3. Rebuilding Capabilities in the CCE Sector

With countries' increased focus on health care, post pandemic, medical and essential equipment is likely to see a surge in demand. So artisanal businesses could also explore emerging product categories such as medical textiles (surgical gloves, personal protective masks, gowns, wipes, etc.) and other textile items required for health care facilities like hospital bed sheets. For this new product diversification for the changed environment, reskilling is necessary, especially for smaller artisans facing challenges in undertaking a quick turnaround.

There are also concerns related to quality and scalability of these attempts, even in the shorter term. In supporting these efforts, organizations like Dastkar play a critical role-they are designing and developing 30 mask prototypes in association with the Population Foundation of India. These are made with hand weaves, block print, ikat (a method of tie-dyeing the warp or weft before the cloth is woven), bandhani (type of tie-dye textile decorated by plucking the cloth with the fingernails into many tiny bindings that form a figurative design), shibori (the word comes from the verb root shiboru, 'to wring, squeeze, press'. Although shibori is used to designate a particular group of resist-dyed textiles, the verb root of the word emphasizes the action performed on cloth, the process of manipulating fabric. Rather than treating cloth as a two-dimensional surface, with shibori it is given a three-dimensional form by folding, crumpling, stitching, plaiting or plucking and twisting) and even embellished with simple embroidery motifs. What is equally necessary is for individuals and enterprises to also rethink their long-term planning. Since the market for luxury goods has collapsed with no immediate assurance of stability, strategies must account for altered consumer behaviour, more focused on need-based essentials, at reasonable price points.

Navigating the digital marketplace effectively for small-scale artisans and businesses can prove very challenging. Therefore, concrete steps need to be taken to make the integration hassle free with appropriate components for training and capacity building for the smaller artisan segment. What has been seen otherwise is that larger and more established craft enterprises occupy a regular space in the platforms, with the same names being given visibility and access repeatedly. Also, smaller artisans find it challenging to negotiate favourable terms with e-commerce aggregators owing to strict onboarding guidelines, high margins being charged and the lack of attention to their product story given the high competition on these platforms.

There are interesting online learning initiatives that have been started by various organizations and networks to account for these capacitation strategies in the sector. AIACA has launched a bilingual initiative called Shilp Samvaad that offers both technical sessions (photography, costing and pricing, branding and storytelling, product positioning, etc.) and thematic webinars for artisans and the wider craft community. Antaran, an initiative from Tata Trusts, had launched online tutorials on its Antaran Knowledge Centre YouTube channel about a year back on various aspects of production planning and business development (sales record making, proforma invoice making, billing and sales analysis).

More recently, networks like Creative Dignity have conducted sessions on cataloguing and photography in a bid to help smaller artisans and businesses reach out to digital marketplaces and new buyers. Craft Council of India had made small video classes on photography in

The Handloom School, Run by WomenWeave, Maheshwar, Madhya Pradesh

This is an 'initiative inspired by the belief that young weavers can become empowered custodians of the resources and processes of handloom in the contemporary marketplace. Specifically designed to identify and nurture the talent of young weavers from across India. Offers a signature program that provides both traditional and cutting edge training to young handloom artisans, giving them the tools to optimise market opportunities and earn a more equitable livelihood. The Handloom School's entrepreneurship program for young handloom weavers culminates in a "Certificate in Design and Enterprise Management (CDEM)" with specialization in Handloom. The classroom segment of the course lasts 6 months and focuses on skill development in areas of Design, Communication, Technology and Business Management. This is followed by a year-long offsite handholding phase. The classroom segment of the program for young handloom weavers is quite rigorous and demanding. The Handloom School's faculty use case studies, movies, simulation games and exercises to explain difficult concepts of design, technology and management in very simple way to its students. Online expert lectures and discussion with domain experts are conducted frequently through Skype and Google Hangouts. The Handloom School strongly believes in the importance of hands-on practice for this program. This Certificate course for young handloom weavers has a major component of fieldwork in the form of an internship in organizations relevant to handloom textiles.'

Source: http://www.thehandloomschool.org/page/program-structure

local languages and these were distributed to craft clusters. CCE has had these translated into Hindi, Tamil, Odia and Bengali.

6.3.4. Renewing Arrangements for Financing

The resilience of the CCE community has been sorely tested in the aftermath of the pandemic-transcending boundaries of individual enterprises, the sector is reeling under severe financial stress. Aside from special support programmes form the Government of India, there is a requirement for renewing existing financing arrangements and establishing innovative and out-of-the-box financial support ideas for the community. A few are suggested as follows.

1. Concessional rate loans to enterprises based on GST return and invoices from GST registered buyers. For those micro and small enterprises that are GST compliant, it is recommended that soft loans be provided (through National Bank for Agriculture and Rural Development [NABARD], SIDBI), up to 70–75 per cent of the last return filed. These loans can be provided in tranches with favourable terms to those units that have filed their GST returns. For those enterprises who are not yet GST compliant or have annual turnovers that do not require the filing of the same, it is recommended that such loans could be provided upon the linking of invoices to larger and GST compliant units.
2. Enterprises can be better supported by an equity financing model where direct investments can be made in crafts businesses by taking a minority stake which could be recovered through higher taxes on profits and business income over a number of years. By making payments conditional on profitability rather than saddling firms with repayment debt, equity finance would be more sustainable over the long term. The businesses could buy back the equity from the investors at a predetermined price after a decided period (e.g., once the COVID crisis is over).
3. Launch of integrated portal by the Ministry of Micro, Small and Medium Enterprises-ideas.msme.gov.in-for MSMEs to share their ideas, innovation and research in respective sectors for public reviews for vetting before launching them within the Champions portal. Moreover, it has also added the information and knowledge bank for MSMEs such as steps taken by the government for MSMEs to fight COVID, RBI's relief measures, delayed payments

monitoring, all MSME schemes, list of government notifications, the support provided by SIDBI and more.

It is further suggested that the scope of the portal also includes the following:

1. Offering direct technical assistance and support to local entrepreneurs by providing customized and flexible financing models needed to enable microenterprise projects to go forward.
2. Facilitating the clustering of micro/small enterprises to enable their application and eligibility towards supplementary financing (e.g., grant and funds) to 'seed' the loan fund.
3. Providing supervision and mentoring within the microenterprise community for accompaniment and evaluation purposes along with a fairly worked out system for incentivization and penalties.
4. Promoting the MSME portal with a robust membership network which will help in meeting the national imperatives of financial inclusion and generation of significant levels of employment in both urban and rural areas across the country.

Product Sales and Person-to-Person Loans for Craft and Creative Enterprises: Rang De Initiative

In a recent telethon event titled Habba (festival in Kannada) with NDTV, Rang De, a person-to-person lending platform managed to raise over ₹1.2 crore in one evening from a number of individuals and institutional sources, which will be given as loans of between ₹20 and ₹50,000 to hundreds of CCEs. In the event, Rang De offered baskets of 'Handmade Dil Se' products to enhance consumer demand for handcrafted items.

6.4. Building a Collaborative Ecosystem for CCEs

To move out of the malaise that had dogged CCEs even before the pandemic and which has been exacerbated, we recommend taking a collaborative ecosystem approach. By ecosystem, we mean not just individual actors or institutions but all of them taken together, constantly interacting, transacting and impacting each other in a sustained though changing pattern. The actors and institutions like in a natural ecosystem come in all shapes and sizes and yet all have a role and a function. There are critical resources such as information (about markets and policies), capital (both working and investment), which flow through the system, but different actors have differential access to those because of differential capabilities.

Collaboration is required as there is constant competition for these scarce resources and that leads to dysfunctional behaviours, where one set of actors corners more of a resource at the cost of others, but the long-term cost of this is an eroded ecosystem. Thus, a collaborative ecosystem is one which ensures adaptive behaviour so that all the actors survive and thrive as per their role and functions. We need to set up collaborative ecosystems as we move from relief to revival to resilience in the CCE sector.

Many of the prevalent networks in the CCE sector are dynamic bodies with several organizations and activists working together on the issue of artisans. They have different approaches and thus consensus building has not been easy to accomplish. Networks have also varying influencing capacities (in terms of their reach to politicians/within policymaking quarters). Within the CCE sector, the most common modus operandi of these networks lies in promoting awareness through capacity building and the organizing of exhibitions/events for marketing and sale. There are few networks that are advocating for the smaller actors.

The pandemic can be perceived and utilized as an opportunity for revisiting the vision for the CCE sector in India in the quest for more intersectional and sustainable models. Moving towards a unified approach to CCEs rather than approaching it in silos (handicrafts, handlooms, other creative enterprises, etc.) could be a step in the right direction. The need to work at multiple levels-local clusters, state and national levels-post COVID, arises from the fact that while the larger organizations functioning from Delhi and few select cities are quite updated with policy-level initiatives and emerging practices,

Initiatives in Britain and Japan to Promote Crafts and Creative Industries

The UK has set up a joint venture between the government and the creative industries sector, namely the Creative Enterprises Council, with a joint investment of $150 million. New initiatives include the setting up of a challenge fund for cities and regions to bid for CCE promotion initiatives, support for intellectual property protection initiatives and action on copyright infringements, support for skilling and entrepreneurship, and support for nodal research, development and training institutions.

Another model is the Council for the Promotion of Cool Japan, set up in 2013 with a minister in charge and a budgetary programme allocation of $450 million to support projects. The interventions are coordinated across Agency for Culture; Ministry of Foreign Affairs; Ministry of Economy, Trade and Industry; Ministry of Public Management, Home Affairs, Posts and Telecommunications; and Cabinet Office and include a public–private partnership platform set up under the council. A Cool Japan Investment Fund has also been set up with public and private sector contribution to invest in CCE business expansion overseas.

Similar demands have been voiced in India for the formation of a separate ministry for the crafts and cultural sector with committed outlays and a clear mandate for supporting a 'Handmade in India' brand with associated quality standards to promote Indian traditional crafts globally.

the information access weakens as one moves from the national to the regional and local levels. The same is true for access to capital, the other important resource.

A fair assessment and acknowledgement of all the various rungs in the crafts value chain are long overdue so that there is a more nuanced understanding of the various kinds of work and livelihoods being eked out in the value chain. Thus, while exploitation by middlemen certainly needs to be combated, elimination of middlemen who are getting an equitable share of the value added by them should be acceptable.

Another aspect of ecosystem is the ability to self-correct while functioning. This means developing good systems for data gathering and processing and deciding corrective actions based on data analytics rather than anecdotal evidence. The Census of Handlooms, 2019, has yielded some data but it does not tell us much about the livelihood and business development constraints of weavers. The upcoming Census in 2021 is an opportunity to collect data about the wider crafts and creative sectors. This can be supplemented by deeper analysis of the respective NIC 2- and 3-digit categories from the various National Sample Survey Office surveys since 2017.

There are several such initiatives that have been initiated post lockdown and are functioning actively and creatively within the crafts space currently. Creative Dignity is one such effort that seeks to bring together creative producers, practitioners and professionals within the crafts ecosystem to respond to the COVID crisis through a slew of measures for relief, rehabilitation and rejuvenation. The Creative Dignity model is a minimal investment that seeks to sustain itself through the network of volunteers providing services and the institutional partnerships that have been strategically forged.

The Hand for Handmade initiative is working for the resurgence of the craft and handmade sector through research, education, design intervention and market stimulus. 200 Million Artisans started out as a volunteer-run COVID-19 response platform to support India's artisan-producers in April 2020 with a mandate to drive innovative collaborations to help India's artisans-producers, enterprises and craft communities. The platform brings together a team of entrepreneurs, strategists and designers to provide solutions for market access, raising capital and building capability in the CCE sector.

Craft Kutumb is a membership programme initiated in September 2020 by AIACA, which will be a bridge builder between decision-making bodies and artisan communities on the ground by ensuring that learning from practice adequately informs policy for the crafts sector. Under this initiative, AIACA also plans to roll out a Shilp Udyam Samman (Craft Enterprise Awards) to recognize and provide acceleration to potential and commercially viable craft enterprises under various categories.

The encouraging part about these initiatives, post COVID, is their willingness to interact with each other as well as other networks that have been in existence for a much longer time in the sector. 200 Million Artisans provided visibility for 30+ fundraisers of grassroots organizations serving 10k+ artisans. AIACA and CCE collaborated with Akshaya Patra Foundation for the provision of ration kits to artisan clusters across the country in the initial phase of relief. The opportunity for solidarity is now stronger than ever.

6.5. Conclusion

It is evident that for the reviving and thriving of the CCE sector in India, various stakeholders (namely the crafts and creative workers' community, government agencies at the centre and state levels, non-governmental support organizations, the private sector and the financial sector) need to collaboratively work towards a shared vision of market-oriented growth and development, which would aim at reducing vulnerability and increasing resilience.

For this, a collaborative ecosystem approach needs to be taken, which means accepting diversity and pluralism and ensuring that every actor has a functional role in the ecosystem. Depending on the efforts of one over the other has not, and will not, work. At the same time, actors from all types of institutions need to appreciate each other's strengths and contribution, as well as constraints and complaints, so that collaboration can be built on a firm footing. This will require establishing permanent consultative action-oriented forums with representation from, for example, the development commissioners for Handlooms and Handicrafts, the state government corporations, the trader community involved as members of EPCH, the non-governmental organizations and corporate social responsibility craft support agencies and networks, design institutes such as the National Institute of Design and International Institute of Fashion Technology, and financiers such as SIDBI, NABARD, banks and microfinance institutions.

Not only must there be a collaboration developed horizontally between various actors and institutions but the local organizations working at the cluster and state levels need to have their hands strengthened with information and access to market and capital needed to launch new products, new business lines and new models of entrepreneurship. There is a need for multi-level, multidimensional actions for enhancing access to markets, capital and capabilities if we have to change the situation of the workers, entrepreneurs and service providers in the CCE sector.

To conclude, as we move towards the 75th year of Independence in 2022, it is time we look at the CCE sector not as a 'lost cause' or a 'sunset industry', which needs relief and subsidies on an endless basis, but as the repository of our heritage and living culture, which needs to be valued as an endless source of aesthetic, functional and environment- and user-friendly products and services. We should look at the workers, entrepreneurs and other actors in the value chain of the CCEs as carriers of all that is best among us and which we would like to pass on to the future generations, either as artefacts or as living traditions. It is not to protect the livelihoods of the crafts and creative workers that we should do this but to enrich the lives of all others-the masses, the middle class and the elites-whose lives would be bare and bereft without CCEs.

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UNEQUAL ACCESS: WOMEN AND THEIR LIVELIHOODS IN 2020

7

Smita Premchander, Aindrila Roy Chowdhury, Deepika Pingali

7.1. Introduction and Framework of Analysis

Economic growth across the globe has stalled and fallen since the pandemic began, and the vulnerability of informal workers at the bottom of the employment ladder has been exposed. This has exacerbated the challenges faced by women and girls, making issues more fragile than before regarding their livelihoods, economic empowerment and social situations.

In the context of the COVID-19 pandemic, this chapter examines the status of women in India and their livelihoods in 2020. It does so by using the following three frameworks:

1. The Gender Equality and Social Inclusion (GESI) framework as relevant to strategies
2. The sustainable livelihoods approach (SLA) and its modifications as relevant to gender issues concerning sustainable livelihoods
3. The Sustainable Development Goals (SDG) framework as relevant to the analysis of the impact on the livelihoods of women

The GESI framework highlights the importance of three sets of factors that restrict the ability of excluded groups to participate in society, which are then identified as three domains for development action for inclusion. Gender is one of the axes of exclusion, with gender being interpreted to include women. Other axes include caste, ethnicity, locations, disability, etc. For all excluded groups, the framework espouses that not only do they lack access to assets and resources but they also lack a voice. In addition, norms and institutions in society are biased against them. In order to bring about equality and inclusion, action is therefore needed on all three fronts.

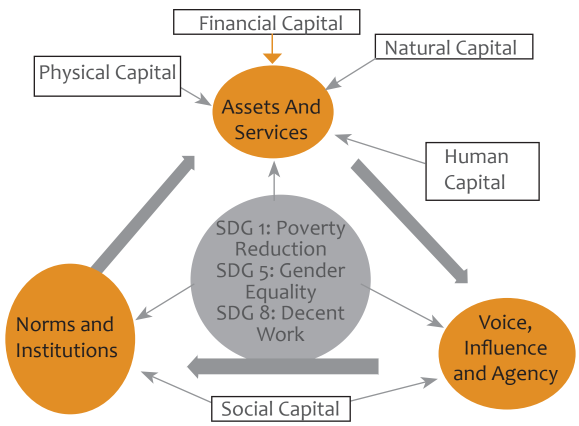
For assessing GESI, three domains of change are considered to contribute towards gender equality and inclusion.

- Assets and services: In the hands of those excluded, these improve their conditions and their ability to enhance, influence and hold the state and other social actors accountable.
- Voice, influence and agency: These provide access to decision-making, largely determined by representation and organization building.
- Rules of the game: These refer to norms, policies and institutional changes. They can also be referred to as the broad enabling environment.

This chapter is organized to reflect on these three domains of change, using aspects of the SLA (Chambers & Conway, 1992). According to this framework, there are five types of capital: human, natural, physical, social and financial.

The SDG framework was adopted by India in 2015 as part of the 2030 Agenda for Sustainable Development presented by the United Nations to end poverty. It also charted out strategies that would improve health and education, reduce inequality, spur economic growth, tackle climate change and preserve oceans and forests

(United Nations Department of Economic and Social Affairs, 2020). There are 17 SDGs with 230 unique indicators to capture and assess a country's performance on each of the SDGs. Of these, the three SDGs relevant to this chapter are SDG 1 (the elimination of absolute poverty and the reduction of poverty by half), SDG 5 (gender equality and empowerment of women and girls) and SDG 8 (decent work and economic growth).



Picture 1: Gender Equality in Livelihoods Frameworks

Source: Gender Equality in Livelihoods Frameworks

In this chapter, we will examine India's performance with respect to all of these goals in terms of women and livelihoods on the basis of the latest progress report on the SDGs published in June 2020.

Figure 7.1 illustrates the integration of the three frameworks in the chapter. India's performance on key SDG goals related to women and livelihoods is central to our discussion. Women's access to assets and services is seen in terms of access to education and skill development (human capital), access to credit (financial capital), access to infrastructure and technology (physical capital), ownership of land, assets and property (natural capital) and the formation of groups and federations (social capital) to increase the opportunities to enhance women's livelihoods (Datta et al., 2014).

The chapter will integrate gender analysis frameworks with the livelihoods frameworks by focusing on certain critical aspects of livelihoods, for example, access and control over resources (Premchander, 2004). The chapter will also incorporate insights and best practices from experts within the field gathered through detailed interviews.[1]

The GESI framework is more rooted in gender and social aspects, and the SLA is more embedded in livelihoods. There are several similarities across the frameworks. While the GESI framework refers to changes in the norms and institutions or the rules of the game, the SLA framework draws attention to transforming structures and processes, as well as to the types of capital that can be deployed for achieving the transformation. The chapter will use the differentiation of types of capital to the extent to which data are available.

This study and discussion highlights the fact that women's economic and social lives are deeply intertwined. The impact of a deep-rooted patriarchy on women's lives can only be addressed by reforming structures, institutions and policies. Unless that happens, women will continue to be unequal participants in the economy. We now move to see how women's access to resources and the strengthening of their voice can influence norms and institutions, and the opportunities that they can utilize to enhance their livelihoods through these.

7.2. Women's Access to Assets and Resources

The status of women's livelihoods is influenced by their access to education, vocational skills, employment options and the entrepreneurial ecosystem. These aspects are discussed in greater detail in the following sections.

7.2.1. Education, Skills and Training

The SDG score in 2018 on the ratio of female to male mean years of education received was 57.3 per cent, indicating that girls received 57.3 per cent of the number of years of education that boys did (UNDP, 2020). There are wide disparities in current literacy levels between

1 The authors thank the senior functionaries from MAVIM, Mann Deshi Bank, Priyasakhi Mahila Sangh and Friends of Women's World Banking (FWWB) for their insights. The authors also thank Miss Kanta Singh, Dr Kalpana Sastry Regulagedda and Dr Ashok Sircar for their invaluable input.

women and men, with 37.6 per cent of rural women being illiterate while 19.85 per cent of rural men being illiterate (Ministry of Statistical Planning and Implementation, 2014). Disparities in education also persist at every level, with 37.7 per cent of rural men having completed primary schooling compared to 33.6 per cent of rural women and 17.3 per cent of rural men having completed upper primary level compared to 13 per cent of rural women. The gap remains similar at the secondary school level, with 11.8 per cent of men completing this level and 8 per cent of women completing it. Further, caste and ethnicity appear to be distinct differentiators, with women of Scheduled Castes (SC) having lower literacy levels than the national average for women, and women of Scheduled Tribes (ST) having lower rates than both SC women and the national average for women. The percentage of school dropouts among women of these communities is also higher compared to those of their other rural counterparts (Ministry of Statistical Planning and Implementation, 2014).

> Viewed for adult women and men, we find that fewer women are literate as compared to men in both rural and urban areas. Differences arise at the level of primary school and continue at the level of secondary school. A second level of exclusion is evident, with SC and ST women having lower literacy levels than the national average for women.

The gender-disaggregated data available on education enrolment show that gender disparities exist right at the beginning. There are 93 girls in school for every 100 boys at the primary level. As the secondary level approaches, this gap widens, with 90 girls in school per 100 boys (Ministry of Statistical Planning and Implementation, 2014). At the college level, women constitute 48.6 per cent of all enrolled students (AISHE, 2019).

While dropout rates for girls between 15 and 16 years of age declined from 20.1 per cent in 2008 to 13.5 per cent in 2018, the rate for girls is still higher than boys (12.6% in 2018; ASER, 2018). The National Commission for Protection of Child Rights (NCPCR) reports that the number of adolescents between 15 and 18 years of age who do not attend any educational institution is 39 per cent for girls and 34 per cent for boys. This number is significantly different from that presented in the Annual Status of Education Report (ASER), which considers girls and boys in the age bracket of 15–16 years. This indicates a massive dropout for girls between the ages of 16 and 18.

After primary school, when girls reach puberty and become engaged in domestic responsibilities, multiple conditions lead to dropouts and disparities in enrolment and level completion. The right to education focuses mainly on enforcing universal primary education.

> The pattern for adult women and men is repeated when we see the data for current enrolments. There is a gender gap in access to primary education, which widens at the secondary level, even though the absolute school dropout rates have reduced for both girls and boys.

A key factor that affects school enrolment is the widening geographical dispersal of schools at the secondary level, combined with a decrease in girls' mobility due to both social norms and lack of safety.

Even the Rajiv Gandhi Scheme for Empowerment of Adolescent Girls 'Sabla' (a scheme for adolescent girls focusing on aspects such as nutritional status, vocational education, health and re-engagement in school) is applicable to the age group of 11 to 14 years and covers only a small set of adolescent girls. Given that entry into vocational training programmes also starts from the age of 16, girls in the age group of 14 to 16 years have difficulty in gaining access to an educational or training programme, resulting in increased dropouts at this age.

Gender gaps in primary, secondary and later years of education, along with higher school dropout rates for girls, indicate an intergenerational pattern of gender gaps in capabilities. These issues need urgent attention.

The productive engagement of adolescent girls is critical to prevent early marriages, which will have a positive effect on the health of girls. Adolescent out-of-school girls from weaker sections of both rural and urban areas are the most vulnerable to early marriages and early pregnancies (NCPCR, 2018).

According to the UNICEF, success in the employment industry requires both life skills and technical or vocational skills (NCPCR, 2018).

Acquiring both life and technical or vocational skills can be addressed by a package of interventions:

- Physical capital in the form of access to schools with proper infrastructure (preferably residential schools)
- Access to safe transportation options
- Access to technology
- Human capital in the form of life skills and vocational training

> Measures to address gender gaps in education and capabilities include accessible school infrastructure and provision for adolescent girls to have access to vocational courses in non-hazardous trades. Life skills education needs to be included in schools, colleges and vocational training programmes.

The life skills components are powerful in creating self-conception and creating individual perception. Life skills need to be made a part of the curriculum for both boys and girls at the school level. This will create an enabling environment for gender equality in the future and act as a bridge course to skill development programmes. The Ministry of Skill Development and Entrepreneurship needs to redefine the entry level in the various vocational training programmes. For this, it is important that the eligibility criteria for various jobs be set with regard to the type of work that can be undertaken by children after the age of 14 (NCPCR, 2018).

In the domain of vocational training, various government mechanisms have focused on women's skilling. The guidelines of the Ministry of Rural Development (MoRD) state that 'Rural Self Employment Training Institutes (RSETIs) could organise exclusive programmes for women in various trades depending upon their attitudes and local demand.' Over the last three years, there has been a 97 per cent rise in women enrolling in long-term skill development courses. However, of the total 3 million candidates enrolled so far, only around 33 per cent are women (Annual Skill Development Report, 2017–18). Research has indicated that fewer women receive training in technical fields such as mobile repairing, solar gadget repairing and information technology (IT). This continues to perpetuate the stereotypes. Primary research also indicates that fewer women receive job offers than men and that women are also less likely to accept job offers. Interestingly, women appear to be as likely as men to reject offers requiring migration, though the reasons might differ. However, once a woman accepts an offer requiring migration, she is not less likely to continue at the job (Moore et al., 2018).

> The coverage of women in the skill development efforts of the government is only one-third, with lower access to technical skills and fewer job offers. Further analysis is constrained by the lack of gender-segregated data on enrolments, types of skills and placements. Improved data will enable better formulation of strategies to bridge gender gaps in capabilities.

A key issue here is that important gender-disaggregated data (e.g., women-to-men enrolment ratios, job offers, job acceptance rates, placements and salary levels disaggregated by trade and the region) are not easily accessible. The lack of gender-disaggregated data prevents further analysis of how gender gaps in the capabilities of adults, youth and children vary at district, state and national levels. The absence of data differentiated by income levels, caste and ethnicity constrains an analysis of how gendered assumptions may creep into education and skill development policies and programmes.

In-depth monitoring of these factors will enable achievements on the SDG 5 indicators.

7.2.2. Employment

The gender disparities observed in education and skill levels are reflected in both informal and formal employment of women.

Statistics on women's participation in the labour force are highly contested. The report on India's performance in the SDGs states that 17.5 per cent of women are part of the labour force, while the overall labour force participation rate (LFPR) was 49.8 per cent in 2017–2018. The female-to-male LFPR is reported to be 29.8 per cent. In contrast to the SDG report, the International Labour Organization (ILO) reported a figure of 22.2 per cent, that is, 5 per cent higher than the LFPR. The World Bank analyses ILO data according to different income brackets and presents a U-shaped curve. The highest LFPR is in the low-income bracket where 58 per cent of women are engaged in economically productive work. From the middle-income bracket, only 45 per cent of women join the labour force. LFPR increases again as incomes increase, with 53 per cent of high-income women joining the labour force. However, the LFPR for women has shown a downward trend in all three income categories (Government of India, 2020). India is the only country, out of the 153 countries studied, where the economic gender gap is larger than the political gender gap (Global Gender Gap Report, 2020).

> Women are predominantly employed in the informal sector. While 75 per cent of rural women work in the agricultural sector, urban women work more in the services and manufacturing sectors.
> Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) employs more women than men. Given that wages under the scheme are lower than the minimum wages of the state, this is indicative of a lack of alternative rural employment. The central government's policy of pegging MGNREGS wages lower than the minimum wages of the state militates against women's earnings, even in a scheme that provides equal wages for both women and men.

Both economic and social factors interact to affect the participation of women in the labour force. However, the LFPR is also criticized for being prone to incorrect measurement of women's participation in the labour force, for example, their engagement in unpaid care work and farm work. As a substantially high proportion of Indian women report their activity status as attending to domestic duties, they are not counted in the labour force. In fact, women prefer part-time regular work so that they can manage their households as well as be economically productive (Chaudhary & Verick, 2014). As India does not take domestic duties into account in its System of National Accounts (SNA), this is not measured or accounted for in the LFPR. An analysis of the Time Use Survey (TUS) data of 1999 revealed that the gross domestic product (GDP) could increase by about 11 per cent if the unpaid work of women is accounted for in SNA activities (Pandey, 2009). A similar analysis of the latest TUS data is not yet available, but, when conducted, will help to understand the effect of women's unpaid work on the LFPR and its contribution to Indian GDP.

Women's lower literacy rates and skills, compounded with social norms, result in women being far more heavily represented in the informal economy. According to the NSSO survey in 2004–2005, the share of informal sector female workers in rural areas (94.50%) is more than that of male workers (90.34%). This kind of predominant employment in the informal sector exposes women to risks of exploitation and low levels of formal protection.

> As in the informal sector, women's participation in the formal sector is also low. Despite the introduction of gender diversity initiatives in 2006, women formed only 34 per cent of the workforce in the IT sector.
> Women's earnings for the same work are lower than that of men, the gender wage gap ranges from 50–75 per cent across sectors.

Of all rural women workers, 71 per cent are engaged in agriculture and the rest are engaged in trade, hotels and restaurants, other services, manufacturing and the construction sector. Among urban women workers, 46 per cent are employed in services, 25 per cent are engaged in manufacturing and the rest are engaged in trade, hotels and restaurants, transport, storage and communication, agriculture, construction, mining and utilities (Government of India, 2020). Within services, 25 per cent of women are engaged in education, 16 per cent are engaged in retail trade, 15 per cent are engaged in domestic work and 10 per cent are engaged in other service activities such as hair dressing and laundry (Mehrotra & Sinha, 2019).

> Women's LFPR is lower than that of men. Women in lower income brackets have a higher LFPR. As income increases, women tend to drop out of the workforce. In the high-income brackets again, more women tend to work. Women's labour force participation is, however, underestimated due to anomalies in measurement and lack of recognition of unpaid household and care work in national statistics.

One of the biggest employers of women is the government's flagship safety net employment programme, the MGNREGS, which mandates that 33 per cent of work be assigned to women. The government made a budget allocation ₹71,000 crore in 2019–2020, which has been reduced to ₹61,500 crore for the year 2020–2021 (Ministry of Finance, 2020).

Reports indicate that women's participation in MGNREGS work was 56.87 per cent in 2019–2020 (SDG India 2019–2020). At lower income deciles, where MGNREGS operates, women seem to have more than the minimum required employment ratio, indicating that the higher employment of women in the programme is due to the lack of availability of other livelihood opportunities in rural areas.

Under the MGNREGS, the wage rates for women and men are equal. However, the minimum wage paid under the MGNREGS is less than the minimum wage of the state. The MGNREGS wage rate is nearly 40–50 per cent lower than the minimum wages paid to unskilled agricultural workers. The average per day wage rate for unskilled work under the MGNREGS is projected to be ₹202 for 2020–2021 (Edwin, 2020). Current non-MGNREGS minimum wage rates for unskilled agricultural labour are between ₹347 and ₹383 per day (Bhati, 2020). This confirms that women's participation in the MGNREGS arises from a lack of alternative employment. The centre's policy of keeping MGNREGS wages lower than the state minimum wages works to the disadvantage of the large women workforce employed by the programme.

In addition, the government facilitated women's self-employment and entrepreneurship in the agricultural sector (vide allocations of ₹4,790.99 crore as loans to women farmers). The government also assigned 50 per cent of the budget allocated for the Rashtriya Krishi Vikas Yojana and Pradhan Mantri Krishi Sinchai Yojana to women. About 14 schemes and programmes of the Department of Agriculture and Farmers Welfare have stated that 30 per cent of their total flow of funds should be channelled to women farmers. However, the actual implementation of this allocation was not tracked, as neither the actual flow of funds nor the outreach to women farmers under these schemes were monitored or reported (Srinivasan, 2018).

> The government has allocated finances for women farmers through several schemes; however, there is no reporting of the implementation, so the actual flow of funds to women farmers cannot be tracked.

An analysis of non-agricultural professions also reveals significant gender disparities. We examined women's work in three highly feminized sectors:

1. Domestic worker
2. *Anganwadi* or Integrated Child Development Services (ICDS) workers
3. Accredited Social Health Activist (ASHA) workers

It is alarming that the female sectors have been left unconsidered in the official policies on legal protection for workers. The Wage Code Bill of 2019 seeks to consolidate and simplify existing wage legislation, protect workers interests and provide them with decent working conditions in terms of minimum wages, reasonable working hours, etc. However, it excludes domestic workers, home-based workers, Anganwadi workers, ASHA workers, auxiliary nurse-midwives (ANMs) and Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) workers from its provisions. In fact, ASHA workers, Anganwadi workers and ANMs are excluded because they are considered 'honorary workers' only (Mohanty, 2020). These activities are considered to be the natural extension of housework in the domain of care, nutrition and health, which is assumed to be a woman's natural responsibility.

The minimum honorarium for ASHA workers is INR 2,000/- per month, along with task-based incentives such as antenatal care and immunization. In April 2020, the government announced an additional incentive of ₹1,000 per month for undertaking COVID-19-related activities. In 2019, the government revised the minimum monthly honorarium of the Anganwadi workers to ₹4,500 per month from ₹3,000 per month, effective October 2018 (Ministry of Women and Child Development, 2019). The actual amount paid, however, differs across states. Even with these revisions, the honorarium amounts are lower than the state's stated minimum wages and payments are often delayed, despite the work being equivalent to a full-time role with multiple responsibilities. This highlights the fact that official codes end up mainstreaming gender biases which result in the feminization of these sectors in the first place.

> The government's policies on feminized sectors perpetuate gender biases and devalue women's work. The Wage Code Bill 2019 considers ASHA and ICDS workers to be 'honorary workers'. It prevents domestic and home-based workers and workers from compliance from demanding decent working conditions, such as minimum wage and the number of hours of work.

In the case of domestic work, for example, 90 per cent of workers are women and girls, of whom almost 25 per cent are below the age of 14 (APWLD, 2010). Domestic workers have multiple employers and are not covered by labour law, preventing them from having access to social protection, workplace safety and health. Live-in workers face additional restrictions, longer working hours and a loss of privacy. As many live-in workers are migrants, they also face deceptive recruitment practices, resulting in employment that is in contravention to international labour standards (Praveen, 2020).

Feminization of professions and low wages is known to be a self-reinforcing cycle. Global research on 16 occupations in 20 countries, including India, shows that a 1 per cent increase in women's participation can lead to an 8 per cent decrease in wage rank of a profession. This further discourages men from taking up these professions (Shannon et al., 2019).

A gender-biased participation in the workforce is restricted not only to the informal sector but can also be seen at higher levels of education and employment. For example, there are five times as many male allopathic doctors as there are female ones, whereas there are five times as many female nurses as male ones (Rao, Shahrawat, & Bhatnagar, 2016). Similarly, women lawyers make up only 17.3 per cent of the total number of listed lawyers. Women chartered accountants (CAs) make up only 22 per cent of the total number of CAs (Hariharan, 2014).

As one progresses towards more senior roles, the dip in the number of women is evident. In academia, women in India hold 42.6 per cent of lecturer positions. But, in higher designations, the numbers reduce significantly; women hold only 36.8 per cent of associate professor positions and only 27.3 per cent of professor positions.

The Information Technology and Business Process Management sector is the largest private sector in India, providing over 3.7 million jobs (Gupta, 2019). Even in the largest private sector, during the year 2017–2018, only 34 per cent of the jobs in the IT and IT-enabled service sectors were filled by women. This was the third highest among all non-agricultural sectors in the country after e-commerce (67.7%) and retail (52%). This was despite the fact that, in 2006, the IT sector recognized a talent shortage and introduced gender diversity initiatives, bringing in women's representation (Gupta, 2019).

While participation of women is already low across all job categories, the disadvantage is further exacerbated by gender bias earnings across sectors. According to the Periodic Labour Force Survey, the average earnings per day by casual labour engaged in work other than MGNREGA (April–June 2019) was nearly 33 per cent lesser for women. In both rural and urban areas, women earned only 66–67 per cent of wages paid to men. Even among salaried employees, women's earnings were only 78 per cent of that of men. The SDG report 2019–2020 highlights that the gender wage gap across sectors is as high as 50–75 per cent (NITI Aayog & United Nations, 2019).

To improve the overall situation of employment for women, interventions must be comprehensively designed to address the intertwined challenges of employment access, working conditions and social norms relating to family responsibilities. The deep patriarchy lies at the root of the gender gap in education, employment and wages. Patriarchy permeates official provisions, considering feminized professions 'honorary' in order to avoid providing them with wage protection.

> Women constitute 14 per cent of India's entrepreneurs and are predominantly in micro-businesses. However, they own only 10 per cent of the agricultural land in the country, which restricts their access to loans and to institutions such as agricultural cooperatives. Some government organizations working for women's economic empowerment have included women's landownership in their agendas. Yet these examples are few and far between and do not yet constitute a movement for women's equal access to inheritance and property rights, which is critical for improving their livelihoods.

7.2.3. Entrepreneurship

Women's participation in the workforce relates not only to formal and informal work but also to entrepreneurship, which is an integral way in which women engage in labour market opportunities. In 2015, women entrepreneurs constituted only 13.76 per cent of all entrepreneurs and accounted for 10.26 per cent of all employment generated from entrepreneurship (Ministry of Statistics and Programme Implementation, 2015). Women also tend to have micro and small enterprises; of all women-owned enterprises, more than 90 per cent are microenterprises.

Across the world, women's entrepreneurship has grown significantly, but still lags behind men's and has grown at only two-thirds the rate of men's entrepreneurship. It is also important to distinguish between need-based and opportunity-based entrepreneurship. The percentage of women engaged in need-based entrepreneurship is higher than opportunity-based, while it is the opposite for men (Terjesen & Espinosa, 2010).

A major route of women's access to finance for entrepreneurship is also provided through the self-help group–bank linkage (SHG–BL) model. As of March 2020, the total number of SHGs promoted in India are over 10 million, 88 per cent of which are women SHGs. The total loan outstanding against SHGs is ₹108,000 crore (NABARD, 2020), out of which around 93 per cent of the loans are used for income generation activities (Sa-Dhan, 2020). National Bank for Agriculture and Rural Development (NABARD) provides 100 per cent refinance support to banks for providing micro-credit to SHGs and joint liability group (JLG). It also bears the costs to support awareness creation and capacity building of all stakeholders of the programme, as well as for the training and capacity-building initiatives of SHG and JLG members and other rural women.

One of the government's mechanisms to promote entrepreneurship is the Micro Units Development and Refinance Agency (MUDRA) yojana, with special sub-schemes for women, such as the United Mahila Udhyami Yojana fund. Under this scheme, women can access funds to establish new units or expand, renovate or modernize manufacturing and services. Under the MUDRA schemes, cumulatively till March 2020, 68 per cent of the loan accounts belong to women, accounting for 44 per cent of the loans sanctioned. Micro-loans, under the Shishu category of MUDRA, form the majority, with women having 66 per cent of the number of accounts and 67 per cent of the total loans sanctioned in 2019–2020 (MUDRA, 2020). While schemes under MUDRA aim to provide women enterprises access to finance, the scheme excludes institutions like urban cooperative banks, which are an important channel for women's business loans. This is a gap which needs to be addressed.

Women face constraints in starting and growing their businesses due to a lack of access to larger working capital loans. Women's entrepreneurship is also constrained by lack of access to credit. The credit-to-deposit ratio for women is 27 per cent, while it is 52 per cent for men. This could be because women seek less credit, or because, regardless of their savings, access to credit is restricted by a lack of hypothecable assets. In either case, the vicious cycle is evident. Women may not demand more credit because they do not get it, and they may not get more credit because they do not demand it. In the absence of in-depth research on the issue, causality cannot yet be established.

Of the overall bank credit, 37 per cent goes to individuals. Of this 37 per cent, only 7 per cent goes to women, while the remaining 25 per cent goes to men. This means that only 19 per cent of the total credit that goes to individuals from banks reaches women. Even when we add to this the credit that goes from microfinance institutions (MFIs), which primarily target women, the percentage of loans to women is only 28 per cent of the total credit from banks and MFIs to individuals (Chavan, 2020). Women clearly have lower access to credit services than men, despite the existence and growth of a vibrant microfinance industry.

Women's lack of ownership of land and houses is a formidable barrier to their entrepreneurship since it impedes access to finance. Primary Agricultural Credit Society (PACS) requires members to have landholdings in their name, which has traditionally been the reason that PACS had predominantly male members (Sampark, 2015). There is a dearth of up-to-date, transparent data on landownership, let alone female landownership. According to the Agriculture Census of 2010–2011, female operational landholders constitute about 13 per cent, with a total area of 10 per cent, which is abysmally low.

Despite constituting over 60 per cent of the agricultural labour force in India, women own only 14 per cent of agricultural land (Ministry of Agriculture and Farmers Welfare, 2016). Ownership records for agricultural land are notoriously opaque, as is the case in much of rural property. The government has announced a rural land mapping scheme called 'Survey of Villages and Mapping with Improvised Technology in Village Areas', which is expected to bring transparency to rural ownership of land in a phased manner between 2020 and 2024 using drone technology. However, the scheme's guideline remains silent on providing joint ownership to women and men on property cards. There is a real risk of considering the male resident as the default owner of household property, given the inherent patriarchal bias, as we have witnessed in official policies earlier (Deo & Halder, 2020).

The lack of records is not the only barrier; there are other confounding factors. Women's inheritance of property is governed by the Hindu Succession Act, which provides for an equal claim to property for all children. However, in the case of agricultural land, the implementation of the Hindu Succession Act is rendered difficult by the state revenue codes which govern agriculture. States have varying degrees of discriminatory provisions in their revenue codes for agricultural land inheritance. For example, states such as Punjab, Haryana, Himachal Pradesh and Jammu & Kashmir do not allow daughters and sisters to inherit agricultural land. Gender bias in local institutions also leads to neglect of women's claims, even when they are valid under a state's revenue code. The process of making the claim is also time-consuming and difficult, resulting in the effective denial of agricultural land to women (Deo & Dubey, 2020).

> Inheritance of agricultural land is gendered and excludes women due to regressive state codes and social norms. Water rights also fall within these gendered land rights, and water policies focus solely on the availability of water, not on issues of gendered access. The outcome of this is that women who constitute 60 per cent of the agricultural labour force own only 14 per cent of the land and also spend a disproportionate amount of time and effort on access to water.

Even access to water is highly gendered, though this is not accounted for in the framework of water policies in India. The National Water Policies of 1987, 2002 and 2012 consider the 'household' as a social unit, focusing mostly on increasing the availability of water. The issue of access for women who have a disproportionate amount of household responsibilities and often have to travel long distances and/or spend large amounts of time in fetching water is not considered. Water rights are also located in land rights, which exclude landless persons and thereby disproportionately affect women. There is also a lack of women's visibility and participation in formal roles at the Water Users Associations (Paul, 2017).

Enabling greater ownership of property, land and other physical assets to women requires tackling the implementation of laws, as well as changing social norms that prevent women from getting their rightful inheritance. Most women give up their rights to inherited property. Mann Deshi Mahila Sahakari Bank, which provides women entrepreneurs easy access to credit, endorses that the lack of property ownership poses a considerable barrier to women gaining access to formal finance. The bank also offered a 1 per cent interest rebate on loans taken where the woman's name was added to the property. This scheme has been mostly unsuccessful. They indicated that, as of 2020, only around 5–6 per cent of its female clients had property in their name. More women apply for loans to buy property in their name than those who come forward to offer already existing property to take loans. NGOs and civil society organization (CSOs), especially those promoting credit and enterprise for women, need to give special attention to property ownership of women, even if the first step is joint ownership of land with their husbands or other family members. Mahila Arthik Vikas Mahamandal (MAVIM), Maharashtra Women's Development Corporation, highlights this issue too and has initiated schemes for joint ownership of land by women and men. As of December 2020, 52,477 SHG members had gained joint ownership of houses and 45,793 had gained joint ownership of land through MAVIM. MAVIM and Mann Deshi found that while it is a challenge to include women's names in ancestral property, it is easier to register any new property jointly in the names of the wife and husband.

> Women constitute 14 per cent of India's entrepreneurs and are predominantly in micro-businesses. They own only 10 per cent of the agricultural land in the country, which restricts their access to loans and to institutions such as agricultural cooperatives societies. Some government organizations working for women's economic empowerment have included women's landownership in their agendas. Yet these examples are few and far between and do not yet constitute a movement for women's equal access to inheritance and property rights, which is critical for improving their livelihoods.

Encouragingly, in 2020, MAVIM renewed its efforts to promote women's ownership of property.

Institutional forms that promote credit to women include SHGs (through the SHG–BL), cooperatives, farmer producer organizations (FPOs) and cooperative banks. Over the recent years, the government has prioritized the formation of farmer producer companies over cooperatives. As of March 2020, there are around 6,000 FPOs (including farmer producer companies) in India which were formed under various government initiatives (Small Farmers' Agribusiness Consortium – SFAC), state governments and NABARD. Out of these, around 3,200 FPOs are registered as producer companies and the remaining as cooperatives or other institutional forms. Majority of these FPOs are in the nascent stages of their operations, with shareholder membership ranging from 100 to over 1,000 farmers, requiring not only technical support but also adequate capital and infrastructure facilities, including market linkages for sustaining their business operations. NABARD has sanctioned INR 208 crore to FPOs so far and has introduced a scheme for promoting 3,000 FPOs by 2023–2024. FPOs cover 0.77 million farmers, of whom only around 33 per cent (0.25 million) are women.

> Women-oriented government-led initiatives strive to provide low interest loans to women's groups. They federate women's SHGs to enable higher access to finance, collective enterprises and services for input provision. Innovative initiatives include the agricultural service centres and e-catering for the Indian Railways. They have piloted programmes for joint ownership of land and property between women and men.

Women-oriented institutions believe that women should get loans at a reasonable rate of interest in order to promote entrepreneurship. For instance, the SHG–BL programme, available to all SHGs registered under the National Rural Livelihood Mission, provides collateral-free loans at an interest rate of less than 16 per cent. In addition, registered SHGs are eligible for an interest subvention of 7 per cent. Some new initiatives additionally aim to provide zero-interest loans. In 2019, the World Bank, the Small Industries Development Bank of India and UN Women launched Women's Livelihood Bonds to help rural women in the poorest states to get access to credit (in the range of INR 100,000/- to INR 150,000/-) at an interest rate of 13 per cent to scale up their enterprises (World Bank, 2019). However, this scheme did not receive sufficient traction.

Several government programmes aim to provide low interest loans to women, the foremost being the SHG–BL programme. Some of these programmes have also initiated highly innovative enterprises. MAVIM, for instance, has linked its SHGs not only for interest subvention but also to make institutional partnerships with banks whereby they provide loans to SHGs formed and monitored by SHG federations. Not only do the SHGs get the loans they need over and above those provided through the state-supported SHG–BL, they also receive these loans at a lower rate compared to the rate they would have received without an institutional forged partnership.

Women's development institutions have also started some innovative business initiatives. The MAVIM federations, for instance, have started group-based livelihoods activities such as dal mills, agri-resource service centres and other businesses. MAVIM SHGs in Sawantwadi and Ratnagiri (Maharashtra) started an e-catering service for Indian Railway Catering and Tourism Corporation at the railway stations. Here, SHGs get orders via SMS two hours before a train reaches the station where they can supply food. After a successful pilot, the Indian Railways decided to offer this business model to the rest of the SHGs in the country.

Official data might indicate that women's organizations have sufficient access to credit. For instance, as of 31 March 2020, the total loan outstanding against SHGs was INR 108,000 crore under the SHG–BL programme (NABARD, 2020) and the aggregate gross loan portfolio of MFIs was INR 72,200 crore (MFIN, 2020). However, these amounts are not necessarily spent on women's businesses, but often on household businesses, or on those owned and managed by male family members. This issue is acknowledged by MFIs, through the change in their social collateral systems, which now increasingly depend on family guarantees (read: husband) rather than group guarantees. Nevertheless, data on the relationship and gender of family guarantors are not available in the public domain.

On the one hand, MFIs move towards family rather than group guarantees. On the other hand, women's groups, federations, companies and cooperatives enable them to collectivize and gain access to resources for entrepreneurship.

The role of the collectives is discussed in the next section.

7.3. Voice, Influence and Agency

Women's collectives, such as SHGs, cooperatives, federations and FPOs, play a critical role in increasing women's access to credit for several reasons. They provide access to un-collateralized credit at acceptable interest rates, institutional linkages and innovative entrepreneurship initiatives.

Women's collectives are known to be the single most powerful means of advancing women's agency, voice and influence over resources and institutional and social norms, which, in turn, strengthen their economic, social and political empowerment.

Women's collectives and federations work as channels through which women can access credit. India has over 10 million SHGs, of which 50 per cent are formed through the National Livelihoods Programme. Of the 10 million, 8.5 million have access to bank credit through the SHG–BL programme.

> Women's collectives enable them to gain access to resources and address gender biases in institutional and social norms. They have helped women gain access to property and reduced the power imbalance between women and organizations such as banks and private sector companies. Federations also form the foundation for women's leadership, enabling them to gain access to elected positions in the local government.

Institutions such as the State Rural Livelihood Missions, the Women and Child Development Corporations, the SEWA Bank and the Mann Deshi Bank are important in creating access to credit and promoting women's livelihoods. In addition, women's collectives also enable women to be better integrated into agricultural value chains. They also increase women's ability to negotiate better terms for themselves, for example, rates of interest on loans. Women's collectives enable women-focused entrepreneurship and innovation. Examples of innovations include e-catering services offered by SHGs on Indian railways.

In addition to grassroots organizations, there are several federations that facilitate loans to women through SHGs and are also involved in women's livelihoods.

Women-only initiatives strongly contribute to women's economic empowerment. For instance, Kudumbashree women have begun to participate in panchayat elections, creating their own space and gaining strength in negotiating with the government. Kudumbashree's process of federating SHGs has facilitated this. Participation in leadership roles in these community-based organizations and federations has increased women's prestige and recognition, and paved their way to winning seats at the local government level in panchayats and municipalities (Siwal, 2009).

> Women's participation in forums that facilitate agency leads to their greater engagement with local democratic structures and enables them to articulate their demands and contribute to better outcomes for the community.

There are examples of forums that have created a platform for women to exercise agency, develop voice and gain influence in local democratic structures. One is the Mahila Samakhya programme. Nearly 87 per cent of the women who participated in the Mahila Samakhya groups and federations reported regular participation in their gram sabhas as well, a fact corroborated by non-members too. Nearly 55 per cent of the sanghs had members who competed in local elections and won posts such as sarpanch, ward committee member and panchayat member. Over 80 per cent of the sanghas articulated the specific issues that they had raised in gram sabha meetings related to local infrastructure and public goods. Many sanghas reported working with local governments to help villagers access services like pulse polio (IIMA, 2014). Other examples of participatory spaces include joint forest management committees, where the active participation of women has provided them with greater access to forest resources. In turn, women gaining greater control of illicit harvesting of forest produce and regeneration has led to better protection of forests (Saha & Kuri, 2014). This highlights that reservations for women and marginalized groups such as landless people in community-based organizations have led not only to improved access but also to better environmental sustainability impacts.

Although women's federations are recognized as engines of women's economic empowerment, there is ambiguity about their institutional forms. While some organizations register federations as NGOs (e.g., Maharashtra, Kerala), others prefer the cooperative form. As stated earlier, half of the FPOs in the country are registered as companies, while the other half are registered as FPOs. The West Bengal State Rural Livelihoods Mission has opted to register its block-level federations as cooperatives under the amended West Bengal Cooperatives Act. These cooperatives empower rural women, provide skill training and experience for their economic independence.

> Current development actors favour the registration of FPOs as producer companies over cooperatives. Most of these FPOs need substantial handholding to achieve sustainability and have not yet achieved the scale to offer good practices for enhancing women's livelihoods.

While grassroots institutions like SHGs have received attention, women's cooperatives have not received adequate support. Women's cooperatives were less than 2 per cent of the total number of cooperatives in the country and their membership comprised less than 0.5 per cent of the total membership in cooperatives in the country (Gujarat SEWA Federation of

Cooperatives et al., 2019). Women's membership in PACS is also very low. As PACS memberships are based on landownership, this draws attention once again to women's lack of access to land, especially agricultural land (Agarwal, 1996). The cooperative institutional form has also lost its credibility in development interventions. Instead the new institutional form of FPOs is gaining strength.

In the current development paradigm, the focus of women's collectives is to provide access to assets and resources such as credit, technical capacities and market linkages. SHGs and their federations are livelihood forums that focus on economic activities and do not include social empowerment agendas such as issues around women's rights to inheritance and landownership. While these organizations create livelihood options for women, their potential to foster deeper, long-term changes in gender equality is not fully utilized.

A movement towards greater gender equality in livelihood calls for an analysis of norms and institutions that perpetuate economic and structural inequalities.

7.4. Rules of the Game-Norms and Institutions

The SDG relating to gender equality (SDG 5) aims to achieve gender equality and empower all women and girls. India's performance on the goal is extremely poor, with the overall achievement being 29.2 per cent lower than the stated objectives (Sachs et al., 2020).

> India is woefully inadequate in its movements towards the SDG of gender equality. The deficits show up in education, the time spent by women on unpaid domestic and care work and the lack of sharing of such work by men. Immediate steps that would enable women to participate in the workforce include the provision of facilities such as those for childcare. A structural change would require that men share equally domestic and care work, which calls for a radical change in deep-rooted patriarchal norms and practices.

Some SDG indicators may be used as proxies to show that gender biases in norms and institutions create gender inequality in the livelihood sphere. Numerous SDG indicators point towards the fact that the norms and attitudes in the country are inequitable and discriminatory. Examples include SDG indicator 5.4.1, which is the proportion of time spent on unpaid domestic and care work by age, sex and location.

A key norm underpinning the disadvantaged status of women is the mechanism of the unpaid care economy and reproductive roles. TUS can provide insights into how individuals spend their time. The last National Sample Survey Office TUS in India was conducted in 2019, indicating that a disproportionate amount of care work continues to fall on women. The survey shows that 94 per cent of all women engage in unpaid activities, such as household work and taking care of other family members, while only around 20 per cent men engage in such activities (Chandrasekhar & Ghosh, 2020). In rural areas, women spend twice as much time on unpaid work as men, and the gap widens to nearly three times in urban areas. Men also have more time to spend on residual activities such as socializing, learning, self-care and maintenance. This has an effect on women's participation in the paid economy in both the formal and the informal sectors. The trend of families to become increasingly nuclear, especially in urban areas, also contributes to the unpaid care work burden of women.

This highlights the critical importance of facilities and services that replace women's care work. The experience of Sampark, a Bangalore-based NGO, illustrates this well. Sampark has established creches in construction of labour colonies in partnership with various builders, the Ministry of Women and Child Development (MWCD) and the Ministry of Labour and Employment. Children of migrant workers stay at these creches where they are provided with education, nutrition and a safe space for growth and learning. This facilitates not only their holistic development but also enables their mothers to engage in paid work, domestic work and construction sectors.

Some estimates show that the care economy is as high as 49.93 per cent of the state GDP in Meghalaya and 47.30 per cent of it in Madhya Pradesh. This highlights the invisibility of the care economy (Chakraborty et al., 2019). As stated earlier, the care economy is not yet integrated into SNA and gender budgeting. In India, the MWCD is the nodal ministry for strategic coordination and effective implementation of gender-responsive budgeting (GRB). Currently, there is lack of a legal mandate to integrate gender budgeting across all ministries and levels of government. The funds allocated for GRB are very low; a mere 5 per cent of public expenditure and less than 1 per cent of GDP (Kapoor, 2020). Gender budgeting also needs to be mainstreamed at all levels of government, with the necessary reporting systems in place.

A key norm is the expectation for women to take on a disproportionate amount of unpaid care work. The time use profile of men's work and women's work must evolve to include work sharing and be more equitable if India is to achieve gender parity in livelihood. Professionalism, expertise and wages in the care economy must be built to achieve equity with traditionally 'male' sectors. India should use the insights from the updated TUS in order to take appropriate action. Examples of other countries such as Albania, Mexico, Cambodia, Columbia, Uruguay and Finland may be considered. Time use data have been used to define policies for gender equality, policies regarding children, employment strategies, elderly care, retirement, etc.

> Women's political representation in the two national houses of Parliament is abysmally low at 11–13 per cent.
> Women tend to exit employment earlier than men, tend to have less coveted jobs and are less represented in senior management jobs. The proportion of women in corporate boards is very low.

Other relevant indicators of gender equality norms include SDG indicator 5.5.1, which is the proportion of seats held by women in (a) national parliaments and (b) local governments. The latest data available indicate that the percentage of women is 12.8 per cent in the Lok Sabha, 11.4 per cent in the Rajya Sabha and 46.14 per cent in local governments. If the representation of women is low among elected representatives, the voice for women's equality agendas will also be weak.

Another indicator is SDG indicator 5.5.2, which is the proportion of women in managerial positions. In the IT industry, men and women with the same years of work experience are employed at different career levels. While women and men start at similar ages, men in senior positions are often younger than women at similar levels. A majority of women in the industry are younger than 30 years old and single. A large proportion of women exit after 5 years of employment. About 45 per cent women move out of core engineering jobs after 8 years of experience to marketing, product management or consulting. There are more women in software testing jobs; the ratio of women to men is 66:34 in these jobs, which are less sought after. By comparison, the women-to-men ratio is 25:75 in more coveted jobs of core programming. This highlights that even if women are more technically trained, they still fall prey to the norms of gender segregation in the labour market (Gupta, 2019). According to a National Association of Software and Service Companies 2018 survey, in 88.5 per cent of the companies surveyed, less than 10 per cent of their C-Suite is female. In 80 per cent of companies, less than 20 per cent women were present at senior management levels. And more than 50 per cent of companies have only 4 per cent women in senior management. The latest figures on this indicate that out of every 1,000 board and senior management positions, only 173 are held by women. This indicates that even in the corporate sector, social and institutional norms are critical in holding women back.

As seen in the earlier sections, women's lack of ownership of property acts as a significant barrier to women's access to loans and therefore to business growth. This is typically the result of deep-rooted patriarchal norms. These norms continue to militate against women's equality in employment, board representation and political representation.

As we move forward, not only must we impute the value of women's work, we need to give household and care work a higher status. We must also question whether the GDP can really be considered the ultimate measure of a country's well-being and move towards a holistic determination of well-being, rather than narrow economic computations. Once there is a change in the accepted definition of 'merit' and 'valuable work' by society, there will be a change in attitude towards sectors where women are primarily involved, such as care and domestic work. A change in attitude will lead to an overall improvement in women's livelihoods and pave the way for more gender parity across sectors.

7.5. Impact of COVID-19 on Women's Livelihoods

The COVID-19 pandemic has negatively impacted all aspects of women's livelihoods: education, skill training, jobs and enterprises. Initial surveys indicate that domestic responsibilities for rural women have increased overall, creating conditions for increasing school dropouts. The inability to travel has affected girls' enrolment too, and, as a result, their future educational attainment levels (PTI, 2020). Restricted mobility has also limited women's access to vocational training (Hoftijzer et al., 2020). Markets for small enterprises have also been disrupted, affecting women's livelihoods, which are predominantly in the micro and small industries sector (Koning et al., 2020).

COVID-19 also led to an unprecedented increase in violence against women and children. The central government received more than 5,000 phone calls to prevent child marriage during the COVID-19-induced lockdown. At least 92,203 interventions were made by Childline, the nodal agency of the MWCD to protect children in distress during the lockdown period. Of all these interventions, nearly 35 per cent were related to child marriage, categorized under child protection concerns, protection from abuse and violence (ANI 2020).

> The COVID-19 lockdown led to an increase in women's care work and domestic violence. While some businesses were severely affected, new opportunities opened up for collaboration between rural and urban SHGs. Women resumed loan repayments to regain access to working capital.

After the COVID-19-induced lockdown shut schools in March 2020, activists and officials in several parts of India, from the southern state of Tamil Nadu to western Maharashtra, observed an alarming rise in child marriages. Many unemployed and struggling families used this option to reduce the number of family members they had to feed. With schools closed and weddings taking place discreetly, officials fear that children, especially girls, will be more difficult to reach, educate and save from marriages that limit their future. Early marriages make it more likely that girls will drop out of school, and campaigners say that it also increases the risks of slavery, domestic and sexual violence, mental health issues and deaths during childbirth.

In urban areas, women's livelihoods in sectors such as garment production were highly impacted, with difficulties in obtaining raw materials as well as working capital. With trade and transport being the core link of the agriculture sector, the cessation of transport greatly disturbed rural supply chains.

Women workers in the garment manufacturing sector in Indore (Madhya Pradesh) felt the impacts of COVID-19 lockdown deeply. Priyasakhi Mahila Sangh in Indore (Madhya Pradesh), which works with garment workers, indicated that this sector was severely impacted due to the lockdown. Close to 80 per cent of the raw materials in this sector are imported from China. Since the lockdown resulted in a ban of imports, the manufacturers used their existing inventories to continue running their units since developing internal capacity takes time. During the lockdown, smaller units struggled to raise capital to expand and compete with larger units owned by large companies. Thus, the market was captured by bigger firms, adversely affecting the livelihoods of smaller manufacturers.

Women in some sectors are especially vulnerable and have faced destitution during the pandemic. For instance, the pandemic has increased manifold the vulnerability of women in sex work. Protection from the pandemic requires social distancing, which is impossible in their case. Their situation is precarious because their work carries social stigma and alienates them from governmental support and initiatives (Agarwal, 2020).

SHG savings withdrawal has also been observed in cases across the country and the SHG–BL loan recovery was also negatively affected. While this created collateral damage in some areas (e.g., Madhya Pradesh), some women have opted to start repaying their loans soon after the moratorium was lifted, so that they could regain access to finance and revive their economic activities (Maharashtra).

In the COVID-19 pandemic situation, technology and connectivity have formed an important part of the coping strategies of people. We might expect that technology could be used to overcome many of the challenges in accessing education, vocational training, job placements and enabling businesses to survive. However, we find that access to technology is highly gendered. Women usually have feature phones rather than smartphones, which are often also shared with family members. Families often monitor and censor women's usage of phones due to sociocultural notions that suggest women do not need phones or that women could potentially compromise family honour (Sonne, 2020).

> Women used technology to overcome the challenges faced during COVID-19. Mobile phones served as important tools for gaining information about production and marketing. However, women's access to technology is constrained by the fact that they share rather than own phones, own feature rather than smartphones and use it less frequently than men do.

India's gender gap in the usage of mobile phones between women and men was the largest of all developing countries; 44 per cent of men use a phone seven times a week compared to women using it four times (GSMA Intelligence Consumer Survey, 2019).

At the same time, new opportunities have also opened up for women to earn incomes. For instance, there was a need for doorstep supply of vegetables and provisions in housing complexes in Mumbai. The officials of MAVIM identified this as an opportunity to link rural and urban supply chains. They organized transport of vegetable and grains from rural SHGs to be distributed by urban SHGs in selected housing complexes in Mumbai.

The persistence of the wage gap, the issues of the declining LFPR of women and the challenges in entrepreneurship, all underscore that norms and institutions remain key drivers of gender inequity in opportunities and outcomes. While research on gender issues is expected to throw up new data and insights, the fact remains that the disparities arising from social norms persist and perpetuate. It therefore becomes important to highlight the persistence of gender inequality long-term and to reaffirm the multiple domains that require concomitant attention in order to advance the status of women. Any effort must therefore be multi-pronged, based on data, and take into consideration not only the services provided for women and girls but also whether or not women have agency, voice and influence, and whether they are able to influence social and institutional norms to provide them a level playing field.

7.6. Conclusion and Way Forward

Several factors combine to create a situation of unequal opportunities for women to enhance their livelihoods and those of their families:

1. Women have lower access to services compared to men, resulting in inequality bias in all types of capital: human, physical, natural and financial.
2. Their social capital, in terms of organization or representation, does not enable a voice strong enough either to demand better assets and services or to change social and work norms.
3. Women are predominantly in low pay occupations and feminized occupations remain so and also unprotected by labour standards.

Moving towards gender equality can be a very slow and long-drawn process unless we take strong measures to advance women's livelihoods. Fortunately, the pathways are clear and several opportunities present themselves.

The authors of this chapter put forward some suggestions for enhancing women's livelihoods.

7.6.1. Collect, Analyse and Publicize Gender-disaggregated Data

The chapter has highlighted the need for consolidated and consistent gender-disaggregated data across all aspects of women's livelihoods: education, skill training, employment and entrepreneurship. In the absence of clear and transparent gender-disaggregated data at the district, state and national levels, it is challenging to monitor the effectiveness of policies and verify their validity. In such a scenario, the SDG indicators are unlikely to improve at a desirable rate. State and non-state actors and think tanks need to consolidate existing databases, identify data gaps and undertake nationwide surveys to gain insights that can inform formulation of policies that advance gender equalities rather than inequalities.

7.6.2. Improve Access to Education and Skill Development

To begin with, girls and women need increased access to continued education. This calls for high schools being placed close to the villages. This is a key step that can reduce dropouts and ensure that girls are able to complete secondary education. The gender gap in education starts appearing very strongly around the time that girls reach puberty; a time when safety of mobility, the availability of facility within their vicinities and the access to residential facility becomes crucial. If gender disparities in college enrolment and beyond are to be reduced, policies need to be framed in the domain of secondary education as well.

The government and the concerned NGOs need to scale up women's access to relevant technical skills such as data entry operations, call centre operations and mobile repair skills through a larger number of courses specifically for girls in the industrial training institutes. As these are typically located far from villages, residential facilities need to be provided for girls, as well as also assure safe mobility.

7.6.3. Provide Comprehensive Early Childhood Care

Mothers with young children need access to creches so that their children can be cared for if they join the workforce. The centre and the state need to cooperate to strengthen early childhood care and education in the public sector, since this facilitates the re-joining of women in the workforce and also creates employment opportunities for women in rural areas. Public spending on rural health and education needs to be bolstered to ensure this.

7.6.4. Use Technology to Enable Women to Access Livelihoods Opportunities

The emergence of technology has opened up possibilities for reducing the gaps in women's access to livelihoods. A nationwide comprehensive survey needs to be undertaken to understand women's access to technology. To enable women to make market linkages using technology, the NABARD could provide smartphones to all SHGs in India, potentially creating access to smartphones for millions of women. It is also important to enable more women to be tech-savvy, especially women in SHGs, who can then use technology to access education, find markets for their products and improve their lives and livelihoods. Public–private partnerships and CSR would do well to focus on providing smartphones to all young women in India, which would aid their learning in COVID-19 times, making their travel safer, enabling them to work from home and connecting them to markets for doing home-based work more effectively.

7.6.5. Promote Women's Engagement in Agricultural Enterprises across the Value Chain

The agriculture sector has proved resilient in the face of the pandemic and offers opportunities for women's entrepreneurship across value chains, including those for agricultural inputs, agricultural produce, agricultural infrastructure, and trade and transport. This could be done by scaling up knowledge-based interventions, for example, seed saving and ecological farming.

Stakeholders also need to focus on creating devices, products and processes that will bridge the gap. One example of this is to facilitate the formation of agricultural service centres by women's community-based organizations, which provide women farmers with credit and agricultural inputs. Another example is creating community-based infrastructure for proper facilities for storage, processing and network for purchase and marketing tie-ups. It is essential to have women present in all segments of the value chain, especially as traders. Since women's entrepreneurship is an important way in which women join the labour force, promoting it is essential for bolstering women's livelihoods.

The government must invest in water, land development, markets, built-up infrastructure and land record improvements through a gendered lens, creating skilling and employment options for women. These reforms will help in sustaining agriculture and advancing the status of women. As stated earlier, women's recognition as farmers is impeded by the fact that agricultural land is not held in their own names. This excludes them from support schemes for farmers. To begin with, membership of farmer organizations must be defined differently and start focusing on the person working on the land so that women and other landless workers can have access to schemes. Government and civil society actors must continue to push for equitable access to landholding titles. Creating definitive property rights for women calls for a proactive administrative structure and a strong demand from women's forums.

7.6.6. Strengthening Women's Collectives and Promoting Federations

Women's collectives have the potential to promote change in all three GESI domains. Women's SHGs, federations and FPOs increase their access to non-exploitative credit and livelihood opportunities. Collectives and political participation bring women together on a common platform and increase their agency to deal with the social, economic and political issues that affect them. They provide an opportunity for women to discuss and identify the effects of harmful norms on their lives, which is the first step towards institutional changes and evolving fairer rules of the game. The MWCD, the MoRD and the Ministry of Panchayati Raj, which have promoted several women's livelihoods collectives, would do well to federate them at state and national levels for strengthening all women's voices towards addressing key constraints in enhancing their livelihoods.

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Established in the 1890s in The Netherlands, Rabobank is a cooperative bank and a global leader in financial services, is recognised for its focus on food & agribusiness, sound capital structure and sustainable business practices. Rabobank is present in 39 countries covering 9.8 million clients worldwide. From its agricultural roots as a local credit cooperative, Rabobank maintains its primary focus on the agriculture sector and is recognised as the leading global food and agribusiness bank – the 'financial link in the global food chain' – due to its experience of more than a 100 years, worldwide presence and extensive knowledge of agriculture.

Through its mission of *'Growing a better world together.',* Rabobank is proud to be the pioneers of the kick-start programme that is a transition to a more sustainable food and agriculture sector. We concentrate our efforts on four key areas namely Earth, Waste, Stability and Nutrition. With this agenda, Rabobank aims to increase food security for over 9 billion people on the planet by 2050, thus intensifying our efforts to help our clients and partners develop as well as scale innovations across the food value chain: from farm to work. Through this programme we use our knowledge, networks and financial solutions to increase support to our clients and partners working to improve the environmental and social sustainability of the food and agricultural sector.

Rabobank Group has been operating in India since 1998 as Coöperatieve Rabobank U.A.,

he main office is located in Mumbai. In India, we offer a wide array of products and financial services for our clients based on our cooperative roots and our deep understanding of the local food and agribusiness as well renewable energy sectors. Our product offerings include corporate banking, markets, corporate finance advisory, project finance, RaboResearch food & agribusiness, trade & commodity finance, cash management, international desk and private equity. Rabo India Securities is the investment banking arm of the group, and is located in Mumbai and Gurugram. It offers advisory services in the nature of M&A, capital structuring and equity advisory.

Rabo Foundation

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Rabo Foundation`s interventions are along two primary themes: Access to Finance and Supporting Small Producers. Rabo Foundation seeks to support small-holder farmers' aggregate into cooperative producer organizations and strengthens them to make them operationally and financially sustainable. This helps generate sustainable livelihoods for farmers so as to increase their income levels. Rabo Foundation is focused on strengthening the upstream value chains (closer to the farmer) and reduces the length of the chain, connecting different stakeholders.

Rabo Foundation works across 23 countries across Asia, Africa and Latin America, other than the Netherlands. Interventions in these areas are done through instruments such as grant support for capacity building and technical assistance, credit guarantees and soft loans. Rabo Foundation`s interventions have positively impacted the livelihoods of 5 million small-holder farmers worldwide through 369 projects in 2018 with a project allocation of EUR 33.7 million.

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Rajiv Khandelwal is the co-founder and Director of Aajeevika Bureau, a public service initiative headquartered in Udaipur, Rajasthan that provides services and solutions to thousands of seasonal migrant workers and their households in Rajasthan – Gujarat and Maharashtra. Under Rajiv's leadership Aajeevika Bureau has designed innovative programmes in legal aid, skilling, financial access and social security for migrant workers. Based on its practice and research, Aajeevika has made rich contributions to knowledge and policy on labour migration in the country.

Dr. Sanjiv Phansalkar

Dr. Sanjiv Phansalkar is Director at VikasAnvesh Foundation. He is a fellow of IIM Ahmedabad. He taught at IRMA for a number of years. He led program team of Sir Dorabji Tata trusts from 2007 till 2014. He now leads Vikasanvesh foundation, a development research centre. He has published seven books and authored numerous research publications and popular articles.

Shrashtant Patara

Shrashtant Patara is an architect by training, currently pursuing an M.Phil. in Inclusive Innovation at the Graduate School of Business, University of Cape Town. He has been with the Development Alternatives Group since 1988, providing strategic direction, programme development expertise as well as operational and financial management capability to teams working in the areas of Habitat, Renewable Energy, Water, Waste Management and Micro Enterprise Development. Through engagement across scales, his work has been focussed on the co-creation of multi-stakeholder eco-systems that promote entrepreneurship through social innovation, capacity building and access to technological, financial and marketing support services. Patara is a Fellow of The Rockefeller Foundation's Global Program on Social Innovation and co-lead at the Asia Hub of Systems Play – a platform for knowledge resources on systems innovation. He has been a member of the Indo-German Expert Group on Green and Inclusive Economy, serves as a jury member for the international SEED Awards for Entrepreneurship in Sustainable Development and has been involved in an initiative of the Lafarge Holcim Foundation for Sustainable Construction on "Re-materializing Construction".

He has been instrumental in the establishment of several social businesses within the Development Alternatives Group and currently leads the team that is incubating "TARAurja", a renewable energy based micro-utility business and the Indian Micro Enterprises Development Foundation, a platform to deliver enterprise support services at scale.

Kanika Verma

Kanika Verma leads the Sustainable Enterprise Domain of the Development Alternatives Group. She provides strategic guidance, substantive expertise and management support to teams engaged in projects related to delivery models for basic needs products, provision of support services to micro and small enterprise and initiatives to strengthen aggregation driven value chains. She has also been responsible for incubating social businesses within the Development Alternatives Group including TARAgram, a market aggregator for ethically sourced, handcrafted products. She is, currently, part of the leadership team incubating Indian Micro Enterprises Development Foundation, a section 8 company delivering enterprise support services at scale. Kanika is passionate about social innovation and system change; and philosophically and practically, sees herself 'building bridges' that connect the unique aspirations of potential entrepreneurs to an eco-system of enabling services. She is the co founder of systems play, a platform for fostering collaboration, experimentation and learning with system innovators. Her current areas of focus also include spearheading a social innovation platform (action and learning) to boost job growth for women and youth in India with support from "la Caixa" Banking foundation. She is currently pursuing an MPhil. With a specialisation in inclusive innovation at University of Cape Town. She led a financial investment firm in U.S.A. for seven years prior to joining Development Alternatives Group in 2011 to pursue her ambition of being a social entrepreneur.

Vrinda Chopra

Vrinda Chopra is the Lead for Learning and Knowledge on the social innovation driven Work4Progress India program at Development Alternatives (DA), New Delhi. Her work focusses on understanding local complexities, shifts and narratives to support the building of enabling ecosystems for entrepreneurship at the grassroots. An advocate for listening and ethnography, she believes that embedded solutions are the routes to social change. Her enthusiasm for research and social change led Vrinda to pursue a PhD at the University of Cape Town, South Africa. Her thesis studies the rationalities of social entrepreneurship and development practice in the global South, specifically in India and South Africa. An interdisciplinary scholar, her research orientations are in sociology and economic geography, the tenets of which she puts into practice in her current work in social innovation. She hopes to contribute to generative analyses that can connect academic knowledge with practice on an on-going basis. Previously, Vrinda has worked at the intersection of livelihoods, sustainability and women empowerment at Development Alternatives. She has an MPhil in Development Studies from the University of Cambridge. She is also an alumna of the London School of Economics and University of Delhi.

Sreya Mozumdar

Sreya Mozumdar has been working in the development sector for the last 12 years, after her graduation from the Department of Social Work, Delhi University. She brings to her work an academic experience of research into the area of women and gender. Her graduate and post graduate education in English Literature, from Jadavpur University, Kolkata, has lent a feminist theoretical perspective against which she frames much of her development practice. She has sectoral experience in the areas of sustainable rural livelihoods, urban poverty alleviation, disaster risk reduction, gender and youth development. She brings to her work an intersectional approach that looks at driving sustainable and inclusive development processes in contexts of marginality.

Her interest in crafting sustainable social enterprises and working with the most marginalized of artisans/groups has brought her to AIACA, in the capacity of Executive Director. AIACA (The All India Artisans and Craftworkers Welfare Association) is an apex body that has been working since 2004 on a range of issues to promote market-led growth for the crafts sector; and increased incomes and improved living standards of crafts producers. Over the past decade, AIACA has conducted policy research and advocacy on a range of issues including access to credit for crafts producers and environmental and health and safety standards for the sector; developed a crafts-certification system called the Craftmark; assisted sales and outreach of member producer groups and enterprises through commercial trade catalogues, trade fairs and order fulfillment; and assisted in developing and strengthening back-end production systems through a range of product design and business development services. AIACA has worked with 110,000 artisans across 23 states in India, including the North East.

Professor Smita Premachander

Prof. Smita Premchander is the founder of Sampark, an NGO that works for empowerment of women and migrant workers. She is Adjunct Faculty at the premier Indian Institute of Management Ahmedabad. She is the Chairperson of the International Advisory Committee (the Board) of the United Nations University's Institute of Environment and Human Security (UNU-EHS) in Bonn. As a development practitioner and consultant, Smita has worked in several countries across Asia, South East Asia, Central Asia, Middle East, Europe, and the USA. She work of over 38 years spans issues related to microfinance, labour, rural livelihoods, women's empowerment, social protection, social inclusion, financial inclusion, and sustainable development. She has a Masters in Economics, an MBA from the Indian Institute of Management Ahmedabad, and a PhD from the Durham University Business School, UK. She is a Certified Associate of the Indian Institute of Bankers, and has professional training from the Cranfield University UK, United Nations University and TERI University, Delhi.

Aindrila Mokkapati

Aindrila is a Senior Researcher at Sampark, an NGO working in the empowerment of women and migrant and workers. She started as a Macro-Economic Analyst with the credit-rating agency CRISIL with focus on India and APAC economies. Later, she has worked as a social development researcher and consultant. She has been involved with the evaluation of several projects focussing on labour, micro finance institutions, women's empowerment, ultra-poor, migration and human trafficking, more specifically in the context of India, Nepal and Bangladesh. She has co-authored and published articles and papers in renowned journals on several of the above-mentioned topics. She has a Masters degree is an Economics from University of Mumbai.

Deepika Pingali

Deepika is a development professional motivated by the objective of women's empowerment and gender equality. She holds an engineering degree from BITS Pilani and an MBA from IIM Ahmedabad. At Sampark, she takes up research, capacity building and field assignments that reach women who are highly vulnerable due to their poverty

levels, their occupations (informal labour, entertainment sector, sex work), or the social oppression they face. She also conducts research on issues related to labour migration, especially international migration of women in domestic work that place them at the risk of trafficking.

The State of India's Livelihoods Report is an annual publication addressing the contemporary issues emerging in the livelihoods sector. It is the only document that aggregates the experiences and challenges of the sector, analyses case studies and reports on the progress of both the government-run and the privately-run programs. It is released at the Livelihoods India Summit, a national level event organised by ACCESS.

This 2020 edition of State of India's Livelihoods attempts to study the status of India's livelihoods in the light of the pandemic and the unprecedented shock in almost every sector resulting from the harsh and prolonged misery that the pandemic unleashed. It also looks at strategies for responding to the crisis and building resilience for the future.

Given the diversity and complexity of livelihoods landscape, the SOIL report can never be comprehensive and complete. While some core themes are continued from the previous year's reports to provide stability to the report structure, interesting new themes have also been added. The continuing coverage includes an overall scenario of the livelihoods of the poor and an overview of the policy initiatives and important government programmes for rural development and agriculture. While the impact of pandemic on livelihoods runs across all chapters, a deep dive has been conducted on its impact on the informal and handloom sector. The report also provides a special coverage on inclusive entrepreneurship and gender and inclusion strategies in livelihoods.

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