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State of India's Livelihoods Report 2017

An ACCESS Publication

Narasimhan Srinivasan | Girija Srinivasan

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Cover photograph courtesy: ACCESS.

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List of Abbreviations

ADB	Asian Development Bank
AIBP	Accelerated Irrigation Benefit Programme
AIC	Agriculture Insurance Company
AKRSP	Aga Khan Rural Support Programme
AMSY	Adivasi Mahila Sashaktikaran Yojana
APC	Agricultural Produce Commission
APEDA	Agricultural and Processed Food Products Export Development Authority
APMC	Agricultural Produce Marketing Committee
ASSOCHAM	Associated Chambers of Commerce and Industry of India
ATMA	Agricultural Technology Management Agency
BAU	Business Accelerator Unit
BE	budget estimates
BIRD	Bankers Institute of Rural Development
BPO	business processes outsourcing
BRLF	Bharat Rural Livelihoods Foundation
BSE	Bombay Stock Exchange
BT	Bacillus thuringiensis
BTP	basic training providers
CACP	Commission for Agricultural Costs and Prices
CAF	Compensatory Afforestation Fund
CAG	Comptroller and Auditor General
CAMPA	Compensatory Afforestation Fund Management and Planning Authority
CBGA	Centre for Budget and Governance Accountability
CBO	community-based organisations
CBS	core banking system
CEA	chief economic advisor
CCE	crop cutting experiment
CEO	chief executive officer
CFR	community forest resource
CFR-LA	Community Forest Rights-Learning and Advocacy
CFT	Cluster Facilitation Team
CID	Criminal Investigation Department
CII	Confederation of Indian Industry
CIKS	Centre for Indian Knowledge Systems
CINI	Collectives for Integrated Livelihood Initiatives
CMIE	Centre for Monitoring Indian Economy
CMSA	Community Managed Sustainable Agriculture
CNA	central nodal agencies
CPI	consumer price index
CPI-AL	consumer price index for agricultural labourers

CPI-R	consumer price index for rural
CPSE	central public sector enterprise
CRP	community resource person
CSR	corporate social responsibility
CSS	centrally sponsored scheme
DAY	Deendayal Antyodaya Yojana
DBT	direct benefit transfer
DCCB	District Central Cooperative Bank
DDU-GKY	Deen Dayal Upadhyaya Grameen Kaushalya Yojana
DFI	Development Finance Institute
DLTC	District Level Technical Committee
DPIP	District Poverty Initiatives Project
DRDA	District Rural Development Agency
e-FMS	Electronic Fund Management System
e-NAM	e-National Agriculture Market
EPF	Employees' Provident Fund
EPW	*Economic and Political Weekly*
EWS	economically weaker section
FDI	foreign direct investment
FICCI	Federation of Indian Chambers of Commerce and Industry
FIPB	Foreign Investment Promotion Board
FLFPR	Female Labour Force Participation Rate
FPG	farmer producer group
FPO	Farmer Producer Organisation
FPS	fair price shop
FRA	Forest Rights Act
FTSE	Financial Times Stock Exchange
FWWB	Friends of Women's World Banking
GBLG	Goat-based livelihood groups
GDP	gross domestic product
GFCF	gross fixed capital formation
GHI	global hunger index
GIZ	Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
GNDI	gross national disposable income
GoI	Government of India
GP	gram panchayat
GPS	global positioning system
GSDP	gross state domestic product
GST	Goods and Services Tax
GVA	gross value added
HDI	human development index
HH	household
HR	human resource
HUDCO	Housing and Urban Development Corporation
IAY	Indira Awaas Yojana
IBA	Indian Banks Association
ICDS	Integrated Child Development Services
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics

ICT	information and communications technology
IDF	Initiatives for Development Foundation
IFAD	International Fund for Agricultural Development
IFFCO	Indian Farmers Fertiliser Cooperative Limited
IGNDPS	Indira Gandhi National Disability Pension Scheme
IGNOAPS	Indira Gandhi National Old Age Pension Scheme
IGNWPS	Indira Gandhi National Widow Pension Scheme
IGST	Integrated Goods and Service Tax
IIP	index of industrial production
ILO	International Labour Organisation
IT	information technology
ITDA	Integrated Tribal Development Agency
ITDP	Integrated Tribal Development Plan
ITeS	IT enabled services
ITI	Industrial Training Institute
IWMP	Integrated Watershed Management Programme
JFM	Joint Forest Management
JSJT	Janam se Janani Tak
KCC	Kisan Credit Card
KFW	Kreditanstalt Fuer Wiederaufbau
KGMSDC	Karnataka German Multi Skill Development Centre
KPO	knowledge process outsourcing
KVIC	Khadi and Village Industries Corporation
KVK	Krishi Vikas Kendra
LEISA	Low External Input Sustainable Agriculture
LFP	labour force participation
LIG	low-income group
LRP	local resource person
LTIF	Long Term Irrigation Fund
MAHAFPC	Maharashtra Farmers Producing Companies Consortium
MAVIM	Mahila Arthik Vikas Mahamandal
MBCFPCL	Madhya Bharat Consortium of Farmer Producers Company Limited
MCA	Ministry of Corporate Affairs
MCF	Microcredit Scheme for Self Help Groups
MDG	Millennium Development Goal
MFP	minor forest produce
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MIG	middle-income group
MIS	management information system
MKSP	Mahila Kisan Sashaktikaran Pariyojana
MKSS	Mazdoor Kisan Shakti Sangathan
MLPs	micro livelihood plans
MNAIS	Modified National Agricultural Insurance Scheme
Mo/H&FW	Ministry of Health and Family Welfare
Mo/WCD	Ministry of Women and Child Development
MoEFCC	Ministry of Environment, Forests and Climate Change
MoRD	Ministry of Rural Development
MoTA	Ministry of Tribal Affairs

MoU	memorandum of understanding
MPOWER	Mitigating Poverty in Western Rajasthan
MSDE	Ministry of Skill Development and Entrepreneurship
MSME	micro, small and medium enterprises
MSPs	minimum support prices
MUDRA	Micro Units Development & Refinance Agency Ltd
MYNI	market yards of national importance
NABARD	National Bank for Agriculture and Rural Development
NAFED	National Agricultural Cooperative Marketing Federation of India Ltd.
NBFC-MFIs	Non-Banking Finance Corporations–Microfinance Institutions
NCDEX	National Commodity and Derivatives Exchange
NDC	nationally determined contribution
NDDB	National Dairy Development Board
NDS	NDDB Dairy Services
NEET	not in employment, education or training
NEFSM	National Electronic Fund Management System
NFBS	National Family Benefit Scheme
NFHS	National Family Health Survey
NFSA	National Food Security Act
NFSM	National Food Security Mission
NGO	non-governmental organisation
NHM	National Horticulture Mission
NILERD	National Institute of Labour Economics Research and Development
NITI Aayog	National Institution for Transforming India
NPV	net present value
NREGS	National Rural Employment Guarantee Scheme
NRLM	National Rural Livelihoods Mission
NRM	natural resources management
NSAP	National Social Assistance Programme
NSDC	National Skill Development Corporation
NSS	National Sample Survey
NSSO	National Sample Survey Organisation
NSTFDC	National Scheduled Tribes Finance and Development Corporation
NTFP	non-timber forest produce
NULM	National Urban Livelihoods Mission
OBC	other backward class
PACS	Poorest Areas Civil Society
PAT	profit after tax
PDS	public distribution system
PESA	Panchayats (Extension to Scheduled Areas) act
PIM	participatory irrigation management
PMAY	Pradhan Mantri Awas Yojana
PMAY-G	Pradhan Mantri Awas Yojana – Gramin
PMFBY	Pradhan Mantri Fasal Bima Yojana
PMKSY	Pradhan Mantri Krishi Sinchai Yojana
PMKVY	Pradhan Mantri Kaushal Vikas Yojana
PMRDF	Prime Minister's Rural Development Fellows Scheme
PODF	Producer Organization Development Fund

POPI	Producer Organisation Promoting Institutions
PoS	point of sale
PPP	public–private partnership
PRODUCE	producers' organization development and upliftment corpus
PSE	public sector enterprise
PTG	primitive tribal group
PVTGs	particularly vulnerable tribal groups
QES	quarterly employment survey
RBI	Reserve Bank of India
ReMS	Rashtriya e-Market Services
RIC	reimbursable industry contribution
RKVY	Rashtriya Krishi Vikas Yojana
RSETI	Rural Self Employment Training Institute
RSOC	Rapid Survey on Children
RTGS	real time gross settlement
SANKALP	Skill Acquisition and Knowledge Awareness Programme
SAPCC	State Action Plan on Climate Change
SAPPLPP	South Asia Pro-Poor Livestock Policy Programme
SC	Scheduled Caste
SCA	special central assistance
SCP	special component plan
SCSP	Scheduled Castes Sub-Plan
SDGs	Sustainable Development Goals
SECC	Socio-Economic and Caste Census
SERP	Society for Elimination of Rural Poverty
SFAC	Small Farmers Agribusiness Consortium
SHG	self-help group
SIDBI	Small Industries Development Bank of India
SIP	Social Investments Programme
SLBC	State Level Banking Committee
SOP	standard operating procedure
SRI	System of Rice Intensification
SSC	sector skill council
STRIVE	Skill Strengthening for Industrial Value Enhancement
STs	Scheduled Tribes
SVEP	Start-up Village Entrepreneurship Development Programme
TDF	Tribal Development Fund
TOT	terms of trade
TRIFED	Tribal Cooperative Marketing Development Federation of India Limited
TSP	Tribal Sub-Plan
UBI	universal basic income
UID	Unique Identification
UKSPCL	Utkal Krushak Samanwaya Producer Company Limited
UNCTAD	United Nations Conference on Trade and Development
UPSS	Usual Principal Subsidiary Status
UT	union territory
VAPCOL	Vasundhara Agri-Horti Producer Co. Ltd
VETC	Vocational Education and Training College

VRC	Village Resource Centre
WBCIS	Weather Based Crop Insurance Scheme
WPI	Wholesale Price Index
WUA	Water User Associations
XIMB	Xavier Institute of Management Bhubaneswar

Foreword

For a decade now, ACCESS has been bringing out the State of India's Livelihoods (SOIL) Report annually. This report helps to track the macro scenario in the country and, within that, assess the opportunities that might emerge for the poor. This landscape witnesses constant changes with new policy and programme announcements by the government, vagaries of weather, performance of certain sectors, natural calamities, etc. Therefore, the SOIL Report is an important instrument to document these shifts on an annual basis. The highlights for this year include the demonetisation of high value currency, farmer unrest in some states leading to farm loan waivers, lack of employment, floods in some parts of the country, introduction of GST and launch of several new programmes for the poor, all of which had a significant impact on the livelihoods in the informal sector. This perhaps becomes the raison d'être for bringing out the SOIL Report.

I am happy that Narasimhan Srinivasan and Girija Srinivasan have, for the third year in a row, come together to author the SOIL Report that has helped the report to evolve considerably. The 2017 report has nine chapters that assimilate current discussions and debate around the poor, the policies that impede and advance the possibilities for strengthening the livelihoods at the bottom of the pyramid and the role of promoters, including the private sector, in it.

The opening chapter provides an overview of the trends in macroeconomic indicators that impact the livelihoods of the poor and vulnerable people.

In Chapter 2, "The Policy and Fiscal Framework," the authors provide an annual policy update centring their discussions around the current union budget; some of the significant schemes and programmes announced by the government relating to poverty alleviation, employment and agriculture; and major policy changes during the year, such as demonetisation of high value currency notes and the introduction of goods and services tax, among others.

Chapter 3, "Government Programmes," while providing an update on the flagship poverty reduction programmes such as NREGS and NRLM, goes beyond income-enhancing and income-protection programmes to examine programmes that improve the quality of life of those who may not undertake an income-generation activity but nevertheless are entitled to live a reasonable life. These programmes, namely, National Food Security Act, Pradhan Mantri Awas Yojana and National Social Assistance Programme, relate to providing food and shelter and social safety nets to poor households.

Chapter 4, "Agriculture-based Livelihoods," takes stock of the adequacy and targeting of initiatives that are being undertaken to ensure farmers' welfare and stabilisation of farm-based livelihoods, in line with the Government of India's objective of "doubling of farmers' income" by the year 2022. Starting with an analysis of the budgetary allocation for Ministry of Agriculture and Cooperation and allocation for major schemes relating to farmers, the chapter goes on to examine various issues afflicting agriculture in terms of natural resource base, inputs, production, post-harvest solutions, access to market and financing of agriculture.

While tribals have a rich cultural heritage, they lag behind on key development indicators and are poorer than the rest of the population. Chapter 5, takes a deep dive into "Livelihoods of Tribals in Central India." While looking at the key issues affecting tribals, such as displacement, tribal land alienation and access to land and forests, it reviews the government budgets, programmes and expenditure focused on tribal areas and population and looks at the potential of programmes such as MGNREGS to transform the tribal livelihoods.

Chapter 6, "Employment, Skill Development and Employability," delves into wage employment or self-employment as a significant livelihood option for a vast majority of people in India. The first part of the chapter looks at the current labour and employment situation in India. Taking forward the discussions in the previous two editions, the second part of the chapter continues the insightful exploration into whether the efforts of Government of India through the newly constituted Ministry of Skill Development and Enterprise, which has been implementing a national policy on the same, are beginning to yield dividends or not.

Policy and funding support for collectivising of farmers into Farmer Producer Organisations (FPOs), especially in the company form, has given a boost to the number of FPOs being formed in the country. SOIL 2015 had devoted a separate chapter to FPOs. Given the developments over the last two years, this year's report revisits the theme for taking stock of changes, challenges and possible solutions.

India is among the very few countries across the globe to have statutorily mandated spending by corporates on socially relevant projects from their profits. The 2015 report had covered the status of corporate social responsibility (CSR) in the country. The companies at that time were still in the process of finalising CSR policies, setting up board-level committees on CSR, hiring CSR professionals and figuring out the thematic and geographical areas where they would launch their activities. Chapter 8, "Corporate Social Responsibility—Has It Become a Pursuit of Choice?" takes a look at how far CSR has come since.

Chapter 9 summaries the continuing concerns and generates a wish list for the near future scenario towards an inclusive and equitable growth.

This year's report covers far greater detail and insightful analysis of how livelihoods of the poor have progressed over the last one year. Special thanks are due to Narasimhan Srinivasan and Girija Srinivasan for their painstaking efforts in collecting, comprehending and collating all relevant information, data and trends for the report. I am grateful to them for their painstaking efforts, interaction with key stakeholders and their research that came out with the report in time.

Several stakeholders and experts each year support this complex task of bringing the SOIL report together. Without their support and generous time, this task would have been hard to accomplish. I am grateful for the continued support to the report by Rabobank Foundation, particularly Arindom. The financial assistance received from the Research and Development Fund of National Bank for Agriculture and Rural Development (NABARD) towards publication of the report is gratefully acknowledged.

Last but not least, I would like to acknowledge the effort put in by Livelihoods Asia team of Puja and Shruti in providing support to the authors. I would also like to thank my programme support team, particularly Lalitha, for making all the logistic arrangements for the authors.

ACCESS feels proud to have brought out the SOIL report for the 10th consecutive year. We keep receiving feedback on its usefulness as a credible comprehensive reference document for all interested stakeholders attempting to understand and impact the livelihoods of the poor. Across nine chapters of this year's report, extensive coverage of the complex ecosystem within which the poor strive to sustain their livelihoods has been attempted, and I hope that the 2017 report will continue to provide value to the sector. As per tradition, the report will be released at the Livelihoods Asia Summit in Delhi in December.

Vipin Sharma
CEO
ACCESS Development Services

Preface

Even in the third year of authoring this SOIL report, we are continuing to improve our understanding of the complexities of livelihoods in the country. We visited several states (Andhra Pradesh, Odisha, Tamil Nadu, Karnataka, Madhya Pradesh, Meghalaya, Gujarat, Maharashtra, Rajasthan and Uttarakhand) and met institutions and practitioners to gain an understanding of the livelihood situation and its challenges. We met functionaries in state and central governments and NGOs. There is a lot of hope and aspiration in the people we met on the ground; they also have heightened expectations for quality livelihood options from governments and support organisations.

We owe gratitude to many organisations and people in helping us along our way. NABARD, BAIF, Pradan, GIZ, Vrutti, FWWB, Ananya Finance, Nabkisan, Samunnati Finance, SFAC, CmF (Jaipur), Tata Trusts, Technoserv, ASA, Sabziwala, Kabini Organic FPC Ltd, IDF, CARD (Madhya Pradesh), Harsha Trust, ITC, Lupin Foundation, Vedanta Group, Centurion University, Madhyam Foundation, Sambandh (Odisha) and Federation of FPOs in Madhya Pradesh, Gujarat, Rajasthan and Odisha are some agencies that we would like to thank profusely. A number of institutions and practitioners deserve more than our thanks. We thank Vinod Tiwari, Joint Secretary, Tribal Development; Smt. Alka Upadhyaya, Joint Secretary, MORD; Shri L.M. Belwal, CEO, State Rural Livelihood Mission, Madhya Pradesh; Shri Pranabjyothi Nath, Odisha Livelihoods Mission; Dr P.M. Ghole, S.N.A. Jinnah and K.C. Panigrahi, CGMs of NABARD; Satyajit Dwivedi and Venkat, Nabkisan; Girish Sohoni and Bharat Kakade, BAIF; Narendranath, Pradan; Muralidharan and colleagues, Vrutti; Balasubramanian, CIKS; Anil, Samunnati Finance; T.V. Shenoy and Vivekanand Salimath, IDF; and Sanjeev Unhale, Dilasa. From the corporate sector, Madhavan of Cognizant, Sonia Srivastava of Vodafone, P.K. Hota of Jindal Group and Ruchi Raman of Jana Foundation made rich contributions. Rajeev Ahal and Unnikrishnan Nair of GIZ not only discussed FPOs and NRM issues at length but also contributed a note on the subject. Raghupathy, KGMSDC, Bengaluru, spent valuable time with us on skill development issues. Our heartfelt thanks to long-time practitioners in the sector—Deep Joshi, Srinivas Kedar (of JSW Foundation), Pravesh Sharma (Sabziwala) and Venkatesh Tagat—for their insights. Dr Kalpana and Jeyaseelan, Hand in Hand India, had been helpful as always. Rahil Rangwala of MSDF shared his insights on CSR and skill development aspects. Dr Sudarshan of Karuna Trust provided us a succinct summary of tribal development issues. We thank the project management teams of MPOWER (Rajasthan), MAVIM and Odisha Tribal Empowerment and Tribal Livelihoods Programme for generously sharing information on their initiatives.

ACCESS teams in Odisha, Rajasthan and Madhya Pradesh facilitated our meetings there and shared their experiences. Special thanks to Amulya Mohanty, Bharat Parekh and Surendra Verdia of ACCESS Development Services for sharing their experiences. The ACCESS team of Puja Gour and Shruti Pandey managed our meetings efficiently. Without Lalitha Sridharan, we would not have been able to travel to different parts of the country and connect with stakeholders. Pravin Shende has been a source of unstinting support in bringing out the draft document in time. We also thank the group of advisors of Livelihoods Asia in ACCESS for their understanding and support. Special thanks to Vipin for his unwavering faith in us. We express our heartfelt thanks to the sponsors of the report for supporting the production of

SOIL 2017. Our thanks are due to many more whose names we have not been able to include here but who had helped in the making of this report.

While we have continued some core chapters in order to provide stability to the structure of the report, we have also covered interesting new themes. An overview of the economic situation in the last years and a concluding chapter on dealing with equity and inclusion in growth are part of this year's report. We have continued the coverage of policies, legal and fiscal framework for livelihoods, key government programmes and schemes. Two chapters—one on agricultural livelihoods and the other on tribal livelihoods—are new areas of in-depth focus in the current year. We are revisiting the employment and skills landscape, CSR and FPOs after a year's gap. While we started with huge aspirations on coverage, the paucity of resources and time moderated the outputs. We hope the readers will find the report relevant and useful. We—the authors—carry the responsibility for the inferences and conclusions drawn in the report. The sponsors of the report and ACCESS Development Services do not necessarily share the views of the authors.

Overview

Chapter 1

Why do macroeconomic issues matter to small and vulnerable people? The growth rate of the economy is an essential factor for people's livelihoods on the ground as their income, fiscal support for their welfare and conditions in which their enterprises operate are a function of the performance of the macroeconomy. The level of government and private expenditure, manufacturing activity, investments into new productive efforts and a performing agriculture sector hold the key to creation of new employment opportunities and stabilisation of existing jobs. Growth in itself is not the final objective in a developing country, but expanding employment and thriving livelihoods is. Hence, this report reviews the macroeconomic developments and examines their link to livelihoods. The Reserve Bank of India (RBI) and economic survey by the Chief Economic Advisor in 2017 rightly credit the economic management of the government. RBI, in its annual report 2016–17,[1] points out,

> The Indian economy demonstrated resilience in 2016–17, marked by moderate expansion and macroeconomic stability—low inflation, and improvement in current account and fiscal deficits … the outlook for growth in 2017–18 has brightened, with the likelihood of another favourable monsoon and the implementation of major policy reforms—led by the introduction of the Goods and Services Tax—that would help to unlock bottlenecks to growth.

Commenting on the agricultural sector, RBI recognized that "agriculture and allied activities rebounded sharply in 2016–17. Record food grains and horticulture production, facilitated by the normal monsoon as well as considerable hike in pulses' minimum support prices (MSPs), augmented the sector's growth during the year." The economic survey observed that the economy was resilient and registered a reasonable GDP growth in 2016–17, though lower than the previous year. It also surmised that India is making a structural shift from high to low inflation paradigm, which should be a welcome development to millions of poor and vulnerable people. However, the economic survey was cautious in its outlook stating that the "Indian economy elicits reactions that span the continuum: from fundamental optimism (and its frothy variant, exuberance) about the medium term to gathering anxiety about near-term deflationary impulses."

The economic survey in February 2015 had commented on the "Sweet Spot" the economy was in and the robust growth prospects. Falling inflation rates, low crude prices, good GDP growth and the prospect of structural reforms had encouraged the Survey to have a positive outlook for the coming years. The year that followed (2015–16) lived up to the expectations, posting a growth of 9.2%. Thereafter, the GDP growth has been showing a decline over five quarters. Real GDP declined

[1] RBI, *Annual Report 2016–17*.

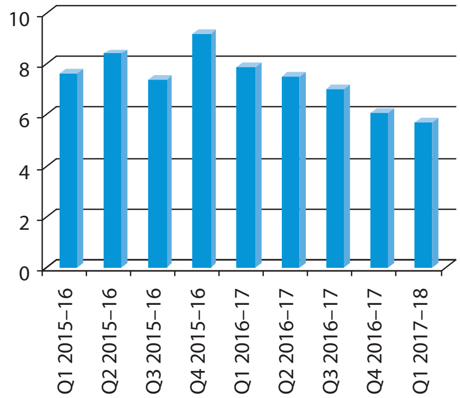

Figure 1.1: Fluctuating GDP Growth

Source: MOSPI database and press release dated 31 August 2017.

from 8% in 2015–16 to 7.1% in 2016–17. The quarterly GDP growth subsequently has shown a continuing deceleration for five successive quarters, with first quarter of 2017–18 reporting a 5.7% growth (see Figure 1.1).

The decline in GDP is not the only signal that causes worry. The index of industrial production has declined and for the first time since 2013 showed a negative growth rate in June 2017 (Figure 1.2). Credit growth as a whole is muted and there has been a fall in credit flow to industries. The reasons for reduced credit flow do not seem to be supply related, but on account of reported lack of investment demand. Private investments have been declining for some time. The government, which was confident of high

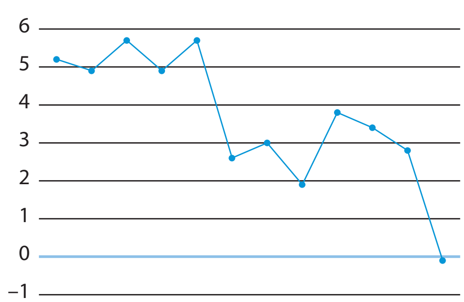

Figure 1.2: IIP Growth Rates (YOY)

Source: Ministry of Statistics and Programme Implementation database and Press Release dated 11 August 2017.

growth rates till recently, has recognised that the fall in GDP growth rate in the first quarter of 2017–18 is a matter of concern.[2]

The demonetisation of high value banknotes and introduction of Goods and Services Tax (GST) to replace all other indirect taxes introduced new dynamics into the economy that will have a lasting impact, both positive and negative. While in the short term there had been pain in implementing demonetisation, the long-term impact had been projected to be an overwhelmingly positive one. The economic survey summarising the current position of the Indian economy very aptly wrote, "from fundamental optimism about the medium term to gathering anxiety about the near term deflationary impulses." It listed the factors behind the rekindled optimism as (a) structural reforms with the launch of GST, (b) growing confidence that macro-economic stability has become entrenched, (c) extraordinary financial market confidence reflected in bond and stock valuations and (d) long-term positive consequences of demonetisation despite the short-term costs. The likelihood that the state government finances will be disrupted on account of farm loan waivers, deflationary tendencies weighing on an economy that has yet to achieve its growth momentum and the weak employment situation were the negative factors according to the survey.

On the question of demonetisation, the Economic Survey of 2016–17 (Volume II released in July 2017) has recognised that it imposed short-term costs. The conventional economic indicators would not be able to adequately capture this cost. A proxy for informal sector effects was measured by the Economic Survey through the two-wheeler

[2] Shri Arun Jaitley commented, "It is a matter of concern that GDP growth in the first quarter has slipped. It throws up a challenge for the economy. In coming quarters we require—both in terms of policy and investments—to work more to improve upon this." See *Livemint*, "India GDP Growth Rate Slumps to 5.7% in Q1 in Challenge for Economy."

sales as also MGNREGS (Mahatma Gandhi National Rural Employee Guarantee Scheme) demand and supply for jobs by the people. The two-wheeler sales plummeted during November–December 2016 and started slowly increasing from January onwards. It has more or less recovered the lost market space by May 2017, indicating that for at least a three-month period after demonetisation there was a steep fall in demand. In the case of MGNREGS, employment in the week after demonetisation as compared to the week prior to that was measured. The main findings were that there was a surge in demand for income stability over the demonetisation period, especially in less-developed states comprising Bihar, Chhattisgarh, Rajasthan, Jharkhand, West Bengal and Odisha. These states witnessed a 30% increase in man-days worked. The survey concludes that demonetisation impact on the informal economy led to increased demand for social welfare protection, particularly in less-developed states, peaking between December and March.

The RBI continued to be wary of the inflation potential in the economy despite the continuing fall in commodity prices as also surplus liquidity in the banking system in the aftermath of demonetisation. The savings rate that had showed a decline during the last year stood at 31.6% of GDP, down from a peak of 33.1% achieved in 2012–13. Capital formation rates too declined over the last three years (see Table 1.1).

Private capital formation rates have been on a decline since 2014–15. The spike in public capital formation has managed to pull back the overall capital formation rates (Figure 1.3). The cause for concern is that private gross fixed capital formation (GFCF) has gone into the negative territory, implying there is less confidence to invest as much as the private sector was doing in the past, let alone increase investments.

On the inflation front, there were encouraging developments with the CPI inflation coming down dramatically to a low of 1.5% in June 2017 (Figure 1.4). This is well below the medium term target of 4%, and it had been consistently below the target for a period of seven months. The short-term outlook for inflation is now dependent on capital flows, the exchange rate, the monsoon, the aftermath of introduction of GST, the seventh pay commission impact and also the farm loan waivers. The Economic Survey noted with concern that the monetary policy

Table 1.1: Savings and Capital Formation

2011–12 Constant Prices	2012–13	2013–14	2014–15	2015–16	2016–17
Gross savings rate as % of GNDI*	33.1	31.4	32.3	31.6	–
Gross fixed capital formation as % of GDP	31.9	33	31.3	30.9	29.5
GDP growth rate %	5.1	6.6	7.2	7.9	6.6

Source: RBI annual report, different years.
Note: *Gross national disposable income.

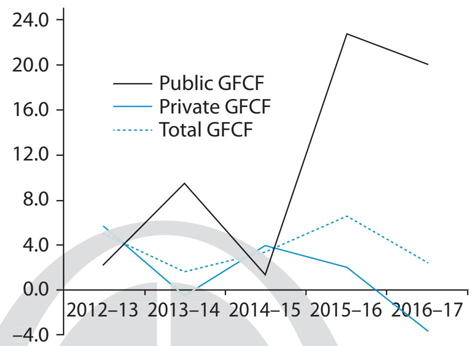

Figure 1.3: Gross Fixed Capital Formation Rates

Source: Economic Survey, Vol II 2016–17, July 2017.

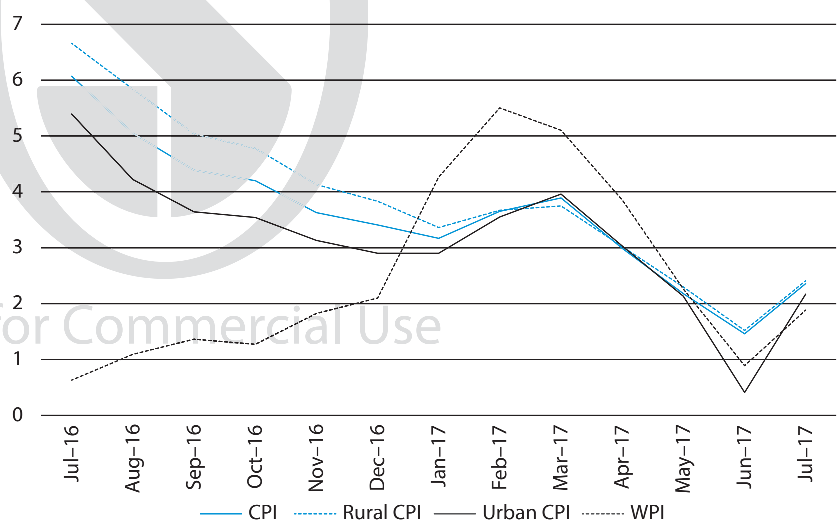

Figure 1.4: Inflation Trends

Source: Based on RBI data in its Database on the Indian Economy, web based portal.

has been adopting a hard stand of not reducing the repo rates. The monetary policy signal rates (despite inflation being moderate) have not been reduced quickly and adequately to make cost of credit cheaper and thereby incentivise investments and accelerate capital formation.

RBI, in its annual report, noted that,

> A modest uptick in inflation during February–March 2017 proved to be weak and short-lived … In the event, inflation undershot the target of 5.0 per cent for Q4 of 2016–17 by 140 basis points. Excluding food and fuel, inflation remained at around 4.9 per cent from September 2016 till March 2017 … However, a modest decline in inflation, excluding food and fuel, was witnessed during the first quarter of 2017–18.

RBI concluded that during 2016–17, consumer price index (CPI) inflation ebbed largely, reflecting the sharp downturn in the prices of pulses and vegetables following bumper production and supply management measures. But inflation was later accentuated by the transitory effects of demonetisation. According to RBI, upside risks may emerge from input costs, wages and imported inflation. As stated earlier, Economic Survey takes the view that India is moving towards a phase of low inflation on account of structural shifts. Analysing the last 40 years' inflation trends, the Survey concludes,

> There have been broadly four phases: high inflation, averaging 9 percent, for about 23 years; low inflation of about 4 percent for 5 years between 2000 and 2005; a resurgence of inflation back to about 9 percent during the period 2006–2014; and now a new phase of relatively low, possibly very low, inflation.

A low inflation trend in the consumer's hands provides relief to vulnerable people as the value of their earnings does not erode quickly and ensures that there is greater stability in wages.

On the outlook for the next year, RBI has stated that while growth is again expected to be consumption-led, continuing remonetisation should enable a pickup in discretionary consumer spending. Government spending will continue to compensate for the impact of a slowdown in the private sector. On the downside, RBI felt that global political risks remain elevated. It is also concerned that rising input costs may prove a drag on the profitability of firms, pulling down the overall gross value added (GVA) growth. The twin balance sheet problem—over-leveraged corporate sector and stressed banking sector—may delay the revival in private investment demand. RBI pointed out that early indicators for 2017–18 based on the Index of Industrial Production (IIP) and the performance of eight core industries point to subdued industrial activity. While the prospects for manufacturing sector remain uncertain in the short term in view of the implementation of GST, RBI expected services sector to perform better during the year. RBI has projected real GVA growth to rise from 6.6% in 2016–17 to 7.3% in 2017–18, with risks evenly balanced.

The Economic Survey 2016–17, brought out in January 2017, had projected GDP growth between 6.75% and 7.5%, factoring in more buoyant exports, a post demonetisation catch-up in consumption and easing of monetary conditions consequent upon demonetisation. However when Volume II of the Survey was brought out in July 2017, it has changed its stance.

> All the new factors—real exchange rate appreciation, farm loan waivers, increasing stress to balance sheets in power, telecommunications, agricultural stress, and the transitional challenges from implementing the GST—impart a deflationary bias to activity … In February, the Survey (Volume I) had forecast a range for real GDP growth of 6.75 percent to 7.5 percent for FY 2018 … the balance of risks seem to have shifted to the downside. The balance of probabilities has changed accordingly, with outcomes closer to the upper end having much less weight than previously.

The Economic Survey Volume II and RBI Annual Report came out with a gap of five weeks in between. Both have considered the same data sets and domestic and international developments. While RBI is emphatic about 7.3% growth, the Chief Economic Advisor (CEA) projects 6.75%. What explains this difference between two key economic policy establishments of the country?

The introduction of GST (dealt with in detail in Chapter 2) is a significant event in the federal fiscal framework of the country. All the states coming together and agreeing to operate under a unified indirect tax regime so as to speed up trade and commerce across borders is a powerful signal that across the political and regional spectrum, there is space for unified national thinking for larger interests. Now that the GST is in force, the implementation aspects have to be carefully configured. While the Government of India (GoI) was euphoric that GST collections in the first month exceeded ₹950 billion, within a few days came the dampener that input tax credit of ₹600 billion has been claimed.[3]

Employment

According to Centre for Monitoring Indian Economy (CMIE), the number of unemployed persons hovers around 40 million for the last few years. The statistical analyses, different ratios, trends in job creation, etc., tend to mask the size of the problems and reduce it to a set of numbers. The fact that real persons and livelihoods are involved is at times lost sight of. In the last year's report, we had referred to the phenomenon of continuing jobless growth and declining employment elasticity. The quarterly employment survey carried out by the Labour Bureau showed that the eight sectors that were being monitored added mere 1.35 lakh jobs during the year 2015. The government in consultation with NITI Aayog has introduced a more comprehensive quarterly employment survey that focuses on eight labour intensive sectors that account for a significant chunk of jobs. These are manufacturing, construction, trade, transport, accommodation and restaurant, IT/BPO, education and health sectors. The survey methodology comprises collection of data from 10,600 different entities in these different sectors (as compared to a sample size of 2,000 in the earlier quarterly economic surveys). The findings of this exercise in the first base survey is that these eight sectors employed 205 lakh people as of 1 April 2016. The three quarterly surveys that had since been carried out under the new series show that during the year 2016–17, in the first three quarters, the total employment created in these eight sectors was 1.22 lakh. Annualised, the growth is about 1.63 lakh jobs, which is about 0.8% of the base. It is difficult to come to any definite conclusions this early in the new series data. Over the long term, the new series of quarterly survey will throw up reliable numbers on employment that could become bellwether data.

Considering that the country adds 72 lakh members to the workforce every year, addition of a small number of jobs with extensive public policy and strategy support does not do justice to the opportunities that exist in the country. The issues relating to employment have been dealt with in greater detail in Chapter 6. The Employment–Unemployment Survey 2015–16 brings out clearly the extent of employment, unemployment and under employment in the country. While the unemployment rate in the country as a whole is at 5% (on the Usual Principal Status measurement), 61% of the labour force across the country actually had full-time job for 12 months in a year. In the rural areas, this declined to 53% people having a full-time job for 12 months. As per the statistics, 47% people in the rural area and 39% people across the country although employed did not have full-time work. They work for only a part of the year. Further, 57% of the workers had income of less than 10,000 rupees per month, and only 22% of these workers have had any social security benefit. Majority of the workers, 95% of casual and 67% of contract workers,

[3] News report in *Business Standard*.

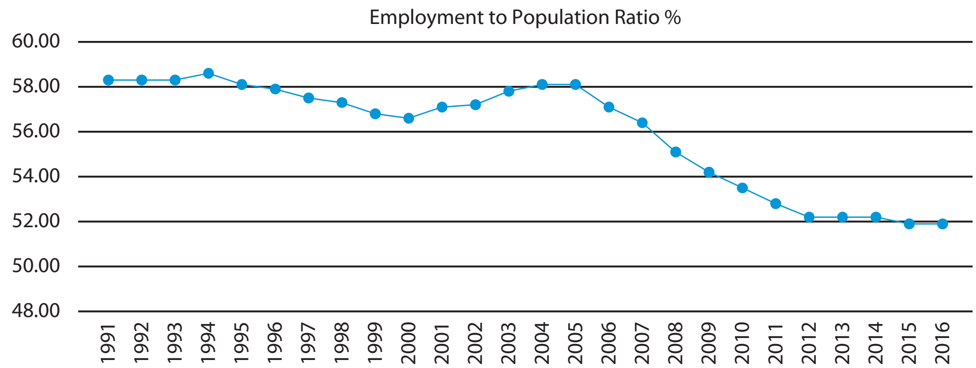

Figure 1.5: Proportion of Employed Declines

Source: Based on ILO data, from web database.

did not have a written contract issued to them by their employers. The position of the quality of employment is in fact grave and needs priority attention.

International Labour Organization (ILO) had published the employment to population ratio, which shows that the proportion of people employed that are of working age (15+) is consistently falling (Figure 1.5). While over the last five years, the fall in the ratio is not dramatic, the low proportion in employment is a matter deserving urgent attention.

There are issues of gender disparity in employment in terms of participation, employment and wages. Continuing discrimination on the basis of gender has been pointed out and the work of remedial measures is in progress. In the recent past, several new doors in armed forces and other vocations have been opened. Even in terms of factory work, stringent guidelines with regard to employment of women have been rationalized. The pace of progress in dealing with gender inequality needs to increase.

Skill Development and Employment

After pursuing an impossible 500 million skill training target, the Ministry of Skill Development and Entrepreneurship has given up the target in favour of a demand-driven quality training approach. While no fresh targets have been communicated, it is understood that a realistic estimate has been made according to which about 402.87 million people will have to be trained by 2022 of which 104.22 million are those who would have entered the workforce in the seven years until 2022 and who will need to be skilled. The remaining 298.25 million will need to be reskilled or upskilled. The state of skilling has not been exciting in terms of its achievements. While many ministries and institutions have been roped in as partners and several courses have been designed, the training targets had not been met. Worse still, placement rates have been very low. There have been complaints of ghost trainees, misutilisation of funds and lack of planning. There is an effort to revamp the systems and processes of skill development. The larger problems are with the employability of the trained persons. Employer willingness and acceptance have not really been taken before embarking on such a massive skilling exercise. The assumption has been that once a person gets skilled, employers will provide a job, which has been belied. The gap between enrolments and certification, in terms of the number of persons that do not pass the assessments, is large. Ensuring such persons get to complete their courses and attain skill levels sufficient to be employed is a priority need. Organising future courses based on demand, requiring the candidates to pay a part of the fee, identifying specific employers to provide jobs to candidates in

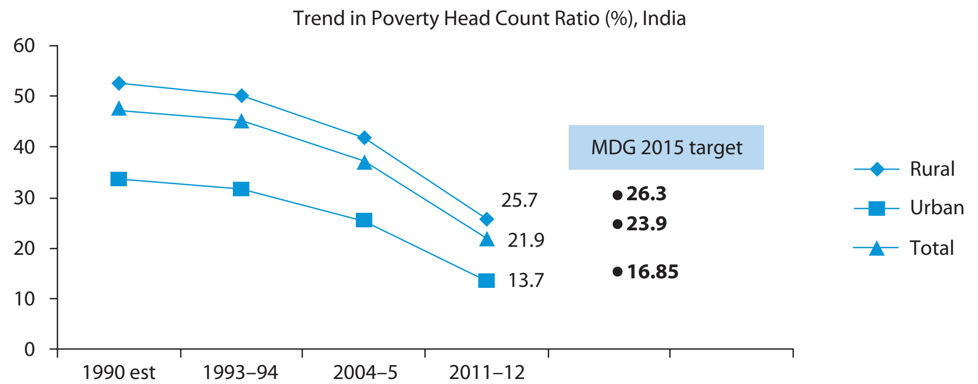

Figure 1.6: Poverty Reduction

Source: Reproduced from Achieving Millennium Development Goals, Target Year Factsheet July 2017.

specific courses, arranging for assessments to be completed on time and build greater involvement for industry and employers in conduct of the courses are some of the requirements for getting value for money out of expenditure on skill courses.

Social Sector and Human Development

In terms of Human Development Index (HDI), India has slipped one position in ranking from 130 in 2014 to 131 in the current year (i.e., 2017). While there had been progress in terms of its score from 0.609 to 0.624, the other countries seem to have moved significantly ahead. On poverty reduction, India had taken a target of halving the poverty ratio by 2015. The target has in fact been achieved as reported by GoI (Figure 1.6) in its Target Year Factsheet.[4]

Whether we have dealt with poverty satisfactorily, apart from managing to reduce the headcount of those in poverty? World Bank in its India Poverty Profile provides the following facts. One out of every five Indian is poor, aggregating to 27 crore poor people. Seven low-income states carry 62% of India's poor. Poverty is more in rural areas with poverty rates at 25% compared to urban poverty rates of 14%. Two out of five tribals are likely to be poor, double the national average. Poor are affected not just by low income and assets but also by limited access to basic necessities—only 21% have latrines, 6% have access to tap water and 61% to electricity.

Poverty reduction is an important agenda of HDI as well as Sustainable Development Goals (SDGs). In the Indian context, poverty measurement has been an ongoing exercise. As explained in Chapter 2, GoI has introduced a new mission, Antyodaya Yojana, under which all programmes will be converged at the Gram Panchayat (GP) and delivered to ensure that poverty reduction takes place. Further, the programmes on skill development, MGNREGS and other employment and enterprise development programmes try to deal with poverty. Cent per cent electrification of villages, road connectivity to all habitations and the income doubling initiatives in respect of farmers are actions in the right direction. In all these programmes, the designs focus on results and quality outcomes, but implementation processes and personnel often set up barriers of different kinds that make it difficult for people to access the benefits. While problems of undeserving people trying to avail these benefits necessitate entry checkpoints, these checkpoints become barriers for those who are intended beneficiaries. As discussed in later chapters, exclusions

[4] Ministry of Statistics and Programme Implementation, *Achieving Millennium Development Goals: Target Year Fact Sheet.*

Table 1.2: Trends in Nutritional Status of Children Below 3 Years

	NFHS-2 (1998–99)			NFHS-3 (2005–06)			NFHS-4 (2015–16)
	Urban	Rural	Total	Urban	Rural	Total	Total
Children Stunted (Height for age) %	41.1	54.0	51.0	37.4	47.2	44.9	36.1
Children Wasted (Weight for height) %	16.3	20.7	19.7	19.0	24.1	22.9	23.4
Children Underweight (Weight for age) %	34.1	45.3	42.7	30.1	43.7	40.4	33.7

Source: National Family Health Survey, Ministry of Health and Family Welfare.

taking place in several government social safety net programmes need close attention. The exclusion of families and individuals from ration cards under National Food Security Act (NFSA), deletion of job cards under MGNREGS, removal of pensioners names from old-age pension schemes without following due process, etc., are some examples of over-zealous implementations that have misplaced priorities of reducing subsidy outgo and restricting the number of beneficiaries.

India had taken a target of halving the number of people who suffer from hunger. While this is a work in progress, the Global Hunger Index for the year 2016 reports that India has serious problems in dealing with its food and nutrition related issues.[5] Despite improvements in dealing with hunger, India is placed among 20 countries that are rated to be seriously impacted. India is ranked 97th out of 118 countries in the index. The score for India has improved over the period from 1990 to 2016, but still high rates of child mortality, child malnutrition and children with stunted growth continue to affect the quality of life (Table 1.2). The problem may not be the shortage of food to eat, but deficit in nutrition and child health care.

For the size of the country and the kind of resources that India has, the failure to deal with malnutrition and child health is costing India dear, and lowers its reputation globally. Smaller countries with limited resources have made advances in improving their Hunger score. The Global Hunger Index report mentions,

> In Rwanda, child mortality and child wasting saw the biggest reductions, decreasing by approximately 75 percent each; the prevalence of undernourishment fell by nearly half; and stunting only went down by 20 percent. In Cambodia, the child mortality rate went down the most, dropping by 73 percent, while again child stunting decreased the least, falling by 34 percent, which is still a strong improvement.

Therefore, there is a need to look with greater alacrity into implementation of the NFSA and also the Integrated Child Development Services (ICDS) programme. In terms of health care, attention to not merely infant mortality but also improved nutrition and malnutrition related problems is necessary.

On the Universal Primary Education goal of 100% children enrolling and completing primary education by 2015, there is a shortfall. Net Enrolment Ratio was 87.4% in 2015 and there is still work to do. Progress in battling HIV-AIDS, malaria and TB has been significant and the targets have been met. There has been progress in providing access to safe drinking water and sanitation. Target 11 of the Millennium Development Goals (MDGs) states that "By 2020 to have achieved a significant improvement in the lives of at least 100 million slum dwellers," and the reporting on achievement against this target states that "the pattern statistically not discernible". One wonders why it is difficult to discern improvements in lives of slum dwellers with Pradhan Mantri Awas Yojana (PMAY), Skill India Mission, National

[5] Grebmer et al. *Global Hunger Index 2016: Getting to Zero Hunger*.

Urban Livelihood Mission (NULM) and such other programmes that are aimed at this section of population. On gender parity in education, substantial progress has been made with parity achieved in primary and secondary education. But in higher education, there is still room left to meet parity targets. On employment, wages and in parliamentary representation, it might be a long time before gender parity is achieved.

There are several aspects of gender parity. Female participation in labour force (FLFPR; 23.7% in 2015–16) is low and falling in India. From the supply side, there are reservations for employing women in several types of jobs. From the demand side, safety and dignity concerns on the part of women limit them from taking up jobs that would be considered acceptable by "significant other persons" in their lives. The paternalistic culture prevalent in society, the attitudes of formal institutions in dealing with women entrepreneurs and the disparity in wages, all combine together to suppress demand for jobs from women. Only one out of four women wants to work. World Bank says,

> an increase in women's labor force participation (LFP) and earnings can lead to faster growth, reduced poverty and more widely shared prosperity. Women benefit from their economic empowerment, and so too can their men, children and society as a whole. The case for India getting more of its women in the labor force is thus not only 'the right thing to do' but also smart economics.[6]

Tribal Development

For long, tribal development had not received the attention it deserved, guaranteed by the constitution and other laws. Only in the last five years or so, some improvement on the ground has been witnessed, arising more from intent in the government. Tribal community interests had been subordinated to the interests of forest protection in some areas and that of mineral extraction or development projects in others. The passing of the Forest Rights Act gave a fillip to tribal rights and ensured that they can continue to enjoy ownership and/or access to lands traditionally used by them. Responding to the challenges of climate change and initiating different actions on adaptation and mitigation will require the support and active participation of tribal communities in large measure. While there are locations where the tribals can be advantageously retrained and skilled to move in to the mainstream, there are locations and habitations in which their existing livelihoods should be protected and upgraded. Food apart, access to safe drinking water, sanitation, education, health, financial services and markets are much more relevant for tribals as they are more vulnerable and less informed. While the government programmes have tried to provide education and health facilities, these are yet to offer quality services. The distribution of rations through public distribution system (PDS) has significantly enhanced the welfare of tribals in several parts of the country. Incidence of extremism has been linked to low development and many tribal areas are affected. Development is a good antidote to extremism. Recognising this, governments have designed programmes specifically for "Left Wing Extremism" affected districts. In Chapter 5, detailed coverage of tribal livelihoods is carried to bring the debate on their opportunities and challenges to the mainstream.

Agriculture-based Livelihoods

Agriculture has been the sector that has carried all those who cannot find livelihoods elsewhere. Over the years, it has not only put food on the table for the millions in India but also raw material for industries and commodities for exports. But agriculture-based livelihoods have been under increasing threat. Their threats come from uncertain weather, uncertain markets,

[6] World Bank, *India Development Update: Unlocking Women's Potential.*

exploitative intermediaries and inconsistent government policies. The advice and technical knowhow imparted to agriculturists at times are more of short-term measures, not strategic. The green revolution, after making short-term gains at a huge resource cost, seems to have stymied growth in the irrigated North Indian heartland. Resource-intensive farming over a long period has robbed soil of character, reduced fertility and aggravated problems of salinity. The quest for a low-resource, low-cost and high-return agriculture is strong. The return to organic manure, natural means of controlling weed, pest and insects, and concepts such as zero tillage reflect that farmers are looking for sustainability rather than short-term advantages. Water use optimisation is gathering pace from both, government agendas and farmer investments. Organic farming practices are increasingly coming into practice, not with a higher price expectation but to improve soil quality and benefit from lower cultivation costs. The markets have been beyond the grasp of the farmer. With individual quantities being tiny, farmers do not have the power to enter markets. The recent aggregation exercises through Farmer Producer Organisations (FPOs) are giving hope that with larger volumes, FPOs will have negotiating power in the markets.

The much-maligned middlemen are sought to be replaced with farmer organisations, service providers and technology. In some aspects of farm life, it is good to have physical presence of an intermediary that can appreciate emergent problems and empathetically provide solutions. But in others, especially with potential for farmer's exploitation, the need for alternatives is evident. Financial institutions, market institutions and technology providers increasingly look for points of presence closer to the ground, such as business correspondents of banks, e-Choupals and the like. Using technological means for accessing services directly from providers and avoiding intermediaries are being experimented with in case of larger FPOs. They take the *mandi* licenses, obtain fertiliser and seed dealerships, become business correspondents of banks (or borrow bulk loan for retailing) and deal directly in the commodity exchanges. Such initiatives are still in the nascent stage and should be scaled up, covering a larger number of FPOs and collectives. The new insurance scheme, Pradhan Mantri Fasal Bima Yojana (PMFBY), seems to have become popular within a short time with non-borrower farmers seeking out the coverage. Even as it tries to manage the initial problems of delay in claim settlements, flawed crop cutting exercises by States, etc., it is reportedly set for a revamp. The revamp would focus on increasing competition among insurers, lowering the average premium and widening the scope of cover to include losses due to natural disasters.

Government policy is an aspect that is within control of policymakers, but it is still a more complex aspect of farmer's livelihoods. When government's policy on farmers is subjugated to other interests, (such as consumers, international trade, taxation, social sector, etc.), then it is difficult to secure the best possible results for farmers. While the policy focus is gradually turning towards markets, clarity of thought on what needs to be done with what possible results is not evident. The new schemes and programmes have details on what and how but are severely short on intended results and the feasibility of achieving the same. A survey of about 5,350 farmers in 18 states was carried out across the country to understand the position of farmers and their insights into farming related aspects. As a part of the survey, a question was asked about whether they knew about some of the important schemes for rural areas and whether they or any family member had been benefitted under the scheme. The answers showed that there was a huge gap between awareness of the scheme and benefits availed (Figure 1.7).

Policymaking in agriculture should focus more on farmers than farms and make farm livelihoods respectable and profitable. Ministry of Skill Development and

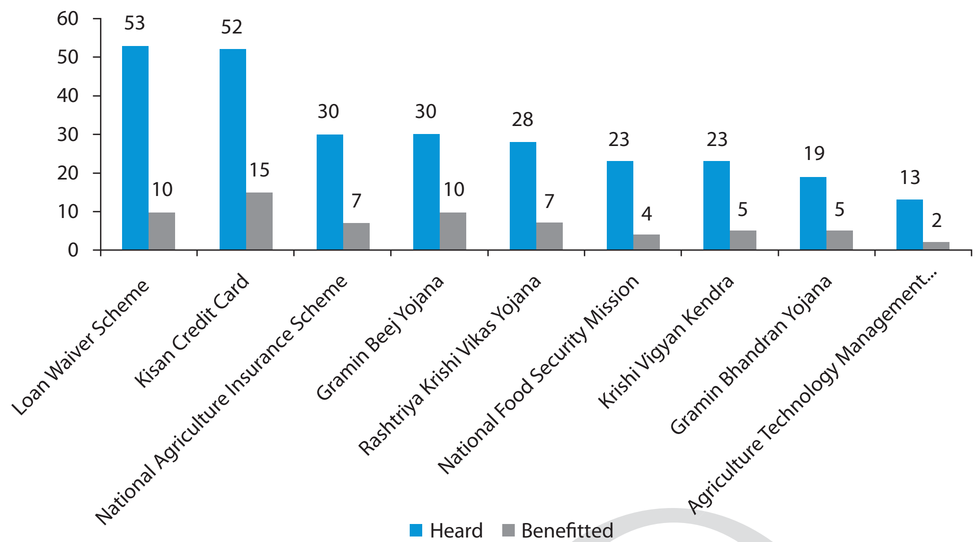

Figure 1.7: Awareness Level and Benefits Availed from Government Schemes (Percentage of Farmers Reporting)

Source: State of Indian Farmers, a survey by Centre for the Study of Developing Societies, Delhi, 2014.

Entrepreneurship (MSDE) has indicated that a shift of labour from agriculture to other sectors is inevitable, which is welcome. The need to improve labour productivity in agriculture need not be over emphasised. How the shift will be planned and executed will determine whether the labour so shifted return to farms for a period of time every year or stay away from farms. The current situation of migrant labour returning to their farms during sowing and harvest seasons creates pressure in the jobs they leave as also in the villages they reach (temporary glut of labour keeping down wage rates). The alternatives provided to induce migration from rural areas should be superior to the existing jobs in agriculture and then only the objective of skilling them will be fully realised. Detailed coverage of agriculture-based livelihoods is carried in Chapter 4.

Corporate Social Responsibility

After an initial period of inertia-bred resistance, the corporate sector has got its act together. Most of the corporates have framed board-approved policies and board committees on corporate social responsibility (CSR). The preferred mode of implementing CSR projects for those new to it has been the use of nongovernmental organisation (NGO) partners. The corporates have understandably preferred projects in education, health and skills training. Projects and themes requiring less preparatory work on the part of corporates and with shorter implementation times facilitating quick spending have been in demand. However, corporates that have been in CSR much before the new regulations look for projects with long-term impact. These projects require a longer duration implementation capability, phased funding and periodic monitoring for results. Livelihood development, farm productivity improvement, watershed development and such other themes find very few takers on account of limited capacities within the corporate and the difficulty of finding a competent NGO partner. CSR with a budget of less than ₹10,000 crore each in the first two years of implementation has captured the imagination of industry associations such as Confederation of Indian Industry (CII), Federation of Indian Chambers of Commerce and Industry (FICCI), the Associated Chambers of Commerce of India (ASSOCHAM), etc. and also the

Table 1.3: Profitability of Companies

(% Change)	FY13	FY14	FY15	FY16
No. of companies	25,765	23,387	22,783	18,995
Income	12.6	10.0	5.0	1.0
Expenses	12.8	9.8	5.1	1.2
Net profit	1.0	–2.3	1.3	–15.3
PAT margin	3.5	3.2	3.2	3.0

Source: CMIE dashboard (www.cmie.com).

media. There are several CSR awards and recognitions instituted within the first two-year period. The continued focus on CSR and incremental effort in the direction of CSR depends on the profitability of firms and improving business conditions. The CMIE, after the compilation of financial information of about 20,000 companies, has indicated that profits are either stagnant or declining—with FY 2016 showing a significant fall in profits at the aggregate level. The profit margin has also declined over the four-year period (Table 1.3).

But there are corporates that perform sustained work in difficult themes with a well-developed and articulated strategy for achieving results. Monitoring results and reporting on CSR activities are important aspects of the regulation. Corporates are investing in new management information systems (MIS) at the implementing partner level, improving capacities of partners in reporting and enabling board review of CSR performance. Hopefully, with passage of time, corporates will move from 'vanilla' projects to more complex ones with a superior development impact. But complex and long-term projects will also require business confidence about the future and also a commitment to fund the CSR projects over time regardless of year-to-year movement in corporate profits. CSR practice, which is in its infancy, will evolve and find suitable answers.

Other Issues

The vision of India that the government raised in its 2015–16 budget was that the vulnerable, farmers, youth and rural areas will be benefited from better connectivity, services, employment and improved livelihoods. Several new programmes and revamped old programmes have been announced over the last two years. Some of these are reviewed in later chapters. Of particular interest are the micro-irrigation development fund, Startup India Fund, the PMAY, and the Antyodaya convergence programme. These programmes focus on identified problems, have well-defined number-based objectives and will be monitored by results. Optimising water use efficiency is a national goal that has been suffering for the want of investments at the farmer level and the government level. The work done in a few states such as Gujarat, Andhra Pradesh and partly in Tamil Nadu shows that drip irrigation can bring solutions to productivity problems, bring down costs of cultivation and cover more acreage given available water.

The PMAY is a revamped scheme that was called the Indira Awaas Yojana (IAY), but now it includes slightly better off lower-middle income groups and provides interest subsidy on funds borrowed for the acquisition of houses. The scheme has done well by making it inclusive regardless of size of house or loan, but it limits the support from government to a ceiling subject to other norms. The pace of the progress of construction and delivery in rural areas is reportedly brisk. The Startup India Fund fills a gap in the ecosystem for funding early stage of start-ups. The decision to vest the fund with professional managers who will make risk calls for investing in the start-ups is a welcome one as it will introduce professionalism in the allocation of funds, monitoring of investee units and guidance from the fund managers. The target for the next five years at ₹10,000 crore is aspirational, but doable. The programme for convergence answers calls for coordinated delivery of development schemes in every geographical unit in the country. The convergence of schemes at GP level is a necessary measure, which will improve the quality of benefits as most schemes of different departments feed on each other. This report will continue to monitor and report the progress of these schemes/programmes in the future.

The NITI Aayog has made progress in the last two years. It has made critical contributions in the devolutions package under the 14th Finance Commission Awards to the states, created the initial momentum on studying issues around farm sector and doubling of farmers' incomes, identification of public sector enterprises to be sold or divested and the means of doing the same and managing the Atal Innovation Mission. NITI Aayog more importantly drafted the vision document for the country but for a short period of three years, from 2017 to 2020. A 15-year vision document is also in the making, but sequentially the short-term version has come up first for discussion. The document identifies the problems affecting the economy and almost none of these are new ones, except issues relating to digital connectivity to a limited extent. The document is long on objectives and goals but short on how the goals will be reached. The missing links are the implementation strategies and ways of reformulating the policies. The assumptions behind buoyancy in tax collections seem optimistic. A distinction between the capital and revenue expenditure has been made and capital expenditure is held out to be superior, and an increasing allocation for capital expenditure items has been proposed. In social sector, as this report points out in Chapter 2, there is limited scope for capital expenditure. There are aspects of rural livelihoods that need current support—disaster relief, food subsidy, MGNREGS wages, social assistance in the form of pensions, scholarships, farm insurance expenditure and the like. These can never be capital expenditure in nature. It would have been ideal to identify the heads of expenditure under which capital investments are required and direct allocate increased allocations towards the same. NITI Aayog has introduced new terminology to classify expenditure as developmental and non-developmental expenditure. The earlier classification of the erstwhile planning commission of expenditure into plan and non-plan was specifically given up in an effort to offer flexibility to states and the centre in utilising their budget allocations. The new classification seems to be a new name for the old plan and non-plan expenditure. If so, this avoidable labelling is completely devoid of merit.

On urban poverty, there are no new initiatives suggested other than NULM. The three-year period will see formation of 1 lakh self-help groups (SHGs), 1.40 lakh enterprises and about a million skill-trained people. These numbers seem trivial in the context of size of urban poverty. The MDGs have undertaken that 100 million people living in slums will witness improvements in their livelihoods. But the vision documents have very low numbers, touching about 10 million in three years' time. In the rural areas, the vision suggests continuing with the existing programmes and schemes such as National Rural Livelihoods Mission (NRLM), skill development and PMAY. NRLM has made limited headway in livelihoods. An independent evaluation of NRLM's contribution to livelihoods side of rural areas should have been undertaken while advocating continuance with the scheme to suggest midcourse corrections required. On dealing with poverty, the stance of the Aayog has been to continue with existing programmes and carry out some incremental tinkering without a fundamental rethink on utility, relevance and effectiveness of the current schemes and programmes.

The discussion on agriculture sector has no new strategies on how to improve farmers' income. The one suggestion of merit is to provide limited crop insurance coverage to larger farmers and avoid bigger pay-outs to large farmers. It was surprising to find no mention of interest subvention scheme and its inequitable distribution effect. The continuing protection of consumers at the cost of farmers should have been dealt within the strategy. An untouched aspect of farm livelihoods is the taxation of agricultural incomes. There are no reasons why large farmers should not pay taxes on their incomes. On sustainability, water conservation and use hogs most of the space. Pollution and forestry find a mention to a lesser extent. India having ratified the Paris Agreement on climate change has obligations to meet in terms of nationally determined contributions through a combination of adaptation and mitigation measures across all sectors—primary, secondary and services sectors—to reduce carbon footprint and increase carbon sequestration. The three-year action plan of the Vision Document, as it stands, is somewhat incomplete. It needs to be strengthened in order for it to become a vision.

The digital push happening in different walks of life, especially relating to livelihoods, seeks to formalise the informal and bring economic activities into a centralised information and regulatory system. While the objective is laudable, whether the means adopted and the infrastructural investments available are appropriate is a question. With electricity supply continuing to be a problem in the rural areas, as also low connectivity for mobile phones, low penetration of broadband services in the rural hinterland and low capacity to pay for Internet-enabled smartphones and broadband connectivity, people in the rural areas would find it difficult to deal with their lives digitally. Under the digitalisation drive, the government and commercial institutions are willing to take a bet on mobile telephone technology being able to provide solutions to all the problems. But mobile network operators are hard put to technologically deal with the surge in demand for their services. It has been seen time and again that the calls do not get completed, the networks become busy, the Internet services get disrupted and signal carrying equipment as also the servers fail to handle the load. Moreover, when there are natural disasters, heavy rains or law and order issues, the mobile networks are shut down not just in local areas but also across entire state/s. When this happens, the rest of the services that have been channelled through the mobile services also get shut down. In the midst of a calamity, persons wanting to access their money will not be able to do so on account of failure of the digital services. Similarly, cashless economies in the rural area at the present juncture seem to be a dream, at best. The small value of transaction and the inappropriateness of mobile-based technologies in rural areas do not generate great confidence in the minds of people. Digital literacy of an advanced kind needs to first get across to people and once they develop confidence in transacting without cash, it might be possible to pursue a cashless economy. But then this is a goal for the far future unless public investments take place to make an accelerated transition painless. Investments required in infrastructure that will facilitate cashless transaction need to be made first. The point of sale machines that have been put in place in several merchant establishment still do not work flawlessly for reasons of connectivity, electricity supply and suitability of the software. There are extra charges that are collected for transacting through cards, through mobile and the like by the service providers which were previously not paid by users for making any payments. The mobile companies, payments platforms, settlement platforms and card-issuing companies take anything from 2% to 5% of the incomes of very poor people who could ill afford to lose any part of their income. There have been stories of rations being denied, scholarships not being paid and admission to hospitals being refused on for the reason that their identification cannot be authenticated through the electronic networks, be it Aadhaar Cards or PAN cards or whatever other identification cards. These exclusions attributable entirely to technology failure should be a matter of concern. These exclusions should be reviewed carefully and factored into the design of how we expect people to transact in a digitised environment. Also, the absence of effective grievance redressal and complaint resolution mechanism in a digitised economy increases the vulnerable people's problems and their severity. The frauds that have been taking place in the digital financial world have been increasing. While people were both competent and confident of protecting their interest in the normal course with ordinary safeguards, it has become very difficult in a digital world. When frauds occur without notice and in a random manner, people get worried about the quality of security. We need to look at and enabling conditions that create, sustain and maintain the quality of livelihoods in a holistic manner. We cannot take it for granted that the rights and entitlements given to us by law would be available and be delivered. It is a struggle that people have to undergo in order to ensure that the legally mandated is actually received. The other aspect of digitisation is the affordability of cost of acquiring the means of connection.

> The Ericsson Consumer Lab Report (2015) stated that in India, for the consumers who do not use mobile broadband, affordability was the prime obstacle to the adoption of ICT services as 88 percent of Indian consumers on 2G felt that mobile broadband is too expensive. The State of Connectivity Report, 2015, by internet.org stated that four of five Indians could afford internet if data costs fell by 66 per cent, but Indian telecom operators already claim to run data services at an 11 per cent loss, making cost-cutting difficult.[7]

To conclude, economic and monetary management has ensured that economic growth does not drastically decline despite the other problems faced during the year. The outlook seems to be one of cautious optimism, while recognising the potential roadblocks to growth. In terms of impact on livelihoods, the falling inflation, increased agricultural GDP and the structural reforms are positive signs. The harder decisions on demonetisation and introduction of GST are well behind us; it is time for the economy to reach the high growth rates of yester years. Converting the growth possibilities and the policy changes into jobs, enterprises and viable livelihoods should be on the agenda of the centre, states and private sector.

[7] Cited from *India Exclusion Report 2016*, ed. Harsh Mander.

The Policy and Fiscal Framework

Chapter 2

The Union Budget 2017–18 made some significant departures from the past. It was the first budget after the end of the five-year planning process. The budget accounting has done away with the "plan and non-plan" classification in expenditure planning and administration that was in vogue when the five-year plans guided the public expenditure. However, the planned one was not necessarily development expenditure and the non-planned need not necessarily be a non-developmental one. The assumptions behind the nomenclature gave rise to a tendency that focussed more on plan expenditure than non-plan expenditure. From the current year onwards (i.e., 2017), the government will rely more on the capital and revenue expenditure classification, and this will be based on accounting definition. In fact, excessive reliance on capital and revenue classification might also mistakenly lead to substantial attention on increasing capital expenditure in the belief that these make long-term investment and therefore to contribute to greater efficiency and productivity. The second major change was the abolition of a separate Railway Budget and integrating the same within the Union Budget. The budget also advanced the calendar by advancing its introduction in the parliament by almost a month. This is to provide adequate time for the government departments to prepare detailed implementation strategies, operational plans and relevant guidelines to give effect to the various approved measures and actually commence implementation by 1 April, the beginning of the fiscal year. The Economic Survey was divided in to two parts, with the first part having a future outlook, which was presented at the end of January 2017. The second part of Economic Survey, containing an analysis of economic performance, was released in July 2017.

The Union Budget 2017–18 was introduced in an economic environment in which "inflation, which was in double digits, had been controlled; sluggish growth replaced by high growth; and a massive war against black money has been launched." The budget continued the Government's effort to undertake many more measures to ensure that the fruits of growth reach the farmers, the workers, the poor, the scheduled castes and scheduled tribes, women, and other vulnerable sections of society. Its stated focus was on energising youth to reap the benefits of growth and employment.

The government was proposing a digitised and cashless economy on the back of demonetisation exercised in November 2016 that took Indian economy by surprise. The demonetisation of high value currency is expected to "lead towards reduced corruption, greater digitisation, increased flow of financial saving and greater formalisation of the economy, all of which would eventually lead to higher GDP growth and tax revenue." In the words of Union Finance Minister Mr Arun Jaitley, the budget came at a stage where the world economic situation was improving with reported consolidation by advanced economies. The emerging economies were also expected to recover during 2017. However, the country faced three major challenges—first one arising from the US Federal Reserve policy stance of increasing interest rates that could constrain capital inflows to emerging economies and accelerate outflows from there. Second, commodity prices faced uncertainties, especially the price of crude oil, with implications for emerging economies. Third, the increasing deviation from the principal of globalised trade in goods, services and people, and the mounting pressures of protectionism had the potential to affect adversely exports from a number of emerging markets including that of India. The macroeconomic stability enjoyed by India was recognised in the union budget. The moderation of inflation and its containment within the RBI's targeted range of below 6%, higher agricultural production and the reduction in current account deficit were held out as the bright spots in the economic landscape. The World Bank's *Doing Business* report and the *World Investment Report* of the United Nations Conference on Trade and Development (UNCTAD) had recognised the improvements that are taking place in India as an investment and business destination.

The budget laid out an agenda for the next year to transform, energise and clean India. The transformation is in terms of quality of governance. Energisation is to address different sections of society, youth and vulnerable people so that they can realise their true potential. The clean India referred to getting rid of evils of corruption, black money and non-transparent dealings in public and commercial spheres. The current year budget (2017–18) rightly recognised farmers, rural population, youth poor and the underprivileged as sections of society that the government initiatives should target. In terms of sectors, the financial sector, digital economy and public services were seen as priority for improving efficiency, productivity, stability, speed and accountability. In terms of process, prudent fiscal management and tax administration were taken up as the core areas of the current year's focus.

With these 10 themes (Box 2.1), the budget had set out to influence policy funding and thereby the delivery of the most desired results for the country. To a reasonable extent, the budget outlays reflect the thematic priorities. Union government had increased the planned budget expenditure from ₹2,014,407 crore in 2016–17 (RE) to ₹2,146,735 crore in 2017–18, representing a step up of 7%. The increase is significant as it comes on the top of increased revised expenditure in 2016–17 (RE) which was 12.5% more than the actual expenditure of the government in 2015–16. However, the budget expenditure did not keep pace with the GDP. There are conflicting views

Box 2.1: *The Ten Themes of Union Budget 2017–18*

1. **Farmers**: for whom we have committed to double the income in five years
2. **Rural Population**: providing employment and basic infrastructure
3. **Youth**: energising them through education, skills and jobs
4. **Poor and the Underprivileged**: strengthening the systems of social security, health care and affordable housing
5. **Infrastructure**: for efficiency, productivity and quality of life
6. **Financial Sector**: growth and stability through stronger institutions
7. **Digital Economy**: for speed, accountability and transparency
8. **Public Service**: effective governance and efficient service delivery through people's participation
9. **Prudent Fiscal Management**: to ensure optimal deployment of resources and preserve fiscal stability
10. **Tax Administration**: honouring the honest

Source: Excerpted from the budget speech of finance minister, Union Budget 2017–18.

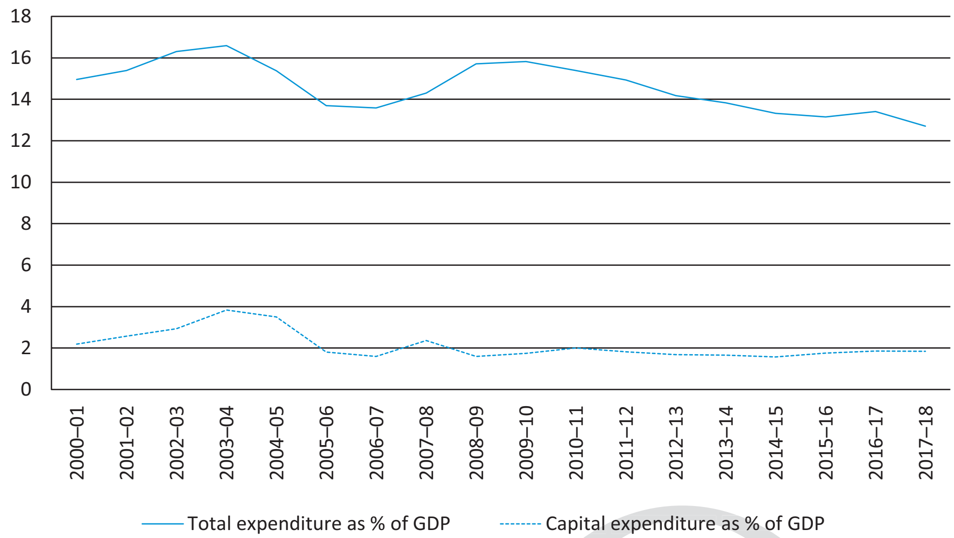

Figure 2.1: Budget Expenditure as Proportion of GDP

Source: Budget documents of different years, data from Indiabudget.gov.in

on the extent of government expenditure as a proportion of GDP. Some argue that in keeping with the need for minimum government and catalytic state role in the economy, government expenditure should not be high. There is a very different point of view that in developing economies with high poverty levels, government expenditure should focus on public goods, infrastructure and ensure high capital to kick off private investments. The current year budget estimates GDP at 12.7%, which is the lowest achieved in the last about 18 years (Figure 2.1). Capital expenditure as a proportion of total expenditure declined significantly in 2005–06, and it has remained at a low level since. The average capital expenditure as a proportion of GDP was around 1.79% over the 12-year period, from 2005–06 to 2016–18. In sectors such as agriculture, irrigation and flood control, capital expenditure tends to improve capital formation and enhance productivity. A low rate of capital expenditure allocation is inconsistent with increased investment requirements of a developing economy with a large population dependent on the primary sector.

The budget expenditure, when analysed under different heads of account, reveals some trends that are positive and some others that are not so positive. Overall, for the development heads comprising social sector, agriculture and allied activities, rural development, special area programme and irrigation and flood control, the government had allocated 19.42% of the total budget expenditure (Figure 2.2). This is an increase from the 18.73% of total expenditure provided against these heads in 2016–17. However, when compared with the position prevailing during the period, from 2011–12 to 2013–14, the development sectors have

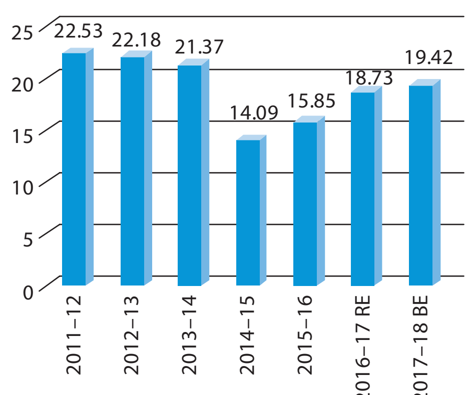

Figure 2.2: Union Government Expenditure on Development Sectors (Percentage of Total Expenditure)

Source: Data from Union Budget documents for different years, graph by the authors.

received a lower proportion of the overall government spending. The average spending on these sectors by the government was of the order of about 22% of total government expenditure during the period from 2011–12 to 2013–14. Considering that the focus is clearly on the vulnerable sections of the people and their livelihoods, one would have expected that the expenditure on development heads that directly affect livelihoods would be stepped up. The pressures of a burgeoning fiscal deficit do not appear to have been faced as is apparent from the budget numbers. One hopes that, from the next year onwards, adequate funding of development aspects will be made consistent with the efforts needed to bring a majority of people out of poverty and improve their quality of life.

In keeping with the trends of the past two years, the expenditure on different subsidies has been contained and consciously brought down. The budget estimates for 2017–18 peg the subsidies at 1.62% of GDP, which is considerably lower than the 2.07% of GDP in 2014–15 (Figure 2.3). Food subsidy takes the lion's share of the subsidy budget.

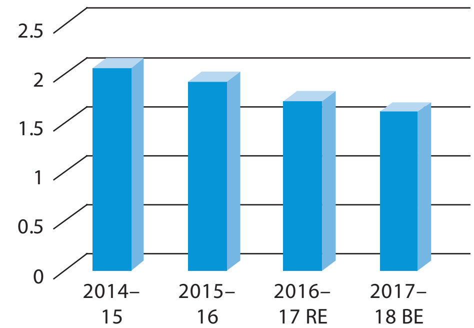

Figure 2.3: Subsidies as Percentage of GDP

Source: Data from Union Budget documents for different years, chart by the authors.

Petroleum subsidy has been marginally reduced from the past year. But the corollary to subsidy reduction in petroleum products has been the recently introduced daily pricing of petrol and diesel. In the last month, the price of petrol has increased by almost 10%, even when international crude prices did not show much of a movement.

The budget allocations for different heads of activities dealing with the development of livelihoods and social safety nets show differing trends (Figure 2.4). While social sector allocations have been

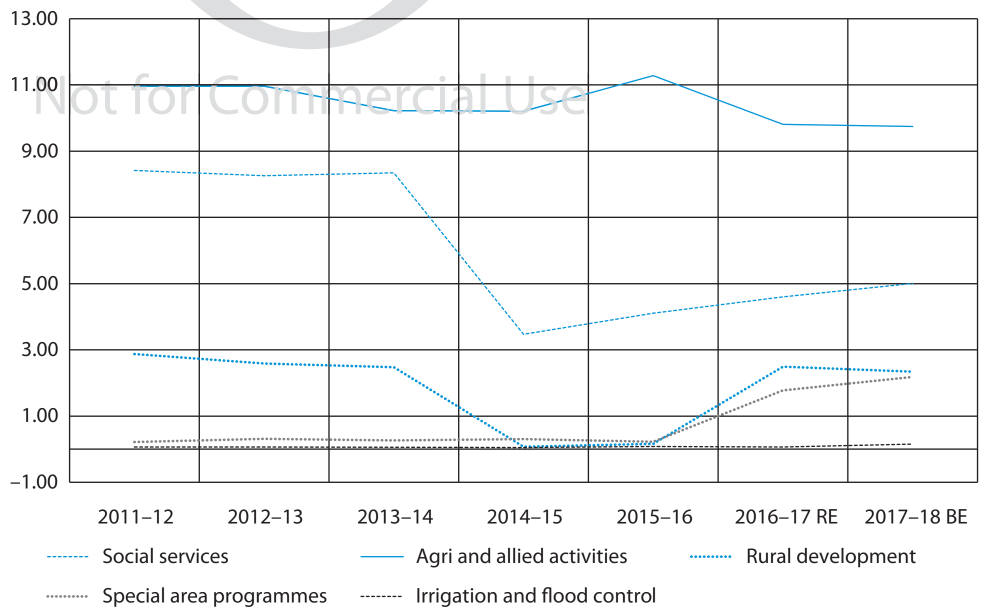

Figure 2.4: Share of Budget Expenditure on Different Aspects that Affect Livelihoods (%)

Source: Data from Indian Public Finance Statistics 2015–16, Ministry of Finance, GoI. Graph by the authors.

increasing over the last three years (after a steep fall in 2014–15), allocations to agriculture and allied activities have declined in the last two years. It is to be noted that the allocation to agriculture in the last two years also include interest subvention on crop loans (₹13,619 crore and ₹15,000 crore for 2016–17 and 2017–18, respectively), which was being accounted for earlier in the Ministry of Finance Budget. Without interest subventions being reckoned for comparability with past years, the share of agriculture in total government expenditure is about 9.13% and 9.05%, which is significantly lower than the peak of 11.28% achieved in 2015–16. Rural development has also been receiving comparatively less attention.

On the tax front, there is continuing effort to increase the tax base and the tax to GDP ratio to finance government expenditure. The tax to GDP ratio, which was 10% of GDP in 2014–15, has increased to 11.3% in 2017–18. The introduction of GST has streamlined the indirect tax structure. But the trend in taxation has been a tilt towards indirect taxes that are regressive nature.

A further analysis of the combined expenditure of state and central governments (Table 2.1) shows that expenditure on agriculture and irrigation had decreased to 9.56% of total expenditure from 9.64% of total expenditure in 2014–15. Expenditure on agriculture and rural development as a percentage of total GDP was of the order of 2.37% in 2015–16, which is lower than the 2.41% achieved in 2014–15. There had been marginal reduction in the share of expenditure of agriculture rural development and irrigation when seen as a proportion of the total GDP. Apart from the marginal variations in expenditure levels, which are indicative of the stagnation in driving agriculture and rural development forward, a larger question that needs attention is that of equitability of allocation of public expenditure among different sectors in terms of number of people that are engaged and dependent on the different sectors. Agriculture rural development carries almost about 60% of the population but the public expenditure allocates less than 10% of its total budget. The equivalent of less 3% of GDP is spent on livelihoods of 60% of country's population. It is difficult to make a one-on-one straight-line connection between expenditures made in agriculture and rural development and the population dependent in the rural areas. There are budgetary expenditures made in other spheres such as transport, telecommunication, civil aviation, rail, road networks, etc. that eventually affect the rural population. However, in terms of number of people affected directly by budget measures, these expenditures carry a signal and currently the signal is that in expenditure terms, the effort level is weak for the number of livelihoods that are sought to be positively impacted in rural areas.

The declining expenditure to GDP ratio (Figure 2.1) has consequences on social sector allocations. The devolution of resources in favour of state governments that was initiated following the 14th Finance

Table 2.1: Centre and State Expenditure on Agriculture and Rural Development

Expenditure on	2010–11 (%)	2011–12 (%)	2012–13 (%)	2013–14 (%)	2014–15 (RE) (%)	2015–16 (BE) (%)
Agriculture, irrigation and rural development (% of total expenditure)	9.09	8.53	9.12	7.86	9.64	9.56
Agriculture (% of agriculture GDP)	4.63	4.40	5.26	4.38	6.23	6.35
Agriculture & irrigation (% of agriculture GDP)	2.64	2.39	2.65	1.73	2.41	2.37
Agriculture and rural development (% of total GDP)	8.17	7.69	8.91	7.04	9.17	9.46

Source: Data on expenditure from Indian Public Finance Statistics (different years), Ministry of Finance, GoI. Calculations by authors.

Table 2.2: Transfer of Resources by Centre to States

Total transfers to states and UT (includes loans)	685,835	830,613	990,311	1,085,075
GDP at current market prices	12,433,749	13,674,331	15,075,429	16,847,455
States' share of central taxes and duties (% of GDP)	2.7	3.7	4.0	4.0
Other transfers as share of GDP	2.8	2.4	2.5	2.4
Total union resources transferred to states (% of GDP)	5.5	6.1	6.6	6.4

Source: Excerpted from "What do the Numbers Tell: An analysis of the Union Budget 2017–18", Centre for Budget and Governance Analysis, February 2017.

Commission recommendations has been stabilised. An examination of the budget numbers in this regard shows that the state's share of central taxes has marginally increased while the other resources transferred by the union government to states have declined. In fact, between 2016–17 and 2017–18, the total union resources proposed to be transferred to states shows a decline from 6.6% to 6.4% of GDP (Table 2.2).

A comparison of budget allocations of different states to development and social sectors was made (Annexure 2.1). It was found that barring three states (Andhra Pradesh, Gujarat and Tamil Nadu) others had stepped up expenditure on development sectors, as a proportion of respective gross state domestic product (GSDP). At the aggregate level, increased state expenditure on development sectors was in evidence. In case of social sector, as many as 10 states (Gujarat, Karnataka, Maharashtra, Tamil Nadu, Punjab, West Bengal, Assam, Himachal Pradesh and Uttarakhand) had reduced spending over last three years. At the aggregate level also, the expenditure on social sector was stagnant. With increased devolution in favour of states and centre entrusting responsibility for several social sector programmes with states, the expenditure on social sector should have been stepped up.

The projected increase in the availability of resources to states and their ability to autonomously implement schemes that are relevant in their states do not seem to have been fulfilled. A point to note here is that the size of the divisible pool in the centre's hands was getting shrunk on account of the introduction of several types of cesses, such as, Education Cess, Krishi Kalyan Cess and Swachh Bharat Cess, that remain outside the divisible tax pool and are meant for the use of the union government. On the one hand, cooperative federalism is introduced and the proposed greater devolution of resources becomes the reason for closing down a number of centrally supported schemes and reducing the level of funding support to states under other schemes. And on the other, creating tax revenue streams that do not come into the divisible pool and effectively bringing down the share of total revenues to states is not serving the original objectives of cooperative federalism. The analysis made by Centre for Budget and Governance Accountability (CBGA) also points to the skew in social sector spending across different states and regions.[1] A comparison of the per capita spending on social sectors rural development and agriculture shows that Bihar, Uttar Pradesh and Jharkhand were traditionally spending very less compared to states such as Tamil Nadu, Odisha and Chhattisgarh (Table 2.3). In states where the level of spending per capita on development programmes is low, the centre should step in and persuade the states to increase the spending on development-oriented sectors, especially through higher allocations under centrally sponsored schemes.

[1] Centre for Budget and Governance Analysis, *What Do the Numbers Tell: An Analysis of the Union Budget 2017–18.*

Table 2.3: Per Capita Expenditure on Agriculture, Rural Development and Social Sectors (₹)

	2014–15 (A)	2015–16 (RE)	2016–17 (BE)
Bihar	4,168	6,354	6,287
Uttar Pradesh	4,471	5,788	6,436
Jharkhand	7,680	8,085	9,755
Madhya Pradesh	6,512	8,591	9,977
Rajasthan	8,145	9,186	10,263
Maharashtra	8,934	10,091	10,476
Assam	6,644	11,370	11,184
Tamil Nadu	9,958	11,302	12,330
Odisha	8,935	11,524	12,921
Chhattisgarh	9,436	14,057	14,223

Source: Excerpted from "What do the Numbers Tell: An Analysis of the Union Budget 2017–18," Centre for Budget and Governance Analysis, February 2017.

Allocations to Social Sector Programmes

There are a few programmes in which a substantial hike in outlay during the current year has been witnessed. These are the PMAY, Pradhan Mantri Krishi Sinchai Yojana, Swachh Bharat Mission, National Health Mission, National Nutrition Mission, Maternity Benefit Programme and Pradhan Mantri Swasthya Suraksha Yojana. The stepped up expenditure, especially in health, housing and irrigation, would boost the rural sector. There have been marginal increases in allocation to several social sector programmes compared to the last year. The education sector and the Midday Meal Scheme witnessed marginal increases while the rural roads programme allocation remained the same as that of last year. While the finance minister took credit for substantially stepping up the budget for MGNREGS at ₹48,000 crore from the allocation of ₹38,500 crore last year, CBGA points out that the revised estimate for 2016–17 was of the order of ₹47,499 crore, thus reflecting a very negligible increase.[2] The revision in 2016–17 budget was rendered necessary possibly on account of the arrears of ₹6,500 crore that had not been released to states in the year 2015–16.

The National Social Assistance Programme (NSAP) carries an allocation of ₹9,000 crore which is the same as that of last year. Under the earlier planning process, where five-year plans were prepared and approved, the expenditure heads had to be bifurcated into those that were part of the five-year plan and those that were outside the plan. However, most of the expenditures in the social sector and safety and welfare nets are not capital in nature. An analysis of the budget of GoI for the last five years shows clearly that under the head, rural development, no capital expenditure had even been planned or incurred. Almost the entire expenditure incurred by the Department of Rural Development was in the nature of revenue expenditure. Revenue expenditure in itself is not any less useful or impactful than capital expenditure. The third major change in the budget is the inclusion of a comprehensive, department-wise output and outcome budget covering all ministries and departments (Box 2.2). This outcome budget is aimed at making the departments focus on results from public expenditure, especially in the development programmes and schemes.

[2] Ibid.

Box 2.2: *Union Budget: Output and Outcomes*

From the year 2017–18 onwards, it has been decided that the output and outcomes of the schemes of 68 ministries and departments will be available along with the financial outlays as a part of the budget documents, so that clearly defined objectives and goals for each scheme can be seen by all. The present budget, therefore, makes a significant departure from the past and presents (a) the financial outlay for the year 2017–18 along with (b) the output and deliverables and (c) the projected medium term outcomes for each scheme/project in a single, consolidated document. This will significantly enhance transparency, predictability and ease of understanding of the Government's development agenda. Through this exercise, the Government aims to nurture an open, accountable, proactive and purposeful style of governance by transitioning from mere outlays to result-oriented outputs and outcomes. This effort will enable ministries to keep track of the scheme objectives and work towards the development goals set by them. It will be our endeavour to improve and provide more information and greater transparency in our efforts towards achieving the National Development Agenda.

Source: Union Budget 2017–18.

Programmes Relating to Poverty Alleviation, Rural Development and Agriculture

Some of the significant schemes and programmes announced by the government are related to poverty alleviation, employment and agriculture. The government is planning to implement Mission Antyodaya that will focus on 50,000 GPs. A total of 33 different government departments will make concerted efforts to converge all their activities in these villages in order to improve overall the quality of life. Out of these 50,000 villages, 2,200 will be developed as model villages by 2019. A couple of years back, the GoI had announced the Sansad Adarsh Gram Yojana, under which 679 village were adopted by different members of parliament. However, with a few notable exceptions, this did not do well on account of lack of earmarked funds. Now these villages are expected to be absorbed and develop under the Mission Antyodaya. Second, the MGNREGS programme was expected to invest in physical assets even as it provided wage employment to needy households. As a part of the creation of physical assets in 2016–17, 5 lakh farm ponds were targeted and the expectation is that 10 lakh farm ponds might actually be completed by the end of the year. For 2017–18, the government has maintained a target of five lakh farm ponds. The PMAY is targeting the completion of 1 crore houses in the rural areas by 2019 for which the budget has been stepped up during the current year (i.e., 2017) by ₹8,000 crore. There is also a plan to train 5 lakh rural people into good quality masons who could carry out construction of different types over the next 3-year period. In 2017–18, a start would be made by training 2,000 such masons. The Pradhan Mantri Kaushal Kendras that is aimed at skill development would be increased to cover more than 500 districts from the existing 60 districts. Skill Acquisition and Knowledge Awareness for Livelihood Promotion Programme (SANKALP) would try to provide market relevant training for 3.5 crore youth at a cost of ₹4,000 crore. The next phase of Skill Strengthening for Industrial Value Enhancement (STRIVE) Operation Project for India at a cost of ₹2,200 crore will be introduced in the current year. The government has also allocated 9,000 crore for the Pradhan Mantri Fasal Bima Yojana. The last year's allocation of ₹5,500 crore had to be raised to ₹13,240 crore on account of higher incidence of claims.

Two years back, the union budget had raised a vision on all round development, detailing 13 different areas of focus with milestones to be reached by 2022 (Box 2.3). On several of these, government has made allocations and begun work in earnest. In some others such as houses for rural areas, road connectivity for all habitations, encouragement to enterprise promotion, etc., the intent is clear and actions on the ground are visible. In poverty alleviation, a livelihood

Box 2.3: *Progress on Vision of India: Outlined in Union Budget 2015–16*

1. A roof for each family in India: to complete 2 crore houses in urban areas and 4 crore houses in rural areas.
2. Each house in the country should have basic facilities of 24-hour power supply, clean drinking water, a toilet and be connected to a road.
3. At least one member from each family should have access to the means for livelihood and, employment or economic opportunity, to improve his or her lot.
4. Substantial reduction of poverty and elimination absolute poverty.
5. Electrification, by 2020, of the remaining 20,000 villages in the country.
6. Connecting 178,000 unconnected habitations by all-weather roads and completing 100,000 km of roads and constructing 100,000 km of new roads.
7. Providing medical services in each village and city.
8. Educating and skilling our youth through quality education. Upgrade over 80,000 secondary schools and add or upgrade 75,000 junior/middle to the senior secondary level.
9. Increase in agricultural productivity and realisation of reasonable prices. Increase the irrigated area, improve the efficiency of irrigation systems, promote agro-based industry and secure reasonable prices for farm produce.
10. Ensure connectivity to all the villages and remove rural–urban divide.
11. The Skill India and the Make in India to create jobs for youth.
12. Encourage and grow entrepreneurship and support new start-ups.
13. Develop eastern and northeastern regions to be on par with the rest of the country.

for each family, skill development leading to employment, etc., the intent is clear, but actions are weak and results not visible.

Gender Budget

The gender budget statement for 2017–18 mentions that ₹113,327 crore has been budgeted across different departments and schemes for targeting women. This is a significant step up from the ₹90,770 crore in 2016–17. The increase in the current year has been driven by the increased allocation to Ministry of Women and Child Development, Ministry of Rural Development and Ministry of Petroleum and Gas. A point to be noted is that the entire budget for the PMAY has been included under the gender budget statement that might not be entirely appropriate. The Nirbhaya Fund, set up in 2013–14 aiming at enhancing safety and security of the women in the country, has so far shown utilisation of ₹1,238 crore. For the current year, another ₹800 crore is proposed to be utilised. Typically, the Nirbhaya Fund has supported one-stop centres, women's helpline, integration of distress signal with mobile phones, national emergency response system, cybercrime prevention against women and children, safety of women at railway stations and the like. While these are important steps, more fundamental efforts on reducing vulnerability of women and their exposure to violence is necessary. For this, ministries and departments in urban and rural development, transport, police, law and education also have to be sensitised and asked to come up with concrete action plans to address the gender issues in their domain of operation.

Economic Survey: Key Messages

In a departure from the past, the Economic Survey 2016–17 was presented in 2 volumes over a period of 6 months. The first volume was presented in January 2017 and the second volume, which contained a more detailed analysis of the last year's performance, in the month of July 2017. The Survey took note of the macroeconomic developments and was happy that the macroeconomic management contained retail inflation within the limits set by the government and RBI. On demonetisation, the Survey forecasts that the short-term impact will translate to a reduction in GDP growth by about 0.25 to 0.5%, but it was hopeful about the long-term impact of demonetisation on GDP as also incremental tax revenue. Demonetisation, the Survey said, has the potential to generate long-term benefits in terms of reduced corruption, greater digitalisation of the economy, increased flows of financial savings and greater formalisation of the economy, all of which could eventually lead to higher GDP growth, better tax compliance and greater tax revenues. According to the Survey

> Short-term costs have taken the form of inconvenience and hardship, especially those in the informal and cash-intensive sectors of the economy who have lost income and employment. These costs are transitory, and may be minimised in recorded GDP because the national income accounts estimate informal activity on the basis of formal sector indicators, which have not suffered to the same extent. But the costs have nonetheless been real and significant.[3]

The Survey also presumed that there would be a windfall in terms of unreturned demonetised notes, against which the government liability will be extinguished. The Survey suggested that the government windfall arising from unreturned notes should be deployed towards capital-type expenditures rather than being spent on revenue expenditure. This presumption of windfall gains proved to be premature. The data released by RBI showed that barely 1% of the currency was not tendered back, representing a value of ₹16,000 crore. RBI had incurred heavy costs in the printing and distribution of new notes and overall costs of RBI was much higher than the "windfall". The effect of demonetisation in terms of funds flow to government was negative as the RBI passed on a dividend of ₹306 billion for 2016–17 against the anticipated ₹660 billion. The Survey also took note of the fact that the RBI was cautious in resetting the interest rates downwards at a rapid pace in order that the enterprises can enjoy a lower cost of credit and be competitive with the rest of the world. The Survey also noted that the demonetisation induced surge of deposits with the banking system that would effectively drive down the interest rates and that the monetary "policy rates can be lower, not necessarily to lead and nudge market rates, but to validate them." Overall, the Survey had a positive outlook on the medium to long-term prospects of the Indian economy.

The Survey also introduced a discussion on a more concrete social safety net in the form of universal basic income (UBI) for all citizens (Box 2.4). By ensuring a minimum income for all, UBI is expected to reduce poverty level. UBI can also replace all welfare subsidies being given out in different forms under different schemes and enable a better and sharper targeting of beneficiaries. However, the disadvantage could be that UBI might dissuade people from working, cause voluntary idleness and lead to UBI being squandered to support a lifestyle of indolence.

Box 2.4: *Universal Basic Income: A Proposal by Economic Survey 2016–17*

The new idea of a universal basic income (UBI) is a more effective way of achieving Mahatma Gandhi's objectives of "wiping every tear from every eye." UBI has the merit that it will not necessarily be driven by take-up capability from below but given from above to all the deserving. In that sense, it is less likely to be prone to exclusion errors. And by directly transferring money to bank accounts and circumventing multiple layers of bureaucracy, the scope for out-of-system leakages (a feature of PDS schemes) is low. Of course, there are considerable implementation challenges that will have to be debated and addressed.

Source: The Economic Survey, January 2017.

[3] Reproduced from *Economic Survey 2016–17*, Volume I, Ministry of Finance, GoI.

Legislation

The introduction of GST is viewed with a lot of hope and optimism. It is expected to improve tax administration, collection efficiency, easier conditions of compliance for businesses and simplified tax environment for all (Table 2.4). Compared to the past, multiplicity of taxes from different state jurisdictions will be reduced, uniformity across India established and movement of goods will be smooth and unhindered. A major concern is about the transition period during which the state commercial taxes departments should adopt and adapt technology-based tax administration and enforcement systems and also successfully manage behavioural change of human resources. The promise of reduced corruption and easier compliance critically depends on the makeover that different state tax departments achieve in the next few weeks. The GST seems all-encompassing and is bottom trawling in an effort to bring most people into the tax net. Even in exempted categories, the regulations stipulate that the tax will be paid first and claimed as a 100% refund later. The impact of GST on unorganised sector and small units has been severe and adverse, and the incremental load of compliance is seen pushing up their costs of operation in the short run. The cost of bringing a large number of small players, especially in the unorganised sector, will outweigh any benefits in the form of tax collections, overload the infrastructure that is dependent on servers and connectivity and lead to chaotic conditions in the initial months when the tax administration staff is still on the learning curve in a new system. It will take time to understand the issues involved in bringing a large part of the informal sector under the formal systems.

The parliament passed the insolvency and bankruptcy code which provides a 180 day time-bound insolvency resolution

Table 2.4: Key Benefits of GST

1. Furthering cooperative federalism	• Nearly all domestic indirect tax decisions to be taken jointly by Centre and states
2. Reducing corruption and leakage	• Self-policing: invoice matching to claim input tax credit will deter non-compliance and foster compliance. Previously invoice matching existed only for intra-state VAT transactions and not for excise and service tax nor for imports
3. Simplifying complex tax structure and unifying tax rates across the country	• 8–10 central excise duty rates times 3–4 state VAT rates itself applied differentially across states to be consolidated into the GST's 6 rates, applied uniformly across states (one good, one Indian tax) • Other taxes and cesses of the states and the Centre subsumed in the GST
4. Creating a common market	• Will eliminate most physical restrictions and all taxes on inter-state trade
5. Furthering 'Make in India' by eliminating bias in favour of imports ("negative protection")	• Will make more effective and less leaky the domestic tax levied on imports (IGST, previously the sum of the countervailing duty and special additional duty), which will make domestic goods more competitive
6. Eliminate tax bias against manufacturing/reducing consumer tax burden	• By rectifying breaks in the supply chain and allowing easier flow of input tax credits, GST will substantially eliminate cascading (paying taxes at each stage on value added and taxes at all previous stages, such as with the Central Sales Tax)
7. Boosting revenues, investment, and medium-term economic growth	• Investment will be stimulated, because scope of input tax credit for capital purchases will increase • Tax base will expand through better compliance • Embedded taxes in exports will be neutralized

Source: Excerpted from the Economic Survey 2017–18, Volume 2, July 2017.

process for all kinds of enterprises, whether they are companies, partnerships or individuals. This is expected to speed up dealing with non-performing assets and put an end to the protracted delays often caused by borrowers in enforcing recovery of loans. RBI has already asked major banks to initiate action under bankruptcy code against some large borrowers in default. While this is a welcome development, there are a few issues relating to minority shareholders' interests in companies, other customers of the companies who have unmet obligations that might be compromised and lack of flexibility in the banks hands even in deserving cases of enterprises that might be revived if kept out of bankruptcy.

The committee constituted to review the Fiscal Responsibility Budget Management Act, 2003, submitted its recommendations recently that are being considered.[4] The committee recommended maintaining fiscal deficit at 3% of GDP and in exceptional circumstances, allowed for an additional 0.5% deviation. In a far-reaching move in the banking sector, cabinet had approved the State Bank of India to acquire and amalgamate the subsidiaries within itself. While there is some scepticism about the large monolithic entity that will emerge, the merger process is proceeding at a good pace. NABARD Act has been amended to facilitate transfer of RBI's shareholding to GoI. Authorised capital of NABARD has been raised to ₹30,000 crore to facilitate it to play a bigger role in financing agriculture and rural development.

A draft bill to ban unregulated deposit schemes has been released and is under consideration. The committee recommended prohibition of collecting deposits by entities that are not registered with either RBI or Securities and Exchange Board of India (SEBI). Powers of investigation of unregulated schemes are entrusted to states, with CBI designated to deal with multistate schemes.

[4] The committee was chaired by Mr N.K. Singh, and set up by the Ministry of Finance.

Policies

On the policy front, there had been several changes, the major two being the demonetisation of high value currency notes in November 2016 and the introduction of GST with effect from 1 July 2017. While the arguments on the impact of demonetisation on the macroeconomy continue to rage, the micro livelihoods had to bear the brunt of the immediate aftermath of the scarcity of legal tender. Both RBI and Ministry of Finance (through the Economic Survey) had agreed that GDP growth would suffer a minor shock but were optimistic about long-term impacts. The most visible formal indicator was that of two-wheeler sales which plummeted in the two months that followed demonetisation, but recovered smartly by March 2017. The surge of bank deposits and the surfeit of liquidity with banks led to a significant drop in interest rates—a development that did not take place easily earlier following the RBI signals through monetary policy. RBI noted, "Surplus liquidity conditions have helped facilitate the transmission of monetary policy to market interest rates. Post demonetisation, several banks lowered their domestic term deposit rates and lending rates."[5]

The scarcity of legal tender became a reason for borrowers to default. The microfinance institutions that typically finance low-income households for a variety of livelihood activities faced significant problems post demonetisation. RBI noted that demonetisation affected Non-Banking Financial Company–Microfinance Institutions (NBFC-MFIs) as their customers depend on cash transactions.[6] Such customers often fall in the category of small farmers and unskilled labour. MFIs were reported to have faced problems in getting full repayment from clients in some pockets of the country because of currency shortage.

[5] RBI, *Macroeconomic Impact of Demonetisation: A Preliminary Assessment*.

[6] Ibid.

The World Bank observed that the adverse effects of demonetisation fell disproportionately on the vulnerable households and the informal sector.

> While the macroeconomic impact of demonetization has been relatively limited, the distribution of the costs is uneven as the informal economy is likely to have been hit especially hard. Although the informal economy may account for only 40 percent of GDP. It employs 90 percent of India's workers, and the disproportionate impact of demonetization on India's informal sector suggests that it would have affected those workers the most. The poor and vulnerable are more likely to work in informal sectors (farming, small retail, and construction), and are less able to move to non-cash payments. (World Bank, India Development update 2017)

The Foreign Investment and Promotion Board (FIPB), which was responsible for clearing foreign direct investment (FDI) proposals, has been abolished. The proposal for abolition of FIPB was received with a lot of speculation among the stakeholders as to whether investment proposals will be delayed and what will be the replacement mechanism for approvals. Department of Industrial Policy and Promotion will now attend to the approval of proposals for foreign investment through a single window. It has introduced standard operating procedure (SOP) with timelines for clearance of the proposals in various ministries, departments and RBI. The process of evaluation of proposal has to be completed within 6 weeks from the date of receipt of the proposal and 8 weeks in cases where security clearance is required. Within the next two weeks, the competent authority will have to process the proposal for decision and convey the same to the applicants. The clarity on the SOP and the time-bound single window clearance is encouraging, which is being welcomed by the stakeholders.

The cabinet also approved measures to revive the construction sector that has been undergoing a protracted period of problems. Recognising the labour absorption potential of construction sector and the stalling of several large infrastructure projects on account of disputes between governments and private contractors, the government has focused on fast-tracking dispute resolution. The measures include speeding up arbitration by transferring cases to the amended Arbitration Act provisions, paying up 75% of the value of arbitration awards to the contracting firms, even where the public sector units (PSUs) appeal the award and setting up of conciliation committees. The special investigation team on black money also released its fifth set of recommendations that include banning of cash transactions above ₹3 lakh and limiting the cash holding by an individual or firm to the extent of ₹15 lakh. A number of measures in relation to labour reforms have been taken. The Child Labour (Prohibition and Regulation) Act was amended by the parliament that permits employment of adolescent in non-hazardous industry and provides for penalty for employing children and adolescent in contravention of the Act. A maternity benefit bill has been passed to provide 12 weeks of maternity leave to a woman who adopts a child below the age of 3 months. The Payment of Wages Act has been amended to provide for payment of employees' wages through cheques or by credit to bank accounts apart from payment by currency notes. The Factories (Amendment) Bill was also passed by the Lok Sabha, which provides powers to the state government to make rules and also to regulate the overtime hours of work. The Ministry of Labour and Employment has released the Draft Labour Code on Social Security. A model bill related to shops and establishment has been approved by the cabinet for moving before the parliament. A special package for employment and exports in textile and apparel sector was adopted by the government. The package includes relaxations on enrolment in Employees Provident Fund (EPF) by employees, contribution towards EPF by the Ministry of Textiles, regulation of overtime hours and provision of fixed-term employment to workers with facilities on par with permanent employees.

The cabinet also approved the creation of a fund for start-ups and allocated ₹500 crore towards this in Small Industries Development Bank of India. This initial release of ₹500 crore is the first instalment to the ambitious corpus of ₹10,000 crore envisaged to be raised over the next nine years. This fund would place monies in start-ups directly as also through alternate investment funds. The fund is expected to catalyse investments worth ₹60,000 crore into start-up enterprises and generate employment for 18 lakh people.

A report on incentivising production of pulses through MSP was released.[7] The Committee on Incentivising Pulses Production through Minimum Support Price (MSP) and Related Policies, apart from recommending an MSP, also recommended that the government should make an effort to procure pulses at the respective MSPs so that their market prices do not fall way below to MSP. A review of Essential Commodities Act was also recommended by the committee as in its present form the Act discourages the supply and distribution of agricultural produce, which affects the competitiveness and efficiency of marketing of pulses. Pulses production should grow at a rate of 8% per annum as against the existing 3% per annum for the country to be able to reduce import dependence significantly. It is being observed that the stock limits and export bans set for pulses should be lifted in order to prevent a decline in prices of pulses. The committee noted that the factors currently considered by the Commission for Agricultural Costs and Prices in the determination of MSPs do not include risks and externalities. The committee recommended that the Commission should review its current methodology and include these factors. One of its suggestions was that the government should allocate an additional ₹10,000 crore to procurement agencies such as Food Corporation of India (FCI) and state co-operatives among others for procurement of pulses.

The interest subvention scheme for crop loans had undergone some changes during the cabinet's approval for the current year. Farmers who do not pay back loans on time will get a reduced subsidy of 2% instead of 5%. Small and marginal farmers (with land-holdings of less than two hectares) who borrowed money for post-harvest storage would be eligible for a 2% interest subvention on loans of up to six months. In case of a national calamity, banks would be provided an interest subvention of 2% on the loaned amount for the first year. While the interest subvention on borrowings for post-harvest storage is a commendable initiative, implementation on the ground might face hurdles on account of the verification and authentication requirements of such loans.

A draft of Modern Agricultural Produce Market Committee Act was released. The key features include identification of unified market areas by the state, setting up of market yards, designating market yards of national importance, introducing e-trading and a single point levy of market fee. MSP for kharif and rabi crops were also approved by the government. While MSP for paddy has been increased by 4.3%, the prices of pulses have been increased in a range from 7.7% in case of moong to 9.2% in the case of tur.

The Committee for Evolution of the New Education Policy[8] had several recommendations of improving the quality of education. An interesting set of recommendations is related to introducing vocational training in schools. The committee observed that the existing National Skills Qualification Framework should be scaled up to bring more students into the skilling system and that there is a need to include vocational education at the secondary level of education.

[7] A committee was set up by Ministry of Finance under the chairmanship of Dr Arvind Subramaniam, CEA, GoI. The report is titled "Incentivising Pulses Production through Minimum Support Price (MSP) and Related Policies."

[8] The committee was set up by the Ministry of Human Resource Development and was chaired by Shri T.S.R. Subramaniam, former Cabinet Secretary, GoI.

The Union Cabinet approved the Pradhan Mantri Gramin Digital Saksharta Abhiyan in February 2017. The scheme aims to provide digital literacy to 6 crore rural households by March 2019 at a cost of ₹2,350 crore. A new scheme (Pradhan Mantri Yuva Yojana) was introduced by the Ministry of Skill Development and Entrepreneurship to provide entrepreneurship education and training to 7 lakh students in a period of 5 years through more than 3,000 educational institutions. A programme will include easy access to information and a network of mentors and improve easy access to credit, incubators, accelerators and advocacy for youth. A national apprenticeship promotion scheme has been announced by the MSDE with the objective of training 50 lakh apprentices by March 2020 at a cost of ₹10,000 crore. The government intends to pick up parts of the employers costs in taking apprentices on board. A new central services cadre, Indian Skill Development Service, has been notified with a strength of 260 officers all over India. This cadre will provide direly necessary implementation strength and a field presence in states to MSDE.

A committee set up by the Ministry of Skill Development and Enterprise to review the sector skill councils and suggest measure for their optimisation had submitted it report. The report was critical of the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and the functioning of National Skills Development Corporation (NSDC). It has given several far-reaching suggestions for improving vocational education in the country and recommended utilisation of existing public infrastructure more effectively. The committee's report and its implications are covered in detail in Chapter 5.

The setting up of a higher education financing agency has been approved by the union cabinet with an authorised capital of ₹2,000 crore. The Ministry of Human Resource Development with an identified promoter will jointly set up this agency which will either be a special purpose vehicle within a public sector bank or a non-banking finance company. It will raise up to ₹20,000 crore and invest in infrastructure and development projects in IITs, IIMs, NITs and other similar institutions.

Modified guidelines have been issued for Deendayal Antyodaya Yojana (DAY) in the urban areas under National Urban Livelihoods Mission (NULM). The modified guidelines envisage the mobilisation of urban poor into SHGs to serve as a support system for the poor households and to meet their financial and social needs. The SHGs are eligible for a fund of ₹10,000 per group and additionally, bank loans. The applications for availing subsidised loans have to be recommended by the SHGs. Each state will have one bank designated as a nodal bank to deal with these groups under NULM. The nodal bank will coordinate with other banks to increase bank linkages for loan support to the SHGs. Under the programme, shelters for the homeless were also being provided with 75% Central Government funding and 25% state funding. These shelters can now be funded also through CSR contribution from the corporate sector.

Working Group on Migration, set up by the Ministry of Housing and Urban Poverty Alleviation, submitted its report in January 2016. Apart from estimating the extent of migration (36% males and 56% females in urban workforce are migrants) and identifying causes of migration, the committee made recommendations on access to employment for migrants. It expressed concern that domicile requirements introduced by some states with regard to employment puts migrants at a disadvantage. The group recommended that states should remove such domicile requirements and other laws that specifically look at interstate migration. It suggested that the existing legislative framework should be reviewed and should explore how basic guarantees on wage and work conditions for all workers can be offered. It suggested that a comprehensive law should be brought in for the unorganised sector workers.

On climate change, India formally ratified the Paris Agreement in October 2016 and the agreement came into force worldwide in November 2016. The Draft National Water Framework Bill has been released by the Ministry of Water Resources, which provides a legal framework for protection, conservation, regulation and management of water. Apart from recognising right to water for life, the bill also stipulates standards for water quality and river basin management approach on an integrated basis. Water security and water pricing of the two further aspects are covered by the model bill. The Ministry of Water Resources also released the model bill for ground water that looks into groundwater scrutiny, legal shelters of ground water, ground water abstraction and institutional framework for management of ground water.

A Draft National Policy for Women has been released by the Ministry for Women and Child Development for consultation. The policy seeks to create an effective framework for developing policies and practices that will ensure equal rights and opportunities for women. The draft policy has proposed the following measures to secure the rights and interests of women:

- Preparing family-friendly policies, which provide for childcare, dependent care and paid leave for women and men, both in organised and unorganised sectors.
- Reviewing personal and customary laws in accordance with constitutional provisions to enable inclusive entitlements for women.
- Developing protective measures in light of an increase in cybercrimes as victims of such frauds are largely women.
- Creating an ecosystem for women to participate in entrepreneurial activities and take up leadership roles in all sectors of the economy.

A Committee on Digital Payment[9] submitted its report, and the key recommendations of the committee included setting up of a payment regulation board independent of RBI, promotion of digital payment by the government in its own transactions, creation of a fund for the digital payment and action network for incentivising digital payment, a measure to disincentivise cash by imposing a cash handling charge and upgradation of the payment system through extending working hours of Real Time Gross Settlement (RTGS) so that transfers become possible at any point of time during any day. The Committee of Chief Ministers,[10] set up to examine acceleration of digital payment in the country, gave its interim recommendations, which included the following:

1. Lowering the merchant discount rate.
2. Levying the banking cash transactions tax on cash payment over ₹50,000.
3. A subsidy of ₹1,000 to small merchant to purchase mobile.
4. Tax refund to customer through digital means.
5. A 50% subsidy on biometric sensors at all merchant points for Aadhaar pay.
6. Government departments relating to insurance, fertilisers and PDS to switch to digital payments.

Government finances seem to be coming under greater control and the fiscal deficit and subsidy expenditures have been managed better, though there are criticisms about the funds allocation to development and social sectors. On the policy front, there is evidence of significant efforts made to change and create enabling conditions in the livelihood sectors. The legislative effort seems to be catching up with several key statutes being passed. Overall, the support from fiscal and policy framework to livelihoods seems positive.

[9] Set up by Ministry of Finance and chaired by Ratan P. Watal.

[10] Chaired by Sri Chandrababu Naidu, Chief Minister of Andhra Pradesh, and set up by Ministry of Finance.

ANNEXURE 2.1
Development and Social Sector Expenditures in States

States	Development Expenditure as % of GSDP			Social Sector Expenditure as % of GSDP		
	2014–15	2015–16 (RE)	2016–17 (BE)	2014–15	2015–16 (RE)	2016–17 (BE)
1. Andhra Pradesh	18.7	13.1	13.0	6.7	8.9	9.2
2. Bihar	16.8	22.7	21.6	10.4	12.3	14.5
3. Chhattisgarh	15.3	20.5	18.9	11.3	15.0	12.9
4. Goa	14.7	18.8	21.3	10.1	9.0	11.2
5. Gujarat	8.9	9.3	8.9	7.8	5.9	5.6
6. Haryana	8.3	13.5	12.0	5.3	5.9	6.4
7. Jharkhand	12.5	19.1	17.2	5.0	12.1	11.8
8. Karnataka	9.6	9.8	9.8	8.2	7.8	5.7
9. Kerala	7.4	7.8	8.7	5.6	6.4	6.2
10. Madhya Pradesh	16.6	18.2	18.6	5.4	9.8	11.3
11. Maharashtra	7.5	8.0	7.6	9.2	5.8	5.5
12. Odisha	14.5	18.1	18.4	4.9	10.8	11.3
13. Punjab	7.1	7.9	7.6	9.1	4.6	4.6
14. Rajasthan	13.5	21.3	16.5	4.2	10.5	9.7
15. Tamil Nadu	9.0	9.1	9.0	9.0	6.4	5.8
16. Telangana	9.0	12.7	15.6	5.7	10.0	7.9
17. Uttar Pradesh	14.1	19.2	17.1	4.8	10.7	10.9
18. West Bengal	8.8	9.4	9.8	8.3	6.7	7.7
Special Category	**17.3**	**21.5**	**21.2**	**7.2**	**13.4**	**13.2**
1. Arunachal Pradesh	38.5	46.4	44.1	10.8	22.8	23.5
2. Assam	14.9	23.1	20.6	18.2	14.0	14.3
3. Himachal Pradesh	14.4	16.3	15.4	10.3	10.8	10.0
4. Jammu and Kashmir	21.8	28.2	33.2	8.7	14.8	15.8
5. Manipur	28.6	31.2	28.2	11.5	17.8	15.3
6. Meghalaya	21.7	26.0	25.1	17.3	12.9	14.7
7. Mizoram	41.2	38.8	31.3	13.5	20.5	17.9
8. Nagaland	24.4	29.2	25.8	25.1	16.1	16.1
9. Sikkim	19.7	23.4	21.0	13.6	11.6	11.8
10. Tripura	23.9	25.5	23.6	11.7	20.3	17.9
11. Uttarakhand	11.1	11.4	12.5	17.1	9.7	9.1
All States	10.7	12.8	12.5	8.0	7.4	8.0

Source: State Finances, a study of budgets 2016–17, May 2017, RBI.

ANNEXURE 2.2
Combined Current and Capital Expenditure of Centre and States (₹ Crores)

	1990–91	2000–01	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15 (RE)	2015–16 (BE)
Agriculture, allied	11,714	30,821	58,427	70,966	85,363	120,582	127,091	144,643	150,911	188,662	181,340	276,833	295,202
Of which rural development	5,147	14,728	36,767	41,989	45,635	73,437	74,158	83,598	85,015	102,124	97,765	148,087	157,167
Net agriculture, allied	**6,567**	**16,093**	**21,660**	**28,977**	**39,728**	**47,145**	**52,933**	**61,045**	**65,896**	**86,538**	**83,575**	**128,746**	**138,035**
Irrigation (major)	3,278	12,071	24,864	30,002	30,792	32,684	34,605	34,670	36,327	43,034	38,281	44,491	51,271
Irrigation (minor)	1,482	2,888	5,344	8,469	6,695	7,634	10,093	12,126	13,045	17,036	12,428	16,383	16,247
Net irrigation	**4,760**	**14,959**	**30,208**	**38,471**	**37,487**	**40,318**	**44,698**	**46,796**	**49,372**	**60,070**	**50,709**	**60,874**	**67,518**
Agriculture + irrigation	11,327	31,052	51,868	67,448	77,215	87,463	97,631	107,841	115,268	146,608	134,284	189,620	205,553
Total expenditure	152,601	544,832	929,206	1,084,224	1,239,226	1,507,110	1,810,375	2,106,041	2,347,832	2,728,407	2,953,311	3,503,497	3,794,689
Agriculture + irrigation + rural development	16,474	45,780	88,635	109437	122,850	160,900	171,789	191,439	200,283	248,732	232,049	337,707	362,720
Agriculture, allied as % of total	4.30%	2.95%	2.33%	2.67%	3.21%	3.13%	2.92%	2.90%	2.81%	3.17%	2.83%	3.67%	3.64%
Agriculture + irrigation as % of total	7.42%	5.70%	5.58%	6.22%	6.23%	5.80%	5.39%	5.12%	4.91%	5.37%	4.55%	5.41%	5.42%
Rural development as % of total	3.37%	2.70%	3.96%	3.87%	3.68%	4.87%	4.10%	3.97%	3.62%	3.74%	3.31%	4.23%	4.14%
GDP	531,814	2,000,743	3,390,503	3,953,276	4,582,086	5,303,567	6,108,903	7,248,860	8,391,691	9,388,876	10,472,807	11,470,415	12,451,938
Agriculture GDP	168,166	506,476	637,772	722,984	836,518	943,204	1,083,514	1,319,686	1,499,098	1,644,926	1,906,348	2,067,935	2,172,910
Expenditure on agriculture, irrigation and rural development as % of total expenditure	10.80%	8.40%	9.54%	10.09%	9.91%	10.68%	9.49%	9.09%	8.53%	9.12%	7.86%	9.64%	9.56%
Expenditure on agriculture as % of agriculture GDP	3.91%	3.18%	3.40%	4.01%	4.75%	5.00%	4.89%	4.63%	4.40%	5.26%	4.38%	6.23%	6.35%
Expenditure on agriculture and rural development as % of total GDP	3.10%	2.29%	2.61%	2.77%	2.68%	3.03%	2.81%	2.64%	2.39%	2.65%	1.73%	2.41%	2.37%
Expenditure on agriculture and irrigation as % of agriculture GDP	6.74%	6.13%	8.13%	9.33%	9.23%	9.27%	9.01%	8.17%	7.69%	8.91%	7.04%	9.17%	9.46%

Source: Indian Public Finance Statistics, Ministry of Finance, different years.

Government Programmes

Chapter 3

While a number of Central Government programmes relating to different aspects of livelihoods are operational, there are only a few that have a large scale and nationwide coverage. These programmes cover job creation, improvement of productivity and income, provision of food and shelter to households and social safety nets. Deendayal Antyodaya Yojana-National Rural Livelihood Mission (DAY-NRLM), Pradhan Mantri Fasal Bima Yojana (PMFBY), National Skills Development Mission (NSDM) and NFSA were covered in Chapter 3 of last year's report. PMFBY is covered in Chapter 4, which is on agriculture. NSDM has been covered in detail in Chapter 6, which discusses employment and skills. Two other programmes—PMAY and National Social Assistance Programme—are covered in this chapter. Access to housing is a basic livelihood need. Recognising this, the government has made this a priority in the last two years. In vulnerable households, the house is the headquarters of the family enterprise, apart from being the family shelter. Social security is the sole source of income for the elderly and the destitute. With about 80% households being vulnerable on account of low income and lack of pension, the elderly would find it difficult to survive in their twilight years. This year's review is not confined to income-enhancing and income-protection programmes. The chapter goes beyond these and examines programmes that improve the quality of life of those who may not undertake an income-generation activity but are nevertheless entitled to a reasonable life.

Mahatma Gandhi National Rural Employment Guarantee Scheme

On the completion of 10 years of its existence, National Rural Employment Guarantee Scheme (NREGS) has been covered in detail in a separate chapter in last year's report. NREGS is a different type of scheme that, on account of the statutory backing, provides the needy households 100 days of employment in a year as a matter of right, and in case the government is unable to provide employment, it has to provide monetary compensation to the households. The local governance structures are critical in planning projects, providing employment to needy households under the projects and ensuring that wage payments are made properly with quality accounting. The potential of that programme to support the poor and needy households directly is fully recognised by the government. Over the last two years, the Ministry of Rural Development (MoRD) has set about transforming the nature of the programme from one of mere wage employment to one that also focuses on the creation of useful long-term assets that will improve and stabilise the rural livelihoods. The effort has been to orient the NREGS works towards natural resource management and water conservation/optimisation so that fundamental problems of drylands can be addressed. MoRD has also tried to bring on record an account of assets created.

During the 12th plan period, April 2012 to March 2017, financial achievements under the programme exceeded the projected outlay of ₹1,650 billion by 10%. Thus, the importance of the programme has been fully recognised by the government and in the last two years, the expenditure has shown a significant increase over the previous years. During 2016–17, the government spent ₹482.2 billion on NREGS. Along with the state governments' share of expenditure, the total expenditure of the programme in 2016–17 was ₹575.12 billion, which is the highest so far in the 11 years history of the programme (see Table 3.1).

MoRD reported that more than 50 million households were covered with 2,350 million days of employment during 2016–17. With 68% of the programme focussed on agriculture and allied activities, irrigation potential of 90 lakh hectare land has been created between 2015 and 2017. A total of 62% of the expenditure of NREGS was on the natural resources management (NRM) related activities. State governments were advised for the year 2017–18 onwards not to have less than 65% expenditure on NRM related activities (especially water harvesting, conservation and optimal utilisation) in 20,264 selected blocks that are water stressed. NRM related works were getting an increasing share of NREGS works, increasing from 48% in 2012–13 to 60% in 2016–17 (Figure 3.1).

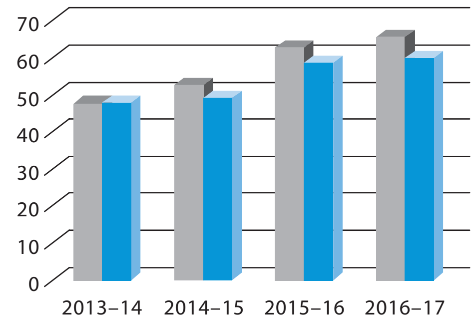

Figure 3.1: Agriculture and NRM Works in NREGS

Source: Union Budget documents of different years, Ministry of Finance, retrieved from indiabudget.nic.in

Completion rate of works showed a decline over the last two years. Works taken up in 2013–14 showed a completion rate of 29%. The work completion rates in 2015–16 and 2016–17 have shown a marginal improvement at 30% and 37.9%. The increased completion rates have been achieved on the back of increased number of works taken up in the years 2015–17. The number of works taken up increased by 26% and 34% in 2015–16 and 2016–17, respectively (Figure 3.2).

The programme also has the additional positive outcome of providing employment to a number of rural women. Out of those provided with job in 2016–17, 56% were women. The programme has taken up geotagging of assets created to ensure that the expenditure on creating permanent assets has not lost sight of. In terms of

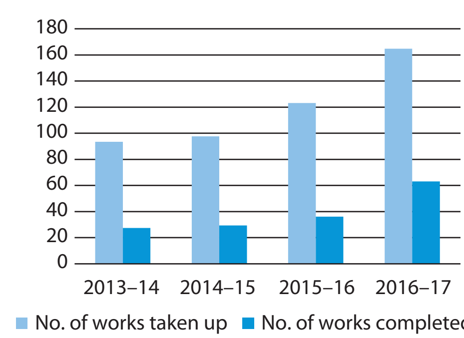

Figure 3.2: Completion Rate of Works (in Lakhs)

Source: Ministry of Rural Development website (http://rural.nic.in/); chart prepared by authors.

Table 3.1: Budget for NREGS

	2012–13	2013–14	2014–15	2015–16	2016–17 (RE)	2017–18 (BE)
Budget expenditure/estimate (₹ crore)	30,273	32,993	32,969	37,341	47,499	48,000

Source: Union Budget documents of different years, Ministry of Finance, retrieved from indiabudget.nic.in payment efficiency, the programme reports making 96% of payments to the accounts of the concerned workers.

MoRD had tagged almost 20% of registered households for deletion and had deleted 26 lakh cards permanently. The tagging for deletion had been done for the want of photos or bank account numbers. According to a report in *The Economic Times*, "total number of job cards has been brought down from 13 crore last year to 12.48 crore in 2016–17 so far, after a massive exercise over the past one year revealed several cases of misappropriation and deceased persons still enrolled in the scheme." However, there are a number of questions about the process of cancellation and exceedingly large number of job cards that have been reported as cancelled. There have been questions about the manner in which the verification was carried out and also claims are made that well-merited households that deserved the support from NREGS have been kept out on specious considerations and inadequate verification processes.

A comparison between previous and current year's working of the programme (Table 3.2) reveals that there was an increase in the number of households that were provided with employment during 2016–17. The overall number of households that were issued and held valid job cards had declined from 130 million to 126 million over the last one year. A total of 90% of the households that demanded employment have been provided with jobs. During 2016–17, 2,358 million man-days of employment had been provided, which is marginally more than the man-days of work provided (i.e., 2,352 million) in the previous year. The number of days of employment provided per household had declined from 48.9 in the previous year to 46 in the current year. This is a far cry from the 100 days of employment that NREGS is supposed to provide to the needy households. The percentage of households that managed to get 100 days of employment had been pretty low right from the inception of the programme. In 2016–17, only 7.8% of the households managed to get the full quota of 100 days of employment. This is a significant decline from the 10% households that were able to get 100 days of employment in the previous year. The trend over the last six years shows that the best performance in ensuring 100 days of employment was around 10% only.

The government has taken several initiatives to strengthen and improve upon the NREGS. The annual report of MoRD lists 11 important initiatives. These are as follows:

1. Geo-tagging of assets created under NREGS.
2. Strengthening the social audit process for which a task force has been set up to give out the recommendations.
3. Interstate exchange programme to enable states to learn good practices from each other, with MoRD organising six such visits during the year.
4. More attention on backward regions while drawing up the labour budget (with preference towards states such as Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Uttar Pradesh, West Bengal and Karnataka).

Table 3.2: Trends in Performance in Jobs Offered

	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
No. of households provided work (crore)	5.06	4.98	4.79	4.14	4.81	5.12
Number of days of work generated crore days	218.76	230.48	220.33	166.19	235.15	235.78
Average no. of days/household	43.23	46.19	46.00	40.14	48.89	46.05
% of households with 100 days work	8.23	10.37	9.72	6.02	10.07	7.8

Source: SOIL 2016 Report, updated with current years data from MoRD website (rural.nic.in).

5. Operationalising the national electronic fund management system (NeFMS) for funds transfer.
6. Issuance of annual master circular incorporating the latest and applicable instructions to all stakeholders.
7. Reducing the number of registers to be maintained at the GP level and weed out excessive number of registers that were originally fixed (currently only seven registers in simplified format are to be maintained as against the 22 registers that were required earlier).
8. Focus the NREGS activities towards agriculture, allied sectors and individual beneficiary schemes.
9. To take up a mission of water conservation under NREGS so as to provide irrigation support for the 76 million hectares of rain-fed land.
10. Inspection and the monitoring of the ongoing and completed works, and review of the same at the ministry level through the central employment guarantee council.
11. Institution of barefoot technicians selected from among NREGS households and training them in civil engineering concepts so that they create the estimation of works and assess quality of completed work in the field (about 7500 barefoot technicians are proposed to be trained and put in place).

There had been criticism that the wage rates under NREGS in many states are low and fixed at a level lower than the minimum wages prescribed in the states. According to the committee set up by MoRD to look into the issue of wage rates, the rates under MGNREGS have been found to be below the minimum wages stipulated in many states.

> In the 15 states where MGNREGA wages are lower, we tried revising it to bring it on par with the minimum agricultural wages paid by the respective states. Where MGNREGA wages are on par or higher, we decided to protect it as it is. If a revision is done as per this formula, it is estimated that a ₹4,500 crore addition to the existing MGNREGA budget would be needed.[1]

In some states, such as, Jharkhand, the minimum wage fixed was ₹238 whereas the wages provided under MGNREGS was only 168 rupees. In 14 other states, varying degrees of lower wages were being paid to the NREGS workers. The low offtake of the scheme is also because of the low wages offered. The government rejected the recommendations of the Mahendra Dev Committee, which had proposed to bring MGNREGA wages on par with minimum wages paid to unskilled agricultural workers in the states. The expert panel had said that the CPI for Rural (CPI-R), which reflects the current consumption pattern of rural households, should be the basis for revising MGNREGA wage rates, not CPI for Agricultural Labourers (CPI-AL), which is based on the consumption pattern of 1983. A panel under the Additional Secretary in MoRD is expected to make its recommendations shortly. The average wages paid under NREGS have been lower than minimum wages in many states, as explained earlier. This is despite the fact that the wage rates have been increased year after year (Table 3.3). The government is reportedly concerned about the increased wage bill on account of the revision which

Table 3.3: Average Wage Rates Under NREGS

	2013–14	2014–15	2015–16	2016–17
Average wage per day/person (₹)	132.7	143.92	154.08	161.66
Average cost of NREGS per day (₹)	183.47	206.13	202.46	225.33
Cost of delivery of Jobs as % of total expenditure	28	30	24	28

Source: NREGS MIS, MORD website.

[1] Statement by an official of MoRD as reported by *The Indian Express*.

would be of the order of ₹4,500 crore. Revision of minimum wages would benefit 126.5 million vulnerable households that are currently holding job cards, and the cost of ₹4,500 crore does not seem to be very high considering the large beneficiaries. The Seventh Pay Commission recommendation for increasing the salaries of 54 million government employees has been accepted by the GoI, entailing additional annual cost of ₹80,000 to ₹100,000 crore. In comparison, the additional expenditure on a social safety net on wage revision is far too small to be denied.

A matter of concern in NREGS is the cost of delivery of jobs to people. For a well-settled programme with a decade of experience, the cost of delivery seems to be high. The cost of delivery declined from 28% in 2013–14 to 24% in 2015–16, but again increased to 28%. When the budget allocations have been increasing over the years, one would expect the cost of delivery to decrease.

A comparison of the performance under the programme across states finds that a few states corner a large share of benefits (please see Annexures 3.1–3.4 for comparisons across states on various facets of the programme). The four top performing states in 2016–17, with a rural household share of 28% of the country, accounted for 47% of workdays generated (Table 3.4). Tamil Nadu had only 6% of country's households, but took away 17% of all work. The average number of days of work per household varies from 19 days in Goa to 80 days in Tripura. Such a wide variation is not easily understood, and it raises questions on the efficacy of implementation management at the central and state levels. Equity in allocation of budgets would build in criteria relating to poverty levels, deprivation and exclusion to ensure that more deserving states get a higher proportion of benefits. The development indicators and level of access of rural communities in Tamil Nadu and Andhra Pradesh to government programmes and banking services would make it clear that the high allocation and utilisation of NREGS funds is not based on need or merit.

A major issue that affects the programme is the GPs' inability to plan and bid for meaningful work under NREGS. In Aurangabad, for example, the author observed that a group of farmers trying to grow cotton under drip irrigation conditions tried to get funds from NREGS for basic cleaning up of the Nalas and deepening of two water bodies that can provide water security for at least one crop. But they were unable to do so as the GP did not include this demand in its budget. These funds were made available in some other part of the village for other works that did not materially affect local livelihoods. Prioritising the needs of the villagers through a democratic process of planning and executing it to ensure that funds become available to execute the priorities should be ensured. It is quite surprising to know that this social safety net does not find acceptance in many GPs. In the last five

Table 3.4: Skew in Utilisation of NREGS Across States

States	Workdays Generated (Lakh)	Number of Rural Households (Lakh)	State's Share of Jobs	State's Share of Rural Households
Tamil Nadu	3,999	95.28	17%	6%
Rajasthan	2,596	94.94	11%	6%
West Bengal	2,350	138.13	10%	8%
Andhra Pradesh	2,053	142.34	9%	8%
Four state total	10,998	470.69	47%	28%
India Total	23,583	1,685.65	–	–

Source: Answer to Lok Sabha Unstarred question 3924, dated 10 August 2017. Population data from Census 2011. Calculations by authors.

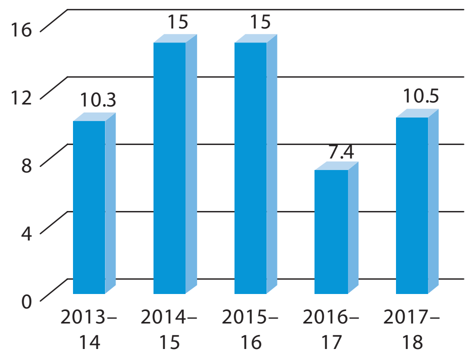

Figure 3.3: Proportion of GPs with NIL Expenditure (%)

Source: MoRD website (rural.nic.in), chart prepared by the authors.

years except in 2016–17, 10–15% of GPs did not spend anything on the implementation of NREGS. Given the vulnerability of livelihoods for a large proportion of households, it is a surprising phenomenon that needs to be studied. This also reflects poorly on those administering the programme, especially at the state level (Figure 3.3).

In the midst of the problems that are faced, one should not forget that NREGS is one of the better examples of making employment available for needy households as a matter of right. However, the manner in which it is implemented was pointed out in the last year's report; the availability of 100 days of employment per household has become discretionary and dependent on several other institution and factor. The impediments and infirmities, apart from NREGS, have been a game changer in the rural areas of the country, benefitting millions of households. The Fifth Employment–Unemployment Survey found that at the country level, about 22% of households were benefited from NREGS. There were wide variations across states in access to and availment of NREGS benefits. In Tamil Nadu and Andhra Pradesh, 47% and 43% of surveyed households accessed NREGS. On the other hand, in Gujarat, Punjab, Maharashtra and Bihar, only 2.4, 4.6, 5.6 and 5.3% of the surveyed households had accessed NREGS jobs. The reasons for low off-take in some states could be because of (a) low demand as the local economy has more and better wage opportunities, (b) flawed supply effort, inadequate macro planning and process hurdles impeding access and (c) poor capacities at GP level that prevent effective programme access in a timely manner. While the lack of local demand is a good reason and provides space for other states to utilise NREGS funds, the supply problems and low local implementation capacities have to be dealt with effectively.

National Rural Livelihoods Mission

NRLM, functional throughout the 12th plan period, was recently renamed as Deendayal Antyodaya Yojana (DAY). The initial design envisaged community mobilisation providing initial start-up funding in the form of revolving fund assistance to the community groups and their village organisations so that these can give rise to livelihood options of a superior kind to the rural people. The 12th Five Year Plan period positioned NRLM as a key driver of rural livelihoods and provided an outlay of ₹29,000 crore. The actual utilisation over the five-year period, 2012–2017, was ₹11,144 crore, about 38% of the original plan allocation indicating that the programme failed to take off in the manner originally envisaged (Figure 3.4).

Cumulatively, 3.15 million SHGs have been formed, covering 39 million households under NRLM (Tables 3.5 and 3.6). A total of 181,000 village organisations have been formed, comprising the different types of SHGs mobilised. These SHGs have been provided with ₹26.4 billion as revolving fund assistance, which they can use to leverage other funds including bank loans. The groups cumulatively have managed to access ₹1,140 billion of bank credit over the years. In the year 2016–17, 1.54 million groups accessed credit to the tune of ₹371.20 billion. The year also witnessed 6 million households being brought into the fold of NRLM through 0.51 million SHGs. The programme

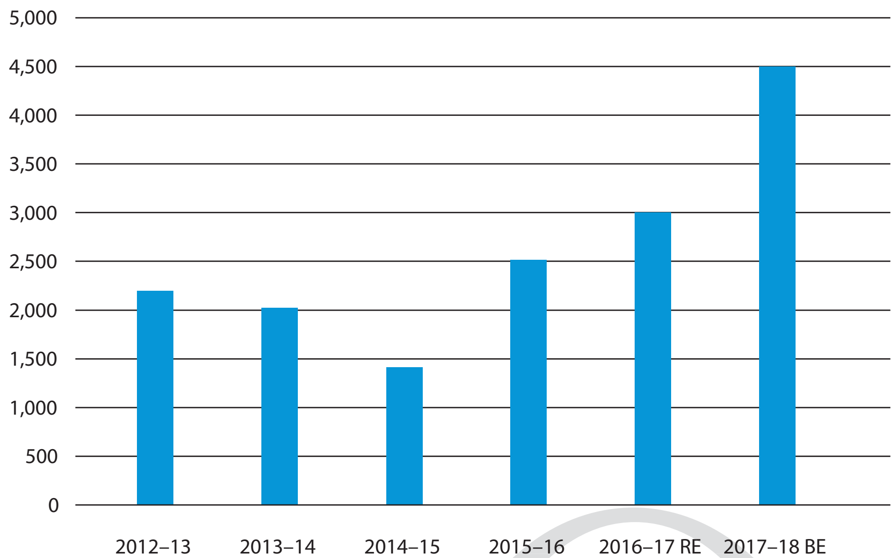

Figure 3.4: Budget Expenditure NRLM (₹ Crores)

Source: Data from Union Budget Expenditure Documents of different years, chart prepared by authors.

Table 3.5: Progress of DAY-NRLM

Aspects	Cumulative Achievement (31 March 2016)	Cumulative Achievement (31 March 2017)
No. of districts covered	449	551
No. of blocks covered	3,092	3,519
No. of SHGs (lakhs)	26.30	31.56
No. of participating households (crores)	3.05	3.90
No. of village organisations promoted	34,790	178,148
Number of cluster federations formed	2,335	
Amount of revolving fund released (₹ crores)	223.71	1,254
Amount of CIF released (₹ crores)	465.87	3,064
No. of SHGs credit-linked (lakhs)	12.8	15.4
Amount of credit linkage (₹ crores)	30,372	37,120

Source: http://nrlm.gov.in/outerReportAction.do;jsessionid=C9799CBA349D5F22286007BAE7BBA958?methodName=showIndex

Table 3.6: Some Aspects of Community Organisations Under NRLM

	Number Formed Until March 2017	Number that Opened Bank Accounts Until March 2017	Number Audited during 2016–17
Village organisations	145,910	91,168	28,964
Cluster federations	15,641	12,203	9,152

Source: http://nrlm.gov.in/outerReportAction.do;jsessionid=C9799CBA349D5F22286007BAE7BBA958?methodName=showIndex

went ahead to ensure that banking facilities are available on the doorstep of villages being part of the programme by training SHG members and placing them as business correspondents. At the end of the year 2016–17, 950 such SHG members were in place, acting as agents of banks. Further, 48,000 master trainers have been trained in various aspects that would help the SHGs in organisation, governance and livelihood activities.

Forming community organisations and providing them autonomy has been the strategic exit route for NRLM, making people take over the responsibilities of managing their livelihoods. The pace of establishment of these community organisations has been proceeding slowly and the follow-up work relating to stabilising their operations also seems to lag behind. Of a total of 161,000 federations for which information is reported in the MIS portal of DAY-NRLM, only 64% have opened bank accounts. About 24% of these organisations have been audited during the year 2016–17. Since community organisations deal with members' money apart from grant funds of the government, having bank accounts and being regularly audited should be seen as essential conditions.

While large numbers have been mobilised and a number of community-based organisations have been set up, NRLM has problems and these are not of recent origin. The design, as had been pointed out in several other places, as also in the previous editions of this report, is rich in terms of community organisation and arranging efficient funds. But on livelihood ideas, NRLM has been found to be short. In the past, it had planned the livelihood initiatives on the lines of what had happened in Andhra Pradesh, that is, building capacities of woman farmers to improve production and productivity in agriculture under the programme, named, Mahila Kisan Sashaktikaran Pariyojana (MKSP) and training farmers in what was labelled as Community Managed Sustainable Agriculture (CMSA). So far 3 million women have been trained in agriculture technologies and practices under MKSP. Value chain development under a special development fund has been initiated to ensure the MKSP participants have viable access to improved production and marketing. Apart from the SHGs, producer groups are being formed out of trained MKSP farmers. The producer groups are federated into larger farmer collectives in the form of producer companies under the Companies Act. A total of about 75,000 producer groups and 58 producer companies have been formed so far in 16 states. Most of these 58 producer organisations are concentrated in 2 states, that is, 20 companies in Odisha and 12 in Madhya Pradesh. Other states such as Gujarat, Haryana and Maharashtra do not have any producer organisations formed. Also, the number of producer groups formed is not proportional to the number of vulnerable households that might require such support in different states. Of the 75,000 producer groups across India, 54,000 were in one state only, that is, Kerala. In states such as Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Maharashtra, Rajasthan and West Bengal, the number of producer groups formed were less than a 1,000 each.

The village enterprise programme (SVEP) under NRLM is now operational in 17 states across 47 blocks. As per the e-Book released by the Department of Rural Development, a total of 84,000 enterprises have already been reported as launched with an expenditure of ₹208 crore from the government. However, the MIS maintained by the department indicates that 25,451 individual and 1,604 group enterprises have been set up until March 2017. SVEP holds the promise for creating and strengthening 1.82 lakh village enterprises in 125 blocks by the year 2019. This in itself is expected to create 3.78 lakh jobs. As part of NRLM skills development for wage employment and also self-employment training, rural self-employment training institutes are arranged. More than 6 lakh persons were trained on different skills and enterprise aspects during 2016–17. The aspects relating to skills training and enterprise development are covered separately in Chapter 6. As a part of the livelihood plan, NRLM has a target of establishing at least one livelihood collective in each village. The numbers of livelihood collectives in place by March 2017 were 41,592 that form 19% of the total villages in which NRLM was active. It is reported that 5.73 lakh members of SHGs are now members of Farmer Producer organisation. This constitutes about 1.4% of the total membership in NRLM. NRLM also targets that each SHG member will have two or more livelihood activities for which support will be extended from the programme. About 9.6 lakh SHG members have been supported so far to gain two or more livelihood activities by March 2017. This forms 2.35% of the total membership. The new initiatives on livelihood aspects are welcomed. But the preparing strategies and pacing up the work seem to fall short of the magnitude of tasks to be completed to make viable livelihoods possible.

The community-managed sustainable agriculture is another aspect of NRLM that focuses on farm-based livelihood and vulnerability reduction in the resource blocks. CMSA is operational in 1,176 villages covering 48,000 farmers in 38 districts. A community resource person is identified from among active farmers and trained in order to provide the necessary guidance to other farmers in sustainable agricultural practices. Typically, active women are identified and trained as CRPs, and 920 such women have so far been trained in 8 states. So far, no concrete results arising from the CMSA activities have been reported in the public domain. NRM has a fairly detailed database on groups mobilised, funds provided, bank loans availed from the SHG level up to the state levels. However, the data collected does not include the number and types of livelihoods that are supported, the outcomes from such livelihoods and any set of poor households graduated above the poverty line. Data on results should be gathered, analysed and reviewed for a programme of this type to be effective. As in the case of NREGS, NRLM also would benefit significantly from social audit. The ministry should think in terms of subjecting the NRLM to social audit practices so that community contribution in identifying gaps and suggesting remedial measures can be ensured.

An independent assessment of NRLM was carried out by Institute of Rural Management Anand in January to June 2017, which was commissioned by MoRD. The study found that NRLM had generally a positive impact on beneficiary households. NRLM households, according to the study report,

1. have a higher number of livestock assets as compared to other households;
2. show a higher propensity to save in formal institutions, though there is not much difference in the quantum of savings compared to others;
3. have a higher loan size (about 67% more than the loan size in the uncovered areas) and are more likely to borrow from formal sources;
4. spend less on food but more on education; however, the total household consumption expenditure is similar to that of other households; and
5. have 22% higher (net) income than the other households, largely on account of income from enterprises.

Overall, the report states that the Mission has largely been successful in creating sensitive support structures right up to the block level. Further, several state missions have customised the implementation strategy to suit their local context. The report also takes cognisance of the rapid growth in the promotion of SHGs, federations and the increase in disbursement of bank credit. The programme had most impact on women empowerment, access to microfinance, increase in livestock production and high cost debt reduction, while lesser impact on augmentation of natural resources, increase in agricultural production and infrastructure development. The report has also made the following recommendations to improve implementation:

1. The pace of promotion of the primary and secondary level federations should be increased and they should be registered under the appropriate acts.
2. While the sequential model of social mobilisation followed by livelihoods promotion has worked well in some states, the two could go hand-in-hand, provided adequate emphasis is paid on the principles of collective action.

3. Efforts should be made towards developing value chains and the creation of sustainable enterprises.
4. Experience of leading agencies in livelihoods sector should be leveraged for promotion of sustainable livelihoods—innovative solutions such as creation of sector-specific corridors should be explored.
5. Efforts to enable the SHG members in accessing bank credit in the traditionally poorly banked areas should be increased.
6. Systems (HR, MIS and financial management) need to be strengthened in all State Rural Livelihoods Missions.

An aspect of NRLM design has been the heavy involvement of para-government staff in the different State Rural Livelihoods Missions. The staff should ideally be the facilitators of development rather than gatekeepers of development. But the events in Andhra Pradesh and Telangana, where the staff have been in place for a number of years right from the days of Swarnajayanti Gram Swarozgar Yojana (SGSY), show that vested interests develop and the cost of programme delivery could significantly go up. There are pressures on the government to appoint these people as government staff and give them security of tenure and other benefits. Having such high cost of taking away a significant part of the budget earmarked for delivery of livelihoods at the grassroots level is in many ways a significant deviation from the objectives of the programme. The voluntarism that was promoted by organising groups and setting up village organisation is totally lost in the process of having government and parastatal staff calling the shorts over what, how and when the NRLM activity should be run. The institutions that have been set up at the village and higher levels suffer from a significant deficit of autonomy. Neither the governance bodies of these institutions are capacitated to run the institutions for the best benefit of their constituents nor are they provided the kind of resources that will help them seek answers to their core problems. The advice on both governance and technical issues seems to flow only through the parastatal staff in the state rural development societies (by whatever name they are called) and many times the staff do not have adequate exposure or technical knowledge to guide people on matters relating to livelihoods value chains and markets. The sooner this problem is identified as a core problem that impairs delivery of meaningful assistance to rural people, the easier it would be for NRLM to succeed as a programme.

National Food Security Act and the Public Distribution System

Access to food and nutrition have been a continuing problem for the country despite the advances made in both production of food and its distribution. The Economic Survey 2016–17 notes that

> On the Global Hunger Index (GHI) 2016, India ranks 97 out of 118 developing countries with prevalence of stunting among children aged below 5 years at around 39 per cent, a serious cause of concern. In this scenario, India requires effective investments in social infrastructure in order to achieve the Sustainable Development Goals (SDGs).

The revamped PDS under the NFSA, along with child nutrition programmes, was aimed at meeting hunger and nutrition needs of the country.

As was pointed out in the last year, the NFSA after initial hiccups has finally tweaked the public distribution system in accordance with the NFSA framework and has been implemented across the country. According to the intent of the legislation, 75% of all rural households and 50% of all urban households will be entitled to avail food grains at subsidised prices of ₹1, 2 or 3 per kg. While the priority households will be able to buy food grain at the rate of 5 kg per member, the very poor households (identified as the Antyodaya Card Holder) will be

Table 3.7: Food Subsidy Allocations in the Union Budget

2012–13	2013–14	2014–15	2015–16	2016–17 (RE)	2017–18 (BE)
85,000	92,000	117,671	139,419	135,173	145,339

Source: Union Budget, expenditure budget documents of different years.

entitled to buy 35 kg food grains per month per household. The difference between the issue price at the public distribution outlet and the overall cost of procuring and supplying the food grains is borne by the GoI. The amount of expenditure in the hands of the government is provided for under union budget as expenditure on food subsidy.

The food subsidy had gradually been increasing from ₹85,000 crore in 2012–13 to ₹135,173 in the year 2016–17, the amount has been increased as per the revised estimates (Table 3.7). The budget estimates for food subsidy for the current year 2017–18 is at ₹145,338 crore. The percentage coverage of population as per the legislative intent translates to 81.34 crore people in the country being eligible for subsidised food grains. Currently, 79.99 crore people are being covered by issue of ration cards (see Annexure 3.5 for state-wise details). However, as pointed out last year, several problems continued to dog the smooth implementation of the scheme. One of the issues is the manner in which exclusion of deserving households and individuals within households from the benefits of the scheme has taken place. This is because of the documentation and digital identification required in the form of verified UID numbers. As has been seen in several studies in the field, households find it very difficult to bring such identification in the case of either very old people or very young children. Even where cardholders have produced Aadhaar verification, the failure of connectivity, failure of biometric matching and also the defects in biometric identifier equipment at the point of sale have led to the exclusions after issuance of new ration cards. The PDS system in a number of states is unable to provide rations on time against valid cards on account of lack of connectivity, failure of the verification software and the defects in the point of sale machine in the ration shops. Requiring that power supply, Internet connectivity and the point of sale hardware work smoothly in far-flung rural settings is perhaps too much to hope for given the current digital and power infrastructure in the country.

Even in the metros (the national capital included), accessing PDS rations has not been smooth. Professor Nandini Naik and Shika Shera carried out a survey in Delhi to understand the implementation of PDS under the NFSA guidelines. Their study report says,

> While Aadhaar-enabled PDS is held out as the key to an efficient and fraud-free system, reliance on this can be problematic in critical ways: (i) the system excludes individuals who do not have an Aadhaar number; (ii) where a beneficiary has an Aadhaar number, the biometrics and internet-dependent delivery system may still not work, for instance, when biometrics are not recognised by the PoS device; or (iii) the machine does not work due to electricity or internet connectivity issues. The Delhi NFSA survey found that of the sample households, 44% have 1–4 household members missing from their ration card. In 48% of the households that had at least one person missing from the ration card, a cited reason for exclusion of household members was the absence of an Aadhaar number. Importantly, for each missing member, households lose out on 5 kg of foodgrain per person per month. Further, of the 47.5% sample households that accessed ration from an FPS equipped with an Aadhaar-enabled device, 52% said they have faced problems accessing their rations. These problems included non-recognition of fingerprints of the person going to collect rations, and the inability to purchase rations due to problems with internet connectivity at the FPS. This, of course, highlights all too well the potential problems of reliance on technology for critical service delivery that can routinely fail even in the national capital.

A further issue in regard to the implementation of the scheme has been the inability of state governments to put in place the processes and mechanisms required under the NFSA on the ground. The People's Union of Civil Liberty (PUCL)[2] has moved the Supreme Court to direct both the governments, centre and the state, to create the mechanisms that were required on the ground and also to ensure that the processes required for handling both customer grievances and maintaining probity in the scheme are in place. The Supreme Court in its judgement states, "It is quite clear that the National Food Security, a social justice and social welfare legislation is not being implemented as it should be that is the bane of our society." Going further, the Court also suggested that "there are five areas in which certain state governments have been found deficient in implementing the act; they are:

1. Formulations of rules under Section 40 of the Act for effective implementation.
2. Constitution of district grievance redressal officer under Section 15 of the Act.
3. Constitution of Food Commission under Section 16 of the Act.
4. Conducting special social audit under Section 28 of the Act.
5. Constitution of Vigilance Committee under Section 29 of the Act."

It was ascertained by the Supreme Court that different state governments had taken different kinds of measures to comply with the provisions of NFSA. In some cases, the very officers in charge of public distribution system were also made the district grievance redressal officers, and, in many states, there was no attempt to create a social audit framework as also the vigilance committee. The Supreme Court has finally directed the GoI to have a threadbare dialogue with all the concerned secretaries in different state governments in order to secure the objectives of NFSA in letter and spirit.

Cash transfers were introduced in three union territories (UTs), Chandigarh, Puducherry and Dadra and Nagar Haveli, as a substitute for PDS on a pilot basis in 2015. A programme evaluation study was conducted by J-PAL and was submitted to the Department of Food, GoI and NITI Aayog in August 2016.[3] This study found that a significant proportion of the amount disbursed through direct benefit transfer (DBT) was not reaching the beneficiaries. The study found that 50% of the people were receiving either nothing or less cash than they were entitled in lieu of the subsidised grains. According to the report, less than 60% cash reached beneficiaries, reflecting weak implementation. From September 2015 to June 2016, the governments of three UTs claimed that they had distributed ₹10,550,207 to beneficiaries' accounts after stopping their subsidised grains. But the study found that ₹4,242,323 could not be traced to the beneficiaries. The study also found, based on sample study, that 17% of the beneficiaries inexplicably received more cash than what they were entitled to. The study was conducted in two phases: the first one ran from September 2015 to February 2016 and the second one from June to July 2016. In the second phase, the situation improved slightly. In the second phase of the study, there has been a reduction in the proportion of beneficiaries receiving nothing or less than full entitlement in Chandigarh and Puducherry. Subsidy amounts may not reflect the additional time and monetary burden on beneficiaries. Most of the complaints were about the fact that the money given was not enough to buy equivalent 5 kg of rice from the market. People reported paying ₹103–207 per month per household on an average more from their pockets to buy the same amount of grains that they got through ration shops. For instance, beneficiaries incur average travel and opportunity costs of extra ₹84 per month in accessing cash via DBT in comparison with equivalent PDS entitlement. This is why 75% of beneficiaries think subsidy amount is insufficient and expect it to be higher. However, the

[2] PUCL is an NGO that works towards the human rights, liberty and connected aspects.

[3] Abdul Latif Jameel Poverty Action Lab, MIT carried out the study in two phases at the behest of NITI Aayog. The findings are as reported in http://www.rediff.com/business/report/pilot-study-in-3-uts-shows-why-cash-in-lieu-of-pds-wont-work/20170203.htm

sample study found that with cash transfers, respondents conveyed that they were able to buy a higher quality of grain from the market than they were getting at the PDS. The majority of beneficiaries in Chandigarh and Puducherry continue to prefer the PDS over cash transfer.

The expanded coverage of population under PDS as per the intent of the NFSA is a welcome development. The problems that prevent people from accessing food grains are remediable through sensitive aligning of offline solutions with online digital technology as was pointed out last year in the case of Madhya Pradesh. The apparent failure of cash transfers in lieu of rations has to be taken note of by the government. There are reports that the GoI might still persist with cash transfers, avoiding the bother of handling such a huge volume of food grains. The Economic Survey also outlined the concept of UBI, which will be a cash payment to identified households in place of food grains under PDS, jobs under NREGS, etc. In making such transformative shifts, we should ensure that transitional damage to vulnerable people is avoided and leakages fully plugged.

National Social Assistance Programme

The NSAP primarily comprises of three pension schemes and a family benefit scheme (Table 3.8). The old age pension scheme is designed to provide a monthly pension of ₹200 to the people aged 60 years or more. There is a widow pension scheme that provides a monthly pension of ₹300 to widows. Under disability pension scheme, which also provide ₹300 per month, persons with significant defined disability are supported. The National Family Benefit Scheme provides a onetime support of ₹20,000 to households that lose their primary bread earner. An Annapurna Scheme is also operational which provides 10 kg of rice per month to senior citizens in those households where no old age pension scheme benefit is available.

The old age pension scheme spent about ₹5,900 crore in the year 2016–17. The coverage was of the order 2.39 crore beneficiaries. The number of beneficiaries covered in the widow pension scheme during 2016–17 was 69 lakh. The overall expenditure in widow pension was ₹2,037 crore. As per the census data of 2011, the population aged more than 60 years was 10.3 crore. The old age pension scheme covers about 23% of all elderly, and the widow pension scheme covers about 13% of widows (see Annexure 3.6). Looking at the data available where 80% population is living below the $1.25 per day poverty line, covering only 30% of the elderly population does not make the pension scheme effective in terms of providing social security at old age. The extent of exclusion of elderly is very high. The public policy assumptions as to requirement of support at old age seem flawed. While the family in India is considered to be the primary caretaker of children and the old, in most cases when the household is poor, its capacities to fulfil a caregiving role can well be very limited. These personal laws and social norms can

Table 3.8: Budget for Social Assistance Schemes

National Social Assistance Programme	2015–16 (A)	2016–17 (BE)	2016–17 (RE)	2017–18 (BE)
Indira Gandhi National Old Age Pension Scheme (IGNOAPS)	5,562.7	6,130.9	6130.9	6,126.9
National Family Benefit Scheme (NFBS)	639.4	787.2	787.2	774.1
Indira Gandhi National Widow Pension Scheme (IGNWPS)	2,068.9	2,221.7	2,221.7	2,221.7
Indira Gandhi National Disability Pension Scheme (IGNDPS)	288.0	279.3	279.3	274.3
Annapurna Scheme	56.3	75.8	75.8	75.8
National Social Assistance Programme (Adm. Expenditure)	1.1	5.2	5.2	27.3
Total-National Social Assistance Programme	8,616.4	9,500.0	9500.0	9,500.0

Source: Excerpted from CBGA Budget Analysis, February 2017.

only be mobilised reasonably in cases where the male offspring have the financial capability to take care of the parents. The responsibility remains within the unit of the family alone even when the household is poor, while there is no legal obligation on the State to provide an alternative. The NSAP, including Indira Gandhi National Old Age Pension Scheme (IGNOAPS), is a means-tested scheme that means the beneficiaries have to meet pre-set criteria of economic deprivation. Exclusion of deserving people takes place in the process of provision and verification of proof of insufficient means. Studies have established that populations that are the poorest and live in remote areas tend to get excluded, such as particularly vulnerable tribal groups, which have a nomadic lifestyle and do not have proof of residence documents.

The renewal process of pensions is also beset with many problems. India Exclusion Report points out that

> In the summer of 2016 the Rajasthan government precipitously cancelled 0.7 million pensions and stopped pensions of 0.3 million beneficiaries citing multiple reasons such as death of the beneficiary, migration of beneficiary (when not the case) or duplication of beneficiary account. A public campaign led by Mazdoor Kisan Shakti Sangathan (MKSS) and organizations involved with the Right to Information campaign, physically verified the government's claims that revealed the callous ways in which the renewal process was carried out. A large majority of the cancelled and stopped pensions were of older people who had been declared dead even though they were alive. These pension accounts were reopened following the resulting public uproar, but in most cases without arrears. In a similar instance in Andhra Pradesh, in February 2016, it took a stern interim order from the High Court in response to a writ petition filed about discontinuation of pensions, for the government to restore public pensions for the older people that were wrongly cancelled by declaring the pensioners dead.[4]

[4] Sampat, "Public Pension Provisioning for Old Persons in India," in *India Exclusion Report 2016*, 33–65.

Table 3.9: Better Practices in Old Age Pension Schemes

Criteria	State
Coverage/Universality (only with top decile exclusion criteria)	Rajasthan, Haryana, Tamil Nadu
Age of initiation (below 60 years)	Rajasthan, Haryana
Adequacy (above ₹1,000)	Delhi, Haryana, Goa, Telangana, Himachal Pradesh
Ease and transparency in disbursement	Odisha, Andhra Pradesh, Telangana

Source: Excerpted from Public Pension Provisioning for Old Persons in India, *India Exclusion Report 2016*.

Some states have gone beyond the design parameters of the Central Government and introduced better features and practices in extending support to senior citizens (Table 3.9). While some states made the pension universal to all those above 60 years of age, thus eliminating exclusion errors, some others introduced pension even at 58 years of age. The pension amount had been raised to ₹1,000 per month (5 times of the Central scheme) in five states.

The ₹200 per month pension was fixed in the year 2007 and has not been revised upwards even though there had been significant revisions in the minimum wages across the country. Similar is the case with widow pension where the amount of ₹300 would barely be adequate. The National Assistance Programme being designed appropriately does not have the resources allocated from the budget for covering a larger proportion of deserving people. The NSAP will become effective and serve the objectives only by raising coverage and the amount of compensation.

Calculations made by Centre for Budget and Governance Accountability (CBGA) find that the total annual expenditure required to cover a larger proportion of people (say 75%) and a pension of ₹85 per day (50% of the national minimum wages) is of the order of ₹240,000 crore (Table 3.10) which is about 1.4% of GDP. As against this, the provisions made for the

Table 3.10: What It Costs to Universalise Old Age Pension

Coverage	100%	90%	80%	75%
Population > 60 years of age (crore)	10.5	9.45	8.4	7.9
Pension per month @ of ₹85 per day (50% of the national minimum wages; ₹)	2,550	2,550	2,550	2,550
Per annum expenditure (₹)	30,600	30,600	30,600	30,600
Total annual expenditure on pension (₹ lakh crore)	3.2	2.9	2.6	2.4
Annual expenditure on pension as % of total expenditure for 2017–18 (BE)	15.0	13.5	12.0	11.3
Annual expenditure on pension as % of GDP	1.91	1.72	1.53	1.43

Source: Reproduced from CBGA Budget Analysis February 2017.

entire NSAP budget is of the order of ₹9,500 crore. CGBA is of the view that "the wider informal nature of the economy there is a need to substantially hike the allocations for social security programme." On the contrary, the union budget 2017–18 has kept the allocation for NSAP at the same level as the earlier year which in real term is a cut if we factor in the inflation rate. Similarly, cuts in National Health Protection, Atal Pension Yojana, Aam Aadmi Bima Yojana, Swavalamban Scheme, whereby the already small amount being allocated earlier, and erode of the welfare nets badly needed by the vulnerable sections of people have been further showing that social protection measures are losing focus.

NSAP could become more responsive to people's needs. It has to take into account the need for inclusion of deserving people, ease of process for both entry and availment of benefits, efficiency in handling to reduce pains for pensioners, adequacy of pension amounts to meet basic necessities of life and dignified treatment of beneficiaries. Today, the scheme suffers from lack of sensitivity and apathy. The attitudes towards pensioners should change and comprise empathy, understanding and respect in equal measures.

Pradhan Mantri Awas Yojana-Gramin (PMAY-G)

The earlier scheme, IYA, has been renamed and expanded to cover emerging needs of affordable housing. The revised scheme was launched in June 2015. The new rural housing programme is designed to meet the needs and aspirations of households. The scheme originally was meant to cover people in the economically weaker section (EWS, annual income not exceeding ₹3 lakh) and low-income group (LIG, annual income not exceeding ₹6 lakh) sections, but now covers the mid-income group (MIG) as well. With a higher unit cost, it allows for construction using local materials and local house designs. Homes will have cooking area, toilet, LPG connection, electricity connection and water supply through convergence, and beneficiaries can plan their homes as per their need. Training programme for rural masons has been launched to meet a critical skill requirement for quality construction. The selection of beneficiaries has been through a rigorous process using Socio-economic Caste Census (SECC), duly validated by Gram Sabha and also subjected to space technology validation to ensure that there is no inclusion of errors. CAG's *Performance Audit Report 2014* highlighted problem of ineligible beneficiaries covered under IAY. It has been completely taken care of through the three-filter selection process under PMAY-G. A total of 44 lakh houses were approved for 2016–17 and MoRD is working hard to complete all of them by December 2017. A completion period of 6–12 months is being followed in PMAY-G. The Department of Rural Development plans to complete 51 lakh houses in 2017–18. An additional 33 lakh houses have been sanctioned for 2017–18. A similar number is proposed to be

Table 3.11: Budget Allocations and Physical Achievements under PMAY Rural

Year	Budget (₹ Cr)	Physical Target	Achievement	% Achievement
2012–13	7,689	3,009,700	2,185,773	73
2013–14	12,981	2,480,715	1,592,367	64
2014–15	11,105	2,518,978	1,652,737	66
2015–16	10,116	2,079,146	1,803,000	87
2016–17	16,000	4,358,645	3,214,564	74
2017–18	23,000	3,230,293	–	–

Source: http://rhreporting.nic.in/netiay/PhysicalProgressReport/highlevelphysicalprogressreport.aspx.

completed in 2018–19, making in all 1.35 crore houses during the period 2016–19. For houses built with individual effort, a credit-linked subsidy scheme lowers the interest cost of loans. Beneficiaries of EWS and LIG seeking housing loans from banks, housing finance companies and other such institutions would be eligible for an interest subsidy at the rate of 6.5% for a tenure of 15 years or during tenure of loan whichever is lower. The credit-linked subsidy will be available only for loan amounts upto ₹6 lakh and additional loans beyond ₹6 lakh, if any, will be at nonsubsidised rate. Interest subsidy will be credited upfront to the loan account of beneficiaries through lending institutions, resulting in reduced effective housing loan and equated monthly instalment (EMI). An outlay of ₹1,400 crore has been made in 2017–18 towards this subsidy. Housing and Urban Development Corporation (HUDCO) and National Housing Bank (NHB) have been identified as Central Nodal Agencies (CNAs) to channelise this subsidy.

The budget allocations and physical achievements under PMAY Rural are provided in Table 3.11. The allocations/expenditures under PMAY/IAY were in line with the 12th Five Year Plan projections (97% achievement). However, the physical achievements have lagged behind.

There are wide divergences between the data reported by MoRD in its MIS and the data put out in the e-book as also Budget Speech of the finance minister with reference to the targets and achievements. While the budget speech mentions 31.14 lakh houses as having been completed, the achievement for 2016–17 given in the PMAY-MIS is only 2.3 lakh houses (Annexure 3.8). This divergence in data should be dealt with. The utilisation of funds allocated in many states has been far less than targets. Across the country, only 21.77% of funds released were utilised under the programme (Annexure 3.7). Almost all the northeastern states did not utilise any of the allocated funds. Gujarat, Bihar and Tamil Nadu utilised less than 1% of the allocations. The best state was Madhya Pradesh having utilised 60% of funds. It is difficult to envisage the completion of a large majority of houses targeted under the programme, when funds utilisation is so low. The Standing Committee on Rural Development in its report submitted in August 2016 made several observations on the functioning of the scheme. The key concerns highlighted in the committee's report were that (a) the performance is well short of the targets by about 44 million units, (b) there was a huge gap between the number of houses targeted and constructed with some states not even fixing the targets rendering measurement of performance difficult, (c) there were errors in MIS with achievements reported in excess of 100%, by including previous years' backlog in absence of separate MIS for backlog, (d) states did not utilise the funds released, leading to revision of budget estimates and as a result the funds spent were inadequate for the targeted houses, (e) conversion of kutcha houses should be expedited through special initiatives and (f) where land is not available, multi-story construction should be allowed under the scheme.

In case of the urban scheme, the PMAY has four provisions. The first provision provides for a house to slum dwellers through slum rehabilitation schemes, which is to be carried out by a private developer. The goal is to re-house slum residents in multistorey rehabilitation buildings while using the remaining land of the slum to construct residential/commercial buildings for selling flats in the open market. Second, there is an interest rate subsidy for a home loan for weaker sections for which the interest rate will be 6.5% for up to ₹6 lakh. Third, 35% of the housing in a particular project will be reserved for EWS, and each beneficiary will get a subsidy of ₹1.5 lakh. Fourth, the Central Government offers a subsidy for a beneficiary-led individual housing construction. It is difficult for slum dwellers to prove their continued residence, as no formal records such as electricity bills, etc., are normally available. Even if the houses cost about ₹10 lakh, the EMI would be about ₹5,500 for principal alone which would be unaffordable for those in the lowest strata of society. The scheme benefits would tend to go to those having annual income of ₹2 lakh or more. Slum dwellers wanting to build their own houses would not benefit from the scheme as the land they occupy is usually not owned by them. In case of urban areas, "housing for all" should be designed differently, taking into account the problems of those at the very bottom of the pyramid. Availability of houses has increased in the urban areas on account of the restructuring of the PMAY. Private sector has got involved in "affordable housing" intensively because of the relaxed procedures relating to interest subsidy and coverage of MIGs.

On the whole, the livelihoods programmes of the government have sharpened focus, improved on their performance, bettered targeting and started yielding superior results. In some programmes, adequacy of the support and coverage of people need to be examined to ensure that development objectives are well met.

ANNEXURE 3.1
NREGS: Performance Comparison Across States

States	% of Households Provided Jobs	Average No. of Days/Household	% of Households with 100 Days Work
Andhra Pradesh	99	52	14.5
Arunachal Pradesh	98	42	0.0
Assam	88	30	0.6
Bihar	78	37	0.5
Chhattisgarh	84	42	6.8
Goa	100	19	0.5
Gujarat	80	38	0.9
Haryana	85	30	0.7
Himachal Pradesh	93	45	2.0
Jammu and Kashmir	93	51	5.3
Jharkhand	84	41	1.8
Karnataka	85	50	9.1
Kerala	91	47	7.0
Madhya Pradesh	83	40	4.2
Maharashtra	89	49	10.4
Manipur	99	23	0.0
Meghalaya	98	68	20.5
Mizoram	100	89	29.9
Nagaland	99	70	0.0
Odisha	86	38	1.5
Punjab	88	29	0.6
Rajasthan	91	56	8.4
Sikkim	97	68	12.1
Tamil Nadu	99	64	21.0
Telangana	92	42	6.3
Tripura	98	80	19.9
Uttar Pradesh	86	31	0.7
Uttarakhand	91	43	4.3
West Bengal	93	40	3.2
Andaman and Nicobar	98	34	4.0
Lakshadweep	100	14	0.0
Puducherry	89	17	0.0
Total	90	46	7.0

Source: http://mnregaweb4.nic.in/netnrega/MISreport4.aspx?fin_year=2013-2014&rpt=RP, calculations by authors.

ANNEXURE 3.2
NREGS: Workdays Generated by States

S. No.	States	Persondays Generated (No. in Lakh) 2014–15	2015–16	2016–17	2017–18
1.	Andhra Pradesh	1559.05	1992.10	2053.09	1466.24
2.	Arunachal Pradesh	19.38	50.46	85.98	4.10
3.	Assam	210.95	486.33	467.51	159.29
4.	Bihar	351.98	670.92	873.96	499.98
5.	Chhattisgarh	555.90	1013.97	885.95	526.76
6.	Goa	1.73	1.07	1.26	0.45
7.	Gujarat	181.46	225.40	271.07	166.48
8.	Haryana	61.65	48.48	84.92	31.72
9.	Himachal Pradesh	190.77	177.71	236.31	72.85
10.	Jammu and Kashmir	121.09	316.32	320.35	34.59
11.	Jharkhand	453.34	585.62	707.66	269.51
12.	Karnataka	433.28	598.38	915.04	356.29
13.	Kerala	588.72	741.74	684.62	58.25
14.	Madhya Pradesh	1175.40	1237.42	1130.62	722.41
15.	Maharashtra	613.87	763.45	709.16	358.55
16.	Manipur	101.17	75.33	119.03	4.70
17.	Meghalaya	167.35	199.71	282.61	27.47
18.	Mizoram	42.70	131.26	168.23	65.19
19.	Nagaland	89.99	212.07	291.54	94.08
20.	Odisha	535.40	894.46	776.03	324.80
21.	Punjab	64.56	144.34	157.74	75.17
22.	Rajasthan	1686.19	2341.25	2596.82	1215.66
23.	Sikkim	24.13	43.84	46.12	7.89
24.	Tamil Nadu	2679.65	3686.75	3999.38	1226.05
25.	Telangana	1032.07	1417.76	1075.71	890.58
26.	Tripura	511.76	538.76	461.18	50.25
27.	Uttar Pradesh	1312.27	1822.39	1579.20	658.61
28.	Uttarakhand	147.34	223.95	236.96	64.44
29.	West Bengal	1696.30	2864.97	2357.07	1145.19
30.	Andaman and Nicobar	5.17	2.68	3.17	0.44
31.	Dadra and Nagar Haveli	NR	NR	NR	NR
32.	Daman and Diu	NR	NR	NR	NR
33.	Lakshadweep	0.13	0.03	0.001	0.00
34.	Puducherry	3.78	5.62	5.37	5.27
	Total	**16618.50**	**23514.53**	**23583.67**	**10583.26**

Source: Answer to Lok Sabha unstarred question 3924, dated 10 August 2017.

ANNEXURE 3.3
Proportion of Households Benefiting from NREGS

States	No. of Households Per 1,000
Andhra Pradesh	429
Arunachal Pradesh	176
Assam	144
Bihar	53
Chhattisgarh	167
Delhi	–
Goa	13
Gujarat	24
Haryana	84
Himachal Pradesh	201
Jammu and Kashmir	204
Jharkhand	353
Karnataka	123
Kerala	191
Madhya Pradesh	344
Maharashtra	56
Manipur	734
Meghalaya	687
Mizoram	864
Nagaland	722
Odisha	256
Punjab	46
Rajasthan	338
Sikkim	444
Tamil Nadu	477
Telangana	222
Tripura	746
Uttarakhand	323
Uttar Pradesh	149
West Bengal	345
Andaman and Nicobar Islands	45
Chandigarh	–
Dadra and Nagar Haveli	2
Daman and Diu	6
Lakshadweep	18
Puducherry	94
All India	**219**

ANNEXURE 3.4
Allocation of Funds to States Under NRLM

		Allocation		
S. No.	States/UTs	Central Share	State	Total
1.	Andhra Pradesh	1185.81	790.54	1976.35
2.	Telangana	847.01	564.67	1411.68
2.	Bihar	4835.89	3223.93	8059.82
3.	Chhattisgarh	1074.08	716.05	1790.13
4.	Goa	150.00	100.00	250.00
5.	Gujarat	765.19	510.13	1275.32
6.	Haryana	450.18	300.12	750.30
7.	Himachal Pradesh	189.59	21.07	210.66
8.	Jammu and Kashmir	2500.00	277.78	2777.78
9.	Jharkhand	1823.41	1215.61	3039.02
10.	Karnataka	1535.07	1023.38	2558.45
11.	Kerala	688.78	459.19	1147.97
12.	Madhya Pradesh	2300.98	1533.99	3834.97
13.	Maharashtra	3034.46	2022.97	5057.43
14.	Odisha	2325.13	1550.09	3875.22
15.	Punjab	218.78	145.85	364.63
16.	Rajasthan	1165.63	777.09	1942.72
17.	Tamil Nadu	1797.46	1198.31	2995.77
18.	Uttar Pradesh	6962.06	4641.37	11603.43
19.	Uttarakhand	366.56	40.73	407.29
20.	West Bengal	2583.93	1722.62	4306.55
	North Eastern States			
1.	Arunachal Pradesh	600.00	66.67	666.67
2.	Assam	7000.00	777.78	7777.78
3.	Manipur	800.00	88.89	888.89
4.	Meghalaya	400.00	44.44	444.44
5.	Mizoram	1600.00	177.78	1777.78
6.	Nagaland	2400.00	266.67	2666.67
7.	Sikkim	600.00	66.67	666.67
8.	Tripura	2700.00	300.00	3000.00
	Total (NE)	**16100.00**	**1788.90**	**17888.90**
	Grand Total	**53250.00**	**24624.39**	**77874.39**

Source: Ministry of Rural Development Annual Report 2016–17.

ANNEXURE 3.5
State-wise Number of Beneficiaries Under NFSA

S. No.	States/UTs	Percentage Coverage		Total Coverage in Terms of Number of Persons (in Lakh)			Current Coverage (in Lakh)
		Rural	Urban	Rural	Urban	Total	
1.	Andhra Pradesh	60.96	41.14	200.2	68.03	268.23	268.21
2.	Arunachal Pradesh	66.31	51.55	7.09	1.62	8.71	8.21
3.	Assam	84.17	60.35	225.41	26.49	251.90	251.63
4.	Bihar	85.12	74.53	783.74	87.42	871.16	857.12
5.	Chhattisgarh	84.25	59.98	165.16	35.61	200.77	200.77
6.	Delhi	37.69	43.59	1.58	71.2	72.78	72.73
7.	Goa	42.24	33.02	2.33	2.99	5.32	5.32
8.	Gujarat	74.64	48.25	258.78	124.06	382.84	357.81
9.	Haryana	54.61	41.05	90.28	36.21	126.49	126.49
10.	Himachal Pradesh	56.23	30.99	34.68	2.14	36.82	28.64
11.	Jammu and Kashmir	63.55	47.1	58.05	16.08	74.13	74.132
12.	Jharkhand	86.48	60.20	216.52	47.73	264.25	263.70
13.	Karnataka	76.04	49.36	285.55	116.38	401.93	401.93
14.	Kerala	52.63	39.5	91.87	62.93	154.8	154.80
15.	Madhya Pradesh	80.1	62.61	420.83	125.59	546.42	529.61
16.	Maharashtra	76.32	45.34	469.72	230.45	700.17	700.17
17.	Manipur	88.56	85.75	17.91	7.15	25.06	21.19
18.	Meghalaya	77.79	50.87	18.43	3.03	21.46	21.40
19.	Mizoram	81.88	48.6	4.33	2.73	7.06	6.68
20.	Nagaland	79.83	61.98	11.23	3.56	14.79	14.05
21.	Odisha	82.17	55.77	287.19	39.02	326.21	323.22
22.	Punjab	54.79	44.83	94.88	46.57	141.45	141.45
23.	Rajasthan	69.09	53	356.09	90.53	446.62	446.62
24.	Sikkim	75.74	40.36	3.45	0.61	4.06	3.78
25.	Tamil Nadu	62.55	37.79	232.62	132.08	364.7	357.34
26.	Telangana	60.96	41.14	143.08	48.62	191.70	191.62
27.	Tripura	74.75	49.54	20.26	4.76	25.02	25.01
28.	Uttar Pradesh	79.56	64.43	1234.1	286.52	1520.61	1469.96
29.	Utttarakhand	65.26	52.05	45.85	16.09	61.94	61.94
30.	West Bengal	74.47	47.55	463.31	138.53	601.84	601.84
31.	Andaman and Nicobar	29.94	1.7	0.61	0.02	0.63	0.55
32.	Daman & Diu	26.66	56.47	0.16	1.03	1.19	0.87
33.	Dadra & Nagar Haveli	84.19	51.54	1.54	0.82	2.36	2.20
34.	Lakshadweep	35.30	33.56	0.05	0.17	0.22	0.22
35.	Chandigarh	38.54	47.26	0.11	4.85	4.96	2.61
36.	Puducherry	59.68	46.94	2.35	3.99	6.34	6.02
	Total	**75.00**	**50.00**	**6249.33**	**1885.61**	**8134.94**	**7999.84**

Source: Answer to Rajya Sabha Question no 2619, dated 24 March 2017.

ANNEXURE 3.6
Old Age Persons and Widows and Pensioners

S. No.	States/UTs	Old Age Persons	Widows
1.	Andhra Pradesh	8,278,241	4,297,481
2.	Bihar	7,707,145	2,238,793
3.	Chhattisgarh	2,003,909	973,787
4.	Goa	163,495	77,935
5.	Gujarat	4,786,559	2,015,742
6.	Haryana	2,193,755	773,297
7.	Himachal Pradesh	703,009	93,475
8.	Jammu and Kashmir	922,656	283,650
9.	Jharkhand	2,356,678	1,027,878
10.	Karnataka	5,791,032	2,989,429
11.	Kerala	4,193,393	2,010,984
12.	Madhya Pradesh	5,713,316	2,160,609
13.	Maharashtra	11,106,935	4,520,764
14.	Odisha	3,984,448	1,612,627
15.	Punjab	2,865,817	928,158
16.	Rajasthan	5,112,138	1,983,634
17.	Tamil Nadu	7,509,758	3,856,398
18.	Telangana	–	–
19.	Uttar Pradesh	15,439,904	4,856,188
20.	Uttarakhand	900,809	387,215
21.	West Bengal	7,742,382	3,792,184
	NE States		
22.	Arunachal Pradesh	63,639	31,787
23.	Assam	2,078,544	1,156,042
24.	Manipur	200,020	77,990
25.	Meghalaya	138,902	84,825
26.	Mizoram	68,628	28,569
27.	Nagaland	102,726	39,496
28.	Sikkim	40,752	13,717
29.	Tripura	289,544	164,969
	Union Territories		
30.	Andaman and Nicobar Islands	25,424	12,525
31.	Chandigarh	67,078	24,496
32.	Dadra and Nagar Haveli	13,892	7,378
33.	Daman and Diu	11,361	6,816
34.	NCT Delhi	1,147,445	456,613
35.	Lakshadweep	5,270	2,448
36.	Puducherry	120,436	73,579
	Grand Total	103,849,040	43,261,478
	No of pensioners in 2016–17	23,900,000	5,900,000
	Pensioners as	23%	14

Source: Lok Sabha question no. 693, answered on 20 July 2017 and data from NSAP dashboard.

ANNEXURE 3.7
PMAY: Allocation and Utilisation of Funds 2016–17

States	Allocation Centre + State	Release Centre + State	Utilisation of Funds	% Utilisation
Arunachal Pradesh	12,214.574	4,285.59	0	0
Assam	297,027.5	118,779.64	11,383.84	9.58
Bihar	795,796.614	297,469.882	291.25	0.1
Chhattisgarh	301,848.767	191,169.64	68,233.24	35.69
Goa	949.288	0	0	NA
Gujarat	141,766.023	52,992.317	230	0.43
Haryana	31,894.352	12,183.411	1,679.4	13.78
Himachal Pradesh	6,590.211	2,371.005	1,405.3	59.27
Jammu and Kashmir	23,010.77	0	0	NA
Jharkhand	288,106.475	107,017.297	27,432.46	25.63
Kerala	40,634.055	33,195.12	4,947.12	14.9
Madhya Pradesh	570,969.467	224,623.053	135,959.4	60.53
Maharashtra	287,567.23	155,551.133	35,920	23.09
Manipur	13,167.923	0	0	NA
Meghalaya	23,024.493	0	0	NA
Mizoram	6,497.404	0	0	NA
Nagaland	11,466.149	4,326.775	0	0
Odisha	519,785.867	244,680.41	47,764.5	19.52
Punjab	30,537.215	0	0	NA
Rajasthan	312,322.255	89,412.98	3,4661.1	38.77
Sikkim	2,645.786	0	0	NA
Tamil Nadu	220,069.837	41,341.59	2.082	0.01
Tripura	32,083.453	14,342.827	586.85	4.09
Uttar Pradesh	717,921.722	307,966.044	9,499.36	3.08
Uttarakhand	14,684.47	8,033.022	2,593.2	32.28
West Bengal	552,953.337	139,363.741	82,501.16	59.2
Andaman and Nicobar	262.511	196.37	0	0
Dadra and Nagar Haveli	378.928	245.081	0	0
Daman and Diu	67.353	49.88	0	0
Lakshadweep	70.92	0	0	NA
Puducherry	0	0	0	NA
Andhra Pradesh	93,667.084	36,187.985	0	0
Karnataka	116,144.595	51,492.065	804.18	1.54
Telangana	63,596.226	0	0	NA
Total	5,529,722.854	2,137,276.858	465,894.442	21.77

Source: PMAY-MIS Ministry of Rural of Rural Development website.

ANNEXURE 3.8
PMAY: Number of Houses Completed in the Last Three Years

States	2014–15	2015–16	2016–17
Arunachal Pradesh	4	0	0
Assam	146,564	79,140	548
Bihar	123,447	84,340	46
Chhattisgarh	37,952	34,572	41,054
Goa	20	99	0
Gujarat	16,765	16,799	163
Haryana	22,678	8,277	639
Himachal Pradesh	4,643	2,271	1,251
Jammu and Kashmir	2,653	1,810	0
Jharkhand	23,342	17,679	550
Kerala	44,606	46,201	1,967
Madhya Pradesh	84,935	65,330	69,081
Maharashtra	131,551	88,033	18,322
Manipur	132	431	0
Meghalaya	6,957	1,016	0
Mizoram	1,077	536	0
Nagaland	1,014	737	0
Odisha	143,391	142,369	73,850
Punjab	509	975	0
Rajasthan	35,750	38,925	6,133
Sikkim	1,453	396	0
Tamil Nadu	51,898	49,734	105
Tripura	9,439	7,370	11
Uttar Pradesh	381,551	348,699	587
Uttarakhand	8,505	5,041	137
West Bengal	397,045	390,020	16,318
Andhra Pradesh	67,497	58,119	4,014
Karnataka	77,061	52,312	469
Telangana	62,662	47,317	–
Total	1,885,101	1,588,548	235,245

Source: PMAY-MIS, Ministry of Rural Development website.

Agriculture-based Livelihoods

Chapter 4

In terms of the number of people engaged and dependency, agriculture is the largest employer though it does not always provide full-time employment. The number of people dependent on agriculture is put variously between 50% and 70% of the Indian population. Within agriculture, the riskiest of livelihoods exist among the very small and fragmented holdings that constitute 85% of the farmer population. In smallholdings, high dependency on monsoon and rainfall make earning adequate incomes very difficult. The rain-dependent landmass is more than 50% of the cultivated land in the country. Even where lands are dependent on irrigation, rain eventually plays a role, being plentiful or scarce and in between becoming excessive, impacting the agricultural season.

The sector is the largest private sector entity in terms of number of holdings and enterprises. The GoI has announced that doubling of farmers' income is its objective to be achieved in 5 years, that is, by the year 2020. While a number of initiatives are being taken to ensure farmers' welfare and stabilisation of farm-based livelihoods, the investments made in farming with income generation objective seem to be somewhat inadequate and not well targeted. In the current year's budget (2017–18), the expenditure planned for the Ministry of Agriculture, including the amounts to be spent on interest subvention for crop loan, is of the order of 2.38% of the total union budget. As a percentage of GDP, the Ministry of Agriculture's expenditure is 0.3%. Actually, this is a reduction from the level of last year which was at 0.32%. Net of interest subvention allocations (which were accounted for under Ministry of Finance allocations till 2015–16) and the allocations made to the Ministry of Agriculture were 1.68% of the total Union budget in 2017–18 (Figure 4.1), which is less than the level of 1.72% achieved in 2012–13. As the proportion of GDP, budget for agriculture was a miniscule 0.21% in 2017–18, compared to 0.24% in 2012–13.

In absolute terms, the agriculture ministry was provided ₹51,026 crores in 2017–18 (Table 4.1). This represented an increase of 6.1% which is much smaller than the

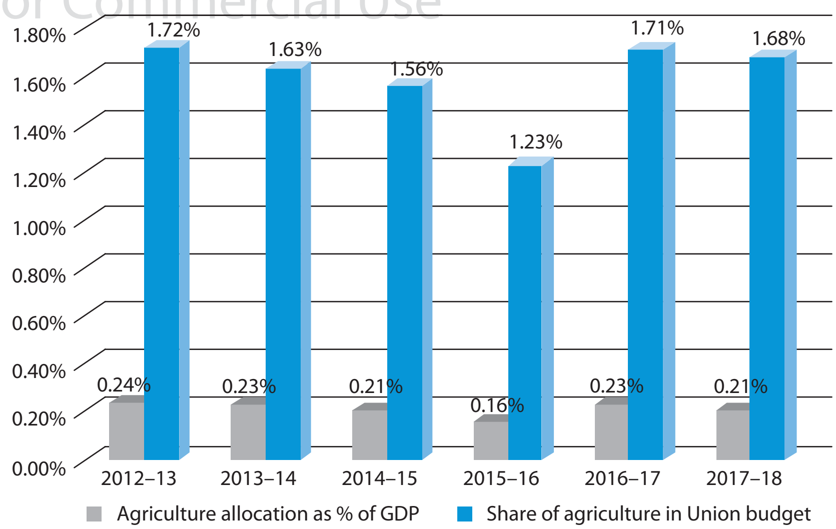

Figure 4.1: Significance of Agricultural Budget in the Macroeconomy

Source: Union budget documents of different years. Calculations and chart by the authors.

Table 4.1: Budget Allocation for Ministry of Agriculture and Cooperation (₹ Crores)

	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18
Budget outlay	29,655	31,479	31,917	35,092	48,073	51,026
Interest subvention	5,400	6,000	6,000	13,000	13,619	15,000
Budget net of interest subvention	24,255	25,479	25,917	22,092	34,454	36,026

Source: Union budget documents, different years.
Note: Interest subvention allocations were not clubbed with the Ministry of Agriculture allocations till 2015–16; they were provided under the Ministry of Finance.

Table 4.2: Head-wise Details of Budget Outlay (₹ Crores)

	2015–16	2016–17 RE	2017–18 BE
Department of Agriculture, Cooperation and Farmers Welfare	28,296	39,841	41,855
Department of Animal Husbandry, Dairying and Fisheries	1,410	1,994	2,371
Department of Agricultural Research and Education	5,386	6,238	6,800
Total	35,092	48,073	51,026
Growth rate YOY	9.90%	37%	6.10%

Source: Union budget documents, different years.

increase of 37% made in the previous year (Table 4.2). And within this budget both agriculture and animal husbandry departments in the Ministry of Agriculture have to find their space for meaningful activities. The Department of Agricultural Research and Education takes a share of 12% of the total budget earmarked to the Ministry of Agriculture.

Not all expenditure on agriculture is met out union budget outlays; some expenditure is met from other funding sources. The long-term irrigation fund set up with NABARD has been provided an additional corpus of ₹40,000 crores in addition to ₹20,000 crore provision made to the fund in 2016–17. However, this corpus has to be raised from other sources and not from the government budget. The government has provided only ₹500 crore to NABARD as an initial equity into the fund so that it can leverage other funds. A micro-irrigation fund has also been set up in NABARD to finance sprinkler, drip and other efficiency optimising forms of irrigation and initial corpus of ₹5,000 crores. Further, there has been other fund set up in NABARD such as the dairy processing and infrastructure development fund with a corpus of ₹8,000 crores. These funds are expected to create capital asset on the ground and improve productivity thereby influencing production and incomes. A sum of ₹15,000 crores have been allocated in the current year budget towards interest subvention on crop loan. While the interest subvention scheme has been running for more than 10 years, there is no evidence on demonstrated impact on interest subvention on farms and especially small farmers. Subvention is available only to those farming households that are able to access bank credit. The access to bank credit according to the 2012–13 situation assessment survey of farmers is restricted to about 52% of rural households. Those who do not have access (the remaining 48% of households) are the ones that face hardship because of smallness of size, lack of irrigation, difficulty of getting technical information, and as such face a paucity of quality input resources that can impact their livelihoods. These typically are farming households that access moneylender loans or input credit from commission agents and dealers who at a later stage take away the entire crop output on exploitative terms. The expropriation by other market players of the value that is produced by these very vulnerable fragmented farms is very much within the knowledge of the government and other public institutions. However, little has been done to improve the situation on the ground. The continuing expenditure laid out

Table 4.3: Allocations for Major Schemes Relating to Farmers (₹ Crore)

Name of Schemes	2015–16	2016–17 RE	2017–18 BE
Pradhan Mantri Fasal Bima Yojana (PMFBY)	2,983	13,240	9,000
Pradhan Mantri Krishi Sinchai Yojana (PMKSY)	7,781	5,182	7,377
Rashtriya Krishi Vikas Yojana (RKVY)	3,940	3,550	4,750
National Food Security Mission	1,162	1,280	1,720
Paramparagat Krishi Vikas Yojana	219	120	350
National Mission on Oil Seed and Oil Palm	306	376	403
National Mission on Horticulture	1,696	1,660	2,320
White revolution	937	1,312	1,634
Blue revolution	200	392	401

Source: Union Budget documents 2016–17 and 2017–18.

by the government in providing subsidies for crop loans is inequitable and possibly inefficient as well.

The major scheme-wise allocations for schemes relating to farmers, fishers and dairy sector in the last three years is furnished in Table 4.3. While there is an increase in allocations to all schemes, the allocations to PMKSY, horticulture mission and dairy sector stand out.

A number of activities with clear deliverables have been proposed to shape the ministry's strategies in agriculture and allied sectors (Box 4.1). Computerisation of credit cooperative societies is an important proposal initiated by the government. The GoI had withdrawn from computerisation of the Poorest Areas Civil Society (PACS) in 2010, in the midst of implementing reforms of financial cooperatives with loans from the World Bank, Asian Development Bank (ADB) and KFW. The revival of the proposal to computerise the rural financial cooperative will strengthen the credit flow

Box 4.1: *Agriculture in the Union Budget 2017–18*

- The target for agricultural credit in 2017–18 has been fixed at ₹10 lakh crore.
- Special efforts will be made to ensure adequate flow of credit to the under serviced areas, the eastern states and Jammu & Kashmir.
- Support to NABARD for computerisation and integration of all 63,000 functional PACS with the Core Banking System (CBS) of District Central Cooperative Banks (DCCBs). This will be done in 3 years at an estimated cost of ₹1,900 crore. with financial participation from state governments.
- The coverage of Pradhan Mantri Fasal Bima Yojana (PMFBY) will be increased from 30% of cropped area in 2016–17 to 40% in 2017–18 and 50% in 2018–19.
- Government will set up new mini labs in Krishi Vigyan Kendras (KVKs) and ensure 100 per cert coverage of all 648 KVKs in the country. In addition, 1,000 mini labs will be set up by qualified local entrepreneurs.
- Enhancement in the corpus of Long term Irrigation Fund (LTIF) with NABARD from ₹20,000 crore to ₹40,000 crore.
- A dedicated Micro-irrigation Fund will be set up in NABARD with an initial corpus of ₹5,000 crore, to achieve the goal 'per drop more crop'.
- The coverage of e-National Agriculture Market (e-NAM) will be expanded from the current 250 markets to 585 APMCs. States will be urged to undertake market reforms and de-notify perishables from APMC.
- A model law on contract farming would be prepared and circulated among the states for adoption.
- A Dairy Processing and Infrastructure Development Fund will be set up in NABARD with a corpus of ₹8,000 crore over three years. The initial corpus will be ₹2,000 crore.

Source: Reproduced from NABARD Annual Report 2016–17.

to small and marginal farmers. The plan to set up mini labs in both Kaushalya Vardhan Kendras (KVKs) and private sector is a welcome initiative. The hike in allocations to long-term irrigation fund with NABARD and creation of a micro-irrigation fund meet critical current needs in agriculture for water and optimisation of its use. One would have hoped for some measures that impact income realisation of farmers. The ongoing work with networking of agricultural markets in different states and introduction of a new law on contract farming are perhaps seen to be adequate for the purpose.

Performance of agriculture in recent years has been mixed. With uncertainties of weather, agriculture has shown negative growth rates in GVA (Table 4.4). The share of agriculture in country's GVA has been declining over a long period of time and the trend has been continuing, but for small spikes in years when GVA growth was exceptional as was the case in 2013–14. The share of agriculture in the overall capital formation rates and as a proportion of GVA in agriculture shows that incremental investments are not taking place at a pace necessary to improve productivity-led income accretion. The contribution to capital formation in agriculture by the public sector has been stagnant which in real terms means a decline. More than 75% of capital formation in agriculture takes place through private sector contributions. With banks not keen to expand long-term loans to agriculture (2016–17 is an exception to this trend), the private sector faces financial constraints to invest in capital formation.

Within agriculture there are differing growth rates of the subsectors. Growth rates in food grain production have been volatile over the last six years (Figure 4.2). While the growth rates have smartly recovered over the last two years, the negative growth

Table 4.4: GVA and GCF in Agriculture

	2012–13	2013–14	2014–15	2015–16	2016–17 PE
Share of agriculture GVA	18.2	18.6	18	17.5	17.4
Growth in GVA	1.5	5.6	–0.2	0.7	4.9
Share of agriculture in total capital formation	7.6	8.5	7.8	6.9	–
GCF in agriculture as % of GVA in agriculture	16.6	17.7	17.3	16.3	–

Source: Ministry of Agriculture Cooperation & Farmers Welfare, *Agriculture Statistics at a Glance 2016*; *Economic Survey 2016–17*, Vol. II.

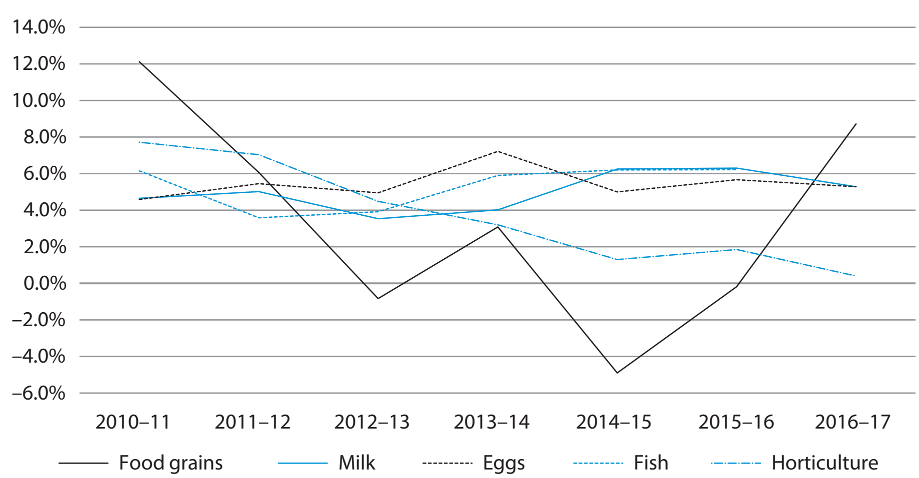

Figure 4.2: Production Growth Rate (%) in Agriculture and Allied Activities

Source: Economic Survey 2016–17, Ministry of Agriculture database, EBook, 2017.

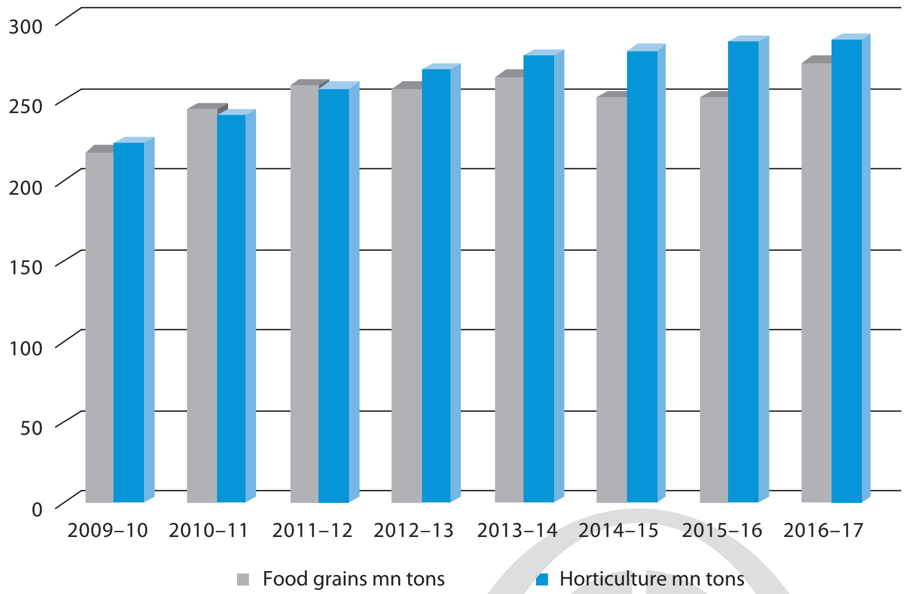

Figure 4.3: Comparison of Food Grains and Horticulture Production

Source: Economic Survey 2016–17, Ministry of Agriculture database, EBook, 2017.

in 2014–15 should cause concern in policy circles. The shift towards horticulture has been sustained and at a decent growth rate. The shift to horticulture (Figure 4.3) seems to be driven by water availability, cost of labour, higher profitability compared to food grains and also shifting consumption patterns. Milk, egg and fish production have been seeing steady growth over the years, reflecting steady conditions in terms of profitability. While food security does not figure as an issue despite the volatility in food grain production, nutrition is an issue and the changing production pattern reflects a decisive movement towards balanced nutrition.

Doubling of Farm Incomes

The discourse in the last two years has shifted to doubling of farmer's incomes. The recognition that farmers do not make enough to sustain their livelihoods has led to a search for ways and means of improving incomes of farmers. An important distinction has been made in the target setting by stating that doubling is not of income only from farming, but incomes of the farmer household, which might have other sources of income too. Farming does not seem to be a profitable proposition going by the data assembled by the Commission for Agricultural Costs and Prices (CACP; Table 4.5). Of the 14 crops for which the CACP has made the analysis of returns, five produce negative returns. Four crops produce less than 10% return. Only five crops produce a decent return. Those growing millets have such low returns that it is surprising that they continue with farming at all. The only gain for farmers in nine low-return crops is their wage labour on their own farms, and return for their enterprise is either negligible or negative.

An analysis of relative rates of growth in incomes of farmers and others was computed by Ramesh Chand and others (Table 4.6). The data clearly shows a worsening of farmers' position over the 28-year period (1984–2012). Non-agricultural workers had much lower incomes than farmers in 1983–84 (about 65% of income of farmers). In 2011–12, non-agricultural workers' incomes were more than three times those of farmers. Farmers' incomes increased by 18.2 times over the 28-year period and non-agricultural workers' incomes increased by 88 times over the

Table 4.5: Gross and Net Incomes from Different Crops (TE 2014–15)

					Gross Returns Over A_2		Gross Returns Over A_2+FL		Net Returns	
Crop	Cost A_2 (₹/ha)	Cost A_2+FL (₹/ha)	Cost C_2 (₹/ha)	GVO (₹/ha)	₹/ha (Col.5–Col.2)	Percent (Col.6/Col.2)×100	₹/ha (Col.5–Col.3)	Percent (Col.8/Col.3)×100	₹/ha (Col.5–Col.4)	Percent (Col.10/Col.4)×100
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A. Cereals										
Paddy	28,039	37,451	53,538	57,803	29,764	106	20,352	54	4,265	8
Maize	21,262	29,858	41,271	41,732	20,470	96	11,874	40	461	1
Jowar	18,818	23,685	32,947	29,474	10,656	57	5,790	24	–3,473	–11
Bajra	11,627	19,589	26,587	25,657	14,031	121	6,068	31	–930	–3
Ragi	23,189	32,690	41,602	33,914	10,724	46	1,223	4	–7,688	–18
B. Pulses										
Arhar (Tur)	21,723	28,546	42,002	48,586	26,864	124	20,041	70	6,585	16
Moong	11,295	16,505	22,321	23,612	12,316	109	7,106	43	1,290	6
Urad	12,048	16,562	24,372	26,863	14,815	123	10,301	62	2,491	10
C. Oilseeds										
Groundnut	35,751	44,157	60,758	66,851	31,099	87	22,693	51	6,092	10
Soyabean	20,408	24,319	34,112	38,147	17,739	87	13,827	57	4,035	12
Sunflower	15,777	19,024	26,027	24,359	8,582	54	5,336	28	–1,668	–6
Sesamum	10,522	16,270	24,655	33,002	22,480	214	16,732	103	8,347	34
Nigerseed	5,944	12,129	16,827	14,670	8,726	147	2,541	21	–2,157	–13
D. Commercial Crop										
Cotton	40,802	50,837	69,664	73,618	32,817	80	22,782	45	3,954	6

Source: Reproduced from *Price Policy for Kharif Crops—The Marketing Season 2017–18*, CACP, MOA, GoI.
Note: Data is for triennium ending 2014–15.

Table 4.6: Comparison of Growth in Incomes of Farmers and Others

Year	Farm Income Per Farmer (₹)	Wage Per Agricultural Labourer (₹)	Income Per Non-agriculture Worker (₹)
1983–84	4,286	1,467	2,786
1987–88	5,653	2,201	18,036
1993–94	12,365	4,784	37,763
1999–2000	24,188	8,938	78,565
2004–05	26,146	10,043	106,688
2011–12	78,264	32,311	246,514
Growth in incomes between 1984 and 2012	18.2	22.02	88.5

Source: Ramesh Chand, Raka Saxena, and Simmi Rana, "Estimates and Analysis of Farm Income in India, 1983–84 to 2011–12," *Economic and Political Weekly* 50, no. 22 (30 May 2015).

same period. It must be added that in the period between 2005 and 2012, there has been narrowing of the gap as farm incomes have moved up faster. However, the gap is still far too large. The agricultural workers, despite having a marginally higher growth rate in their incomes over the period, are at such a low absolute level of income that their prospect of rising above the poverty line seems dim. Unless the cultivators make much more out of farming, farm workers may not improve their incomes, despite the increase in minimum wages that take place from to time.

The large gap between incomes of farm sector practitioners and others has had its impact on the number of people wanting to leave rural areas in search of better paying vocations. The increasing migration rates and urbanisation are a direct consequence of low-income potential of farm-based livelihoods. The context of the move for doubling farmer's incomes is thus twofold; one is to ensure a minimum threshold level of income for those in agriculture so that they are able to meet all their household

Table 4.7: Average Monthly Income from Different Sources and Expenditure for Farm Households

Size Class of Land Possessed (ha)	Income from Wages/ Salary (₹)	Net Receipt from Cultivation (₹)	Net Receipt from Farming of Animals (₹)	Net Receipt from Non-farm Business (₹)	Total Income (₹)	Total Consumption Expenditure (₹)	Net Investment in Productive Assets (₹)	Estd. No. of Agri. Households (00)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
< 0.01	2,902	30	1,181	447	4,561	5,108	55	23,857
0.01–0.40	2,386	687	621	459	4,152	5,401	251	287,381
0.41–1.00	2,011	2,145	629	462	5,247	6,020	540	315,008
1.01–2.00	1,728	4,209	818	593	7,348	6,457	422	154,810
2.01–4.00	1,657	7,359	1,161	554	10,730	7,786	746	83,964
4.01–10.00	2,031	15,243	1,501	861	19,637	10,104	1,975	33,519
10.00 +	1,311	35,685	2,622	1,770	41,388	14,447	6,987	3,499
All sizes	**2,071**	**3,081**	**763**	**512**	**6,426**	**6,223**	**513**	**902,039**

Source: Key Indicators of Land and Livestock, Situation Assessment Survey of Farmers, NSSO Survey 70th Round, 2014.

consumption requirements and the second is to make farm-based livelihood attractive enough that it continues to retain a significant number of people.

A state-wise survey of income situation of farmers was carried out as part of NSSO survey in 2012–13. The survey found (Table 4.7) that the small and marginal farmers' situation was delicately placed. The Committee on Doubling Farmers Income has benchmarked the income level of farmers state-wise (see Annexure 4.1 at the end of this chapter). What is striking is that there had been little increase in income levels in constant prices between 2012–13 and 2015–16 in many states. In Uttar Pradesh, Bihar, Odisha and Manipur, there was actually a decline in incomes over the 4-year period. The income level in Bihar was the lowest at ₹36,300 and was less than 20% of the income in Punjab. Such wide variations across states pose challenges to national effort in doubling of farmers' incomes. According to the committee, the estimated income of small and marginal farmer households in 2015–16 was ₹79,779 at current prices. The large farmers' incomes were almost eight times higher at ₹605,393. When doubling of farmers' incomes is taken up, the need for prioritising the needs and aspirations of small and marginal farmers cannot be overstated. While raising returns to farming will improve the situation all around, as a strategy those actions that impact small and marginal farmers much more should be prioritised.

Between different classes of farmers in terms of land ownership, there were differences in income levels and also avenues of earning income. Marginal farmers holding less than 1 hectare relied more on wage labour than on farming or livestock. Large farmers with 4 hectares or more had income from cropping and livestock. The smaller farmers, owning up to 1 hectare land, comprised 70% of the sample, and their income was less than their consumption expenditure. When 70% farmers are facing income deficit, income enhancement should go beyond doubling to provide life-sustaining support.

The avenues for driving farm income growth are not many: increase in productivity and yield of crops, diversification into other farm-based activities, improving price realisation and pursuing non-farm income opportunities. Ramesh Chand, NITI Aayog, had estimated the possibilities of raising farm incomes through the different avenues (Table 4.8). The estimates that the rates of change to be achieved to realise doubling of farmers' incomes in five years are well above the currently achieved growth rates. While in some aspects the required growth rates

Table 4.8: Required Changes in Different Aspects of Farm Livelihoods for Doubling Farm Incomes

S. No.	Source	Recent Achievements		Required Growth Rate for DFI
		Period	Growth Rate/Change	
1.	Crop productivity (70% segment)	2001–13	3.1	4.1
2.	Livestock value added 30% segment	2005–14	4.5	6.0
3.	Improvement in resource use efficiency	2005–12	2.26	3.0
4.	Crop intensity (70% segment)	2001–12	1 %age	1.3
5.	Crop diversification towards fruits and vegetables (70% segment)	2003–14	3.89	5.17
6.	Better price realisation: Crops	Karnataka experience, Reforms	13% total (in real terms)	17.0
7.	Shift to non—farm occupation	2005–12	1.81	2.4

Source: Excerpted from Ramesh Chand, *Doubling Farmers Income*, NITI Aayog, March 2017.

are achievable, in others the organisation and effort required will be high. Raising crop productivity, improving resource efficiency and shift to non-farm occupation at the rates required might prove difficult. Increasing value addition in livestock sector and diversification to horticulture are easier done, on account of the already existing trend shifts in that direction. Better price realisation is a harder problem. The initial experience in some select pockets has been that with market reforms, famers can realise higher prices for their produce; but the organisation of small farmers in some manner that makes it possible for them to access markets is required. While in the more advanced states in West and South India it is easier to facilitate remunerative markets for farmers, in states in Central and East India the difficulties are of a much higher order.

Issues Affecting Agriculture

Farm sector seems to suffer from incremental problems and this is rapidly eroding confidence among farmers and impacting morale. Weather risks, pest and insect attacks, exploitative relationships with landlords and lenders, inaccessible markets and smallness of size of a large majority of farmers introduce multiple dynamics for farmers to handle season after season. In most of these, the risks are not transferable and are squarely faced by the farmer. Crop insurance to an extent helps mitigate production risks but not the income realisation aspects that depend on the markets.

Smallholdings

The number of small and marginal landholdings increased to 93 million in 2011 from 36 million in 1971. The small and marginal holdings put together constitute 118 million. Smallholdings suffer from lack of ownership records in the hands of the cultivator on account of mutation of land and the failure to get the new names included in revenue records. Smallholdings also typically are cultivated by people on oral lease or tenancy without any legal recourse in the case of problems. The lack of land records denies access to both credit and insurance as it requires land ownership documents to establish eligibility either to borrow or to enrol as part of the crop insurance scheme. Several schemes of the government for small/marginal farmers require that ownership based on land records should be established. In many ways, smallness of holding and lack of ownership records become a tough barrier to access to basic requirements of farming—inputs, credit, markets and technical know-how. The government should, in its schemes for farmers, move away from ownership-based identification to vocation-based identification to ensure that those who cultivate are benefited. The proposed law that will facilitate formal leasing of land is a welcome-step that can help small farmers expand operations to a scale which makes farming viable.

Access to Credit and Insurance

The 2013 situation assessment survey of farms brought out that access to formal credit was very low in the case of small farmers. Those who own less than one acre of land depend predominantly on informal sources. Of marginal landowners, 63% depended on moneylender, shopkeeper, traders or others. Only 37% of marginal farmers could access formal institutions for credit. The Sixth Economic Census found that less than 5% of agricultural enterprises had access to formal credit and more than 90% enterprises were self-financed (meaning that their potential was severely limited by the capacity of the entrepreneur). In contrast, those owning more than 4 acres of land predominantly access formal institution loans and the proportion of such farms accessing loans from banks and cooperative societies was 68%. A further issue with credit availability is the scarcity of long-term funds for investments. Marketing, processing and storage do not get adequate support despite the several schemes formulated by the government. Adequacy of credit to finance agriculture has been a question. As a proportion of GVA in agriculture credit was about 40%, the crop insurance scheme had low coverage and the major reason why the PMFBY was introduced last year was on account of the relative inefficiency of both modified National Agricultural Insurance Scheme and Weather Index Based Scheme. While two crop insurance schemes are operational (a detailed analysis is carried later in the chapter), the insurance products available in the case of livestock, poultry, fisheries, etc., are poor in features and not marketed by the insurers. In the case of the plantation sector (barring coconut for which there is a special scheme) too, insurance products are neither suitable nor adequate.

Water

Roughly 50% of the area cultivating food grains is covered by irrigation. The rest of the area is dependent on other rain-based sources. The efficiency of water use in agriculture is a continuing concern. Those areas which have a reliable irrigation source do not want to make any incremental investment on farm in the form of drip- or sprinkler-based water use optimising solutions. These investments are seen as a net outflow from the farm household without commensurate benefits. However, studies show that the water use efficiency of conventional flow irrigation methods are between 30% and 50%. In the case of micro-irrigation, the water use efficiency is 80–95%. The cost of irrigation declines by about 30% when micro-irrigation is adopted. Further, with micro-irrigation, fertiliser use also declines by 28%. There is a clear economic logic for investing in micro-irrigation in all farms regardless of the source from which the farms access their water. The investment cost of micro-irrigation can be recovered with reduced cost of cultivation and better and more assured productivity (Figure 4.4). Hence, the government's focus on micro-irrigation is well taken.

The governments would do much better to set up micro-irrigation targets on a mission mode and ensure that state-wise the adoption of micro-irrigation practices is accelerated. In fact, farmers could be influenced in two different ways for adoption of micro-irrigation. The first is to incentivise adoption by providing facile access to credit and insurance and reducing the cost investment by a small percentage. The other option is also to disincentivise those who do not shift to micro-irrigation, especially in areas with assured irrigation. The denial of credit access or making credit access more expensive through denial of the government subsidies on credit availed by them can prove to be a decisive nudge towards micro-irrigation investments in irrigated areas. Governments (Box 4.2) need to signal that micro-irrigation adoption is a

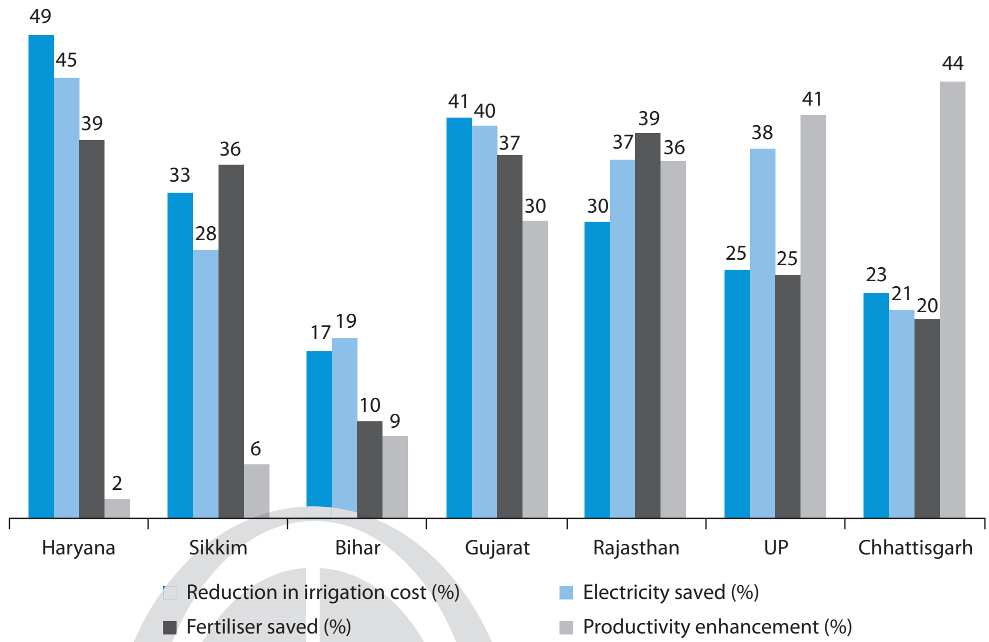

Figure 4.4: Benefits from Adoption of Drip Irrigation

Source: Cited from Impact Evaluation Study of Micro-irrigation by National Mission on Micro-irrigation, June 2014.

Box 4.2: *Promoting Drip Irrigation in Irrigated Lands—Maharashtra Method*

The Government of Maharashtra has decided to bring sugarcane cultivation spread across 10 lakh hectares of land under micro-irrigation in the next three to five years. It has made it mandatory for the sugarcane farmers to adopt drip irrigation. It has also decided that sugarcane crop will not be allowed to be cultivated if fields do not have drip irrigation facility.

To promote drip irrigation, the state has provided financial subsidies. Another initiative is to extend the micro-irrigation technology to the horticulture sector and high water intensive crops such as bananas, grapes and sugarcane.

By making farmers cultivating sugarcane crop switch over to drip irrigation, the state plans to conserve an estimated 7,000–12,500 cubic meter per hectares water. The government will borrow a long-term loan from National Agricultural Bank and Rural Development (NABARD) and it will be distributed in a cycle through state cooperative bank (Apex Bank) to District Central Cooperative (DCC) banks and then to farmers.

Source: "Maharashtra's Irrigation Potential Can Go up 56%," Newspaper report appearing in *Indian Express*, 20 August 2017.

clear priority in the light of the importance attached to irrigation efficiency and the need for producing more crop per drop.

Soil and Fertilisers

The quality of soil has rightly been taken up by government as an area of concern. The government has embarked on a large programme of introducing soil health cards and getting soil testing done in order to identify the imbalance of nutrients in the soil. However, beyond testing and issuing a soil health card, the arrangements required to deliver micro-nutrients and ensure that cropping which will take advantage of the understanding of soil health is in place. Imbalance in the use of fertilisers and flow irrigation have been causes of deterioration of soil fertility. The spreading of literacy and awareness among farmers on what fertilisers they use and making fertilisers available to farmers in a manner that does not artificially incentivise skewed application of fertiliser is necessary.

Fertiliser subsidy has been a key determinant of the way farmers use fertilisers. The subsidy which has been traditionally provided by the GoI to fertiliser companies is based on the cost of production of the companies. Thus, fertiliser companies with higher cost of production receive greater subsidies and this reduces the incentives for companies to rationalise and optimise their cost of production. Last year, a committee had suggested that the current fertiliser subsidy system should be dismantled and cash transfer should made to farmers' accounts by the government enabling them to purchase the fertiliser from the market as per their choice. This has the potential of reducing current skew in fertiliser usage. The nation-wide movement towards organic farming methods and the attention to production of organic fertiliser is a welcome one. Regardless of whether farmers cultivate certified organic produce, use of organic manure has to be encouraged as it improves the quality and fertility of soil, increases water and moisture retention capacity and has a beneficial impact. Large-scale use of organic inputs will help India meet its Intended Nationally Determined Contributions on climate change.

Seeds

Access to quality seeds has also been an integral part of the problem of production and productivity. Mostly, farm-saved seeds form about 65%–70% of total seed consumption in the country. Commercially produced certified seeds and genetically modified hybridised seeds are also in the market. Thirty to thirty-five per cent of seeds used are produced and sold by public and private sector companies. The remainder of the seeds are hand seeds produced on farm or by neighbours, friends and relatives. High-yielding varieties of quality seeds are available in the market, but cost of these varieties is far too high for risky marginal and small farm holding to buy and cultivate. The disincentives stem from the riskiness of the farming and the high outlays that are necessary both for buying the seed and also in the package of practices for cultivating the same. The genetically modified cotton seed (BT Cotton seed) after its introduction has led to a significant increase in productivity. However, there are also locations in which farmers have moved away from BT cotton after a few years of use as the risks of failure are not easily absorbed in small farms under rain-fed conditions. Low External Input Sustainable Agriculture (LEISA) practises focus on reducing cost of inputs, optimising resource use and increasing the returns per unit of investment in cropping. Production, storage, certification and distribution are all critical aspects of a good seed distribution system which is necessary to achieve a decent seed replacement rate and ensure that farmers clearly distinguish between ordinary grain and seed material.

Post-harvest and Marketing

Of the problems faced by the farmers, the post-harvest aspects have assumed centre stage in the last decade or so. With farming transiting from subsistence to market-oriented production systems, farmers' sustainability essentially depends on their ability to realise market prices. In the post-harvest stage, avoidance of crop losses, avoidance of wastage and increasing the shelf life under conditions of certainty are priorities. The non-availability of storage near the farms and specialised facilities for perishable crops do impact the farmer's willingness to grow those kinds of crops. Apart from the shelf life and wastages that occur, the pressure to sell produce immediately after harvest is also high because of the risks involved in storage. While for a number of crops, MSP-backed public procurement takes place, there are a larger number of crops for which no such procurement takes place. Here, the farmer is left to his/her own devices for marketing and realisation of the price. Despite MSPs being announced well in time and backed by procurement, it had been difficult for farmers to realise the MSP. In effect, the MSP has turned

Box 4.3: *Conclusions from a Study of MSP Implementation*

It was found that the MSP has succeeded in providing floor rate for major food grains such as paddy and wheat and other produces such as Gram (black & green), spices and oilseeds (groundnut, mustard, til), sugarcane, jute and cotton, and it did not allow market prices to fall below the MSP fixed for them. The data collected from the respondents revealed that the MSP has been playing a critical role in stabilising market prices in addition to helping the beneficiaries in adoption of modern technologies in farming. However, many farmers continue to sell their produce in the open market to get better returns. Certain problems noticed in the implementation of MSP were: the procurement centres being far away resulting into heavy transportation cost, non-opening of procurement centres timely, the authorities insisting for revenue records, lack of covered storage/godowns facility for temporary storage of produces, lack of electronic weighing equipment in some places, delays in payments, etc. Further, the instances of farmers coming to know about the MSP after they have sown their farms, and thus depriving them of any planning for their crops keeping in view the MSP, was quite common. It was also found that sometimes, the small and marginal farmers resorted to distress sales due to urgent need for money or to repay the loan taken before the sowing season. Some also pointed out that the MSP fixed was too low as it did not cover the rising farming costs. The government needs to look into these issues for their appropriate redressal.

Source: Evaluation Report on Efficacy of MSP on Farmers, January 2016, PEO Report No. 231, NITI Aayog, GoI.

out to be a ceiling rather than a floor. The market prices tend to remain at levels lower than the MSP, and in centres where no public procurement takes place, the prices are much lower and sometimes unremunerative. The implementation of MSP-backed procurement was studied by NITI Aayog last year and suggestions were made (Box 4.3). It is hoped that overtime these suggestions would be implemented. The last year's problems in arhar is a case in point. Because of the shortage of arhar, a number of farmers took up cultivation of arhar last year. In Madhya Pradesh and in Maharashtra, several farmers took a clue from the MSP announced for arhar for the season. But at the time of harvest, there was a glut in the market on account of the bounteous nature of production. The glut in the market reduced the general price level, and the government was not in a position to procure all the produce at the promised price. Several farmers lost heavily despite having posted excellent productivity on their farm. The same situation prevails even in respect of crops where no MSP is announced. Onion and tomato farmers have been impacted adversely many number of times in last about 10 years. Hence, in an agricultural economy turning towards the market, there is a need to ensure that farmers are organised and are provided adequate guidance to make use of the market mechanisms for securing a better price.

Last year, the GoI announced reform of agricultural marketing and introduction of National Agriculture Markets. The government also proposed that the states should exempt the marketing of vegetables and fruits from APMC regulations prevailing in the state. However, only four state have completely exempted fruits and vegetables from APMC regulation. As far as taxation is concerned, there were at least eight states in which the tax on agriculture commodities was in excess of 5%. Only 13 states, namely, Gujarat, Haryana, Madhya Pradesh, Telangana, Uttar Pradesh and Rajasthan, have actually designated markets under the National Agricultural Market Scheme. Thus, the initiative of the GoI is yet to fully influence the state governments' policy on regulating marketing of agricultural produce.

Doubling of farm income has now been replaced by a goal of doubling of farmers' income. This recognises that a farmer has income from sources other than farming.

The larger the landholding the better the category of the farmer, the more is the proportion of income coming from other sources. The several measures that target the doubling have been:

1. improve productivity
2. reduce cost of cultivation through optimal use of resources
3. increasing efficiency of use of water
4. invest in farmer's organisation that can aggregate both input supply and output marketing
5. to improve access to market through enabling conditions such as rationalise market cess, lower rates of taxes on produce and easier processes and market practices that will introduce transparency
6. to enable better price discovery and movement across the country in order that farmers are able to find the best possible prices for their produce.

However, the smallest of farms are unlikely to be able to benefit from the agriculture market-related reforms that are taking place. The investments in farmer organisations and enabling farmers to become members of fully functional well-governed cooperatives or producer companies will go a long way in improving market access for farmers. Individual farmers and small farms will never be able to compete in markets on equal terms. The entry barriers for small farmers are twofold—small volumes entailing high transaction costs and low human capacity lead to lack of confidence. Hence, the investments that are currently being made in FPOs (covered separately in Chapter 7) should be optimised to ensure that small farmers benefit through these structures.

Terms of trade (TOT) in agriculture is a measure frequently used to assess whether farming livelihoods are better off relative to others. The TOT calculations (Figure 4.5) show that while there have been improvements in the recent past, on some

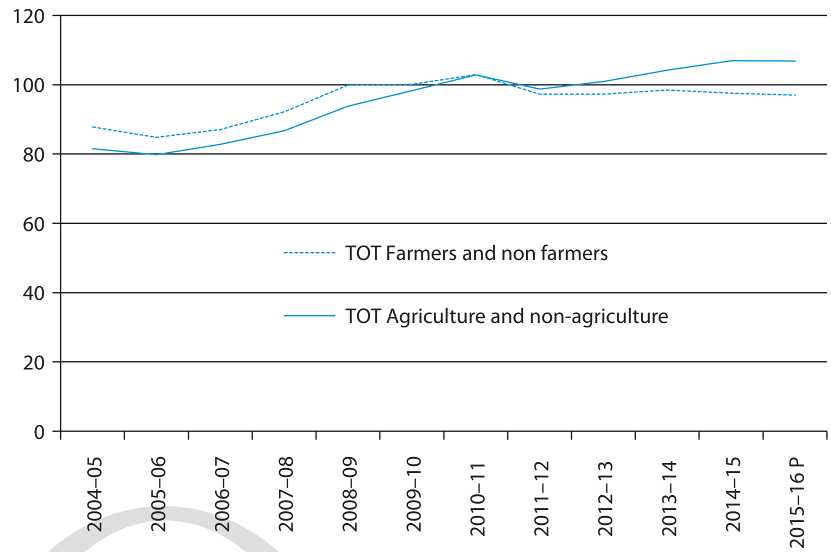

Figure 4.5: TOT in Agriculture

Source: Agricultural statistics at a glance different years, Ministry of Agriculture.

measurements, agriculture is still at a disadvantage. Farmers as a group come worse off when compared with non-farmers in prices paid and received, and the TOT index is still below 100 which is the par value. Barring a two-year period between 2009 and 2011, the TOT for farmers vis-à-vis non-farmers had remained below 100. The other index that examines the relative position between agriculture and non-agriculture sectors shows that the Terms have improved in favour of agriculture, especially in the last four years after it crossed 100 in 2012–13. The recent changes in TOT in favour of farmers is a welcome development and significant in the context of the move towards improving farmers' incomes.

The government has drafted a new model Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017, which was released on 24 April 2017 for adoption by the states through legislation of their respective Acts. The model Act seeks to facilitate free flow of agricultural produce including livestock, provide a direct interface of farmers with the buyers and consumers, and create a barrier-free single market in the country. The Act provides the options of alternate markets beyond the existing APMC-regulated market yards including private markets, direct marketing, farmer–consumer markets, special commodity markets, declaring warehouses/silos/cold storages or such structures as market sub yards and Market Yards of National Importance (MNI) so as to reduce the number of intermediaries between the producer and buyer and increase the share of the farmer in consumer's rupee. The important features of the model Act are:

- *Market committee:* A market committee will manage market yards in a specified area, and is responsible for (a) regulating the auction of agricultural produce and livestock, and (b) providing facilities for marketing of agricultural produce and livestock. The committee may also link consumers with farmers through digital technology and manage these market yards through PPPs.
- *Setting up of private market yards:* Apart from market yards managed by the market committees, private market yards may be set up by private individuals to facilitate operations of traders and commission agents. These can also include farmer–consumer market yards, which provide infrastructure accessible to farmers and consumers directly.
- *Single-point levy of market fee:* The market committee shall levy a market fee from a buyer on sale of notified agricultural produce and livestock. This fee cannot exceed 2% ad valorem on transacted produce in the case of non-perishable agricultural produce and 1% ad valorem in the case of perishable agricultural produce and livestock.

Of the more than 6,615 regulated market yards in the country, about 455 have been designated as eNAM markets (Table 4.9). While 13 states have started participating in the eNAM initiative, a number of large states such as Tamil Nadu, Punjab, Bihar and Kerala are yet to make an entry.

Table 4.9: eNAM Linkage of Markets

States	No. of Markets Linked with eNAM
Andhra Pradesh	22
Chhattisgarh	14
Gujarat	40
Haryana	54
Himachal Pradesh	19
Jharkhand	19
Madhya Pradesh	58
Maharashtra	45
Odisha	10
Rajasthan	25
Telangana	44
Uttar Pradesh	100
Uttarakhand	5
Total	455

Source: Reply to Lok Sabha Question 303 on 18 July 2017.

Though there is an agreement between the Centre and states on market reform policies, the reality of implementation of reform measures on the ground is different (Box 4.4). Punjab, Haryana and Maharashtra are reluctant to allow traders from outside the state to bid online. Madhya Pradesh allowed only one of its 546 mandis to be linked to markets in other states. Haryana has permitted only safflower, a minor rabi crop, to be traded through eNAM. Moreover, eNAM facility itself is available only at the mandis. To be able to avail the benefits of eNAM, farmers have to visit a mandi that is designated as part of eNAM to do online trading. If physical access to a specific brick and mortar structure is required to buy and sell online, purpose of digitising the trading process should be questioned.

There are some interesting and positive developments taking place in the marketing front. FPOs, cooperatives and groups of farmers have been able to take advantage of commodity exchanges for hedging their price risk and realising assured prices for their produce.

Samriddhi Mahila Crop Production Co. Ltd, a farmer-producer organization (FPO) for

Box 4.4: *The Ground Reality of eNAM—Tale of Two Extremes*

Karnataka: More than 14 lakh farmers have registered on the Unified Market Platform (UMP) and have been benefited from a sharp rise in prices of commodities owing to the introduction of online trading in 107 agricultural produce marketing committees (APMCs) across the state. The UMP through the Rashtriya e-Market Services (ReMS), a joint venture of the state and NCDEX Spot Exchange Ltd., has addressed the concerns of small and marginal farmers, who hitherto struggled for a better price. UMP had contributed to the significant rise in prices of copra, groundnut, tur, turmeric, Bengal gram, areca nut, dry chilli and green gram. Prices of some commodities increased by more than 50% in 2015 compared with the previous year. For instance, the average price of copra increased from ₹5,401 a quintal in 2013 to ₹12,936 a quintal in 2015 in the Tiptur market (rise of 139%), while it moved from ₹5,178 a quintal in 2013 to ₹11,169 (116%) in 2015 in the Arsikere market of Hassan district. CEO, ReMS, said, till date, 130 million quintals of commodities worth $ 2.5 billon had been traded online.

Maharashtra: Pune-based Maharashtra Farmers Producing Companies Consortium (MAHAFPC)—an association of farmers and their companies—wanted to sell 8,000 tonnes of chickpea (chana dal) through eNAM. When Kiran Dumbre of MAHAFPC contacted eNAM headquarters in Delhi to know the procedure, he was advised to contact the nearest APMC for registering the produce. As Pune APMC, the nearest market linked to eNAM, only traded jaggery online, Kiran was referred to Latur APMC, which is 300 km from Pune. Latur market officials told him that their online portal would display the produce only when the consignment enters their market premise. The ordeal did not end there. When MAHAFPC's truck reached Latur mandi, Kiran was asked to participate in spot trading. Precisely at this stage, traders and mandi officials try to eat into farmers' earning by deliberately keeping prices low, knowing that the farmers who have come to the market have already spent enough on the transportation of their produce. Kiran did not get a fair price for the produce. "I was asked to first participate in spot trading. Being unhappy with the price, I registered online, but we didn't get the price we were looking for," says Kiran. Later, MAHAFPC decided to sell the produce to Nagpur-based traders, some 450 km from Latur. Thus, it travelled 750 km to sell its produce. A farmer would not have even pursued this long as he doesn't have the knowledge and resources at his disposal.

Sources: The Karnataka example is from a report in *The Hindu*, "Karnataka's Farmers Reaping Benefits of Online Commodity Trading," dated 11 April 2016; The Maharashtra example is from the article "The Minuscule System of Pricing," from *Down to Earth*, dated 15 July 2017.

women in Bundi district of Rajasthan with 2,300 members, used the futures market to sell produce at prices that were higher than what wholesale markets offered two months later. In September, it sold 100 quintals of soyabean on the NCDEX (National Commodities and Derivatives Exchange) futures platform at ₹3,300 per quintal. By November, when markets were flooded with soyabean following a record crop, prices had fallen to ₹3,000 per quintal—and the FPO made a tidy profit of ₹30,000. This was a revelation for farmers like Savitri Goad, chairperson of the FPO. "We did not know that a standing crop can be sold at a price decided by us even before the harvest," she said. The experience prompted the group to take more positions: Since January, the FPO has sold 400 quintals of mustard on NCDEX for delivery in April, at ₹3,900 per quintal. The current mandi or spot price for mustard is ₹3,500 per quintal and a record harvest means prices may dip further. According to NCDEX, over 25,000 small and marginal farmers from 13 FPOs have successfully hedged their crops on its trading platform in the past 10 months.[1]

Given this positive experience of eNAM in Karnataka and of NCDEX in Rajasthan, one can hope that in future, price discovery and remunerative price realisation would become possible for farmers. The

[1] Bera, "Farmers Are Using Futures Contracts to Counter Price Risks."

only caveat perhaps is that farmers need to organise themselves into groups and organisations in order to generate volumes and find the necessary expert linkages to approach these platforms.

Financing Agriculture

RBI, in its annual report, pointed out that overall targets for agricultural credit was exceeded by banks, though Cooperative Banks, and Regional Rural Banks (RRBs) did not meet their respective targets (Table 4.10). Commercial banks overachieved their targets by 28% during the year. The government has fixed a target for agricultural credit flow at ₹10,000 billion. This target is underwhelming as it is below the already achieved level of ₹10,658 billion by March 2017.

Credit growth to agriculture has been impressive at the aggregate level for more than 10 years (Figure 4.6). However, seen as proportion of GVA in agriculture (agricultural GDP) the increase in credit is marginal (Figure 4.7). Credit should support production, investment and marketing activities in

Table 4.10: Credit Flow to Agriculture from the Banking System

Year	Commercial Banks	Cooperative Banks	RRBs	Total ₹ Billion
2015–16	6,430	1,533	1,193	9,155
2016–17	7,998	1,428	1,232	10,658

Source: RBI Annual Report 2016–17.

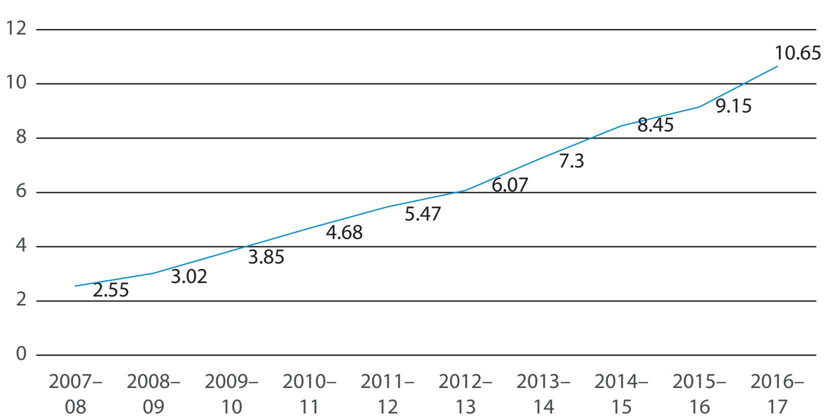

Figure 4.6: Credit Flow to Agriculture over Last 10 Years

Source: NABARD Annual Report 2016–17.

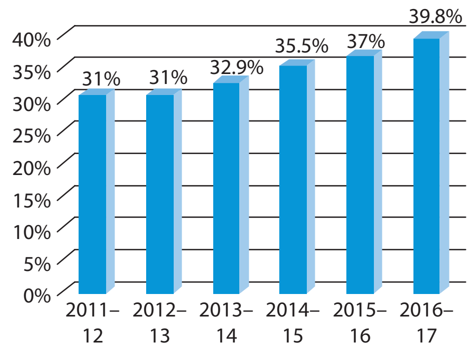

Figure 4.7: Credit Flow to Agriculture as a Proportion of Agriculture GDP

Source: NABARD Annual Report 2016–17.

agriculture in order to make a difference to millions of livelihoods. The credit support should be aligned to the real sector developments and potential to generate incomes and sustain livelihoods.

Agricultural credit by the banking system in India has, in many ways, been better than other emerging market economies. The priority sector mandate, government intervention and persuasion from time to time in the form of special campaigns, interest subsidies and banking reforms have been helpful. Despite the large presence of banking in rural areas compared to the position seven years back, credit is still not reaching several needy farm households. The last Situation Assessment Survey of Farmers (2012–13) and VI Economic Census (2013–14) confirmed that 48% farm households do not access credit from a formal banking system and less than 5% of agricultural enterprises access loans from formal sources. The informal institutions in agricultural finance have proved resilient and have actually posted a marginal improvement in market share between 2002 and 2013. Some changes to institutional landscape helped farm households. The emergence of MFIs helped very small farmers, especially women, access credit for tiny farming activities. MFIs report that about a third of their loans are for agricultural purposes. But cooperative banks, despite reforms, and RRBs, despite consolidation, have not been able to break out of their conventional banking mindset

Table 4.11: Banking Presence and Kisan Credit Cards

	2010	2016	2017
Banking outlets	67,694	586,307	598,093
KCC issued (million)	24	47	46
Credit sanction under KCC (billion)	1,240	5,131	5,805
Average loan per KCC	51,700	109,170	126,195
% of Agri loans under KCC	32.2	56.1	54.5

Source: Data from RBI Annual Report; calculations by the authors.

and improve agricultural lending despite having the best presence in rural areas.

Banking presence in the rural areas has expanded exponentially over the last seven years. Almost 6 lakh villages have a banking presence including business correspondents (Table 4.11). The number of kisan credit cards (KCCs) issued has almost doubled. Credit sanctioned under KCC has increased by more than three times. The average loan per KCC has more than doubled. Banks are disbursing more of agricultural credit through KCC, indicating that customers do not get customised credit products, but a KCC with a fungible credit limit that can be applied (at times misapplied) at their discretion. The push towards large ticket size and a hassle-free credit product in the shape of KCC is visible from the data. Farmers with complex and small credit needs would not be too welcome in such a situation.

The question is "who are these farmers that are unable to access bank credit?" Typically, these are marginal farmers and lease-land cultivators, operating poor quality soils and under rain-fed conditions. The programme of doubling farmers' incomes should target these farmers more than others as these are the most vulnerable; hence, credit access for these farmers should be prioritised. The banking system, with a still large public sector presence is fully aware of the requirements of small farmers, but it is not in a position to respond to their needs in an effective manner. Large banks and small loans go ill together.

The policy establishment in GoI, RBI and NABARD should recognise that banks will not be able to directly finance small loans in far-flung areas of the country. Banks have additional problems of not being able to flexibly structure loans or alter terms of a loan once sanctioned, despite changes in agricultural prospects necessitating change. The domain expertise in agricultural lending built up over two decades from the mid-1970s has been lost in banks. The understanding of cash flows in agricultural operations of different crops is too low today in banks. This discourages banks from giving freedom to staff in branches to customise loans in accordance with needs. Loan templates guide about type, size, duration and repayment instalments; borrowers' context and their needs are no more a factor in loan structures. Other alternatives for serving the small requirements should be broached. MFIs have been able to finance petty trade, business and urban livelihoods reasonably well and cover more than 40 million customers. Similar intermediate institutional architecture in the case of agricultural loans is necessary. There are NBFCs in agricultural finance—most of which are engaged in farm machinery and a few in input supply. Financing the farmer for cropping, investments and marketing is still not mainline business for NBFCs, barring a handful.

Similarly, the FPOs that are being set up all over the country can become intermediaries between banks and their members. FPOs can take bulk loans from banks and provide credit to their members. This avoids the hassle of small loans in the banks' hands, entrusts FPOs with the resources to meet members' needs and builds bonds between members and their organisation and imparts much needed flexibility to the products and processes in credit which can be creatively used by willing FPOs. Nimble-footed players that can serve customer at the doorstep take risk calls and charge a reasonable rate of interest might be able to serve the cause of farmers better. Well-functioning cooperative societies in different parts of the country also prove the point that small institutions can make a difference. To fulfil the needs of small and marginal farmers, we need to revisit the institutional architecture and encourage private sector and community-based organisations to play a role.

The critical gaps in agriculture are that small loans are ignored; post-production needs for aggregation, processing, marketing are not financed in the hands of farmers or their organisations. Financing of trade for dealing with agricultural commodities does take place, but this deprives the farmers of the possibility of increasing their incomes. Facilities for storage, especially of perishables, value addition facilities and transport logistics in the rural areas, which are the source of commodities, are in short supply. These also should be financed. Investments in productivity and value chain infrastructure are also a dire requirement. The Committee on Doubling Farmers' Income set up by GoI has estimated that by 2022, additional investments (see Annexure 4.3 at the end of this chapter) of the order of ₹5,869 billion are required in agriculture, from both private sector and public sector. The investment requirements in 2011–12 prices are double that of the 2004–5 levels. Private investments need to grow at an annual rate of 8% and reach a level of ₹1,400 billion by 2022 in order for farmers' incomes to double. Public investments of the order of ₹10,300 billion will be required during the same time.

Interest rates have been made a core concern in the debate on credit access. While lower interest costs might support the farmer to a certain extent, higher income that can absorb higher costs of any kind would be a superior goal to aspire for. Interest subvention scheme cost ₹13,600 crore last year, and in the current year, allocation of ₹15,000 crore has been made. Incidentally, the crop insurance allocation last year was raised to ₹13,240 crores and the current year's allocation is kept at ₹9,000 crores. In terms to providing succour at the time of need, the crop insurance has a much better impact and does not distinguish between those who got a loan from a bank and those who got it from other sources. In terms of beneficial impact, the crop insurance scheme is equitable. The government could think of scrapping the interest subvention scheme, which leads to arbitraging on interest rates and diversion of credit resources, and use the funds for either market intervention or increasing crop insurance coverage.

Loan waivers have been the bane of the banking system. The recent spate of waiver announcements and competitive demands from several states have dented the banks' willingness to lend. The waivers cut at the root of credit discipline, make agricultural lending uncertain and make banks take unprecedented precautions to secure loans, ration out funds and deny access where they have the slightest concerns about the customer. Governor, RBI, had pointed out,

> Impact of any loan waiver is on the balance sheet of lending institutions, be they formal or informal. This is inherent in the inevitable lags, in the timing of impact and the arrival of compensation from the government. In this interregnum, the quality of assets deteriorates and bridge provisions crowd out new loans. In the second round, loan waivers impact the state of public finances in the form of higher than budgeted revenue expenditure. Even if the loan waiver is accommodated within budgetary provisions, it will force cutbacks in other heads of expenditure. Experience has shown that the most vulnerable category is capital expenditure. In turn, this will entail deterioration in the quality of expenditure and inter alia lead to adverse implications for productivity as asset forming investment, including for the sector itself—for example, irrigation works, cold storage chains, etc.—is foregone.... From a policy perspective, what needs to be done to move away from palliatives in the form of debt relief and into a more fundamental solution that enhances welfare all around? Many elements of this optimal approach are well known—crop insurance, infrastructure, irrigation, technology-enabled productivity improvements, and opening up the farm economy to market forces and open trade. The Government's initiative to establish a nation-wide market for agricultural produce, through eNAM, the PMFBY, the Pradhan Mantri Krishi Sinchai Yojana, the Paramparagat Krishi Vikas Yojana and the national drive towards financial inclusion for all are important initiatives in this direction.

In a scenario where banks are already hesitant to lend small amounts to agriculture, loan waivers are the least welcome development. Again, from an equity point of view, the most vulnerable farmers who for want of access to banks have borrowed at 20–60% rate of interest from private sources do not have any such relief from loan repayment. Those who borrowed at low rates of interest (zero to 7% depending on the state) from banks, get the benefit of waiver, making it an exercise that is inequitable. If the government is serious on doubling of farmers' incomes, unhindered credit flow to the agriculture sector should be ensured. Credit flow will be impaired if waivers are demanded and provided from time to time. Some serious thinking at policy and strategy levels is required on what measures are appropriate in the financial sector.

Farm Insurance

The newly introduced farm insurance scheme PMFBY has achieved incremental coverage in an impressive manner. The scheme covers the following risks:

1. *Prevented sowing/planting risks:* The insured area is prevented from sowing/planting due to deficit rainfall or adverse seasonal conditions (loss assessed at the individual unit [IU] level).
2. *Loss to standing crop (sowing to harvesting):* Comprehensive risk insurance is provided to cover yield losses due to non-preventable risks, that is, drought, dry spells, flood, inundation, pests and diseases, landslides, natural fire and lightening, storms, hailstorms, cyclones, typhoons, tempests, hurricanes and tornadoes (loss assessed at the IU level).
3. *Post-harvest losses (up to a period of 14 days):* Coverage is available for up to a maximum of two weeks from harvesting for crops eligible for drying in cut and spread condition in the field against specific perils of cyclone and cyclonic rains and unseasonal rains after harvesting (loss assessed at the individual farmer level).
4. *Localised calamities:* Loss/damage from the occurrence of identified localised risks of hailstorms, landslides or inundation affecting isolated farms in the notified area (loss assessed at the individual farmer level).

Between kharif 2015 and 2016, PMFBY has registered a 30% increase in the number of farmers insured and 16% in area insured. During kharif 2016, the sum insured per hectare of land had increased by 68% with insured value of ₹34,370. More small farmers seem to be taking insurance coverage under the scheme. Apart from the PMFBY, the weather index-based insurance scheme continued to be in operation. While three schemes—MNAIS, WBCIS and PMFBY—were operational in 2014–15 and 2015–16, from 2016–17 only PMFBY and WBCIS are in operation. Despite the progress made so far by different insurance schemes, the coverage is still way below the requirements. In 2014–15, 22% of gross cropped area was covered under insurance and this increased to 27% and 29%, respectively, in 2015–16 and 2016–17 (Figure 4.8). The sum insured ideally should relate to the agricultural GDP that reflects the value of production. In the

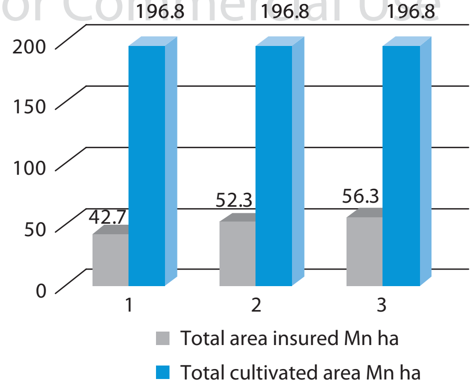

Figure 4.8: Crop Insurance yet to Become Mainstream

Source: Answer to Rajya Sabha question 2274 on 4 August 2017.

Note: Area cultivated data from Landuse Statistics from Ministry of Agriculture database. Chart by authors. Area cultivated has been taken as the average of last five years (for which data is available) gross cropped area (2010–11 to 2015–17).

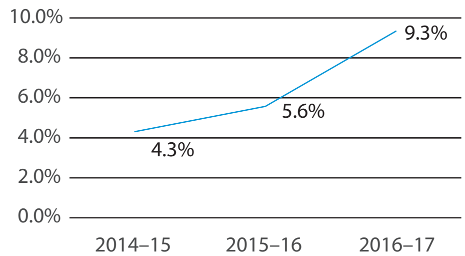

Figure 4.9: Amount Insured as Percentage of Agri GDP

Source: Answer to Rajya Sabha question 2274 on 4 August 2017.

last three years, the sum insured under all crop insurance schemes has been increasing, but is still below 10% of value added by agriculture (Figure 4.9). Insuring production risks to the extent of 10% of value cannot be reckoned as a satisfactory level of risk mitigation.

Recognising the importance of increasing coverage, government is aiming to bring 40% of gross sown area of about 195 million hectare under crop insurance schemes in 2017–18 season beginning July. One of the criticism of the PMFBY was that it ignored those who did not borrow from a bank for cropping while compulsorily covering loanee farmers from banks. In kharif 2016, 28% of insured farmers were non-loanee farmers, which implied that farmers had adequate information about the scheme and they sought out the insurance policies actively. While PMFBY is gaining increasing acceptance, there are shortcomings that have to be dealt with in the future. The states have to notify the crops for coverage. At times, all important crops are not notified, and there are delays in notification. The insurable value of the crop allowed is often well below the cost of cultivation, rendering the risk mitigation function grossly inadequate. The premium rates in some crops and states have been felt to be very high (though farmers pay a subsidised premium, the government pays out the difference to the insurer). Settlement of claims are delayed in some states with insurance companies and state

Table 4.12: Claim Settlement Performance (₹ Crores)

	Claims Made	Claims Paid	Claims Pending	Claims Pending (%)
2014–15	43009.49	36835.06	6174.44	14.4
2015–16	21519.37	19765.40	1753.97	8.2
2016–17	7431.65	5210.26	2221.39	29.9

Source: Answer to Rajya Sabha question 2274 on 4 August 2017.

governments blaming each other for the delays. Comptroller and Auditor General (CAG) audited the working of the insurance schemes and came out with their findings and suggestions. The CAG[2] noted that the number of farmers covered under the scheme was low when compared to the population of farmers as per Census 2011. Share of farmers covered under all schemes ranged between 8% and 22% of the total farmers, between kharif and rabi crop from 2011 to 2016.

Claim settlements were getting delayed in many states (Table 4.12). Of claims made under the three different crop insurance schemes in 2014–15, 14.4% are yet to be settled. The higher pendency for 2016–17 is understandable as the rabi season final production data might not have been received yet.

Insurers face difficulties with data on crop cutting and also the diligence with which the crop losses are assessed. Some of the states where crop insurers are having a tough time in claim settlements include Gujarat, Karnataka, Rajasthan, West Bengal and Tamil Nadu. The crux of the problem lies in the crop cutting experiment (CCE) data, which forms a key element of claim settlement in the new scheme. While in some cases, the experiments were not conducted on the date intimated to the insurers, in others, data presented by the state government did not match ground realities. For example, in Gujarat, despite a bumper production of groundnut, the claim ratio, as

[2] CAG, "Performance of Agriculture Crop Insurance Schemes," Report No. 7.

determined by the state government during the last kharif season, has been as high as 200%. With insurers reluctant to pay claims based on unscientific and flawed CCE, the technical advisory committee has come to the conclusion that only 50% weight should be given to the CCE done by the state government, the rest of the assessment should be based on other parameters like past experience in similar weather conditions. Such a decision by the technical committee throws out the basis for settlement of claims that are to be based on factually recorded production. At the same time, if the state government does not carry out the job diligently and as a result causes unjustified losses to the insurer, then the scheme will eventually collapse.

The CAG in its report on the crop insurance scheme noted that data on beneficiary farmers was not maintained by the AIC, and the central and state governments. The CAG observed delays in: (a) the issue of notifications of crops and area covered and receipt of yield data by the states, (b) processing of claims by the implementing agencies and (c) receipt of declaration and disbursements of claims from banks. AIC failed to verify the claims submitted by the private insurance companies before releasing funds under the MNAIS and the WBCIS. The monitoring of schemes by the implementing agencies and the central and state governments was poor. The CAG observed that a technical support unit to monitor the scheme was not set up. Further, periodic appraisal reports of the schemes were not prepared by the Department of Agriculture Cooperation and Farmers' Welfare. The CAG recommended that the central and state governments need to ensure that the schemes are monitored at all levels.

There has been ill-informed criticism that insurers make huge profits in the scheme. If entire premium collected each year is paid out, then the insurers would be left with no recourse to pay up in following years in the case of extreme production risks. The insurer works on the principle that over a period, the claims would be paid out with the aggregate premium received and the surpluses of one year would be available in the following year to meet unforeseen liabilities. The criticism of profiteering seems to ignore the fundamental character of insurance as a business.

Centre for Science and Environment carried out a study[3] of the crop insurance scheme. While the study of the improved design features of the scheme, it had pointed out several lacunae and offered suggestions for refinement:

- There was no occasion when claims due to prevented sowing and post-harvest losses had been paid under MNAIS. The experience was the same during kharif 2016 in PMFBY.
- Most states (excluding states such as Haryana) have not mentioned threshold yield in the state notification.
- Sum insured was lower than the scale of finance (Table 4.13).
- States did not include important crops in the list of notified major crops.
- State government did not pay subsidy on time.
- Negligible coverage of sharecropper and tenant farmers was taking place. The percentage of non-loanee farmers availing insurance remained less than 5% during kharif 2016 and kharif 2015.

Table 4.13: Inadequacy of Crop Value Insured

Crop	Scale of Finance as per DLTC Meeting (₹/ha)	Sum Insured (₹/ha) as per Rajasthan State PMFBY Notification	Sum Insured as a Percentage of Scale of Finance (%)
Soyabean	50,000	16,539	33
Paddy	65,000	17,096	26
Urad	30,000	21,750	72.5
Maize	40,000	26,110	65

Source: Excerpted from Pradhan Mantri Fasal Bima Yojana—an assessment, 2017, Centre for Science and Environment.

[3] Centre for Science and Environment, *Pradhan Mantri Fasal Bima Yojana: An Assessment*.

- Mixed cropping and crop diversification was discouraged.

PMFBY seems to have caught the imagination of farmers. The high interest of non-loanee farmers is an encouraging sign. The willingness of the GoI last year to make available additional amounts for claim settlement on account of drought conditions in several states is highly welcome as it improves the confidence of farmers and credibility of the scheme. The states need to improve on their performance in releasing money in time to the insurer and in carrying out diligent CCEs to facilitate prompt claim settlement.

Farmers' Suicides

Farmers' suicides have been occupying considerable media space and public minds over the last couple of years. The issues of farm loan waiver have been linked with farmers' suicides. The large picture that has been painted is that of banks asking for repayment of loans in harsh terms that forced the farmers to take extreme decisions. The data on farmer suicide across the country over the last 3 years shows that there has been marginal increase from 2013 to 2015 in terms of the number of farmers that committed suicide. As per the National Crime Records Bureau analysis, there have been different reasons why farmers commit suicide. Bankruptcy, poverty and problems with farming have accounted for around 60% of the suicides committed. Family problems, illnesses, alcohol and drug-related issues have accounted for 34%. Maharashtra, Telangana, Karnataka, Chhattisgarh, Madhya Pradesh and Andhra Pradesh are the states in which a large number of farmers had committed suicide during the last year. However, the overall analysis shows that a tendency to commit suicide is not particularly higher in the case of farmers but is in line with the general tendency for the entire population.

However, farming as an enterprise has little to commend itself in terms of profitability and sustainability. As pointed out earlier in the chapter, the TOT have remained adverse for quite some time. Further, the return to crops even as per the calculations made by the CACP shows that in many crops the returns are negative and do not cover the entire cost including the imputed value of own labour on farms. More than 65% farm households have a negative cash flow when their incomes are compared with expenditure. The prices prevailing in the market do not really compare favourably with the kind of returns farmers have to make in order to beat inflation. A further issue has been the continuing risks both of nature and of markets that bedevil farming operations. A survey in 18 states across the country brought out that about 40% of the farmers are dissatisfied with their economic condition (Figure 4.10). Majority of farmers in the eastern region were dissatisfied, while the proportion was also high in the southern region. Only in central region, the proportion of dissatisfied farmers was low. And, finally, those who are engaged in farming do not see it as an exciting livelihood option. Those farmers who continue in farming feel compelled to do so for want of viable alternative livelihoods. The younger generation of rural people do not want to continue in the rural areas and, at the first opportunity, migrate to urban areas in large numbers, putting pressure on the already overstretched urban infrastructure. In the midst of this, the GoI is also planning to shift a significant number of those working in farms to other jobs. While this raises expectations among those in rural areas, whether there are adequate and suitable jobs available outside of agriculture for this labour that is to be shifted out is a difficult question. An unwillingness to continue, unviability of farming operations, the risks that severely impact the farmers and unattractiveness of rural life all combined together form a complex dynamic that is so anti-farming that one is worried whether in future adequate number of farms would be operational in order to sustain food and industrial raw material baskets.

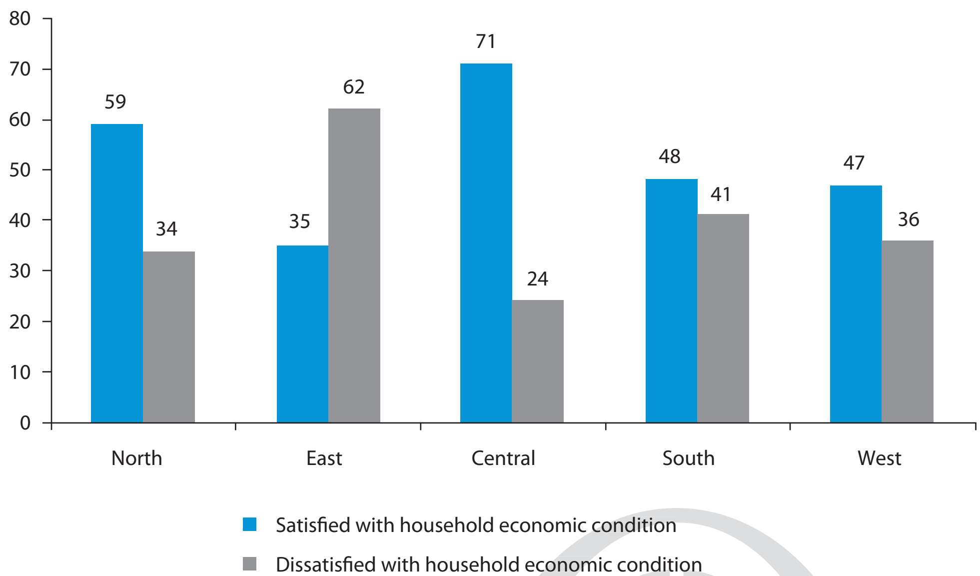

Figure 4.10: Farmers' Satisfaction with Household Economic Condition (% of Farmers)

Source: State of Indian Farmers—A survey directed by Sanjay Kumar and others, Centre for Study of Developing Societies, 2014.

In agriculture, the production pattern has undergone significant changes. The focus on food grains is becoming less sharper compared to the other crops and products in the allied sector. Over the last 5 years, the production of horticultural crops has exceeded the food grain crops. The growth rates of horticulture, milk, egg and fish has been much higher than the growth rates of food grains. These trends indicate that farms and farmers opt for products having a reasonable price stability and for which market volatility is not that sharp. Also, the production-related shocks possibly are much less in horticulture, fisheries, poultry and dairy (of course, in poultry and dairy, epidemics can take a high toll). These changes point towards a trend where the country might have to rely on imports of cereals, oilseeds and pulses. While in the case of oilseeds and pulses, India has been a net importer for quite some time, in the case of cereals, a long-term trend of self-sufficiency might be reversed unless profitability of cereals production is restored. The response of farmers to market failure can be quite sharp and immediate. Traditionally, farmers used to cultivate the same crop year after year despite the market performance and the remunerativeness of the same. But an analysis of changes in cropped area between kharif 2016 and kharif 2017 (Table 4.14) shows that farmers reduced the acreage under pulses, coarse cereals and oilseeds significantly on account of the underperformance of these crops in the market in 2016.

The acreage under cotton and sugarcane had significantly increased because of the fact that farmers realised better prices and faced much lesser risk in the market for selling their produce. With the farm feedback being clear, the government policy should ensure that adverse changes in the cropping pattern do not take place on account of market failure.

Overall, agricultural livelihoods have been less secure compared to other livelihoods in the country. But for the fact that NREGS support a number of rural families and others find wage labour as migrants in the nearby towns and cities, people might be out of farming altogether. In a number of crops and regions, the farm households are technically bankrupt. Last year, we had pointed out that in a number of states the extent of indebtedness per hectare was much in excess of income per hectare and thereby the debt was beyond the servicing capacity

Table 4.14: Changes to Cropping

Crop	Normal Area Sown for the Year	Normal Area Sown by the Corresponding Week	Actual Area Sown 18/08/2017	% Increase or Decrease Over Last Year 2016
Paddy	395.94	332.05	341.58	0.42
Pulses	105.58	106.12	130.68	–3.5
Arhar	39.25	37.78	40.81	–18.24
Coarse cereals	192.15	170.63	171.75	–4.14
Oilseeds	184.05	171.74	157.36	–10.13
Sugarcane	50.15	49.49	49.78	9.07
Cotton	122.45	110.69	118.14	16.35
Total	1058.62	948.65	976.34	–0.84

Source: http://www.agricoop.nic.in/all-india-crop-situation

from farm incomes alone. The access to credit, insurance, technical services and market have all had a role to play in the underperformance of the agriculture sector compared to others. Access to these services should be seen as a priority. The goal is not merely the availability of service but also the efficiency of these services to ensure that the farmers realise the best possible results from out of their farming enterprises. While subsidies of inputs such as diesel, electricity and fertilisers and subvention of cost of credit might go some way in reducing the cost, these are available only to those farms that are larger and, thus, find it easier to access these subsidised inputs. Reform of the market and improving transparent access to viable markets will impact all sizes of farms whether they are big or small. Market prices travel down and reach anyone with a surplus to sell. Hence, the focus of government policy should be on improving marketability and improving market practices that would serve all farms in an equitable manner. The input centricity in government policy thinking should be replaced by improving market practice and the price discovery mechanism. Building institutions of farmers that can aggregate the produce and deal with these larger markets is the need of the hour. While the present policy thinking supports FPOs, effective programmes on the ground that will actually nurture them to achieve their potential need to be brought in place. Presently, we have tokens that exhibit the intent but the underlying substance is of weak quality. We need to show the resolve to implement farmer-friendly reforms and invest in farmer organisations.

Policy thinking on agriculture is currently muddled and at cross-purposes. There are no easy alternatives to farm-based livelihoods for a large part of the population; any assumption that as in the case of advanced economies only 5% of population would be engaged in agriculture would be naive. Real sector problems have certain techno-economic solutions. Some of these cannot be solved by digital solutions which are being offered as perfect substitutes. The "green revolution" mindset continues to operate in large parts of the government—if we provide enough of inputs, other problems of productivity, markets and incomes will find some natural solutions. In the last five years, we see that in the absence of market access, input-based campaigns such as in pulses caused losses and put farmers at risk. It is time to get out of finding input-based solutions and retrofitting all problems into those solutions. The policy questions for debate are: (a) What measures are in the long-term interest of agriculture and farming community? (b) What measures are in the interest of small and marginal farmers and what will make for a level playing field for them? (c) Are the input-centric farm support schemes helping in establishing long-term sustainability of farmers? (d) What kinds of support will be equitable, available to all kinds of farmers, regardless of ownership of land, possession of land title and their size of operations? (e) What are valid ways of reaching farmers with different development schemes that do not impair the soundness of other institutions (such as banks, insurance companies, technical service units) which have a role in farmers' livelihoods? (f) Do we have a viable strategy for shifting a large part of agriculture labour to other sectors and areas? (g) What are valid roles for the private sector in farm-based livelihoods and how their expertise can be best used in the interest of farmers? We need to find answers, and quickly, if farm livelihoods are to be sustained.

ANNEXURE 4.1
Estimate of Farmers Income (2011–12 Prices) State-wise (₹)

S. No.	Zone	States	2012–13	2013–14	2014–15	2015–16
1.	Northern Zone	Haryana	156,615	161,119	160,278	159,337
2.		Punjab	195,535	202,479	195,931	197,981
3.		Uttar Pradesh	53,698	53,971	52,731	53,466
4.	North-Eastern Zone	Arunachal Pradesh	109,808	112,940	117,710	122,823
5.		Assam	72,231	71,844	73,585	72,553
6.		Manipur	95,448	96,532	93,932	95,304
7.		Meghalaya	128,872	135,316	138,823	147,844
8.		Mizoram	98,375	104,228	103,721	102,108
9.		Nagaland	102,865	116,659	117,734	112,419
10.		Sikkim	74,861	76,719	77,894	79,813
11.		Tripura	58,581	68,611	72,531	66,574
12.	Eastern Zone	Bihar	39,716	35,863	35,918	36,333
13.		Jharkhand	53,329	52,313	55,144	53,595
14.		Odisha	53,450	50,304	54,867	47,988
15.		West Bengal	43,336	44,641	49,413	55,634
16.	Central Zone	Chhattisgarh	56,969	58,470	63,897	59,779
17.		Madhya Pradesh	67,182	65,956	70,020	80,711
18.	Western Zone	Goa	81,917	93,016	94,587	89,840
19.		Gujarat	86,286	109,605	108,594	101,495
20.		Maharashtra	82,280	93,024	78,356	84,553
21.		Rajasthan	79,142	83,834	83,431	82,136
22.	Southern Zone	Andhra Pradesh	64,255	71,389	73,492	79,623
23.		Karnataka	96,718	107,050	108,384	104,051
24.		Kerala	130,656	127,221	123,022	126,966
25.		Tamil Nadu	76,461	90,617	97,681	88,253
26.		Telangana	69,653	70,978	67,444	64,746
27.	Northern Hill Zone	Himachal Pradesh	95,289	107,711	106,287	103,096
28.		Jammu & Kashmir	138,537	149,950	133,090	140,526
29.		Uttarakhand	50,955	49,348	49,915	52,041
30.	Union Territories	Andaman & Nicobar Islands	120,535	129,974	132,912	127,807
31.		Chandigarh	233,744	236,946	238,823	235,417
32.		Dadra & Nagar Haveli	79,036	83,663	82,956	83,533
33.		Daman & Diu	79,083	83,713	83,005	83,583
34.		Delhi	209,279	196,253	222,102	209,211
35.		Lakshadweep	190,241	205,139	209,776	201,719
36.		Puducherry	64,080	64,439	69,940	79,123
		All India	**70,118**	**74,223**	**73,596**	**74,108**

Source: Estimates made by the Committee on Doubling Farmers Income, reproduced from Report on Doubling Farmers Income, Vol. II, August 2017.

ANNEXURE 4.2
Agricultural Credit Disbursed State-wise

S. No.	States/UTs	2014–15*	2015–16 (Provisional)**	2016–17 (Provisional)***
1.	Delhi*	1,526,401.00	554,974.47	1,994,164.97
2.	Haryana	4,043,848.00	4,979,049.00	4,948,107.13
3.	Himachal Pradesh	496,412.00	512,193.53	611,614.56
4.	Jammu & Kashmir	76,600.00	276,146.16	729,674.06
5.	Punjab	7,296,298.00	8,465,288.56	7,430,146.82
6.	Rajasthan	6,574,336.00	6,762,726.22	7,430,385.60
7.	Chandigarh UT	233,992.00	141,536.00	140,594.60
	Northern Region Total	**20,247,887.00**	**21,691,913.94**	**23,284,687.75**
8.	Arunachal Pradesh	4,991.00	4,282.18	13,258.66
9.	Assam	275,103.00	390,547.53	610,207.41
10.	Manipur	15,255.00	15,867.18	25,112.17
11.	Meghalaya	19,594.00	15,627.14	36,831.05
12.	Mizoram	7,020.00	9,912.84	11,435.63
13.	Nagaland	13,491.00	11,816.65	12,939.21
14.	Sikkim	7,548.00	7,161.36	16,169.65
15.	Tripura	102,271.00	128,054.76	151,312.53
	North Eastern Region Total	**445,273.00**	**583,269.64**	**877,266.32**
16.	A & N Island	6,647.00	11,184.38	13,498.20
17.	Bihar	2,286,388.00	4,054,231.00	2,618,458.38
18.	Jharkhand	251,836.00	366,183.81	437,999.18
19.	Odisha	1,727,058.00	2,028,270.04	2,126,496.46
20.	West Bengal	3,729,373.00	3,907,458.44	3,489,572.32
	Eastern Region Total	**8,001,302.00**	**10,367,327.67**	**8,686,024.55**
21.	Chhattisgarh	787,201.00	767,426.11	1,223,742.13
22.	Madhya Pradesh	4,704,858.00	5,210,400.35	5,614,906.41
23.	Uttarakhand	558,647.00	586,937.77	650,543.42
24.	Uttar Pradesh	7,261,136.00	8,764,167.01	8,158,401.41
	Central Region Total	**13,311,842.00**	**15,328,931.24**	**15,647,593.37**
25.	Goa	77,731.00	56,711.46	101,127.66
26.	Gujarat	3,932,672.00	4,456,320.39	5,427,669.75
27.	Maharashtra	6,682,129.00	6,277,679.78	8,138,383.63
28.	D & N Haveli UT*	2,984.00	2,026.85	8,017.10
29.	Daman & Diu UT*	2,605.00	644.67	3,458.32
	Western Region Total	**10,698,121.00**	**10,793,383.15**	**13,678,656.47**
30.	Andhra Pradesh	5,393,621.00	7,413,594.20	9,286,862.14
31.	Telangana	3,051,666.00	3,332,568.03	6,788,535.43
32.	Karnataka	6,023,300.00	8,483,248.35	7,808,272.12
33.	Kerala	5,720,901.00	4,339,237.06	6,773,876.45
34.	Puducherry	1,593,012.00	108,155.84	529,008.42
35.	Tamil Nadu	10,022,577.00	9,109,362.38	13,214,456.68
36.	Lakshadweep UT	23,321.00	–	327.30
	Southern Region Total	**31,828,398.00**	**32,786,165.86**	**44,401,338.54**
	Grand Total	**84,532,823.00**	**91,550,991.50**	**106,575,567.01**

Source: Answer to Rajya Sabha question 2274 dated 4 August 2017.

Notes:

* As reported by concerned banks in respect of Cooperative and RRBs and data received from IBA in respect of Commercial Banks.

** Provisional data based on SLBC in respect of Commercial Banks and reporting banks in respect of RRBs & Cooperative Banks.

*** Data submitted by Banks in ENSURE portal in respect of Cooperative and RRBs and data furnished by Banks through mail in respect of Commercial Banks.

ANNEXURE 4.3
Investment Requirements by 2022 to Achieve a Growth Rate of 10% in Farm Incomes Necessary to Achieve Doubling (2004–5 Prices)

	Private Investment		Public Investment		Investment 'for'		
States	Agriculture & Allied	Irrigation	Agriculture & Allied	Irrigation (exc. Flood Control)	Rural Energy	Rural Road-Transport	Agriculture (Weighted)
Andhra Pradesh	22.65	4.34	0.36	332.14	0.08	9.71	946
Assam	2.29	0.22	0.25	5.88	0.01	10.72	17
Bihar	3.45	0.08	2.76	8.94	0.37	85.64	127
Gujarat	47.87	8.16	7.57	770.1	10.03	20.27	635
Haryana	7.99	1.06	11.78	5.34	0.70	8.98	25
Himachal Pradesh	19.71	1.57	0.56	3.09	0.01	16.49	24
J&K	3.96	0.003	28.94	6.68	0.11	30.69	141
Karnataka	28.70	11.49	1.70	83.63	15.06	29.98	194
Kerala	41.00	1.73	2.99	2.06	0.04	37.03	28
Madhya Pradesh	56.10	15.19	1.50	43.47	2.15	14.30	72
Maharashtra	98.79	17.49	15.55	305.31	4.03	20.52	245
Odisha	3.29	1.67	0.72	39.80	0.06	23.06	82
Punjab	62.75	1.27	0.22	2.35	–	2.54	4
Rajasthan	51.91	8.85	2.22	5.35	13.58	8.92	29
Tamil Nadu	9.31	2.94	11.39	11.21	8.14	50.28	57
Uttar Pradesh	146.65	1.58	1.43	19.36	5.45	61.78	84
West Bengal	4.88	0.34	3.34	1.51	0.05	6.74	10
Chhattisgarh	1.38	0.08	0.62	16.77	2.11	9.32	38
Jharkhand	2.97	0.63	0.65	8.30	–	11.58	21
Uttarakhand	1.26	0.00	6.43	10.07	0.21	27.63	65
Bihar-Jharkhand	6.81	0.27	3.75	17.16	0.14	82.05	119
Madhya Pradesh-Chhattisgarh	53.35	13.98	2.21	60.65	2.66	24.47	107
Uttar Pradesh-Uttarakhand	143.08	1.62	2.93	25.31	5.14	75.78	105
All States	617	79	101	1681	62	486	2843

Source: Estimates made by the Committee on Doubling Farmers Income, set up by GoI, Report Vol. II, August 2017.

The deflator value between 2011–12 prices and 2004–5 prices is about 2.1. When the current price estimations are used, the total investment requirements amount to ₹11,750 billion.

Livelihoods of Tribals in Central India

Chapter 5

Situation of Tribals

Scheduled tribes (STs) with a population of 10.45 crore as per Census 2011 comprise 8.6% of total population of the country. Broadly, the tribals inhabit two distinct geographical areas: the Central India and the northeastern region. More than half of the ST population is concentrated in Central India, that is, Madhya Pradesh (14.69%), Chhattisgarh (7.5%), Jharkhand (8.29%), Andhra Pradesh (5.7%), Maharashtra (10.08%), Odisha (9.2%), Gujarat (8.55%) and Rajasthan (8.86%). More than two-thirds of the tribal population is concentrated only in the seven states of the country, namely, Madhya Pradesh, Maharashtra, Odisha, Gujarat, Rajasthan, Jharkhand and Chhattisgarh. The differences between different sets of classified tribals should be recognised. There are tribals in Central India (the Fifth Schedule states) that are clearly lagging behind in terms of access to basic needs. Tribals in northeastern states (the Sixth Schedule states) are comparatively better off in access to education, health and food. Particularly vulnerable tribal groups (PVTGs) that live in remote locations are almost cut-off from mainstream and are living in extreme deprivation. Vanishing tribes such as Jarawas in Andaman and migrated tribals dispersed in several towns and cities. There are differences in socio-cultural aspects and livelihood resources and opportunities for different tribes living in the same region. While last year's SOIL report analysed the livelihood situation in northeast, this year the livelihood situation of tribals in the Central India is analysed and presented.

While culturally tribals have a rich heritage, they lag behind on key development indicators and are poorer than the rest of the population. As per Census figures, literacy rate for STs in India improved from 47.1% in 2001 to 59% in 2011. Thus, there is a gap of about 14 percentage points in literacy rate of STs as compared to the all-India literacy rate. ST female literacy rate is lower by 15 percentage points as compared to overall female literacy rate in 2011.[1] According to Census 2011 data, it is seen that while almost 47% of all households in the country have drinking water facilities within their premises, less than 20% of the ST households enjoy this convenience. More than one-third of the ST households have to spend time and energy fetching drinking water from far away sources as against only about 18% of all households at all-India level. As per the annual reports of the Ministry of Tribal Affairs (MoTA), the health infrastructure is poor in the tribal areas; on key indices of health such as infant mortality rate (IMR), maternal mortality ratio (MMR) and also child mortality rate, tribals lag behind the rest of the population. The incidences of stunting, wasting and being underweight among children are much higher among tribal children.

[1] Ministry of Tribal Affairs, *Annual Report 2016–17*.

Table 5.1: Percentage of ST Population Below Poverty Line 2011–12 (Tendulkar Methodology)

States	ST Rural	ST Urban	All Rural	All Urban
Andhra Pradesh (including Telangana)	24.1	12.1	10.96	5.81
Chhattisgarh	52.6	35.2	44.61	24.75
Gujarat	36.5	30.1	21.54	10.14
Jharkhand	51.6	28.7	40.84	24.83
Karnataka	30.8	33.7	24.53	15.25
Madhya Pradesh	55.3	32.3	35.74	21
Maharashtra	61.6	23.3	24.22	9.12
Odisha	63.5	39.7	35.69	17.29
Rajasthan	41.4	21.7	16.05	10.69
All India	45.3	24.1	25.7	13.7

Source: Annual Report, 2016–17, MoTA.

Poverty Levels: The erstwhile Planning Commission provided estimates based on Tendulkar Methodology for poverty ratios and as per these estimates, ST people living below the poverty line in 2011–12 were 45.3% in the rural areas and 24.1% in the urban areas as compared to 25.7% persons in rural areas and 13.7% persons in urban areas below poverty line for all population (Table 5.1).

The poverty incidence of tribals is more than 50% of the tribal population in Odisha, Maharashtra, Madhya Pradesh, Chhattisgarh and Jharkhand in rural areas, which is an area of concern.

Heath Status: The health status of tribals in general is poorer than the others. Tribals have much poorer access to health services on account of their remote habitants and location of health centres in block headquarters. There is also an opinion that tribal health care requires a different framework on account of their lifestyle and environment. The high IMR[2] and MMR point to the need for easily accessible local health care facilities as also suitable staffing with medical professionals. The nutritional status of tribal children is much worse than others, as seen in Table 5.2. Given the uncertainties of food availability, the mandate of PDS should be expanded to attend to balanced nutrition requirements in tribal areas.

Primary Occupation and Income of Tribals: Tribal communities are highly dependent on the natural resource base and their livelihood systems revolve around forests (non-timber forest produce; NTFP), agriculture, livestock and wage labour. The contribution of these activities to the overall income and food basket varies depending upon the location of tribal settlement. Migration of tribal population is a historical phenomenon. There is clear evidence of distress migration of rural people from many pockets of the central Indian states. Lack of productive employment, low agricultural productivity, erosion of natural resource base together with difficulty of access to government welfare schemes and programmes have forced the tribal population to migrate to other areas in search of wage employment. Common occupations during migration are seasonal agricultural

Table 5.2: Nutritional Status of Tribal Children (%)

Source	Category	Stunted	Severely Stunted	Wasted	Severely Wasted	Underweight	Severely Underweight
NFHS-3 (2005–6)	ST	53.9	29.1	27.6	9.3	54.5	24.9
	ALL	48.0	23.7	19.8	6.4	42.5	15.8
RSOC (2013–14)	ST	42.3	19.5	18.7	5.3	36.7	13.0
	ALL	38.7	17.3	15.1	4.6	29.4	9.4

Source: National Family Health Survey (NFHS)-3, 2005–06, M/o H&FW Rapid Survey on Children (RSOC), 2013–14, M/o WCD.

[2] The IMR is 62.1 for STs, whereas it is 57 for all population.

labour and works in brick kilns, construction sites and industrial areas.

The SECC provides information on some key livelihood parameters of tribals: 35.65% of the households are landless, deriving major part of their income from manual casual labour; 42.59% of households own only unirrigated land; only 5.13% households have any irrigation equipment and in 86.53% households, the monthly income of the highest earning household member is less than ₹5,000.

As per the last NSSO survey in 2013, "Household Ownership and Operational Holdings in India", among the tribals, about 50.95% of the households are undertaking cultivation, followed by wages/salaried employment (32.90%), whereas lowest percentage of households belong to the category of self-employed in livestock farming (0.75%). While this data captures the primary occupation of the households, it is very common that the basket of livelihoods of a household usually consist of cultivation, livestock rearing, casual labour and NTFP collection where available (Table 5.3).

SECC 2011 has collected data on income sources which shows much lesser percentage of tribal households deriving income from cultivation and more from casual labour (Table 5.4). As per the MoRD,

> The data of SECC does not and cannot super impose itself fully on the census data. While there is a high degree of compatibility in the two sets of data the findings could be different because the duration of census and

Table 5.3: Primary Occupation

	Percentage Distribution of Households by Household Classification						
	Self-employed in						
Social Group	Cultivation	Livestock Farming	Other Agricultural Activities	Non-agricultural Enterprise	Wages/Salaried Employment	Others	Total
ST	50.95	0.75	3.7	5.54	32.9	6.17	100
SC	30.88	1.5	4.79	11.41	43.22	8.19	100
OBC	42.58	2.17	2.81	13.44	31.23	7.77	100
Others	49.9	1.67	3.49	11.27	24.82	8.85	100
All	42.92	1.75	3.47	11.59	32.36	7.91	100

Source: NSS Report No. 571, 'Household Ownership and Operational Holdings in India'.

Table 5.4: Income Source of Rural Tribal Households

	% of with Income Source of Rural Tribal Households				
Name of States	Cultivation	Manual Casual Labour	Part-time or Full-time Domestic Service	Non-agricultural Own Account Enterprise	Other
Jharkhand	42.5	44.7	4.1	0.7	7.2
Odisha	29.2	63.0	1.5	0.5	5.2
Rajasthan	47.1	44.8	2.3	0.3	5.1
Gujarat	45.6	46.2	1.1	1.4	5.5
Maharashtra	26.2	64.5	1.1	0.5	7.0
Andhra Pradesh	29.9	59.5	1.3	0.5	8.3
Karnataka	41.4	39.9	2.8	1.1	13.8
Telangana	36.3	48.2	1.4	2.3	11.5
Chhattisgarh	52.0	42.5	1.2	0.1	3.6
Madhya Pradesh	62.0	27.9	4.0	1.1	2.8
All India	38.0	51.3	2.0	0.6	7.6

Source: Socio-Economic Caste Census 2011.

that of SECC is different. Census 2011 was conducted during the period February 2011. Socio Economic Caste Census 2011 was largely carried out in 2011 and 2012 with a few states taking enumeration and verification in 2013 also.

However, even with the time difference, the variation is high. As per SECC, there are more tribals reporting manual casual labour as the major income source.

Based on SECC 2011, income of the tribal households in rural areas, that is, the per month income of the highest earning member of tribal households, have been analysed and presented in Table 5.5.

While this does not capture the total income of the households, the data gives an indication of the highest earning income of household members. Odisha, Chhattisgarh and Madhya Pradesh have lower income levels.

Landholdings: Since tribals are moving into more and more of settled agriculture, the land is the major livelihood resource base. Based on the Land and Livestock Holdings Survey conducted in the 70th round of National Sample Survey (NSS) during January–December 2013, the NSS Report No. 571 reveals that the estimated total area owned by the households in rural India during the year 2013 was 92.369 million hectares, with an average size of 0.592 hectare land per ownership holding. The share of land owned in rural India by different social groups was 13.06% for STs, 9.23% for scheduled caste (SC), 45.68% for other backward class (OBC) and 32.03% for others. The average area of land owned per household was 0.650 hectares for STs, 0.272 hectares for SC, 0.603 hectares for OBC and 0.816 hectares for others, as shown in Table 5.6.

Table 5.5: Monthly Income of Highest Earning Member of Household

				% of Households with Monthly Income of Highest Household Member wrt Total HH		
Name of States	Households Total	ST HH	% of ST HH	Less than 5,000	5,000–10,000	More than 10,000
Jharkhand	5,044,234	1,468,637	29.12	81	14	5
Odisha	8,677,615	2,073,079	23.89	96	3	2
Rajasthan	10,223,073	1,799,449	17.60	87	7	5
Gujarat	6,920,473	1,484,326	21.45	83	12	4
Maharashtra	13,841,960	1,861,647	13.45	87	8	4
Andhra Pradesh	9,344,180	562,239	6.02	87	10	3
Karnataka	8,048,664	666,407	8.28	76	18	6
Telangana	5,643,739	650,414	11.52	81	15%	4
Chhattisgarh	4,540,999	1,672,400	36.83	93	4	2
Madhya Pradesh	11,288,946	2,854,944	25.29	93	5	2
All India	179,787,454	19,737,399	10.98	87	9	4

Source: Socio-Economic Caste Census 2011.

Table 5.6: Average Area of Land Ownership

Indicators	ST	SC	OBC	Others	All*
Percentage of households	11.89	20.06	44.82	23.23	100
Estimated total area of land owned (mha)	12.062	8.528	42.19	29.588	92.369
Percentage area of land owned	13.06	9.23	45.68	32.03	100
Average area (ha) owned per household	0.65	0.272	0.603	0.816	0.592

Source: NSS Report No. 571, "Household Ownership and Operational Holdings in India".
Notes: *Includes cases of social group not recorded; mha: million hectare.

Table 5.7: Category of Landholdings

	Household Social Groups in %				
Category of Holdings (Land Size Class in ha)	ST	SC	OBC	Others	All (Including nr)
Landless (<=0.002)	9.41	7.18	6.98	7.4	7.41
Marginal (0.002–1.000)	68.83	85.7	75.25	70.22	75.42
Small (1.000–2.000)	14.64	4.77	10.43	11.31	10
Semi-medium (2.00–4.00)	5.74	1.84	5.12	7.18	5.01
Medium (4.000–10.000)	1.36	0.48	1.99	3.34	1.93
Large (>10.000)	0.03	0.03	0.23	0.55	0.24
All sizes	100	100	100	100	100

Source: NSS Report No. 571, "Household Ownership and Operational Holdings in India".
Notes: ha: hectare; nr: not reported.

The highest proportion of tribal households belongs to the *marginal category* of landholdings (75.42%) and lowest proportion of households belong to the large holdings (0.24%). This pattern is seen across all the household social groups. However, the landlessness is higher in STs than in other social groups, as seen in Table 5.7.

Key Issues Affecting Tribal Livelihoods in Central India

Displacement of Tribals: As a part of the process of development of the nation, tribal areas have witnessed the large-scale development of industry, mining, infrastructure projects such as roads and railways, and dams for power and irrigation. These have been followed by processes of urbanisation as well. The overall impact of these on tribes has been often loss of livelihood, massive displacement, subsequent rehabilitation and involuntary migration. Displacement or forced/voluntary eviction of tribals from their land and their natural habitats and subsequent rehabilitation has been a serious problem that remains to be addressed to the satisfaction of affected tribal population by different governments.

Odisha, Chhattisgarh and Jharkhand have considerable mineral reserves. These three states account for 70% of India's coal reserves, 80% of its high-grade iron ore, 60% of its bauxite and almost 100% of its chromite reserves. About half of the top mineral-producing districts are tribal districts, and these districts are also with a forest coverage of 28% which is larger than the national average of 20.9%. Mineral and hydroelectric resource-rich states of India tend to be the very places that are home to vast majority of tribal people.

As per MoTA,[3] during 1951–90, 85 lakh tribals were displaced due to dams, mines, industries, wildlife sanctuaries, etc., which is 40% of the total displacement of 2.13 crore people, against national ST population percentage of 7.5%. Out of the 85 lakh displaced, only about 21 lakh tribals were rehabilitated. The incomplete rehabilitation of the displaced tribals has further compounded their woes as they are pushed into destitution. Women and children are the worst affected.

Tribal Land Alienation: Over a period of time, the most important resource base of the tribal communities, land, has tended to get eroded not only through acquisition for public purposes but also through fraudulent transfers, forcible eviction, mortgages, leases and encroachments. In spite of constitutional safeguards, state schedule area regulations and tenancy laws for the protection of tribal land, there is a continuous process of land alienation by non-tribals in connivance with the instruments of the State. The High Level Committee (2014) has analysed the data available as of 2007–08: a total of 506,307 cases of tribal land alienation had been filed that covered land area of 902,417 acres, out of which 225,343 cases were decided in favour of tribals with an area 500,376 acres

[3] Ministry of Tribal Affairs, *Annual Report 2016–17*.

land. The total number of cases rejected by the courts on various grounds is 1.99 lakh, covering an area of 4.11 lakh acres. The high proportion of cases rejected is a cause of concern and could be due to loopholes in law and apathy, or connivance of State machinery. Odisha has the highest number of filed cases in the court, which is around 105,491. The performance of Madhya Pradesh is dismal, as no case of disposal in favour of the tribals has been reported. In Gujarat, there is a huge gap between the number of cases decided in favour of restoration (i.e., 19,322) and the number of cases in which land was restored (i.e., 376).

The committee concludes that lack of political and administrative will continues to be the cause for perpetuation of the problem of land alienation amongst the tribals as reflected in the reluctance to amend legal provisions and plug the existing loopholes and swift administrative action to identify alienated land, and restoring it to the tribals.

Particularly Vulnerable Tribal Groups: While some tribal communities have adopted a mainstream way of life, at the other end of the spectrum, there are PVTGs, 75 in number who are characterised by (a) a pre-agriculture level of technology, (b) a stagnant or declining population, (c) extremely low literacy and (d) a subsistence level of livelihood.

Historically, PVTGs lived deeper inside forests compared to other STs and some, such as, Birhors and Mankadias, were nomadic until recently. Their transition from hunting gathering to shifting cultivation and eventually to settled-farming has been slower. Shifting cultivation even now remains an important cultivation technique for a majority of the PVTGs and collection of NTFPs for consumption and trade remains a significant contributor to livelihoods prior to farming.

PVTG habitat rights and consequently their socio-cultural practices and livelihoods continue to be seriously threatened by

- Forest diversion for extractive industry such as mining (habitats of Juangs, Pau-di Bhuyans, Dongria Kondhs in Odisha and Madia Gonds in South Gadchiroli, Maharashtra).
- Evictions from protected areas (Baigas in Madhya Pradesh and Chhattisgarh, Chenchus in Telangana, Mankidias in Odisha).
- Forcible plantations on their traditional cultivation lands under Compensatory Afforestation Fund Management and Planning (CAMPA), MGNREGA and other programmes (KutiaKondhs in Kandhmal).

Authority MoTA has attempted to address some of these issues, although without much impact.

Government Budgets, Programmes and Expenditure for Tribal Areas and Population

MoTA and the MoRD play a key role in tribal livelihood promotion. Tribal sub-plans with contribution from centre and states are the major budget resources for the development of the tribal areas. MoTA allocates resources from the Special Central Assistance (SCA) to Tribal Sub-Plan (TSP) available for tribal development and grants under Article 275(1) of the Indian Constitution. Rashtriya Krishi Vikas Yojana (RKVY), National Horticulture Mission (NHM), Integrated Watershed Management Programme (IWMP), Accelerated Irrigation Benefit Programme (AIBP), Repair Renovation and Restoration of Water Bodies and the NRLM address livelihood promotion aspects among tribal communities.

Tribal Sub-Plans: The basic purpose of the TSP is to allocate government resources equitably between the overall population and tribal population. Funds earmarked under the TSP had to be at least equal in proportion to the ST population of each state or UT. Similarly, central ministries have to provide funds as per the differentiated ministry/department-wise earmarking of plan funds laid down by Planning Commission (see Table 5.8 for allocations).

Table 5.8: Tribal Sub Plan Funds (₹ in Crores)

TSP Component	2014–15	2015–16	2016–17 (RE)	2017–18 BE
Central Ministries/Departments TSP	16,088	16,413	19,203	31,919[4]
State TSP	86,487	95,033	105,000	na
Funds under MoTA	3,833	4,550	4,800	na
Total	106,408	115,996	129,005	na

Source: Annual Report, 2016–17, MoTA.

With the termination of five-year planning, there are no differentiated categories of plan and non-plan expenditures. According to some commentators, this might lead to unplanned and ad hoc expenditures and interventions of a strategic and long-term nature might not be taken up. Vinod Tiwari, Joint Secretary, MoTA, pointed out that the removal of plan-nonplan categorisation imparts flexibility to spending and enables the government to respond to priorities and exigencies better. Further state governments save considerable time in avoided discussions on getting "plans" approved.

According to Krishnan[5], Former Secretary, GoI, it is the accepted national policy that the population-equivalent proportion of the plan outlay should go to schemes of direct and exclusive benefits to SCs and STs (16.6% and 8.6% respectively), and schemes should be carefully designed on the basis of the needs and priorities of SCs and STs. The SCP and TSP outlays/allocations for welfare of SCs and STs need to be enhanced to the population-equivalent level of 16.6% and 8.6% respectively, which calculated on the basis of the proportion of the total of Budgetary Expenditure for Central Sector Schemes and Centrally-Sponsored Schemes in the Budget 2016–17 translates to ₹156,883.00 crore and ₹81,277.00 crore respectively (see Table 5.9). The budget allocations are falling far short of the norm.

The budget allocations for tribals should be increased in ministries/departments most relevant to STs such as MoTA, Ministry of HRD, Ministry of Agriculture (including particularly Pradhan Mantri Krishi Sinchai Yojana), Department of Land Resources (by providing schemes for distribution of viable extents of agricultural lands to every rural SC and ST family as committed by the President in his Address to the joint session of Parliament in 2004), Department of Rural Development, Ministry of Skill Development and Entrepreneurship (including Kaushal Vikas Yojana), Ministry of Power (including Deendayal Upadhyay Gramin Jyoti Yojana), and Medium Small and Micro Enterprises (MSME; including Prime Minister's Employment Generation Programme).

Table 5.9: Normative and Actual Allocations for Tribal Development in Union Budget 2017–18

Normative Allocations at 8.6% of Total BE for TSP ₹ Crores	Allocations Actually Made ₹ Crores (% to Total BE)	Shortfall ₹ Crores
81,277.00	31,919.51 (3.38%)	49,357.49

Source: Based on the blog 'Like Before, Expectation Regarding Commitment to SC–STs is Not Reflected in 2017–18 Budget' by Krishnan in www.counterview.org

Looking at the availability of funds under TSP during the last three years, on an average, per capita availability of fund per year for development of tribal population is about ₹120,006. However, what portion of these funds is actually spent on tribals needs detailed study. The state TSP allocation and utilisation has been analysed for the 10 states and presented in Table 5.10.

Andhra Pradesh is reportedly the first state to formulate a legislation, for improving budget allocation and actual expenditure

[4] Consequent on the abolition of plan and non-plan classification, the total budget allocations have been provided. This is not comparable with previous years.

[5] Former Secretary, Ministry of Welfare, "Like Before, Expectation Regarding Commitment to SC–STs is Not Reflected in 2017–18 Budget," Blog in Counterview.org

[6] Ministry of Tribal Affairs, *Annual Report 2016–17*.

Table 5.10: State TSP Allocation, Expenditure and Per ST Household Expenditure (₹ in Crores)

	2013–14			2014–15			2015–16		
States	TSP Allocation	TSP Exp	Per HH Exp	TSP Allocation	TSP Exp	Per HH Exp	TSP Allocation	TSP Exp	Per HH Exp
Andhra Pradesh	3,667	2,056	36,568	1,442	NR		1,904	1,711	30,432
Chhattisgarh	7,952	6,947	41,539	9,519	9,417	56,308	10,513	10,066	60,189
Gujarat	7,102	6,387	43,030	9,039	7,901	53,230	9,691	8,379	56,450
Jharkhand	8,475	5,103	34,747	11,680	NR		11,334	NR	
Karnataka	2,480	2,481	37,230	4,357	NR		4,583	NR	
Madhya Pradesh	6,800	6,267	21,951	12,058	NR		8,658	NR	
Maharashtra	4,360	3,979	21,374	4,815	4,090	21,970	5,170	4,563	24,511
Odisha	5,620	5,100	24,601	7,885	5,870	28,315	8,468	5,190	25,035
Rajasthan	5,494	4,803	26,692	9,178	7,671	42,630	15,613	13,821	76,807
Telangana	0	0	0	4,560	1,727	26,552	5,036	3,222	49,538

Source: GoI (MoTA) Rajya Sabha Starred Question No. 297 Answered on December 14, 2016.

on tribals and SCs. The Act earmarks a portion, in proportion to the population of SCs and STs in the state, of the total plan outlay as the outlay of the Scheduled Castes Sub-Plan (SCSP)/TSP of the state. The Act envisages that schemes included in SCSP/TSP should secure direct and quantifiable benefits to ST individuals, households or habitations and should bridge the gaps in development indicators between STs, when compared to state averages. The report of the Comptroller and Auditor General of India (CAG) submitted to the legislature revealed that the objective did not materialise even after the legislation.[7] The state has initiated establishing elaborate and appropriate institutional mechanism to operationalise TSP in the state.

Central and state outlay for TSP has increased in the recent years but actual expenditure continues to be less than the share of STs in total population, as seen in Table 5.11.

Table 5.11: TSP Expenditure as Part of State Plan Outlay

		TSP Expenditure as % of State Plan Outlay		
States	ST Population % in the State	2013–14	2014–15	2015–16
Andhra Pradesh	7	3.88	NR	4.97
Chhattisgarh	30.62	27.5	35.4	33.8
Gujarat	14.75	10.9	11.4	10.6
Jharkhand	26.21	30.4	NR	NR
Karnataka	6.95	5.1	NR	NR
Madhya Pradesh	21.09	17.7	NR	NR
Maharashtra	9.35	8.12	7.98	8.3
Odisha	22.85	21.2	15.6	11.7
Rajasthan	13.48	11.2	11.6	12.4
Telangana	9.34	NA	3.55	6.15
Total		8.49		

Source: GoI (MoTA) Rajya Sabha Starred Question No. 297 Answered on 14 December 2016.
Notes: NR: Not reported. Since some of the states have not reported figures of expenditure for 2014–15 and 2015–16, the all-India percentage figures are also not computed.

[7] Ministry of Tribal Affairs, *Report of the High Level Committee on Socio-political Health and Educational Status of Tribal Communities in India*.

The High Level Committee on Socio-economic, Health and Educational Status of Tribal Communities of India[8] has observed critically,

> This increase in TSP funds has not generally translated into better socio-economic outcomes for tribal populations for a variety of reasons. Foremost is the fact that the majority of the tribal population is less vocal, has been traditionally disadvantaged and live in remote places. In addition to the problems of physical access, the absence of functionaries of line departments and language of communication are serious barriers. As a result, this money allocated for the tribal population, lapses and is, in effect, transferred to non-tribal people, in the subsequent financial year. Further, the per-capita cost of infrastructure for tribal areas is higher than the rest of the population, because tribal population is dispersed, often in remote hamlets and in hilly, inaccessible areas. The problem has been exacerbated by (a) continuous presence of extremist groups, which prevent the implementation of basic programs like health, education, livelihood, in certain instances and (b) large scale displacement on account of irrigation, mining and other projects, as well as declaration of their habitats as reserve forests and wild life sanctuaries. Another reason for increased outlays under Plan schemes not translating into better outcomes for Scheduled Tribe population is that the delivery system of public goods and services has remained weak.

Although NITI Aayog is there to monitor the TSP allocations and expenditure, whether the present review is as rigorous as that of erstwhile Planning Commission is unclear. As per guidelines issued by the erstwhile Planning Commission, the TSP funds are to be non-divertible and non-lapsable. But funds meant for TSP have been diverted to other sectors and purposes, and some of them have also lapsed due to their improper utilisation or failure of administrative machinery. A separate study is needed on the computation of utilised, non-utilised, under-utilised and diverted funds from the TSP allocation by MoTA and how the funds can be effectively used.

Special Central Assistance to TSP

Major part of infrastructure development in tribal dominated areas and provision of basic amenities in tribal areas is carried out through various schemes/programmes of concerned central ministries and the state governments concerned. While the MoTA supplements these initiatives by plugging gaps under the programme "Special Central Assistance to Tribal Sub-Plan (SCA to TSP)".[9] SCA to TSP is 100% grant from GoI[10] and an addition to state plan funds and efforts for tribal development. This grant is utilised for economic development of Integrated Tribal Development Plan (ITDP), Integrated Tribal Development Agency (ITDA), MADA clusters, PVTGs and dispersed tribal population. SCA to TSP covers 23 states. The scope of SCA to TSP covers the employment-cum-income generation activities and incidental infrastructure meant for filling up critical gaps in the family-based income-generating activities of TSP.

The Ministry of Tribal Development has revised Guidelines for SCA to TSP in June 2016 wherein criterion of ST population has been prioritised for interstate allocation of SCA to TSP funds.[11] The prioritised activities are education, health, agriculture, horticulture, animal husbandry fisheries, dairy and others in primary sector, other income-generating schemes to augment tribal household economy and administrative structure (including manpower).[12] A total of ₹935 crore has been released for the

[8] Constituted by the Prime Minister's Office submitted the report in May 2014.

[9] SCA-TSP programme was launched during 1974.

[10] Since 1977–78.

[11] 50% based on state ST population; 25% based on tribal areas covered under ITDP/ITDAs. In a few states where no ITDP/ITDA has been constituted, area of concerned block/panchayat/samiti (middle-level PRI) where ST population is 50% or more would be taken into account; and 25% based on outcome based performance of concerned states.

[12] Major infrastructure sector, like road connectivity, electricity, drinking water, major irrigation projects, housing would not be a priority for funding under SCA to TSP, as substantive part of State Plan funds go into these programmes.

year 2016–17; however, for the past three years, the allocation has been decreasing from ₹1050 crores in 2013–14. The actual utilisation in terms of proportion of funds for livelihood development is not available.

MoTA has been assigned the responsibility of monitoring tribal projects carried out by the states. An online monitoring system for the allocation of complementary funds has been established and the same is used for monitoring progress. The MoTA under this arrangement is able to make analytical reviews of programmes and schemes and pursue with state government for necessary improvements.

Programme Under the Article 275(1) of the Constitution

Constitution of India guarantees grant from the consolidated fund of India each year for promoting the welfare of STs and MoTA provides fund, through the "Special Area Programme Grants under Article 275(1) of the Constitution of India" based on the percentage of ST population in the state. Focus of the programme is on the generation of community welfare assets such as schools, skilled teaching, nutritional support, drinking water, etc. Funds for tribal development are approved by GoI, which is based on the submission of proposals by the state governments, and these funds should be used in accordance with the procedures laid down by MoTA, GoI. This apart, there are no other strings attached to these funds.

Performance of ITDAs/ITDPs

ITDAs/ITDPs are the administrative units adopted by a number of states for the purpose of implementation of programmes and delivery of services to tribal individuals, households and habitations. About 194 ITDPs/ITDAs have been set up.[13] The ITDP/ITDAs are expected to undertake planning and implementation of various programmes and projects of the state governments as well as of the GoI in their respective areas. They are responsible for infrastructure development, income-generation activities, health and education related service delivery as well as implementation of Forest Rights Act (FRA) within their areas. Some states, such as, Odisha, also developed the institution of micro-projects for development of PVTGs.

> Over time States did not pay enough attention for maintaining and strengthening their institutional capabilities, providing manpower and modern infrastructure. On the part of the Union Government, the focus on these institutions was lost, particularly since 1990s, as these were considered State government institutions. Thus, even as several scheme-specific bodies at district level, including DRDAs, have become stronger over the years, ITDAs have become weak in most of the States. It has created a self-perpetuating cycle of poor performance, low financial allocations, which in turn, result in low expenditure under CSS and leading to lower subsequent allocations.[14]

There are a number of schemes, both at central and state level, for livelihood improvement of tribals. While there is no shortage of funds for livelihood sectors such as agriculture, animal husbandry, horticulture, handicrafts, handloom and skill development under various centrally and state sponsored schemes, the access of tribal population to such schemes continues to be limited.

Access to Land and Forests

The land ownership in tribal areas remains a troubled issue since the evolution of state forests from the mid-1860s. The status is more complex in states such as Odisha, Jharkhand, and Chhattisgarh because of large area under forests, a large population of STs and implementation of forest laws and management. Historically, forests were

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[13] In the states of Andhra Pradesh, Assam, Bihar, Gujarat, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Odisha, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal and Union Territories of Andaman and Nicobar Island and Daman & Diu.

[14] Ministry of Tribal Affairs, *Report of the High Level Committee on Socio-political Health and Educational Status of Tribal Communities in India.*

the habitat and livelihood source for STs, inter-linked to their customs and rituals. Tribals have had their own governance systems for forest management. As they began to shift/diversify their livelihoods from hunting and gathering into farming, they began to occupy forest areas around their settlements, clearing them into permanent fields in gentler foothills. They followed a rotational practice of cultivating (podu, jhum) on steeper hills by clearing and burning the vegetation in small patches of forests, growing crops for a few years (usually three years) and abandoning it for the vegetation to grow before returning to use it a few years later.

State ownership and control over forests was introduced in India, beginning with the Forest Act, 1865, and resulting in the Indian Forest Act, 1927. This has had a huge impact on the lives and livelihoods of forest dwelling communities, especially the STs. Promulgation of various forest laws by the state made the ST habitat into a "state forest", froze the process of further land encroachment by the tribes, put restrictions on their use of forests which they considered theirs and forbade the practice of shifting cultivation as it was considered destructive.

While all forest laws had provisions to exclude (a) areas in use by local people for habitat and farming and (b) settlement of such areas in their name while demarcating state forest boundaries, implementation on the ground posed problems because STs often inhabited interior areas in a hilly and mountainous terrain inaccessible by roads. They were not known as prominent farming communities and were unfamiliar with written laws and the legal processes of land settlement. The settlement process was carried out by outsiders with little or no affinity with STs or understanding of their customs, culture and livelihoods. Shifting cultivation in any case was not considered as "farming" as it did not resemble the settled farming systems prevalent in most places. Thus, tribals became "encroachers" of the land occupied by them for generations and surrounded by forests that was not settled in their name. It has been a source of persistent tension between the STs and forestry department.

Forest Rights Act: It is in this context that the Indian Parliament passed the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006; in short, Forest Rights Act (FRA) 2006. The Act was implemented in 2008. The Act provides a legislative basis to redress the historical injustice that forest dwellers have been subjected to. The Act assures them of a more secure basis for their livelihoods and providing them with legal provisions to defend their rights in the future. The Act provides the following rights to forest dwellers and tribals:

- Ownership rights to forestland (subject to a maximum of 4 hectares) under possession (up to 13 December 2005) by tribals and other traditional forest dwellers.
- Right to conversion of *patta*s, lease or grants issued by the state government on forestland to titles.
- Right to ownership and access to collect and dispose of minor forest products that have been traditionally collected within or outside village boundaries and grazing rights.
- Right to protect, regenerate, conserve, or manage community forest resources (CFR). The CFR may be in a reserved forest, protected forest or protected areas such as sanctuaries and national parks to which the community has access.
- Empowerment of right-holders and the gram sabha for the conservation and protection of forests, wildlife and biodiversity and their natural and cultural heritage.

The Act seeks to secure traditional rights over forestland and CFR and establish democratic community-based forest governance. The law is significant in seeking to democratise the process of rights recognition by making gram sabha the key authority in the rights recognition process. FRA has also created space for Informed Consent of the Gram Sabha for diversion of forestland. Rights of more than 200 million

STs and Other Traditional Forest Dwellers in over 170,000 villages are estimated to be recognised under FRA. Thus, FRA has extraordinary potential for ensuring livelihood security and poverty alleviation through sustainable and community-based management of tribal lands and the forests.

Progress So Far: Of the wide-ranging provisions of the Act, only the section pertaining to individual rights has received most attention, community rights to manage forests have not been given serious priority and other provisions pertaining to rights to use (e.g., gathering NTFPs), etc. have not been addressed adequately. As per the data tabled in the Parliament[15] on rights and titles conferred, the top 10 states in terms of tribal population in the country and also forest cover are analysed and presented in Table 5.12. The average acreage settled is given in Table 5.13.

In providing titles, Odisha has the distinction of providing the largest numbers

Table 5.12: Number Claims and Titles Distributed

	No. of Claims Received Until 31.01.2017			No. of Titles Distributed Until 31.01.2017				
States	Individual	Community	Total	Individual	Community	Total	% Allocation Ratio	% Allocation Ratio
Andhra Pradesh	168,879	4,711	173,590	85,615	1,415	87,030	50.70%	30.04%
Chhattisgarh	842,725	23,949	866,674	369,368	12,337	381,705	43.83%	51.51%
Gujarat	182,869	6,998	189,867	79,614	3,484	83,098	43.54%	49.79%
Jharkhand	99,224	3,286	102,510	54,458	1,723	56,181	54.88%	52.43%
Karnataka	298,795	5,741	304,536	12,421	628	13,049	4.16%	10.94%
Madhya Pradesh	574,902	39,816	614,718	211,214	27,422	238,636	36.74%	68.87%
Maharashtra	352,950	11,408	364,358	106,898	5,748	112,646	30.29%	50.39%
Odisha	621,622	13,433	635,055	403,338	5,891	409,229	64.88%	43.85%
Rajasthan	70,515	755	71,270	35,628	NA	35,628	50.53%	NA
Telangana	183,107	3,427	186,534	93,494	721	94,215	51.06%	21.04%
Total	4,035,513	136,275	4,171,788	1,720,742	62,520	1,783,262	42.64%	45.88%

Source: Parliament Question No. 2978 answered on 20 March 2017.

Table 5.13: Acreage Settled as on 31 January 2017

	Extent of Forestland for Which Titles Distributed (in Acres)				
States	Individual	Community	Total	Average Acre Per Individual	Average Acreage Per Community
Andhra Pradesh	202,261	441,063	643,324	2.36	311.71
Chhattisgarh	797,685	1,286,669	2,084,354	2.16	104.29
Gujarat	117,007	1,142,192	1,259,199	1.47	327.84
Jharkhand	98,265	45,504	143,769	1.80	26.41
Karnataka	16,437	26,465	42,902	1.32	42.14
Madhya Pradesh	792,296	1,302,166	2,094,461	3.75	47.49
Maharashtra	577,026	4,435,945	5,012,971	5.40	771.74
Odisha	603,294	284,110	887,403	1.50	48.23
Rajasthan	55,116	661	55,777	1.55	NA
Telangana	300,092	454,055	754,147	3.21	629.76
Total	4,067,535	9,545,386	13,612,921	2.36	152.68

Source: https://tribal.nic.in/FRA/data/.

[15] GoI (MoTA) Lok Sabha Unstarred Question No. 2978 answered on 20 March 2017.

of titles, that is, 403,338 individual and 5,891 community titles. During the review by Prime Minister's Office in November 2016, it was found that seven states—Assam, Bihar, Himachal Pradesh, Tamil Nadu, Uttar Pradesh, Uttarakhand and Jharkhand—failed to implement the FRA effectively and these states have been advised to improve performance.

Civil society organisations have played an important role in enabling potential beneficiaries and communities to submit claims to the implementing agencies. NGOs have been co-opted in many regions to help with sensitisation and other activities in implementing the Act.

Maharashtra has the distinction of having the highest forest area over which titles have been issued under this Act. The total forest area over which title has been issued is 5,012,971 acres. Madhya Pradesh and Chhattisgarh have distributed close to 21 lakh acres. Nationally, the average per household area over which individual rights have been recorded was 2.36 acres even though the Act permits up to 10 acres (4 ha) per household.

Potential and Achievement: There is no data on what proportion of eligible households have been covered though focused studies covering few villages[16] suggest a significant proportion that has been left out, and rights in most cases have been recorded only on a fraction of claims made by individual claimants.

The potential for community forest rights to be conferred has been estimated under the study "Promise and Performance: 10 Years of Forest Rights Act in India".[17]

[16] Menon, "The Unmaking of the Forest Rights Act"; Sarap et al., "Implementation of Forest Rights Act 2006 in Odisha Process, Constraints and Outcome"; Reddy et al., "Issues Related to Implementation of the Forest Rights Act in Andhra Pradesh."

[17] CFR-LA, "Promise and Performance: Ten Years of the Forest Rights Act in India," Citizens' Report on Promise and Performance of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, after 10 years of its enactment.

The bare minimum estimated potential forest area over which CFR rights can be recognised in India (excluding five north-eastern states and Jammu and Kashmir) is approximately 85 million acres (34.6 million ha). This represents almost 50% of the country's total forestland. The study finds that in 10 years, only 3% of the minimum potential of CFR rights could be achieved.

CFR rights allow community groups to organise forest protection efforts at the local level in return for harvesting and marketing minor forest produce. It is a dependable source of livelihood for the tribals. But the government agencies have been lukewarm about providing such rights ever since the Act came into force. There has been ambiguity in the interpretation of the Act's provisions on the various type of community forest rights, the procedure for claiming them and how the claims should be mapped and processed alongside undue emphasis on individual rights (Box 5.1).

Key Issues: On the ground, the process of implementation has been facing several problems but the major ones are listed as follows:

1. At the root of these problems is the unwillingness of the forest department to let go of forestland under its jurisdiction.[18] There is a conflict over forestland rights between the forest department and the tribal and other forest people.
2. The lack of awareness about FRA at all levels, most of all in the gram sabhas, is a major drawback. Given the low literacy among people in the tribal area and their limited access to different channels of information, many potential beneficiaries have not been able to apply for benefits under different provisions of the Act. The claims of many of those who applied without all the supporting

[18] Sarap et al., "Implementation of Forest Rights Act 2006 in Odisha Process, Constraints and Outcome."

documents have been rejected. The implementing agencies at the local level have neither played a proactive role in helping beneficiaries with proper guidance nor in providing evidence in support of their claims. Uttar Pradesh, West Bengal and Maharashtra have reported high rejection rates.[19]

3. There was inadequate sanction of funds for hiring technical personnel (*patwari*s and others) to prepare maps for the claimants and to verify land records. Due to legal and technical issues surrounding the control and management of land by the revenue and forest departments, maps were only prepared for the land occupied and cultivated within revenue boundaries, excluding areas under reserve forests, protected forests, national parks and sanctuaries. This was done only in the case of individual rights over forestland, neglecting community forest rights. All the area in the possession of tribals under shifting cultivation has not been recognised by the FRA.
4. The common forest rights in some states have been issued to existing JFMs/VRCs, ensuring the control of forest department and undermining the role of gram sabha. Where IFRs have been recognised, two major challenges faced by the title holders are—no physical demarcation of land, creating conflicts and insecurity; and no revision of Record of Rights, leading to rights holders not being able to access various government schemes. This process needs to be expedited.
5. Lack of political and administrative will is seen as the key bottlenecks to achieving the potential of FRA at the national and state levels.[20] MoTA has been provided neither the necessary budget nor its human capacity built for FRA implementation. Unlike several other priority initiatives for which missions were launched by successive governments, there is no mission set up to implement FRA. Lack of political will has also resulted in Ministry of Environment, Forest and Climate Change (MoEFCC) continuing to support Joint Forest Management (JFM) and implementing Compensatory Afforestation Funds (CAF) Act, 2016, which are contradictory to FRA. At the state level, the state tribal welfare departments have not been provided the human and financial resources to implement FRA. In many states, forest officials have been deputed to the tribal departments, who often hinder implementation of FRA.
6. Recognition of Community Forest Rights, CFR Rights, Habitat Rights of PVTGs, rights of dwellers in reserved forests/protected areas and seasonal resource access rights of nomadic or pastoral communities are considerably lagging behind.
7. *Quality of land:* The lands are typically consist of low quality soils and limited or non-irrigation. After establishing rights of tribals over their land, support is needed for restoring soil quality through soil and water conservation works. Skill building in tribals on adoption of best-suited, sustainable farming practices is also needed to ensure that the land is put to good use.
8. *Conflicting laws and policies:* One of the reasons for the poor performance of FRA is due to conflicting and divergent laws, policies and programmes being implemented by the Centre and states (mainly MoEFCC and the state Forest Departments)[21] which undermine the provisions of FRA.

Compensatory Afforestation Fund (CAF) Act 2016: The recently enacted CAF Act,

[19] *The Economic Times*, "7 States Fall Short of Forest Rights Act Implementation: Government."

[20] Menon, "The Unmaking of the Forest Rights Act."

[21] Chattopadhyay, "How the State is Reclaiming Power Over Tribal Communities."

2016, has paved the way for releasing around ₹42,000 crore[22] to the states for carrying out compensatory afforestation, primarily in lieu of diversion of customary forests of forest dwellers. Instead of using the CAMPA funds to empower local communities to carry out afforestation, forest enrichment activities and ecological restoration, the Bill places its faith in the bureaucracy. The state institutions set up under the CAF Act are dominated by forestry department with little or no representation of STs and other forest dwellers. CAF Act also provides incentives to displaced forest dwellers from protected areas by making a specific provision that funds relocation. STs have widely opposed the CAF Act for not requiring consent of the gram sabhas to use their traditional lands and forests for compensatory afforestation.

Joint Forest Management (JFM): JFM is implemented by forestry departments in the mid-1990s in about 15 states. In states where JFM has deep roots, how the Gram Sabhas and JFM committees will co-exist to implement FRA has not been clearly laid out.[23] Civil society organisations point out that advocating JFM will undermine FRA since gram sabhas now have the legal right to protect and manage the forests. There have been recommendations from high-level committees that the powers and resources of JFM committees should be transferred to the committees of gram sabhas formed under FRA. In the meanwhile, since last year, few state governments are using CAMPA funds under new programmes on the principles of JFM,[24] which is seen as undermining the role of gram sabhas. If the forest department-created committees continue, the gram sabhas (empowered to protect, conserve and manage CFR for sustainable use) will be illegally deprived of their statutory rights under the Act while the forest department will retain control over the JFM committees as before.

Guidelines for Privatisation of Forests: MoEFCC issued guidelines in August 2015 to lease 40% of degraded forests in the country to private companies for afforestation.[25] These guidelines are in violation of FRA and disregard the fact that most of these forests are either already recognised CFRs, in the process of being claimed as CFRs or are potential CFRs to be claimed in future. Maharashtra, Madhya Pradesh and Chhattisgarh have reportedly already initiated reaching arrangements based on guidelines with the industry. The guidelines mentioned that tribal communities could access NTFP in only 10–15% of the leased-out area—a clear violation of the FRA that recognised forest dwellers' traditional rights to forestland and its resources.

Leasing of Forests to Forest Development Corporations: Forest development corporations (FDCs), set up in the 1970s, hold about 1.28 million hectare of forestland leased to them by the forest department. Operation of these leases and granting of new leases to FDCs is also causing conflict with CFR rights.[26]

If the FRA is properly implemented in conjunction with the MGNREGS, it will lead to land, forest and watershed development. It will also ensure dignity to the forest dwellers in the collection, use and disposal of minor forest produce, which has so far been constrained by the forest department. The conversion of forest villages into revenue villages will provide more services and benefits to them under various anti-poverty programmes.

22 The amount is calculated on the Net Present Value (NPV) of the diverted forest and the cost of afforestation; it ranges between ₹5–11 lakh per hectare depending on the type and condition of a forest. Singh, "Whose Forests Are These Anyway?"

23 Bera, "Is JFM Relevant?"

24 CFR-LA, "Promise and Performance: Ten Years of the Forest Rights Act in India," Citizens' Report on Promise and Performance of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

25 Shrivastava, "Government to Allow Private Sector to Manage 40% of Forests."

26 Agarwal, "Planting Problems."

Box 5.1: *FRA Implementation Is a Complex Exercise*

"Available village maps are not up to date and do not show revenue land that is considered encroached for settled farming, podu or house construction. Similarly, maps of forestland in use by village people for homestead, settled, periodic or seasonal cultivation (such as turmeric) and podu are not available. Detailed village maps first need to prepared, including de jure ownership and/or de facto use of land by individual households and ownership by the Revenue department, the Forest department and other government departments (such as roads, irrigation). The revenue *kism* (category)[27] of all land needs to be recorded. Modern technology, such as GPS can be used for preparing these maps. The maps can then be superimposed on digitised cadastral maps[28] of villages. Owner (including user of encroached land) and status-wise area of land will also be ascertained. Forestland owned by the Forest department will generally be outside the village map. Forestland that is under use by PTG and other ST households for homestead or any kind of cultivation, including podu, also have to be mapped for purposes of restoration of ownership to individuals under FRA. Similarly, Forestland that has in the past been managed by the village community need to be demarcated and mapped for registering community rights under section 3(1)(i) of FRA. Mapping of this nature requires domain expertise with respect to the Revenue Classification of land besides map making. It is also a labour intensive exercise and requires knowledge of the local areas and the local language. Every parcel of land has to be visited with the concerned owner, information collected from every household in the village and data verified through triangulation."

Source: Odisha Tribal Empowerment and Livelihood Programme.

Livelihoods

Labour: MGNREGS

Apart from guaranteeing 100 days of unskilled manual work per household on demand, which is the core objective, the Employment Guarantee Scheme emphasises the creation of durable productive assets that can strengthen the livelihood resource base. Since the programme was launched, initially in the districts where ST population was high, in terms of tribals' share of employment, it was highest in 2006–7 at 36%. When the programme was launched in all the districts in 2008, their share was 21% until 2011. However, there has been a steady decline since then to 18%. The performance on MGNREGS in the 10 states during 2016–17 is shown in Table 5.14.

In Andhra Pradesh and Telangana, job cards are shown to have been issued to more than 100% of the ST households in the state. While Jharkhand fares well in terms of providing job cards (98%) of the tribal households, its performance in providing employment has not been very satisfactory. Gujarat, Jharkhand, Odisha and Madhya Pradesh fared poorly in terms of providing 100 days of employment as also in percentage of households provided employment and average number of days of employment provided.

Since tribal lands are largely rain-fed leading to one crop per year and a substantial number of tribal population draws their major income from casual labour, work of agriculture labour is available only for a period of 2–3 months during the year. There has been a demand that the limit of providing maximum 100 days employment to a

[27] Revenue land is either privately owned (raiyati) or owned by government (the Revenue Department). The latter is further divided into several categories, namely, abad jogya anabadi (cultivable wasteland) abad ajogya anabadi (uncultivable wasteland), rakhita (reserved for various uses) and sarbasadharana (common land for various purposes, such as cremation ground, etc.). Only cultivable wasteland can be assigned. Encroached land is generally not recorded in revenue maps as such.

[28] Cadastral maps are available for most villages. Digitised maps can be prepared by scanning them. Where cadastral maps are unavailable/mutilated, the programme will get new maps regularised by revenue officials.

Table 5.14: Performance Under MGNREGS during 2016–17

States	% of ST HH Issued Job Cards	% of Card Holders (ST) Provided Employment	Average Person Days Generated Per HH Provided Employment	% of ST Families Completing 100 Days of Employment Out of HH Provided Employment
Andhra Pradesh	126	55	59	21
Chhattisgarh	75	61	45	10
Gujarat	86	23	35	1
Jharkhand	98	41	38	2
Karnataka	64	38	51	11
Madhya Pradesh	73	50	38	4
Maharashtra	59	26	50	12
Odisha	84	41	41	2
Rajasthan	97	58	57	12%
Telangana	151%	43	47	9
Total	86	50	49	8

Source: http://mnregaweb4.nic.in/netnrega/MISreport4.aspx?fin_year=2013-2014&rpt=RP

household in a given financial year should be removed. An alternative can be an allocation of 500 days in a block of five years and any shortfall in one year can be carried over and completed in the next years.

> MGNREGS works should be decided by the Gram Sabha according to PESA. But, in practice, they are being decided top down by government officials and line-departments mostly targeting promotion of plantations on adivasi lands, using MGNREGS money to force down programmes. Planting rubber, palm oil, biofuel, cashew nut, coffee and so on. Some plantations are not native to the area and we are concerned about the effect on soil and also marketing of produce. Tribals would have preferred soil and water conservation works through MGNREGS.
>
> *Source:* NGOs consulted during the field visits.

Although MGNREGS has huge potential to transform the tribal livelihoods, there are some implementation issues that impede its progress. As per the Cluster Facilitation Team project implemented by PRADAN.[29]

- The MoRD records demand registration, and monitors the achievement of labour budget, but workers being able to approach the Gram Panchayats directly for their MGNREGA work is a far cry. There are little or no mechanisms of recognising genuine demand from job card holders. The demand generation is largely done as a formality before the start of a work.
- Although the Gram Panchayat is an implementing agency under the Act, through the new fund flow systems, it has little or no control over funds in their Panchayat. Further, they are tasked with myriad other responsibilities, and there is imbalance between the authority vested in the Gram Panchayat and the responsibilities entrusted to it. There is a need to establish processes at the level of the Gram Panchayat, especially with respect to monitoring of field functionaries by them, that is, the mates and Gram Rozgar Sewak. Over the past three years, a growing trend of the increasing centralisation of the MGNREGA (which is reinforced by the use of various technologies, including the MIS) has led to the undermining of the powers of the Gram Panchayat as envisaged in the Act, resulting in their disinterest in running the programme.
- Moreover, the MIS has become the key priority in implementation, with actual works in the field being neglected.

[29] PRADAN, "Report on Reflections and Policy Recommendations," Internal unpublished document.

Even as the MGNREGA gets more and more dependent on technology, Gram Panchayats feel left out, as they are not provided with adequate basic, let alone IT infrastructure.

- The frequent and ongoing reforms with the fund flow systems of MGNREGA, cause disruptions in the field. Some recent examples have been the introduction of the e-FMS, linking to Aadhaar and the routing through public fund management systems. These apart from funds shortage have led to delayed payments in tribal pockets.

PRADAN finds that over a period of 4–5 years, a family can transform the land through soil and water conservation works and improve productivity. With minimum wages of ₹200 and 100 days of work, a family can mobilise ₹100,000 worth of works in 5 years. In convergence with other schemes of the government, NABARD, etc., for agriculture, horticulture, a family can definitely escape poverty.

Yojana Banao Abhiyan by Jharkhand Government in 2015–17 deserves a mention in improving planning and implementation of MGNREGS for creating lasting livelihood assets such as farm ponds, orchards, goat sheds, etc.

> The main sources of livelihood of Jharkhand villagers are agriculture, forest produce, animal husbandry and unskilled labour. These sources are mainly based on natural resources such as water, forest and land. Most of the state's farmers cultivate rain-fed crops, but rainwater is inadequate. Farm-based livelihood is in jeopardy due to lack of irrigation and reduction in the quality of natural resources. Proper management of rainwater harvesting and other natural resources is vital for the promotion of cultivation-based livelihood. In addition to the livelihood of the villagers for the overall development of the village, there is a need to improve the situation of other important aspects related to their life like health, education, drinking water, etc. There is a need to select appropriate plans for strengthening them by analysing the current situation of infrastructure related to these aspects such as Anganwadi centres, school buildings, etc.
>
> In the Yojana Banao campaign, the rural population were able to select plans to strengthen the livelihoods and infrastructure associated in their village panchayats. In the Planning department, a state resource team was set up to assist the Panchayat Planning Team in training and conducting the campaign for the panchayats. The Panchayat Planning Teams consisted of all types of institutions working at grass roots (This team consists of two representatives of two non-governmental organisations of each block, members of Cluster Facilitation Team, Master Trainers of Panchayati Raj, PMRDFs, NREGA District-level Project Officer, Livelihood Mission and officers of IWMP, Block Program Officer and an Engineer).
>
> The Gram Panchayats conducted village and tola-level (habitation) planning activities assisted by the Panchayat Planning Teams to assist villagers and village panchayats in the planning process. Every Panchayat Planning Team has at least five members: two community planners (members of self-help group/member of CFT/Barefoot engineer/member of Jalchaganj committee/CRP/NREGA workers, who have experience of planning, etc.), two ward members and official of Rural Development. In the campaign, the Gram Panchayats have made projects for the annual plan and labour budget of NREGA for 2016–17.
>
> The results are encouraging—the labour days jumped from 163.99 lakh man-days in 2015–16 to 353.49 lakh man-days in 2016–17. The emphasis of the schemes sanctioned for 2016–17 have been on natural resource management and livelihoods—irrigation wells (16%), land levelling and bunding (13%), farm ponds (13%) and animal sheds (36%). Meaningful convergence between MGNREGS and agriculture/horticulture has been forged through this exercise.
>
> *Source:* www.ippejharkhand.org

While MGNREGA supports land and watershed development for increased productivity of land settled under FRA, absence of supporting staff for implementing the scheme has resulted in low absorption of funds available for supervision of these works.

Gesellschaft für Internationale Zusammenarbeit (GIZ; Society for International Cooperation) is supporting MoRD and the three state governments of Andhra Pradesh, Chhattisgarh and Rajasthan in exploiting the enormous potential of the job creation schemes in terms of environmental benefits and protection from the consequences of climate change. It is also looking for ways of improving the technical standard of the works completed and ensuring they are well maintained.

> For every village where 100 households are willing to take up unskilled manual work, ₹30 lakh can be mobilised under MGNREGA year after year (₹180×100 days×100 people/0.6 as wage to material ratio can be 60:40)! In five years, such a village should be able to transform itself and no one would want to migrate in search of unskilled work for survival, no one would need to defecate in the open, the village would have paved roads with drainage, and so on! No State has looked at the Act this way even as they keep asking for Special Packages! There is no Central programme that gives this kind of money for land and water resource development, improving roads inside the village, building toilets, and so on as a matter of right and on demand. Of course, if States had taken such a stance—it would require working in a mission mode—one would have seen many court cases challenging the current practice of "allocating" funds by the Centre as the law brooks no budgetary constraint!
>
> *Source:* Deep Joshi, SOIL Report 2016.

Table 5.15: Operational Holdings (Quinquennial) All-India Level

Item	1980–81	1985–86	1990–91	1995–96	2000–01	2005–06	2010–11
I. No. and Area of Operational Holdings							
Scheduled Tribes							
Holdings ('000)	6,854	7,648	8,670	9,523	9,404	10,343	11,993
Operates Area ('000 hectares)	16,704	17,234	17,909	17,524	16,525	16,929	18,294
Average area operated (hectares)	2.44	2.25	2.07	1.84	1.76	1.64	1.53
All Social Groups							
Holdings ('000)	88,883	97,155	106,637	115,580	119,931	129,222	137,757
Operates Area ('000 hectares)	163,797	164,562	165,507	163,355	159,436	158,323	159,180
Average area operated (hectares)	1.84	1.69	1.55	1.41	1.33	1.23	1.16
II. Percent Shares of No. and Area of Operational Holdings							
Scheduled Tribes							
Holdings (%)	7.71	7.87	8.13	8.24	7.84	8	8.71
Operates Area (%)	10.2	10.47	10.82	10.73	10.36	10.69	11.49

Source: High Level Committee, 2014, reporting data from agricultural censuses.

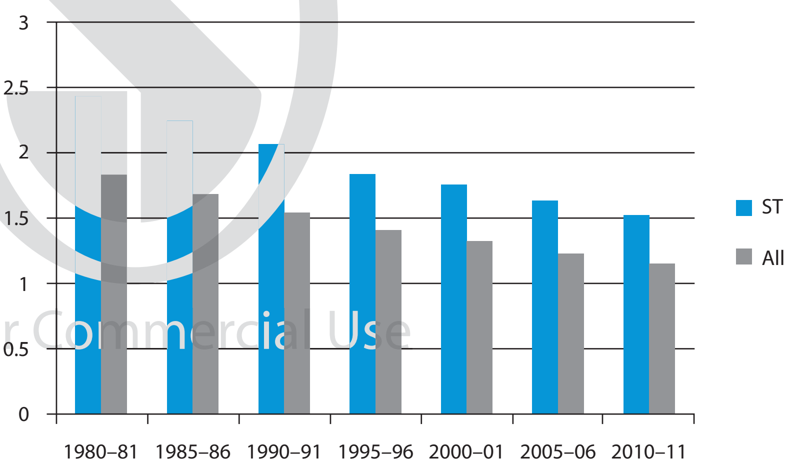


Figure 5.1: Operational Holdings (Hectares) Among Scheduled Tribes and All

Source: High Level Committee, 2014, reporting data from agricultural censuses.

Agriculture

A majority of tribal population works in the primary sector, and are heavily dependent on agriculture either as cultivators or as agricultural labourers.

The data from Agriculture Census (Table 5.15 and Figure 5.1) indicates that the operational holdings and operational acreage decreased marginally in 2000–01 and 2005–06, and increased in 2010–11, both for the STs and at the all-India level. This was due to the fact that, since the formation of the state of Jharkhand in the year 2000, it was not included in the Agriculture Censuses for 2000–01 and 2005–06. It was included in the Agriculture Census of 2010–11 for the first time, for which there was rise in both operational holdings and operational acreages, both for STs and at all-India level. Jharkhand has a ST population of 8,645,042. In other words, it comprises of 26.20% of the total population of the state or 8.29% of the total ST population of the country. The operational acreage has also increased as the Government of Rajasthan distributed wasteland (cultivable) among the landless households during 2010–11. The other reason attributed to the fluctuation in operational acreages is due to the collection of data in Northeast India on a sample basis and because of jhum (shifting) cultivation in the northeast states.

Although STs are better placed compared to all other social groups with regard to their possession of operational holdings and operational acreages, their access to cultivated land is on decline over the years.

The tribals generally live in the most inhospitable terrains and practise shifting cultivation on higher slopes and dry-land cultivation in plains and lower slopes where productivity and output are low. Agriculture is largely rain-fed with single crop per year. Lack of proper irrigation facilities, decline in soil fertility, and risks and uncertainties due to damages caused by the wild animals, pests, cyclones, droughts, etc. affect the agricultural yield. The growing tribal population and the declining agricultural productivity are eroding the subsistence base of the tribal communities.

Hence many programmes in tribal areas are now aimed at (a) community institution development to plan and implement activities related to land and water management, (b) investments to improve irrigation, water harvesting and agriculture intensification, (c) productivity enhancement measures and input cost reduction measures thus improving incomes, (d) increased focus on horticulture including orchard development programmes and (e) focus on livelihoods in clusters to access market.

Bharat Rural Livelihoods Foundation (BRLF) has been set up by GoI as an independent society to upscale civil society action in partnership with Government. The initial focus of BRLF is on the Central Indian tribal belt, centred on blocks/tehsils/talukas/mandals with more than 20% Adivasi population in around 1,077 blocks (as per 2011 census) across about 190 districts in the states of Odisha, Jharkhand, West Bengal, Chhattisgarh, Madhya Pradesh, Andhra Pradesh, Telangana, Maharashtra, Rajasthan and Gujarat. Agriculture is the main intervention under BRLF and during 2015–16 176,655[30] HHs are covered under various agricultural activities through 13 civil society partners.

Community Institutions Development: The government programmes as well as externally aided projects focus on building community institutions for involving the tribals in planning and execution of land and water management works. Village development committees usually consist of men and women. Formation of SHGs and federations is another important community mobilisation activity for livelihood promotion among tribal, especially women.

State rural livelihood missions are forming SHGs in large numbers and have special focus to include tribals. However, overall, their strategy for tribals and non-tribals are similar. Many federations have mixed membership of general and tribal members and the tribals are seen to be shy, less articulate. The monitoring systems in place have to capture nuanced data on participation of tribals and how tribal versus non-tribals are benefitting. While institution building is getting attention, the livelihood aspects are yet to be given a strategic thrust.

Water Management Works: These works have been receiving attention under-development programmes. Lift irrigation, micro-irrigation sprinklers, drip systems, gravity-based irrigation structures and farm ponds are planned and executed with the involvement of the village development committees formed for the purpose or

[30] 19,470 HHs have been covered through SRI, 74,126 HHs through improved vegetable cultivation practices, 17,358 HHs through horticulture promotion and 34,144 HHs through improved practices of pulses and oilseed cultivation. BRLF, An*nual Report, 2015–16*.

SHGs/federations as the case may be. These structures are largely grant based; some SHGs are also leveraging loan funds for gap filling investments. Undulating land terrain, parcels of land distributed over larger area are challenges in adopting better water management structures. However, availability of water has enabled tribal families to have kharif and rabi crops and also shift to higher value agriculture such as vegetable farming.

Productivity Enhancement: The TSP blocks being relatively more inaccessible with forest covered hilly terrain along with the left wing extremism that has left the government extension services in agriculture, horticulture and animal husbandry inaccessible. Knowledge of fertiliser dosage, seed replacement practices, access to quality seeds and inputs is negligible in these areas due to low outreach of extension services. Demonstrating the use of improved seeds and package of practices through Farmer Field School mode, facilitating collective purchase of quality seeds through village level farmer producer groups (FPGs), enhancing availability of improved variety of seeds through promotion of certified seed growers are some of the initiatives being under taken in the region. Even in this challenging environment, there are a number of significant interventions from public and voluntary sector actors that provide hope that sustained improvement of tribal communities is possible and doable. Some of these examples are worth examination.

1. *Mitigating Poverty in Western Rajasthan (MPOWER) project* in Rajasthan has tried to address the last mile extension work in inaccessible areas through barefoot technical personnel. In the tribal and desert areas, the project has trained and placed some 331 Krishi Mitras and 1,985 Krishi Sakhis. These personnel are trained as community resource persons (CRPs) to support the farmers on agriculture and horticulture, as also collect and maintain requisite database on these interventions. The project has demonstrated new technologies in agriculture—introduction of seeds treatment, line sowing instead of broadcasting of seeds, providing required irrigation, cropping models such as integrated maize + pulses cultivation, maize + saunf (fennel) and vegetable with marigold resulted in about 20% higher yield and 30% higher income along with increased fodder (from maize and pulse).[31]
2. *System of Rice Intensification (SRI)*[32] has also been adopted in the tribal areas for improving productivity. Convincing the tribal households that SRI would reduce costs and increase production takes time and after small-scale experiments the households adopt this widely. NRLM and a number of civil society institutions have promoted SRI in these states.[33] Mahila Arthik Vikas Mahamandal (MAVIM), State Women Development Corporation of Maharashtra, has identified the following benefits from adoption of SRI[34] in tribal areas of Chandrapur district in Maharashtra:

    - Reduced seed requirement due to single seedling transplantation—the quantum of seeds needed to grow one

[31] IFAD, *Mitigating Poverty in Western Rajasthan Supervision Report.*

[32] The essence of the system is to optimise the potential of the plant and its roots. Single seedlings are transplanted at an early age, with spacing that reduces nutrient competition between the plants and facilitates mechanical weeding. Tilling (production of new stems) is optimised during the growing period, leading on to more seed heads and more grains per head. Rather than being continuously flooded, soils are kept well aerated for increased root growth for most of the period before flowering. Better results are often obtained with organic fertilisers.

[33] The compendium of case studies published by Access Development Studies on Innovations in Sustainable agriculture showcase adoption of SRI in tribal areas in Andhra Pradesh, Gujarat, Maharashtra Madhya Pradesh, Chhattisgarh, Jharkhand and Odisha. Out of 15 case studies selected, 7 mention SRI as adopted practice.

[34] Access Development Services, "Innovations in Sustainable Agriculture."

acre of paddy has fallen by 90% from 30 kilos to 3 kilos.

- Reduced cost of fertiliser by replacing mineral fertiliser costing ₹3,000 per acre with organic compost worth ₹1,000.
- Use of organic pesticides in place of chemical sprays, reducing cost from ₹2,000 to ₹200 per acre.
- With seedlings transplanted in rows on a grid pattern, it is possible to use simple mechanical weeders, which reduced the labour needed for weeding and inter-culture by 75%.
- Overall reduction in the cost of production for one acre by about 50%—from ₹10,000 to ₹12,000 down to ₹4,000–5,000.
- Increase in yield of paddy by around 40%, with yields using SRI of around 1.3 to 1.5 tons per acre compared with the previous 0.9 to 1.1 tons per acre.
- Improvement in quality of paddy, resulting in an increase in market price. Before SRI farmers sold paddy for ₹17–20 per kg, but are now able to get ₹25–45 per kg.

While the benefits are clearly demonstrated, there is still a hesitation to completely shift to the new method of cultivation among men. Another problem that relates with the technique of SRI cultivation and needs a timetable to be followed is that the plantation is done when saplings are small, about 15–20 days old, and while planting them, land should be just wet and not waterlogged as in the case of traditional plantation. This means rain should be timely, or the land should have appropriate drains to take out the excess water. If the saplings are a little older then they cannot be planted using SRI method. During planting time, labour is hard to find to perform timely plantation and they are used to performing plantation using the traditional method and are reluctant to do spaced-out planting with rope measurements.

3. *Nutrition sensitive agriculture:* Millets are hardy and can be grown under conditions of marginal soil fertility and moisture. Hence, millets are used as rain-fed crops in dry zones in tribal belts. Their short growing season (as little as 65 days) means they only need a short period of rainfall. Millets are also highly nutritious. However, unlike the more popular cereals, such as wheat, maize and rice, millets have largely been overlooked by plant breeders and other agricultural development initiatives. Farmers in southern Madhya Pradesh have long grown two types of minor millets, kodo and kutki. However, the low yield of local varieties grown using traditional practices resulted in low income; farmers produced about 100–150 kg from 1 acre, and sold at ₹8–10 per kg, giving an income of ₹1,000–1,500 per acre. Farmers are increasingly switching to wheat and rice, despite the vulnerability of these crops to climate change.

   The initiative to develop millet production and marketing is being implemented by federation of women's SHGs, Nari Chetna Mahila Sangh Mehendwani, in Dindori district under IFAD, supported Tejaswini Rural Women's Empowerment Programme. The women are trained in packaging of practices developed by Jawaharlal Nehru Krishi Vishwa Vidhyalaya, Agricultural University in Jabalpur and its associated Krishi Vigyan Kendra in Dindori. Improved seed varieties of kodo and kutki were provided to farmers. Farmers were encouraged to use integrated nutrient management and integrated pest management. Facilitating NGO, NYWCID, developed community resource persons for propagating the package of practices.

   These interventions have doubled the yield of millet to about 200 kg per acre. Market linkages are forged by the federation that also undertakes cleaning and grading of the millets. And farmers sell millet through the federation for ₹40 per kg, four times more than what they got earlier. The income has increased to ₹4,000–4,500 per acre. In addition, each farmer deposited 20 kg of millet seed with the federation, which now has a total 30 tons of seeds and 6,600 farmers are covered by the initiative. Recently, an FPO has been formed for processing and sale of the millets to private sector companies.

4. *Lakhpati farmers:* Central India Initiative of Tata Trusts (CINI) has launched an ambitious initiative "Lakhpati Kisan: Smart Villages". Building on its key learnings in the region, the goals of the programme under its Mission 2020 are to bring 101,000 households irreversibly out of poverty and by 2025, 15 lakh tribal families will be irreversibly out of poverty. The programme aims at ensuring an income of ₹120,000 per household from the base line of ₹30,000 per household.

   The thrust of the program is to dramatically increase access to irrigation from current extremely low level (6–11% irrigated) by scaling existing models and bringing new innovations in the area. Quantum improvement in crop productivity and returns from agriculture are prioritised along with improving irrigation. To improve returns from agriculture, along with productivity improvement of field crops/cereals, introducing high value agriculture across the region and linking with the markets. Thus, market-led growth in high-value agriculture is to enable the quantum change. The programme keeps the people's institutions at the centre of planning for sustainability and exit.

   The programme has enabled farmers to improve productivity and market linkages in maize, a range of vegetables, pulses, paddy, livestock especially goat, piggery and NTFPs. Multiple activities to reach the income goal for each household is planned and executed over three-year period. Thus the thrust on irrigation, high value agriculture and market linkages are key drivers of this initiative.

5. *Private sector making inroads:* The private sector involvement is also increasing in terms of input supply such as seeds, fertilisers and also as major procurement agents, for some of the crops such as maize, cotton, etc. The growth of the sub-sector is evident and productivity enhancement is being driven by the market in these crops, as a result of which, larger volumes and scales are being ensured. Often higher order market linkages require cluster institutions to be registered as vendors and suppliers of corporate bodies. However, these also open up many legal complications for the producer institutions such as commercial tax registration in the form of a TIN to be able to pay applicable taxes and PAN for income tax declaration, etc. (please see Chapter 7 on FPOs for more details).

While there are a number of such positive developments on the ground, much more focused attention is needed to ensure security of tenure to land so that investment on land can be undertaken. Springs and streams present in many villages need to be used for irrigation with appropriate technology and rainwater needs to be harnessed. The farming practices that are rudimentary and crop with very low productivity have to be improved, ensuring higher income for tribals. As they move into higher value commercial agriculture, sustainable non-exploitative market linkages also need to be forged.

Non-Timber Forest Produce

NTFP contributes to about 20–40% of the annual income of forest dwellers (including 89 million tribal people). It provides critical subsistence during the lean seasons, particularly for PVTGs, and the landless.[35] NTFP has a strong linkage to women's financial

[35] Ministry of Environment and Forests, *National Mission for a Green India*.

empowerment in the forest-fringe areas as most of the NTFPs are collected and used/sold by women. As per an estimate, the NTFP sector alone is able to create about 10 million workdays annually in the country.[36] Besides food security, NTFPs also provide for a big opportunity to establish eco-friendly, small to medium enterprises at local level. An estimate made by TRIFED in 13 important NTF product lines indicates a market of about ₹3,800 crore, as shown in Table 5.16.

Forestry department and FDCs had been focusing more on timber since after the ban on green felling, income from timber diminished and the income from NTFPs constitute major chunk of total income of the department. Export of NTFPs and its products contributes 68% of the total export from forestry sector.

The key issues affecting NTFP-based livelihoods of tribals all over India are many. Some of them are as follows:

- Depleting resource base because of either diversion of forestland for non-forest use or because of unsustainable harvesting practices that has been a challenge in the NTFP sector. The growing impacts of climate change on production are also identified by the tribal population as one of the issues faced.
- Sustainable harvesting protocols have not been developed for most NTFPs and whatever protocols are available remain

Table 5.16: NTFO: Commodity-wise Production Estimate[37]

S. No.	MFP	Estimated Total Potential (in Lakh MTs)	Estimated Value (₹ in Crore)	Major Producing States
1.	Tendu	80.00 (STB)	1,040.00	Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha, Gujarat, West Bengal
2.	Bamboo	48.00	1,200.00	Madhya Pradesh, Chhattisgarh, Gujarat, Andhra Pradesh, Odisha, Maharashtra
3.	Mahua Flower	1.50	122.00	Madhya Pradesh, Chhattisgarh, Gujarat, Jharkhand, Andhra Pradesh, Maharashtra, Odisha
4.	Mahua Seed	1.00	110.00	Madhya Pradesh, Chhattisgarh, Gujarat, Jharkhand, Andhra Pradesh, Maharashtra, Odisha
5.	Sal Leaf		100.00	Jharkhand, Chhattisgarh, Odisha, Madhya Pradesh
6.	Sal Seed	1.60	160.00	Chhattisgarh, Odisha, Jharkhand, Madhya Pradesh
7.	Lac	0.25	150.00	Chhattisgarh, Andhra Pradesh, Jharkhand, Gujarat, Rajasthan, Madhya Pradesh
8.	Chironji	0.10	230.00	Jharkhand, Chhattisgarh, Madhya Pradesh, Andhra Pradesh
9.	Wild Honey	0.30	270.00	Madhya Pradesh, Chhattisgarh, Odisha, Maharashtra, Andhra Pradesh, Karnataka
10.	Myrobalan	1.30	78.00	Maharashtra, Chhattisgarh, Odisha
11.	Tamarind	2.00	240.00	Andhra Pradesh, Chhattisgarh, Madhya Pradesh, Jharkhand
12.	Gums (Gum Karaya)	0.05	62.00	Andhra Pradesh, Chhattisgarh, Madhya Pradesh, Maharashtra, Gujarat, Jharkhand
13.	Karanj Seed	0.40	40.00	Madhya Pradesh, Jharkhand, Odisha, Rajasthan, Chhattisgarh
		Total	**3,802**	

Source: TRIFED, http://www.trifed.in/trifed/(S(skftrqqwlcsp0wchujgklw2c))/CommodityQuantity.aspx

[36] Planning Commission, *Report of Working Group 11 on NTFPs in 12th Five Year Plan.*

[37] From website of TRIFED, http://www.trifed.in/trifed/(S(skftrqqwlcsp0wchujgklw2c))/CommodityQuantity.aspx

unpracticed in many cases. Tribals now face competitive, unsustainable, over-exploitation and unsound collection practices by outsiders as well.

- In most places, none of the market players—forest departments, the procurement agencies, gram sabha/panchayats and institutions of primary collectors—have proper storage facilities. Most NTFPs are seasonal products, and several products being perishable require immediate disposal in the absence of appropriate storage facility. This means that the primary collector is vulnerable to distress sale or sale at a low price due to lack of adequate storage. Further, lack of value addition deprives the NTFP collectors of better income realisation.
- The states have their own policy on NTFPs and rules relating to trade, taxation and movement of goods. It is not possible for tribals or even NGOs to understand the complexity of these laws, and this leads to harassment and corruption. Transit rules are often changed and laws restricting free movement of NTFPs bring uncertainty in market operations. The lack of viable market access inhibits gatherers from moving up the value chain through collectivisation.
- For national level planning and management, a reliable database on NTFP is required. There is a need to collate the type of NTFPs available, their quantity, collection, consumption by collectors, value added, traded quantity and the long-term production potential.

In the central region states, tendu leaves, sal leaves, sal seeds, chironji, lac, tamarind, sabai grass, mahua seeds and flowers, siyali leaves, honey, gums, hill broom grass, tassar, bamboo, medicinal plants are some of the major NTFPs that are collected and sold by the tribal communities.

Sustainable Collection/Production: Stakeholder interviews for the report as well as past studies show that almost in all NTFPs, production is either decreasing or has not increased over the last few years. More sustainable harvest around key NTFPs like sal leaf, siali leaf, lac, wild honey, etc. are needed. Identification of traditional knowledge related to sustainable harvesting, introduction of improved tools and techniques, awareness building on harvesting technique and time of collection, preparation of sustainable harvesting codes and community managed regulatory practices have to be implemented to ensure sustainable NTFP harvesting practices.

Marketing: The collected NTFPs are usually sold in weekly markets; tendu leaves and sal seeds are largely sold to government procurement agencies. Though Andhra Pradesh, Chhattisgarh, Odisha, and Madhya Pradesh have state promoted NTFP marketing channels (State Tribal Development Cooperative Corporations) that have been functioning for a few decades, the volume of business handled by them is still limited. Bulk of the collected produce is sold through weekly *haat* bazaars or at the doorstep of the gatherers. The State Tribal Development Cooperative Corporations are dependent on the state government for driving their business rather than developing a business plan. These corporations usually are understaffed and underfunded. At times, the state governments often direct them to procure other items as well, distracting them from what should be their core focus. For example, Odisha State Tribal Development Cooperative Corporation is involved in paddy procurement as well.

Tribal Cooperative Marketing Development Federation of India Limited (TRIFED), set up in 1987 as an apex body for State Tribal Development Cooperative Corporations, was mandated to provide remunerative prices for the forest and agriculture produce of tribals, besides protecting them from exploitation by middlemen. Further, TRIFED is to provide grant-in-aid to strengthen their share capital base State Tribal Development Cooperative Corporations in order to increase the volume of procurement of minor forest produce from tribals at remunerative prices and for construction of warehouses/godowns, establishing processing industries and supporting research and development activities of the 16 State Tribal Development Cooperative Corporations.

MoTA has been offering MSP for select NTFPs (initially 10 products were covered and 14 more items have been included in 2016) through the scheme, "Mechanism for marketing of Minor Forest Produce (MFP) through Minimum Support Price and Development of Value Chain for MFP". TRIFED administers the procurement of NTFP through designated state procuring agencies that in turn procures directly through primary level cooperative societies working in the tribal areas, haats/bazars/shandies. During the last three years, the designated state procurement agencies in the states of Andhra Pradesh, Chhattisgarh, Gujarat, Jharkhand, Maharashtra, Odisha and Rajasthan have set up about 1,199 procurement centres. Recently, however, the coverage of the scheme has been extended beyond the Fifth Schedule states and now scheme is applicable in all States. During the last three years, TRIFED has procured MFP items of the value of ₹89.66 crores in the procurement centres.[38] Chhattisgarh alone accounts products worth ₹80 crore handled by TRIFED. The procurement value is far short of the estimated volume of ₹2,000 crore in the 12th Five Year Plan by the special committee on NTFPs setup planning commission.[39] About 30% of the procurement is only in sal seeds and kusumi lac. Out of 10 items that have been handled since 2014–15, procurement price of four (tamarind, chironji, lac, mahua seed, myrobalan) have been reduced for the year 2017, leading to discontent among gatherers.[40] TRIFED has a paid-up capital of more than ₹100 crore. The Indian market for NTFP is estimated at ₹3,800 crore. The business volumes of TRIFED do not reflect favourably on its functioning, as its sales have been less than its paid-up capital.

The low-key functioning of TRIFED has resulted in most gatherers and producers still depending on traders for marketing of their collected produce. Since gatherers/producers have little holding/storage capacity and are in dire needs of funds, the traders dictate terms to them. Monopoly of few traders and lack of market information at the primary producer/collector level results in low price realisation for gatherers.

Both government and non-government agencies have attempted to promote collectives of primary collectors in the form of SHGs, self-help cooperatives and producer companies, but they need more support. The producers/gatherers have to be sensitised to provide good quality material. Years of exploitation also makes the community adopt unfair practices such as mixing water with tamarind to increase the weight, packing small leaves along with large leaves, etc. There have been instances where trader lobby ensured that tribal collectives remained unviable so that they can deal with individual collectors. The collectives on their part suffered losses not only due to trader lobby but also due to faulty leadership and misappropriation of funds that makes the community lose confidence in collectives. MART has suggested developing a marketing cadre of entrepreneurial youth for undertaking NTFP marketing.[41]

A study in Bilaspur district, Chhattisgarh, found a variety of problems facing NTFP collectors, ranging from wild animal attack

[38] GoI (MoTA) Lok Sabha Unstarred Question No. †5930 to be Answered on 10 April 2017, "Procurement Centres for Forest Products."

[39] Planning Commission, *Report of the Sub-group II on NTFP and Their Sustainable Management in the 12th 5-Year Plan.*

[40] GoI (MoTA) Lok Sabha Unstarred Question No. †5895 to be Answered on 10 April 2017, "Procurement Policy for Forest Products."

[41] "Value Chain Analysis and Feasibility Strategy of Product Clusters in Tribal Sub Plan Areas of Odisha," conducted by MART, Commissioned by ST & SC Development, Minorities & Backward Classes Welfare Department, Government of Odisha in 2014.

Table 5.17: Problems Faced in Collection and Marketing of NTFPs

S. No.	Particular	Frequency	Percentages
1.	Existence of bad weather	127	94.07
2.	Injury caused by attack of wild animals	119	88.15
3.	Obstruction caused by forest regulations in collection of NTFPs from restricted forest area	78	57.78
4.	Over collection of NTFPs by outsiders	100	74.07
5.	Low and fluctuated market price of NTFPs	129	95.56
6.	Lack of developed market infrastructure for NTFPs	127	94.07
7.	Lack of transport facilities for marketing of NTFPs	66	48.89
8.	Lack of low-cost storage facilities	35	25.93
9.	Lack of skill oriented training programme related to collection, processing and marketing of NTFPs	60	44.44
10.	Lack of availability of timely market information about NTFPs	45	33.33
11.	Lack of good road connectivity of villages with market	36	26.67
12.	Lack of subsidy and bonus on all NTFPs	53	39.26
13.	Deforestation	112	82.96

Source: Article "Problems faced by Tribes in Collection and Marketing of Non-Timber Forest Products (NTFPs) in Chhattisgarh, India," 789–93, Gupta et al.

to restriction imposed by forest department regulations.[42] Table 5.17 provides the feedback from the survey on the frequency and extent of the problems faced by the tribal communities.

The study points to the need for interventions on the marketing aspects more than in collection aspects.

Value Addition: There have been some initiatives by both government programmes and by NGOs for value addition—PRADAN has made an effort to add value to the siali leaves by providing tribal women with machines and training for making moulded plates out of the leaves. With this value addition, the income of participating households increased from ₹500 per month to ₹3,000 per month. In Mayurbhanj, UNIDO has taken up skill improvement for sabai grass handicraft production for tribal women, as value addition in sabai handicraft production is six times higher than the sabai rope-making activity. Appropriate technology in the form of modern sabai rope-twisting machine and sabai rope-making machine were introduced which reduced production cost and doubled the production. Many NGOs are working with wild honey gatherers in improving collection practices with appropriate tools and also processing the honey and selling to TRIFED.

Studies carried out in this region shows that there is potential for cluster development, primary value addition through SHGs/collectives, thus increasing the income of the NTFP gatherers by 20–25%. Research and development for new technology need to be focused on primary processing for value addition since many of these activities such as tamarind shelling and deseeding, leaves drying, etc. are labour intensive and add to drudgery of women. The MSP for tamarind with seeds is ₹18 per kilo whereas MSP for deseeded tamarind is ₹40 per kilo. Similarly, development of new products, new marketing channels and new markets will also add to the income of the tribals for which an innovation fund mechanism will have to be put in place by apex institutions such as NABARD/BRLF. Securing working capital for the collectives for undertaking

[42] Gupta et al., "Problems faced by Tribes in Collection and Marketing of Non-Timber Forest Products (NTFPs) in Chhattisgarh, India," 789–93.

procurement and value addition is also a major challenge (see Chapter 7 on FPOs for details on the challenges faced by collectives in raising working capital).

Wadi Programme

Based on the successful experience of Wadi Programme, implemented by BAIF under KFW-NABARD Adivasi Development Programmes, NABARD is replicating the Wadi model across the country. BAIF has been promoting agri-horti-forestry popularly known as Wadi (productive orchard) on degraded farmlands since 1985. This model consists of growing horticultural trees and vegetable crops as intercrops and multipurpose trees on field bunds and borders as live fence. BAIF's Wadi Programme has so far benefitted 193,954 families through establishment of agri-horti-forestry on 71,872 hectare of land spread over 5,640 villages.[43]

NABARD created a Tribal Development Fund (TDF) with a corpus of ₹50 crore, out of its profits in 2003–04 for implementing the Wadi model. The fund has grown over the years and the available fund at the end of March 2017 was ₹1,016.56 crore. NABARD collaborates with state governments, Krishi Vigyan Kendras (KVKs,) NGOs and corporates in implementing the "Wadi" model for improving livelihood of tribals. As on 31 March 2017, the cumulative sanctions under TDF stood at ₹2,029.84 crore while disbursement stood at ₹1,340.31 crore, covering 5.03 lakh families with 673 projects across 27 states and union territories. During 2016–17, a total of 40 projects were sanctioned, out of which 11 were sanctioned under CSR/co-funding arrangement.

Besides providing livelihood to tribal families, the orchard development programme ensures long-term environmental benefits, mainly through carbon sequestration.

A Wadi plot usually covers one acre per beneficiary who must be a marginal farmer not having more than 5 acres of land. The interventions consist of land use planning, soil conservation and water harvesting measures and improved farming based agri-horti-forestry practices. Soil conservation and water harvesting are planned in a cluster and executed through farmers' collectives. To increase moisture retention in the Wadi plots, earth and stone bunding, platforms and trenches are introduced. Protective irrigation systems such as ring wells, springs, small check dams, micro-lift irrigation systems and diesel pump sets are also used, and usually the water source developed met the need of 5–10 Wadis. The farmers are oriented in collective use and maintenance of water resources.

A basic requirement in Wadi Programmes is the initial support for inputs as subsistence farmers do not have the resources to invest. This support has to be further strengthened by providing technical information on improved farming practices. Presently, it costs ₹45,000 per acre for the comprehensive interventions for a period of 5 years.

Agricultural crops, horticultural trees and forestry species are cultivated. Fruit and nut trees such as mango, litchi, cashew and amla are the common horticultural species in Wadi and the species can vary as per agro-climatic zones. For example, in Rajasthan, amla, orange and ber are grown whereas in Maharashtra, apart from mango and cashew, custard apple and guava are also grown. The trees are planted at the recommended spacing; agricultural crops are grown as intercrops in the spaces between the trees. The third component of the Wadi system is the forestry species such as subabul and gliricidia. These multipurpose trees are planted at relatively close spacing along the border of the land designated for Wadi. Depending on the species, 40–60 fruit plants and 300–400 forestry species along the border are planted in one acre of land. Farmers are advised to adopt green manuring, composting, vermi-composting and mulching to improve soil productivity.

[43] In the states of Maharashtra, Gujarat, Karnataka, Rajasthan, Madhya Pradesh, Bihar, Chhattisgarh, Uttarakhand, Uttar Pradesh and Jharkhand. 90% of the work has been in Maharashtra, Gujarat, Karnataka, Rajasthan and Madhya Pradesh.

BAIF, "Carbon Sequestration in Wadi."

The shift from rainfall-dependent single crop to at least three species in the Wadi enhances diversity and productivity in the form of food, fodder, fuelwood and small timber. The economic sustenance of the farmer is ensured. Wadi concept has turned out to be a practical strategy for the development of smallholders in dry areas who cannot take the risk of investing in high-input intensive agriculture because of poor land quality and limited water availability.

While there have not been any recent impact studies, the earlier studies by BAIF and NABARD show sustainable impact. The farmers have participated in a project to develop their land under Wadi. They received inputs such as grafts, seeds and manure besides guidance on improved farming practices. The returns during the first 3–4 years are usually from the crops grown in the tree interspaces. When the fruit/nut trees start bearing fruits from fourth year onwards, a steady stream of income starts flowing. BAIF estimates that ₹800 crore of income is generated from Wadis for 1.9 lakh families during the 2015–16,[44] resulting in average per capita income of ₹42,000. The initial investment of ₹45,000 per household manages to produce net income of ₹42,000 per annum, giving a high rate of return on investment. With income stability, the households can plan expansion of economic activities. It has been found in Wadi areas that the households expand acreage under Wadi plantation once the income flow starts being regular.

The Wadi approach opens up opportunities for a number of local enterprises such as nurseries to produce grafts/seedlings, dairy and goat husbandry and compost making. Complementing the primary intervention of Wadi, these allied activities widen the sources of income for the tribals. At the same time, critical inputs such as planting material and compost become locally available at a reasonable price.

The horticulture crops have possibilities and in some locations necessity for value addition. In Odisha, there has been bumper crop of mangoes during the year, necessitating partner NGOs and NABARD to ensure market linkages. Without adequate linkages, traders exploit the situation and offer low prices. While planning a Wadi programme, it is essential to plan and build in post-production strategies and linkages for processing and marketing. BAIF has promoted commodity co-operatives in different locations. In order to ensure appropriate price for the produce, the co-operatives undertook processing of mango pickle, pulp, jam and cashew. The Farmers' Producer Company VAPCOL, promoted by these co-operatives and federations, has been supporting marketing of various products produced by Wadi families. During 2016–17, VAPCOL procured 740 tons of mango and 95 tons of raw cashew, and 200 tons of mango pickle and 102 tons of mango pulp were sold with a turnover of ₹2.14 crore. Similar such initiatives are needed in other programme areas as well.

Livestock Rearing

Small ruminants such as goats, sheep and pigs and backyard poultry are reared by different tribal groups. Very few tribes rear dairy animals. Drought cattle for tilling the land are also reared. The livestock census 2012 has found that the population of sheep declined by 9.07%, goat population has declined by 3.82% and pigs have also decreased by 7.54% in the period 2007–12. However, analysis by social groups is not available and hence it is difficult to analyse the trend in livestock rearing by tribal households.

Goat Rearing: With low investment, high and consistent returns and easy liquidity goat rearing is undertaken widely by the tribals. In semi-arid regions such as Western Rajasthan and parts of Gujarat and Maharashtra, goat rearing is the major livelihood option that tribals pursue to tide over the vagaries of monsoon failure.

[44] BAIF, *Annual Report 2015–16*.

Tribals see several advantages in rearing goats. It is not capital intensive. Usually free grazing is adopted that saves close to 70% of the rearing cost. Goats can survive in harsh environment and still provide good profit. From the age of one, they are able to conceive and breed twice a year. With good breeding techniques, they give birth to twins. The tribals follow traditional practices in rearing.

However, key issues faced by goat rearers include (a) indiscriminate breeding, resulting in low weight of kids at birth and poor growth; (b) absence of timely vaccination against diseases such as PPR, enterotoxaemia and goat pox, causing high mortality (Absence of deworming and lack of timely veterinary care also affect the growth.); (c) shortage of fodder and absence of supplementation feeding cause low weight at birth, poor growth and low price realisation; (d) in the absence of organised local market and lack of information on demand, weight of the goat and market price for meat, tribal goat rearers are exploited by traders. Lower income forces them to increase the herd size, resulting in further depletion of the biodiversity.

Some of the programmes funded by IFAD–MPOWER in Western Rajasthan, Tejaswini in Maharashtra, World Bank–NRLP, Mahila Kisan Sashaktikaran Pariyojana[45] (MKSP) have laid thrust on improved management practices in goat rearing in tribal areas (Box 5.2). These programmes are embedded in institutional structures of SHGs and federations. Resource institutions such as BAIF, Goat Trust, Center for microFinance, etc., have been enlisted by these programmes to ground the livestock initiatives.

Extension Services: Alternative livestock extension services had been a felt need and many experiments around promoting and nurturing such service delivery mechanism had been tried with limited success. Most often, rural educated male youth were trained as barefoot service providers, but their aspiration to earn more turned them towards treatment rather than preventative practices and awareness building. First aid requires close monitoring of first symptoms and first aid at first symptom. Most often, women's involvement in goat shed cleaning enables them to observe first symptom and they care for the ailing animals but access for women to such trained rural youth was found low and costly. Thus, women SHGs as last mile service provider are seen to be more sustainable. These programmes develop women SHGs as community resource persons for livestock extension services to improve the goat management practices, reduce mortality rates and improve breed.

[45] MKSP is a sub-component of the NRLM.

What Inhibits Livestock Initiatives In Tribal Areas

Extension Services: This model only works in areas of high density of animals, where knowledge and basic services are a critical constraint. Though Pashu Sakhis are working well, the adoption of better practices such as castration, breed improvement, and also deworming and vaccination is still to reach the optimum levels. Their knowledge building should continue and their services should find acceptance by Department of Animal Husbandry, which would be key to their offering sustainable services.

Grazing: Goat rearers largely adopt open grazing and since the grazing land is diminishing, the pressure is on forests for the fringe dwelling communities. Forest department officials see goats as a major impediment to the regeneration of forests. This often leads to altercation with forest officials locking away goats, levying fines, etc. Although goats are blamed for degradation of forests and depletion of soil fertility, a Task Force constituted by the GoI concluded that the contribution of goats to an ecologically fragile environment is only marginal.

At present, no ministry is concerned with grazing. The animal husbandry department's

Box 5.2: *Pashu Sakhi Model for Doorstep Delivery of Services to Goat Rearers*

MAVIM is implementing about 4,000 micro livelihood plans (MLPs), each covering 30–60 members across 34 districts of Maharashtra.[46] A total of 45% of the MLPs are for goat rearing and about 30% are in tribal areas. Looking at the volume of goat-based MLPs and the critical gap in providing basic veterinary care services, MAVIM has promoted the cadre of "Pashu Sakhi" across Maharashtra who will provide important services, including vaccination, castration and facilitating insurance services.

In Gondia, a tribal district, with the partnership of MSRLM, MAVIM had an opportunity to work with Goat Trust, technical service provider for promoting goat-based livelihoods. Goat Trust had demonstrated the best practices in feed, medicines and housing, apart from developing a cadre of Pashu Sakhis who were well trained by the Goat Trust in providing last mile basic veterinary services.

Semi-literate women are trained as Pashu Sakhi through periodic classroom training for a total 15 days, spread over four trainings over a year. Fortnightly review of their work and field support is provided by a trained professional. Quarterly grading of Pashu Sakhi enables need-based support to address weak areas in her work. Selection by community and pre-training briefing of roles and responsibility and involving family heads in orientation are features added in promotion process to enhance ownership of community and family support for effective functioning of Pashu Sakhi. Pashu Sakhi essentially is a goat rearer and adopter of best practices that enhances her credibility and acceptance.

The Pashu Sakhis deliver the primary services such as promoting the sheds for goats, scheduling for vaccination, timely insurance, improving the nutrition by changing the food/fodder habits of goats, maintaining the hygiene of the goat as well as shed, use of calcium bricks, water stand, fodder stand, etc. "Pashu Sakhis" are paid for the services by the community. MAVIM has provided a rate list for each service provided by "Pashu Sakhis" to maintain the same norms across the state. About 50% of the "Pashu Sakhis" are earning monthly honorarium of ₹1,000–2,000 by rendering these services. The services of "Pashu Sakhis" are demanded by SHG members as well as non-SHG members in the villages. The vaccination is done mostly by "Pashu Sakhis" in the presence of veterinary doctors with necessary precautions. The animal husbandry department has also gained the confidence from this cadre. The doorstep services of "Pashu Sakhi", low-cost model of their services and overall effectiveness are triggering factors to roll out the model.

Though the implementation support from Goat Trust was in one block in Gondia district, the MAVIM team replicated the model in other blocks of Gondia. The monitoring data in Gondia district shows that goat mortality has dropped from 22% to 6%, which saved nearly 8,600 goats every year, thus generating over ₹51 million. Besides reduced morbidity, reduced kidding interval and better growth of kids have collectively contributed another ₹25 million gain in goat farming.

Looking to the need for Pashu Sakhis, MAVIM has spread this model across the state. About 1,000 "Pashu Sakhis" have been identified and trained by the expert tool of "Pashu Sakhis" from Gondia district.

MAVIM has introduced Azola and Hydroponic intervention along with goat rearing, especially in the dry areas and drought prone areas. Since last two years, MAVIM has focused upon breed improvement by introducing external breed of buck that has been successful in 50% of goat MLPs. Osmanabadi, Sirohi and Jamnapari are the external breeds introduced. Castration has also been initiated (5%). Goat trust has also supported with the technical expertise to initiate AI practices in goat sector as a part of breed improvement. Changing the mind-set of the families to adopt these practices would not have been possible without Pashu Sakhis.

MPOWER, being implemented in the 6 districts of Western Rajasthan includes two tribal districts. On an average, each tribal family owns around four goats, which are an important source of both nutrition and income for the family. Goat-rearing practices were riddled with many difficulties, such

[46] MAVIM is implementing a number of programmes funded by IFAD, UNDP, MSRLM, etc.

as, use of local breed of goats that have low milking capacity and low weight and meat, high prevalence of disease, poor access to veterinary services and high mortality. The key initiatives undertaken by the project with technical assistance from Centre for Micro Finance, Jaipur are as follows:

- Developing local cadre (Pashu Sakhi and community livestock facilitators) for doorstep availability of vet care services.
- Institutionalising goat rearing through goat-based livelihood groups (10 members per groups usually from one SHG and occasionally from different SHGs) and building their capacities.
- Goat shed development through project fund and MGNREGS.
- Breed improvement through providing bucks to each goat-based livelihood group.

MPOWER has formed 70 goat clusters with 350 goat rearers in each and thus has an outreach of 24,400 (the number of total SHG members are 50,000 and this signifies the importance of goat rearing as livelihood option in the region). About 26% of members covered are tribals.

The key for successful adoption of improved practices is the development of the community resource persons—the Pashu Sakhi cadre. Pashu Sakhis are SHG members who are goat rearers themselves and keen to learn and promote good management practices and also provide/facilitate primary care of the goats. They are intensely trained on feed and fodder, disease management, basic medicine administration, castration of animals, etc. The main role of Pashu Sakhis has been to create awareness among goat rearers for adoption of improved management practices, generating demand for preventive veterinary care services and providing first aid when required. A Pashu Sakhi is responsible for 30–40 farmers in the village. She performs regular rounds to check on HH and is provided with a medicine kit containing oral medication. She is also provided with an animal scale. Her work is supervised by a cluster livestock facilitator.

The veterinary care in these remote areas is limited and Pashu Sakhis are playing a crucial role in providing basic veterinary care. As per provisions of the Veterinary Council of India Act, 1984, and GoR notification of August 22, 2003 defining "minor veterinary services", it is required that the services specified therein are performed only by livestock assistants under the supervision of registered veterinary practitioners. This has always remained a contentious issue with the state animal husbandry departments contesting the provision of services by Pashu Sakhis and para-vets not possessing the requisite qualification and/or certificates. The continued service provision by the Pashu Sakhis will depend on institutional linkages to improve her knowledge and skills and also linkages with Department of Animal Husbandry for facilitating vaccination and deworming of animals.

Introducing buck of Sirohi breed, expanding veterinary services for good health management, housing provided as per scientific norms and improved feeding practices and bulk purchases of fodder during dry season have resulted in doubling of herd size at 70% of GBLG members. The emphasis of the intervention was not increasing herd size by purchase of animals but by decreasing mortality and increasing birth rates. The herd size is increasing but not being monetised by sale very widely. The mid-term evaluation by Ambuja Cement Foundation in Pali district concludes that considering the average net added goats per GBLG were 60, each GBLG of 10 members has generated an additional income of ₹300,000, that is, average of ₹30,000 per member.[47] The average project cost per member for the intervention is ₹4,900 for three years; additionally, the cost of goat shed is ₹24,000, which is constructed out of either project funds or convergence through MGNREGS.

mandate is to popularise goats, the agriculture ministry is limited to crops, the rural development ministry merely factors in goat rearing in its programmes and the environment and forests ministry just opposes grazing inside forests. If natural resources are to be protected, departments of animal husbandry, agriculture and rural development and the environment ministry will have to work together (Box 5.3).[48]

[47] Nikam et al., Mid-term Assessment of Goat Based *Livelihood Project at Bali, Pali, Rajasthan*, Ambuja Cement Foundation, Mumbai.

[48] Discussions with PRADAN, NGO.

Box 5.3: *Eco-friendly Goat Rearing Practices Promoted by BAIF*

1. Discouraging distribution of female goats brought from outside.
2. Control on herd size of individual families and check on local goat population.
3. Rigorous culling of inferior quality goats and castration of inferior males.
4. Community pasture development and promotion of fodder species on wastelands and backyards.
5. Promote stall feeding and supplementary feeding.

Source: Eco-Friendly Goat Development For Food Security, BAIF. Available at http://www.baif.org.in/pdf/Goat_Development.pdf

Marketing: Although multiple products are obtained from goats, the value of this is not reflected in the price of live animals obtained by rearers.[49] There is a wide variation in the prices obtained by the rearers at different locations and in different seasons. The returns to the rearers are further diminished in cases where they borrow money from the traders or their agents. Village markets for livestock are the most accessible to rearers. Organising goat markets in the interior areas or firm tie-up with traders on non-exploitative rates still exist.

Access to Finance

Tribal communities need access to finance, especially in the context of having land in their own names that can be used for settled cultivation. They need financial services for savings, credit and insurance. For marketing of NTFP, availability of working capital and processing some long-term loans would be very helpful. While most funding for tribal development flows from government budgetary sources, bank finance for commercially viable projects is not forthcoming. GoI had set up the National Scheduled Tribes Finance and Development Corporation as an apex organisation under MoTA about 17 years back with the objective of providing financial assistance for the socio-economic development of STs. The corporation's mandate is to identify economic activities of importance to ST, improve and upgrade their skills through institutional and on-the-job training and strengthen the state corporations dealing with tribal development. The corporation has been providing loans for tribal development related economic activities to individuals, groups and cooperatives of tribals. It offers term loans, loans to women for economic development (Adivasi Mahila Sashaktikaran Yojana; AMSY), micro credit for SHGs (micro credit finance; MCF), education loans (ASRY), forest dwellers empowerment and scheme for loans to NGOs. It also provides marketing support and grants for skill and enterprise development and computerisation. The last few years' sanctions and disbursements made by the corporation (see Table 5.18) show that while the National Scheduled Tribes Finance and Development Corporation (NSTFDC) is active, the volumes of credit are still low.

There has been a gradual increase in the sanctions and disbursements, but a significant expansion in the number of beneficiaries. Over the last fifteen years, NSTFDC reports disbursing ₹1,300 crore for different income generating activities and providing ₹70 crore as grants for marketing assistance. An analysis of state-wise disbursements in 2015–16 shows that Telangana, Andhra Pradesh, Gujarat, Arunachal Pradesh and Mizoram took a large share of 75%. States with significant tribal population such as Madhya Pradesh, Chhattisgarh, Rajasthan, Odisha, West Bengal and Jharkhand do

Table 5.18: NSTFDC Operations

	2014–15		2015–16	
	Target	Achievement	Target	Achievement
Sanctions	190.00	229.75	200.00	233.80
Disbursements	135.70	154.97	165.00	176.60
Number of beneficiaries	53,000	29,655	57,000	92,824

Source: http://nstfdc.nic.in/page/annual.pdf.

[49] SAPPLPP, *Small Ruminant Rearing: Product Markets, Opportunities and Constraints, South Asia Pro-Poor Livestock Policy Programme.*

not show in the list of top states availing the corporation's assistance. The number of beneficiaries covered by the corporation is still too small and requires significant stepping up.

At the state level too, there ST development corporations and cooperatives have been set up. During the year 2016–17, NSTFDC had engaged 33 such state-level entities and fixed a target of 60,000 beneficiaries for the coverage. The target, seen in the context of size of tribal needs and requirements, is negligible.

Conclusion

The description of tribals is currently used in a legalistic context, with several groups of people aspiring for inclusion in the list of STs for accessing the "individualised benefits" offered by the state in education, access to amenities, housing and economic opportunities including livelihoods. The ground reality is that there are different classes of tribals and there is a need to clearly define tribals so that the affirmative action is well targeted at individuals, households, clusters and larger location-based aggregations. The kind of populations living in forests, living off natural resources with marginal cultivation effort and having their own culture deserve concentrated attention from the government on a wider range of aspects. Tribal rights have been sacrificed for long either for development projects to extract natural resources or for the protection of forests. With the laws now curbing disenfranchisement of tribals in their own habitats, it is time to examine the quality of protection offered to tribals. Tribal development should move away from "we provide development to them" to "we support tribals to develop with full information and freedom of choice". Support to tribal livelihoods should take into account their local context and culture, try to retain the best of what they already have and introduce new aspects that are clear improvements. Income generating activities and new livelihoods should build on what they are already familiar with and take them further on their learning process. The institutions set up in tribal areas need considerable handholding. Government is not well equipped to provide services relating to technology, business, governance and good practices in health and education and sanitation on the ground to tribals near their habitats. Use of voluntary organisations for delivery of technical support and extension services might be the best way out. Initiatives such as the Wadi Project or the goatry and poultry projects in some parts of the country seem to be successful as they are planned taking into account the ability and willingness on part of tribal communities to learn and adapt. Such projects can be scaled up with necessary localised changes in different states. Institutions set up to take care of tribal development have not performed to their potential. While adequate resources have not been made available, even the meagre budgets have not been fully utilised and in some cases, sub-optimally utilised. Viable livelihoods for tribals cannot be secured by tokenism. There should be greater intent, good plans and competent implementation with accountability for producing impact. If the country has to demonstrate that Tribals are equal citizens, then it has to improve planning and delivery of development programmes; it has to revamp the institutions vested with the responsibility of delivering development in tribal areas; and it has to bring a sense of urgency and seriousness in officials entrusted with enforcement of laws such as FRA and CAMPA.

Employment, Skill Development and Employability

Chapter 6

Of the options available to live a reasonable livelihood, wage employment or self-employment has been a significant option for a vast majority of people. The country has been carrying out periodic surveys of the labour situation and also of the employment situation. The total workforce in the country is estimated to rise to 495 million by 2019–20. According to some estimates made by the National Institute of Labour Economics Research & Development, 7.2 million adults are added to the workforce each year. Employment opportunities available do not meet the requirements of the increased workforce. There are also problems with the way numbers pertaining to the labour force—number of people employed, number of jobs generated, and number of gainful employment opportunities—are measured and reported. While an age-based criterion assumes that anyone attaining 15 years of age enters the labour force, there are many who continue studies and pursue other interests and not employment. When these people complete their education, there could be a bulk entry in the workforce that would not be explained by the number of people attaining 15 years of age that year. For example,[1]

> Between 1993–94 and 1999–2000 labour increased by 25.5 million–5.25 million per annum. In the next 5 years from 1999–2000 to 2004–5, it had shown a remarkable increase of 60 million with an average increase of 12 million per annum. However, in the last half of the decade post 2004–5, it did not increase at all and remained constant at 469.9 million. Surprisingly in the next two years, during 2009–10 and 2011–12, the labour force increased by 15 million to reach 484.8 million, thus a rise of 7.5 million per annum. The increase in the labour force size during 1999–2000 to 2004–5 was mainly distress driven, with a rise in employment mainly in the low productive agriculture sector. The stagnation of the labour force during 2004–5 to 2009–10 is due to the massive increase of education participation as well as the withdrawal of females from the labour force owing to mechanization in agriculture, increase in rural wages, thus raising the household income.

The employment and unemployment survey was carried out by the Ministry of Labour and Employment in 2016. The findings from the survey were that 50.3% of all adults above 15 years of age were either employed or actively seeking employment (Table 6.1). The remainder were not looking out for employment for a variety of

Table 6.1: Labour Force Participation Rates (Usual Principal Status)

Year	Males	Females	Transgender	Total
2011–12	77.4	25.4	–	52.9
2015–16	75	23.7	48	50.3

Source: Annual employment and unemployment surveys 2011–12, 2015–16, Labour Bureau, GoI.

[1] National Institute of Labour Economics Research & Development, *Identifying High Growth Sectors with Greater Employment Opportunities in India: Medium-term Prospects*, commissioned by ASSOCHAM.

reasons that could range from education to other reasons such as illness, retirement or unwillingness to work and take up a job or a career. The survey also confirmed the trend of low participation rates from among women. While the labour force participation rates (LFPR) were 75% in the case of males, it was only 23.7% in the case of females. There has been a continuing drop in the female workforce participation rates, the possible reasons for which are discussed later. Between the rural and urban areas, again there were differences in participation rates with a rural LFPR being higher at 53 compared to the urban LFPR at 43.5. LFPR declined between 2011–12 and 2015–16.

The labour force participation rates for women are low and falling. Less than a third (27%) of women 15 years or older are working or actively looking for a job. Three of every five prime working age Indian women (26–45 years) are not economically active, meaning that they are neither working on a farm or in businesses nor earning any wage. Only few countries such as Afghanistan, Pakistan and Saudi Arabia rank lower than India. The decline in female labour force participation (FLFP) is attributed[2] to the rising number of females in the age group of 15–24 attending educational institutions, an increase in household income levels and also problems with measurement in capturing female work in NSSO surveys. The decline in the number of working women aged 15–25 (expressed as a share of the adult population) almost exactly matches the increase in the number of women of the same age group who are in school. For this age group, the increase in female enrolment can explain the drop in female LFP. About 30% of the drop in FLPR can be explained by women continuing with education. At low levels of income and education, women work out of necessity and in poor quality jobs, largely in agriculture and allied areas of activity. Anecdotal evidence indicates that most animal husbandry activities are carried out by women, and increasingly work on the farms has been taken over by them (what is termed feminisation of agriculture).[3] When men migrate to towns and cities in search of jobs, they tend to return to their village for sowing and harvesting of crops. The cropping operations in the period in between is being managed by women. When men find jobs in industry or services and as household incomes rise, women may choose to drop out from the labour market. Where women's work is considered acceptable only if it takes place in environments perceived as safe, female LFPR can be expected to depend on the availability of jobs which are "at home" or "close to home". Women's decision to enter the labour force is influenced by the type of work available and by the perceptions of their relatives. A World Bank team[4] conducted interviews with more than 400 women and girls in two cities—Bhopal and Indore—in Madhya Pradesh. While nearly all women and girls expressed a desire to work, and some were even offered work, the terms of employment were not always considered favourable. Women wanted jobs that were well paid, close to their homes and with flexible working hours. Underlying the need for proximity and flexibility were strong social norms around women's chastity, marriage, work and household duties. There are measurement issues with the NSSO surveys which are alleged to have led to significant underestimation of the value of female work.

The FLFP varies across states (Figure 6.1). In the northeastern and southern states, female participation in labour force is high. In central and eastern Indian states, the participation levels are low to very low. Given the fact that significant migration of men takes place from these states to southern and

[2] Kapsos et al., "Why Is Female Labour Force Participation Declining So Sharply in India," ILO Research Paper No. 10.

[3] Women constitute close to 65% of all agricultural workers. An even greater share, 74% of the rural workforce, is female—cited from "A Field of Her Own" by Tarini Mohan, *Indian Express*.

[4] As reported in the *India Development Update: Unlocking Women's Potential*, World Bank.

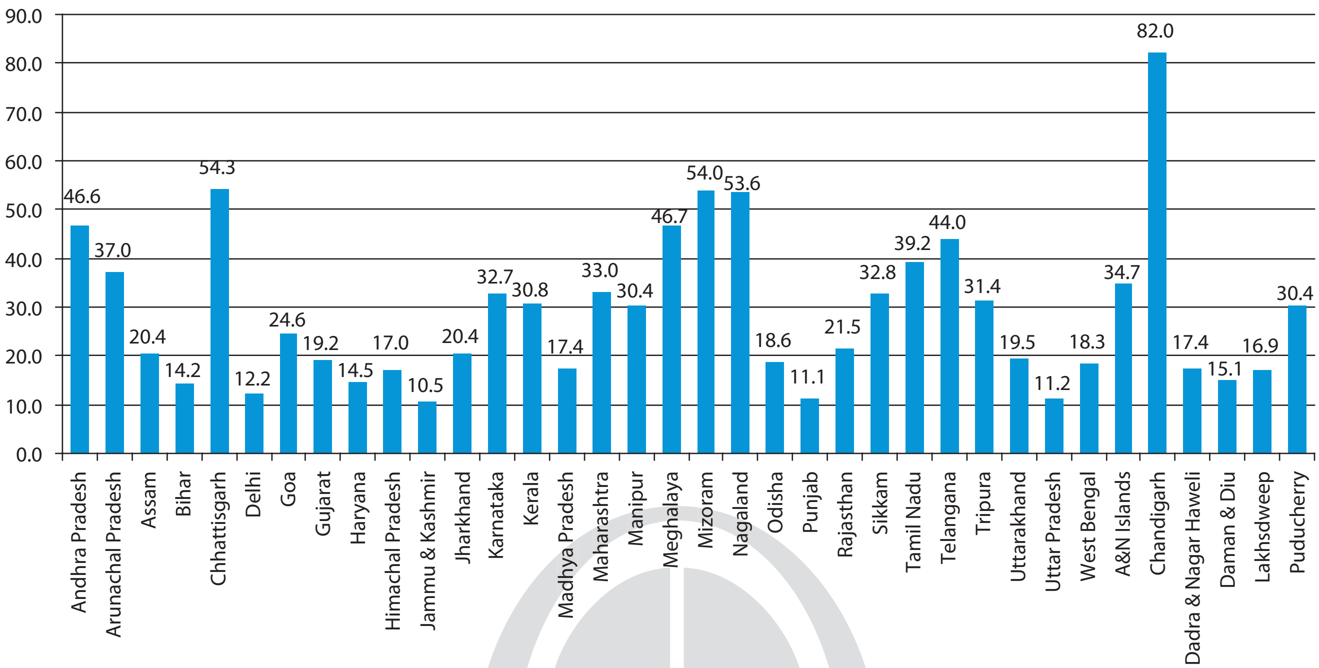


Figure 6.1: Female Labour Force Participation Rates: State wise

Source: Labour Bureau, *Employment–Unemployment Survey 2015–16*, Vol. I (Chandigarh: Labour Bureau, GoI, 2016).

western Indian states, the women should be employed in farm and off-farm activities. The problem could be one of counting. As stated earlier, measurement of labour participation in the informal sector is not free from infirmities. Notwithstanding possible data errors, affirmative action to improve the labour situation for women is required in these states. Ease of access to employment, safety and wellbeing of women at work, equality of wages, a positive work environment, even at work sites that deal with infrastructure construction and the like will certainly go a long way in increasing participation of women in the labour force.

While gender-targeted policies can boost FLFP to some extent, due to the presence of labour market rigidities, these policies may not generate sufficient jobs in the formal sector, leading to many of the additional women in the labour force probably ending up in low-paying informal jobs or even remaining unemployed.[5] Increasing formal labour market flexibility by simplifying and reducing regulation would allow more women (and men) to be employed in the formal sector. Hence, what is needed is a combination of gender-targeted policies and formal job creation.

Unemployment

The unemployment rates measured by the Labour Bureau showed an increase (Table 6.2) in 2015–16.[6] The rate was at its highest in the last five years pointing to the low growth in jobs despite reasonable to brisk growth in GDP in the last few years.

OECD, in its India Economic Survey 2017,[7] pointed out that 30.8% of Indian

Table 6.2: Rising Unemployment

Year	2011–12	2012–13	2013–14	2015–16
Unemployment rate	3.8%	4.7%	4.9%	5%

Source: Annual Employment and Unemployment Surveys for Different Years, Labour Bureau, GoI.

[5] Excerpted from *India Development Update: Unlocking Women's Potential*, World Bank.

[6] Ministry of Labour & Employment, *Report on Fifth Annual Employment and Unemployment Survey 2015–16*.

[7] OECD, *Economic Surveys, India*.

youth are not engaged in any purposeful activity. The not in employment, education or training (NEET) for India was 30.8% in 2015. This points to significant lack of immediate or long-term employment opportunities.

The unemployment rate was 5.1% in the rural sector and 4.9% in the urban sector. At the all-India level, unemployment rate calculated under the usual principle status approach was 5%. The female unemployment rate at all-India level was 8.5% compared to 4% in the case of males. An important point to note is that the unemployment rate is calculated as a percentage of people who are looking out for employment or who are currently in employment. With changes in labour participation rates from time to time, it is difficult to rely on the reported unemployment rates. In reality, the unemployment rates can be higher.

The survey found that of all those looking out for employment, 60% were employed throughout the year, but 34% could work for 6–11 months (Table 6.3). The remainder were practically unemployed. The reported 5% unemployment rate disguises underemployment to a significant extent. Under the Usual Principal and Subsidiary Status (UPSS) approach, the persons employed for 30 days and above are counted as employed. This approach is important to understand the contribution made by the seasonal workers in the production of goods and services in the country. Many persons categorised as not in labour force or unemployed based on major time criterion are counted as employed under this approach if they have worked for 30 days and above during the one-year reference period. However, this tends to understate the problem.

Table 6.3: Duration of Employment during the Past One Year (UPSS)

Group	Rural	Urban	Rural + Urban
Worked for 12 months	52.7	82.1	60.6
Worked for 6–11 months	42.1	13.2	34.4
Worked for 1–5 months	1.4	0.4	1.1
Did not get any work	3.8	4.3	3.9

Source: Labour Bureau, *Employment–Unemployment Survey 2015–16*, Vol. I (Chandigarh: Labour Bureau, GoI, 2016).

Across states,[8] Himachal Pradesh, Kerala, Jammu and Kashmir, Uttarakhand, Uttar Pradesh and Punjab reported the highest unemployment rates. In the case of Himachal Pradesh, the situation seems to have worsened dramatically as in the last survey in 2013–14 the unemployment rate was 1.8% and in the current survey it is 10.2%. In the case of Uttar Pradesh too, the unemployment rate increased from 4% in 2013–14 to 5.8% in 2015–16. J&K has successfully brought down unemployment from 8.2% prevailing in 2012–13 and 2013–14 to the present level of 6.6%.

The question, therefore, is whether the country has adequate jobs and whether it will continue to generate more jobs. There had been considerable criticism that India has entered the "jobless growth" phase much too early compared to the developed countries. The quarterly report on changes in employment in selected sectors was introduced in 2008. The employment generated in eight select sectors which were then having the most employment potential was being monitored every quarter through a sample survey. The data showed the job creation rates which were more a signal for the rest of the economy (Figure 6.2). The data indicated

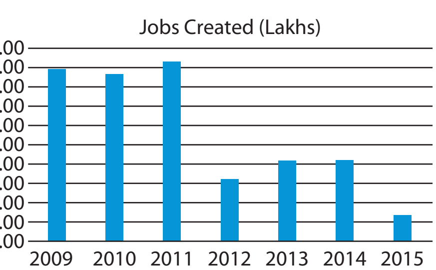


Figure 6.2: Declining Incremental Employment

Source: Labour Bureau, *Quarterly Report on Changes in Employment in Selected Sectors (October–December, 2015)* (Chandigarh: Labour Bureau, GoI, March 2016).

[8] See Annexure 6.1 at the end of this chapter for state-wise position of comparative unemployment rates over the last four surveys.

Table 6.4: Employment Generated in Eight Select Labour-intensive Sectors

	Estimated Employment 1 April 2016	Change 1 July 2016	Change 1 Oct 2016	Change 1 Jan 2017	Change from April 2016 to December 2016	% Change over Nine Months
Manufacturing	101.17	–0.12	0.24	0.83	0.95	0.9
Construction	3.67	–0.23	–0.01	–0.01	–0.25	–6.8
Trade	14.45	0.26	–0.07	0.07	0.26	1.8
Transport	5.8	0.17	0	0.01	0.18	3.1
Accommodation, restaurant	7.74	0.01	–0.08	0	–0.07	–0.9
IT/BPO	10.36	–0.16	0.26	0.12	0.22	2.1
Education	49.98	0.51	–0.02	0.18	0.67	1.3
Health	12.05	0.33	0	0.02	0.35	2.9
Total	205.22	0.77	0.32	1.22	2.31	1.1

Source: Quarterly Report on Employment Scenario in Select Sectors as on 1 January 2017, Labour Bureau, GoI, April 2017.

that in the period 2012–15, employment growth was low and muted and not consistent with the GDP growth.

Since the sectors and sample size were felt to be somewhat unrepresentative of the actual situation, a new set of sectors that carry significant employment potential in the current context has been identified. A new series in Quarterly Employment Survey (QES) has been introduced from April 2016 to measure changes in employment every quarter. This survey will have a sample base of 10,600 units compared to less than 2,000 sample units in the earlier series of QES. The new series of survey has retained only transport and IT/BPO sectors and replaced the other sectors. According to the new series in the first nine months of 2016–17, 2.31 lakh jobs were created in these eight sectors, that is, a growth of 1.1%, which when annualised translates to 1.4% per annum (Table 6.4). If this rate of employment growth is representative of the entire economy, then it is not impressive indeed.

CMIE[9] pointed out that over the last 15 months between January 2016 and April 2017, there had been significant changes in the workforce. The estimated employed force in January–April 2016 as per the CMIE survey was 401 million. It went up to 406 million in September–December 2016 and fell to 405 million. The unemployment rate calculated on the changing number that constitutes the workforce can throw up somewhat misleading indications. As per the CMIE's assessment, the unemployment rate during September–December was 6.8%, that is, 29.6 million people unemployed out of a labour force of 436 million. The unemployment rate fell to 4.7% in January–April, that is, 20 million unemployed out of a labour force that had shrunk to 425 million. But in terms of number of people employed, CMIE calculated that there was a drop of around 9.6 million. The lasting effect of demonetisation according to CMIE was that there was a fall in the labour participation rates. The labour participation rates fell to 45.5% in February and to 44% in March and finally to 43.5% in April 2017. CMIE concluded from the data that about 1.5 million jobs had been lost in the period January–April 2017 as a result of demonetisation.

The employment–unemployment survey carried out by the Labour Bureau enquired into the efficacy of the different large government-run employment programmes such as NREGS. It found that 24% of the households reported having benefited from one or the other government employment programmes. Of the benefitting families, 91% managed to gain employment through NREGS. It is difficult to decipher this low

[9] Vyas, "1.5 Million Jobs Lost in the First Four Months of 2017."

level of number of families that gained access to government employment programmes, especially when NREGS is a rights-based entitlement to employment for all needy families. The issues with NREGS have been detailed earlier in Chapter 3. Despite being an entitlement, needy households are provided jobs at the discretion of government officials. The budget allocations determine the extent of support to be made available in a year. Low wage rates offer difficult choices to people, and might be a major cause in several states for inadequate demand for jobs under the scheme.

The employment–unemployment survey also found that 67% of households have a monthly income of less than 10,000 rupees. This again points to the very marginal existence that households have to deal with at very low wage rates. The survey also found that with increased education, the level of unemployment increases. The more educated the persons are, the less they are able to find jobs which they think will suit their skills as also their aspirations. However, educational attainments do not automatically seem to lead to good jobs; the reasons for this are twofold. First, the number of jobs that get created at different employer establishments are far too few to accommodate all those aspiring "good jobs." The second part is that the employability of those who are turned out of universities is also a major factor in the employers' mind. Most people who pass out of different courses, including technical courses such as engineering, are unable to meet the demands of jobs in business and industry. The skills required to perform these jobs are of a different nature or of a higher order, which the new graduates and diplomats do not possess. The entire issue of employability being a skill gap-related problem thus comes to the fore.

The annual assessment carried out by Aspiring Minds in 2016 brought out that the engineering graduates passing out of colleges are not readily employable except for a small proportion (Table 6.5). While in some IT and non-IT roles, employability was higher, in core engineering jobs involving design, the employability ratio was abysmally low, not even touching 10% in any discipline. Employability ratios were higher in non-IT, non-engineering roles, which is a curious outcome for engineering students. If in technical courses that are four-years long, supported by laboratory work as well as industry exposure as part of the curriculum, students are not prepared enough for employment, it is difficult to hazard a guess on the position of other courses where the rigour is less.

Table 6.5: Employability of Engineering Students

Role	Employability %
Software Engineer—IT Product	3.67
Software Engineer—IT Services	17.91
Start-up Ready—IT Services	3.84
Associate—ITeS Operations (Hardware and Networking)	37.06
Design Engineer—Non-IT	6.56
Sales Engineer—Non-IT	19.08
Business Analyst—KPO	10.86
Associate—ITeS/BPO	40.57
Technical Content Developer	11.66
Creative Content Developer	16.72
Chemical Design Engineer	1.64
Civil Design Engineer	6.48
Electrical Design Engineer	6.50
Electronics Design Engineer	7.07
Mechanical Design Engineer	5.55

Source: Aspiring Minds, *National Employability Report—Engineers (Annual Report 2016)* (Gurgaon: Aspiring Minds Assessments Private Limited, 2016).

The GoI has been trying hard to get the employment impulse moving. It had announced a package for textile and apparel sector to ease regulations and make hiring of people easier so that this labour-intensive segment can grow faster. Recognising the contribution of the construction and infrastructure sector to employment, the GoI had reviewed the large number of stalled projects on account of disputes with public sector units. Government has announced measures to quicken the dispute resolution mechanism, speed up payment of arbitration awards and encourage faster pace of completion of the projects. The performance of start-up India and stand-up India and Make-in India campaigns has not been overwhelming. So far, 3,160 start-ups have been recognised by the GoI. Funding has been provided to 67 start-ups. But a start-up being recognised does not mean that the entity has arrived and is likely to provide stable jobs. According to a report in *Economic Times*,[10]

> Of the 2,281 ventures that started up since July 2014, 997 have shut down—a failure rate of 43.7%. While the average age of failed ventures was 11.5 months, the ones that got funded lasted a little longer—until the funds lasted. While a little over a fifth (20.90%) of the failed start-ups are from logistics segment, ecommerce flameouts aren't far behind, at 19.64%, followed by food tech (18.74%) and analytics (11.36%). Most of their founders went on to take jobs in corporates or start-ups, with 22–24% opting to stay the course of entrepreneurship. What's more, the pace of failure may have picked up. While last year, 15 start-ups shuttered, that number has almost doubled to 29 in the first six months of 2016, according to Inc42, a tech-focused news and events start-up. Of the 11 start-ups closed in May and June, five were in the hyperlocal segment, which has seen over 100 shutdowns in the last 18 months.

The GoI has set up a start-up fund with an aspirational corpus of ₹10,000 crores with an initial contribution of ₹500 crores to the Small Industries Development Bank of India (SIDBI). The corpus would be raised to ₹10,000 crores in five years. The corpus will be used to set up or contribute to equity funds and alternate investment funds that focus on funding start-ups. This is likely to hasten the pace of start-up creation and facilitate flow of ₹60,000 crores equity in to start-ups and generate employment of 1.8 million when the entire corpus is invested.

Stand-up India is a loan facilitation scheme for micro- and small enterprises that have difficulties in completing loan proposal formalities. Based on an internet-based registration system, the borrower can choose a facilitating agency to step in and help in completion of application formalities. Alternatively, those who are in a position to complete formalities on their own can apply for a loan online. So far, 64,343 registrations have been under stand-up India for support with facilitation or loan sanction. Banks have sanctioned 39,479 loans for a value of ₹8,502 crores. While this is a small beginning, it is a promising one. If more enterprises are able to access credit to scale up their operations, the employment impact can be significant.

Based on its study in collaboration with ASSOCHAM, NILERD[11] came up with the following sector-wise recommendations to generate employment:

In the manufacturing sector

- Policy constraints that have limited the growth of employment in labour-intensive manufacturing sub-sectors to be eliminated.
- Physical infrastructure in terms of improved transportation, road connectivity, uninterrupted power supply and adequate land needs to be made available.
- Flexible regulations regarding safety, pollution, inspections, licensing and labour conditions will improve competitiveness.
- Private sector needs to be encouraged through addressing the anomalies in the duty structure. There is a need to review the customs and excise duty structure for raw materials and finished goods.
- Institutional support mechanism to be developed to encourage and facilitate employment in the manufacturing sector such as marketing and credit.
- A technology acquisition and support fund in a PPP arrangement should be set up.

[10] Singh, "Layoffs in Start-ups: What's the Other Side of India's Entrepreneurship Story?"

[11] National Institute of Labour Economics Research & Development, *Identifying High Growth Sectors with Greater Employment Opportunities in India: Medium-term Prospects.*

To generate employment in the services sector:

- Markets should remain open to international competition, for example, by reducing barriers to foreign direct investment.
- Labour taxes that affect the job prospects for low-skilled workers and development of personal services in the country need to be rationalized.
- Employment protection legislation needs to be reformed in the country to help in improving the capacity of the economy to create employment and enhance productivity growth in services.

To generate employment in the construction sector:

- Tier-II, tier-III cities need to be developed to generate employment in the construction sector and in other sectors such as electricity, water, ICT, transport and various other services.
- Major roadblocks such as bidding process reforms, contracting, approvals and clearances, effective monitoring, dispute resolution and financing should be removed.

Government had announced the modified National Apprenticeship Promotion Scheme to encourage the provision of apprenticeship opportunities to youth. The government is proposing to (a) pay 25% of prescribed stipend subject to a maximum of ₹1,500 per month per apprentice to all apprentices; and (b) share cost of basic training with basic training providers (BTP). The main objective is to promote apprenticeship training and to increase the engagement of apprentices from present 2.3 lakh to 50 lakh cumulatively by 2020. The scheme has the following two components: (a) Sharing of 25% of the prescribed stipend subject to a maximum of ₹1,500/- per month per apprentice with the employers. The stipend support would not be given during the basic training period for fresher apprentices. (b) Sharing of the basic training cost in respect of apprentices who come directly to apprenticeship training without any formal trade training. The basic training cost will be limited to ₹7,500 for a maximum of 500 hours/3 months. Target under the scheme shall be 5 lakh apprentices in 2016–17, 10 lakh apprentices in 2017–18, 15 lakh apprentices in 2018–19 and 20 lakh apprentices in 2019–20. Fresher apprentices shall be at least 20% of the total annual target. This scheme will provide industry-based training and exposure to a large number of students.

SANKALP announced that in budget 2017–18, it would try to provide market-relevant training for 3.5 crore youth at a cost of ₹4,000 crores. There are no details of how this programme would be implemented. This would add to the social capital of the country and at the same time restore dignity and purpose to life post-retirement. STRIVE, a project with funding from the World Bank for "Skill Strengthening for Industrial Value Enhancement," has been initiated. The project approved by the World Bank in March 2017 has an outlay of ₹2,200 crores ($ 318 million). The objective of the project is to improve access to quality and market-driven vocational training provided in Industrial Training Institutes (ITIs) and apprenticeship schemes.

Skill Development

The Ministry of Skill Development and Enterprise has carried out a study of employment potential and the skill gaps for the next five years through NSDC. The study shows that incremental employment of about 100 million will be generated. Construction and real estate, with a 30% share, retail, transport & logistics, beauty and wellness services, and textiles are the top five employment generators. The study also projects that about 13.5 million people will move away from agriculture in the next five years. Based on the findings of the above studies, discussions were held by the ministry across 34 sectors with the ministries/departments concerned, to validate the employment

Table 6.6: Projected Employment in Major Sectors

Millions

Sector	Employed in 2017	Employment by 2022	Incremental Requirement	Training Needs Identified
Agriculture	229	215.5	–13.5	4.2
Construction and real estate	60.4	91	30.6	32
Retail	45.3	56	10.7	10.7
Logistics, transport, warehousing	23	31.2	8.2	10.5
Beauty and wellness	7.4	15.6	8.2	8.2
Textile, clothing	18.3	25	6.7	
Furniture, furnishing	6.5	2.2	5.7	5.3
Travel, tourism, hospitality	9.7	14.6	4.9	4.9
Handloom, handicraft	14.1	18.8	4.7	6
Others	97.1	144.3	37.2	
Total	510.8	614.2	103.4	126.8
Nine major sectors	413.7	469.9	66.2	

Source: Environment Scan Report, 2016 (NSDC).

projections, identify the sectoral training needs up to 2022 and develop a skill action plan. The ministry has identified the skill gaps and training needs for about 126 million jobs as against the 103 million jobs that might be generated (Table 6.6).

The environment scan identified Maharashtra, Tamil Nadu, Uttar Pradesh, Andhra Pradesh and West Bengal as the top states in terms of incremental HR needs that account for almost 50% of the total training needs identified.

The GoI, over the years, has been trying to skill the youth appropriately in order that they can have viable wage employment or self-employment. The newly constituted Ministry of Skill Development and Entrepreneurship has been on the job of implementing a national policy on the same. With an aspirational target, the ministry had set out to train 12.56 million people in 2015–16 against which 10.41 million people were actually trained constituting about 83%. In 2016–17, the target was lowered to 11.75 million against which 6.03 million were trained with the achievement hovering around 51% (Table 6.7).[12]

[12] See Annexure 6.2 at the end of this chapter for ministry-wise data on achievements.

Table 6.7: Number of Persons Trained in Skill Development Programmes

Year (No. of Ministries)	Million Persons		Achievement %
	Target	Achievement	
2011–12 (13)	4.65	4.57	98
2012–13 (19)	7.25	5.19	72
2013–14 (21)	7.34	7.64	104
2014–15 (21)	10.51	7.61	72
2015–16 (21)	12.56	10.41	83
2016–17 (21)	11.75	6.03	51

Source: NSDC Annual Reports of Different Years, Answer to Rajya Sabha Question no. 1408 on 27 July 2017.

The reduction in the number of trained persons is a matter of concern on the one hand, but on the other, it seems a practical approach to avoid wastage of resources when the trainees do not get absorbed in jobs. The achievement of training in 2016–17 is lower than the level achieved in 2013–14. Further, placement rates are not available across the board in respect of all the ministries which had undertaken the training. There were a few programmes for which placement rates were available and these rates were pretty low, reflecting that skills training does not automatically lead to employment (Table 6.8).

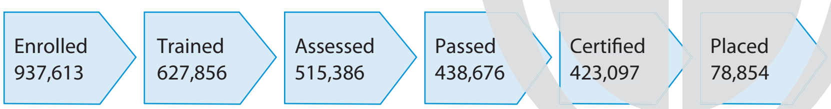
There are several stages between initial identification of a candidate to the final

Table 6.8: Placement After Skills/Enterprise Training

Name of Scheme	Number Enrolled	Number Placed	Placement %
PMKVY	937,513	78,854	7.2
DDU GKY	162,586	84,900	52.2
RSETI**	445,106	363,111	81.6
PMEGP***	158,144	38,277	24.2
UDAN*	17,111	9,632	56.3

Source: Compiled by authors from data available in NSDC, MORD (DDU_GKY and RSEI data pages), KVIC websites and annual reports.
Notes: * Cumulative data from inception of the scheme.
** Self-employment based on skills and enterprise training.
*** Relates to micro-enterprise in the form tiny industrial units.

placement. In any of these stages, the candidate can drop out or get sent out on account of a variety of factors. For example, under PMKVY, the stages are enrolment, actual training, assessment, passing, certification and placement. The numbers for the year 2016–17 are as follow for these stages:



The gaps between trained and assessed, assessed and passed, passed and certified are large. The reasons why such gaps exist and whether at some stage they can narrow down are matters that should be clarified. The difference between those that are certified and those that are placed is far too large. Placement is the logic behind spending public funds in skill development. The placement rates under a flagship programme should not be allowed to go low, especially when it is a mainstream employment programme. The candidates who do not pass and who do not get employed need avenues for redressal of their problems as they have also spent their time and money on the promise of skill-based employment. Barring Rural Self Employment Training Institutes (RSETIs) courses, other courses do not seem to be applying public funds to good effect. The scheme for recognition of prior learning (RPL), which is a part of PMKVY, which upgrades skills of experienced artisan and craftsmen with a view of recognising them formally, had enrolled 6.07 lakh candidates of which 3.03 lakhs have been certified.

On PMKVY II, there have been concerns raised by the Sharada Prasad Committee.[13] It concluded, "Expenditure on PMKVY appears to be wastage of public resources without achieving the desired goals of providing employment to youth at decent wages and meeting the skill needs of the industry."

It pointed out that no evaluation was conducted of PMKVY, 2015, to find out what were the outcomes of the scheme and whether it was serving the twin purposes of providing employment to youth and meeting the skill needs of the industry before launching modified PMKVY in July 2016. Quoting various stakeholders, it felt that the targets allocated to them were very high and without regards to any sectoral requirement. Everybody was chasing numbers without providing employment to the youth or meeting sectoral industry needs. Those who benefited were the vocational training providers and sector skill councils (SSCs) and not the candidates. The committee makes a valid point that even if the trained youth were able to access placement opportunities, they could get a monthly salary of ₹5,000–10,000 which is at the bottom end of the job pyramid and barely above the minimum wage rates for unskilled labour. The aim of MSDE should be to train for a high level of skills which could command about ₹40,000–50,000 a month, which will then be an aspirational vocation and attract youth towards it. The committee was not on a strong footing in concluding that entry into the labour force between 2009–10 and 2011–12, for which the latest data is available, was only of the order 4.87 million per annum, and such a number could have been dealt with through ITIs and polytechnics by

[13] MSDE, *Report of the Committee for Rationalization & Optimization of the Functioning of the Sector Skill Councils*, Volume I, December 2016. The committee was set up by MSDE, chaired by Sharada Prasad, Former Director General, Employment and Training, GoI.

tweaking their capacity. The projections are that the country is set to add 7.2 million to the workforce each year for the next five years, and such a large number could not have been trained by ITIs and polytechnics which are already struggling to provide quality skills to their candidates. But its observation that the training capacity should be doubled in long-term competency-based courses which could provide employment to the youth and meet the skill needs of the employers is valid.

Some of the far-reaching recommendations made by the committee were:

- At the secondary school level, the children should be sensitised about the dignity of labour, world of work and career options, but vocational education and training should start only after 10 years of schooling, which is the case in most of the developed world.
- Each child should be given an option to go for vocational education and training as he is permitted to go to humanities, science, commerce, technical education or medical education streams.
- The government should promote setting up of the required number of vocational education and training colleges (VETCs) where option should be available to a child to choose any of the sectors for training.
- The VETCs should run vocational courses but, along with that, the students should also be taught two academic subjects such as a language and another subject from humanities or science or commerce depending upon his future career growth options as is currently mandated for 168 vocational training graduates of ITIs after 10 years of schooling to get equivalence with 12th standard.
- The commitment of industries towards training happens only when they contribute and are closely involved. It has, therefore, been recommended that a reimbursable industry contribution (RIC) of about 2% of their annual wage bill should be collected from all small, medium and large enterprises employing 10 or more persons. The employers themselves will manage this fund through SSCs. They can be reimbursed the cost of training incurred for meeting their skill needs depending upon their annual training plan and performance.
- All the existing SSCs should be dissolved; new SSCs should be created under Section 25 (now Section 8) of the Companies Act 2013; all funds of the old SSCs should be transferred to the new SSCs; governing council of the new SSC should have representation from all divisions/old constituent entities; the new SSCs should function like an organic whole giving importance to all constituent entities; all 174 sectoral industries should become members of SSC; the members of the governing council should be democratically elected by all the members of the SSC.

In the case of Prime Ministers Employment Guarantee Programme (PMEGP) implemented through the Khadi and Village Industries Corporation (KVIC), in 2015–16, against 142,940 applications recommended, only 33,000 applications were sanctioned a bank loan and the number of units that drew the margin money and commenced the work was 27,725. In 2016–17, 1.58 lakh applications were recommended by the KVIC, of which only 38,277 units were sanctioned bank loan and margin money was released only for 902 units. The reasons for the large gap between the number of applications considered and recommended and those actually set up enterprises have to be ascertained and the gaps, if any, need to be filled.

The performance of RSETIs in this regard was far superior with placement rates of 82% in 2016–17, when other programmes were not able to find their feet. The lessons on successfully converting a training course into a reasonable livelihood opportunity have to be figured out from the functioning of RSETIs, and the learnings from there should be replicated and scaled up in the other institutions and programmes. The placement performance of Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) at 52% is not inspiring. It has been projected as a livelihood option for rural youth.

In vocational training, there are many ministries and entities involved. The training institutions and training service providers come from the public sector, the private sector and also some joint sector projects. Despite having an elaborate architecture in the form of SSCs and centralised institutions for quality control, funds release and also for certification standards, the vocational skills training does not seem to be moving on the right lines. As things stand, vocational training seems to focus more on training and skilling of youth without too much consideration to what the students would do with the skills gained and the certificates provided. The significant problems that affect the vocational skills space are (a) employability gap, (b) lack of skilled trainers, (c) lack of clarity in candidates about their future career, (d) misplaced parental aspiration and apathy, (e) low-quality training institutions with low ability and infrastructure, (f) misaligned incentives for training service providers and candidates, (g) industry collaboration falling short of responsibility for placement, (h) heavy-handed bureaucratic processes, (i) very low priority for monitoring and managing by results.

The skill development programmes need some amount of redirection. While surveys have been carried out by the Ministry of Skill Development and Entrepreneurship as to what the skill gaps are and where tomorrow's jobs will be created, the implementation process and the training of the training service provider to meet these gaps and make people job-ready for future employment have not been undertaken. The assessment of future employment potential neither begins nor ends with likely employers. In the absence of identified employers willing to talk about their demand for labour, the assessment is just supply-side thinking. In the current scenario, selection of training and also selection of the trade/skill set in which the persons will be trained are more driven by the training service providers. The candidates see training as one more qualification which will help them in securing some job rather than using the training as a clear path to a specified job and a career. The lack of specificity in linking the skill set to an identified set of jobs and institutions is reducing vocational skills training to one more phase of education. Field visits and discussions reveal that many college-going students also enrol for skills training, mostly relating to computer skills training, accounting and such other courses without any real appreciation of what kind of jobs they would land in and with low inclination to take up any such jobs that might come. The training institutions on their part have not really invested in good quality trainers who can impart skills at a level which will make the trainees job-ready. When the trainer has not held a job in which the skill was actually required to be demonstrated in a series of tasks, then using such a trainer for skill building is a waste of time and, worse, it could actually create problems in the workplace. The incentives that have been embedded in the process of funding the training service provider and the candidate have not been fully thought through. There are reports that the training institutions are quite happy only to do the training and not really take efforts for placement. While National Skills Development Corporation (NSDC) offers 20% of the total payment for getting the placement done, many institutions do not mind losing the 20% as they make enough even within the remaining 80%.

The assessment process is fraught with several problems. Assessors are in short supply for several trades and the very few assessors available are unable to attend to the requirements of trainees in good time. The training service providers have to wait for long periods sometimes extending to a few months before assessors are able to come and assess the trained students. The obligations cast on SSCs to become self-sufficient have been a contributing factor in the lengthy delays in assessment and non-availability of assessors when required. There are still no systemic solutions for candidates who fail at the end of the course. While the incentive structure helps institutions to do skill building for those people who are quite diligent and studious, for those with low ability to learn the skills quickly, there is neither space nor patience in the training provider. As stated earlier, in PMKVY, out of 557,000 candidates who completed training, only 354,000 passed. The 203,000 candidates who did not pass at the end of the training have to be dealt with in an appropriate manner so that the time they spent in getting trained and the resources that the government spent in organising the training are not wasted. There is no data, at least in the public domain, as to how the failed candidates were dealt with in previous years. This information should be made public to keep pressure on training providers and programme managers. The corporate involvement through CSR has been significant in vocational skills training. However, the corporate houses seem to focus on either supporting the infrastructure to be created or in helping curriculum development and trainer training. Most corporate houses do not actually look at placement solutions for trainees who pass out. Of course, there are notable examples to this where corporate houses visit specific training institutions and get custom-made courses in respect of people whom they would like to employ. But this kind of end-to-end linked skill courses leading to placement are few and they are not the norm.

Organisations That Create an Impact

Swami Vivekananda Rural Community College, Tamil Nadu

The college provides long duration, industry-relevant vocational skills to students who are school dropouts, from broken homes and very poor. The emphasis of the courses goes beyond technical skills; it enables the student to emerge as a good human being despite the past adversities faced in an early age. Currently, the institute handles about 10 different trades and 520 students. Its placement in jobs is 100%—either in jobs or in self-employment. The college carried out a unique skills programme for street children, which will be a model.

In July 2015, as a directive of the Ministry of Home Affairs, Government of India, “Operation Muskaan,” a month-long special campaign, was undertaken by the officials of Crime Branch, CID, to rescue and rehabilitate the missing or abandoned children in Puducherry. Operation Muskaan had rescued 14 street children, and reunited 13 of them with their parents, and also located 34 children in 15 shelters who were in need of care and support. The identity of these children could not be established due to the fact that these 34 children had no known family to be reintegrated into. Not satisfied with the success of this project, or just locating these 34 children in childcare homes, and also acutely aware that when an adolescent left the home at the age of 18 years as they must, he or she would not be in a position to survive on his/her own, the Puducherry Police Department decided to organise Project Punnagai, a follow-up scheme to Project Muskaan. This scheme was designed to provide a new life to orphans by improving their skill sets both academically and vocationally and thus to prepare them for a life beyond their childcare homes. The idea was to link these 34 children and others from a similar background with a time-bound vocational training system through a one-year scholarship involving 10 basic trades such as refrigeration, electrical work, housekeeping and automobile servicing. As Punnagai evolved from an idea to a concrete and comprehensive project, it entailed a set of actions such as group counselling sessions and motivation programmes for children from different homes, identifying their skills and developing them, minimising problem behaviour, imparting behaviour modification for juveniles, delivering therapeutic interventions and vocational training in collaboration with various NGOs. The Rotary Club of Pondicherry Beach Town played a prominent role in the implementation of the project along with a few companies which agreed to sponsor the children and committed to offer placements upon graduation.

iMerit[14]

iMerit was built on the premise that training and opportunity can turn anybody into a capable digital professional, regardless of past disadvantages. More than 4 years old for-profit social enterprise, it currently employs about 1,000 people, with 82% from below poverty level families and having studied up to standard 12. The firm has six centres in the country, in peri-urban areas of West Bengal, Odisha and Jharkhand, besides one centre in the USA. There are plans to set up one more centre in Ranchi as well as in the USA. At iMerit, underprivileged youngsters are provided meaningful careers in the digital economy. Anudip Foundation, a non-profit firm dedicated to identifying and training marginalised young people in data and tech skills, provides trained youth to iMerit. Through this partnership, iMerit is able to find a committed, motivated staff. Once on board, these bright young women and men are full-time employees. They get access to health insurance. They can advance their careers. They can even get stock options. Many of our employees choose to continue their education. They are able to support their families and to encourage siblings and friends to seek training, education and employment. Their motivation serves as a beacon to attract others to iMerit. As technology professionals and valued members of the global digital economy, they are an inspiration not only to their communities, but to all of us at iMerit as well. The CEO of the company in an interview to *The Hindu* said that nobody believed that it was possible for these young people to work on cutting-edge technology projects. But they work on projects like self-driving cars. iMerit has trained 250 people in image annotation, "It also applies to cancer cell images, use categorisation at the minute level ... working with researchers in the U.S. and training the machine to detect cancer by looking at cells."

Karnataka German Multi Skill Development Centres (KGMSDC), Bengaluru[15]

KGMSDC is a collaboration between Government of Karnataka and Gesellschaft für Internationale Zusammenarbeit (GIZ). For an institution in the joint sector, it is excellently designed, operated and produces good results. It has five centres in Karnataka. Each centre is built to cater to 4,000 students with a mix of short-term and long-term courses. Of the courses available, 70% are short term with up to two months of training. The courses are in the fields of automobile technology, advanced welding, IT hardware & networking, embedded technology, industrial automation, electronic design & manufacturing, information technology, manufacturing technology, and finance and accounting. The institute is working closely with industrial houses in its courses to ensure relevance of curriculum, trainer competence and current technology. Most of the trainings are like secondary education options for employment prospects. Many of the training programmes are oriented to meet the needs of private industries and also small enterprises. Curriculum is prepared in consultation with Visvesvaraya Technological University and the skill sets are framed for the training. Of the training, 80% is on practical skill applications and 20% is on theoretical aspects. Trainees are able to choose timings to suit their other activities. On account of flexibility, current students in ITI, school dropouts and those having jobs are able to join the courses.

Internship is provided wherein candidates work in the industries of their field of training and most of them are absorbed in those units. A placement cell looks after placements for candidates. Of the trained

[14] Based on information provided by Rahil Rangwala; news report in *The Hindu*.

[15] Based on visit to KGMSDC, Bengaluru, and discussion with the director of the institute Shri Raghupathy.

candidates, 10% take up self-employment and remaining 90% are absorbed in the industries. Placement in jobs abroad is also reported, particularly in trades such as welding, air conditioning and refrigeration. The workshops are equipped with state-of-the-art machinery and equipment. The students gain experience on machines that are expected to be seen in the shop floor of the companies where they hope to be employed. The support from the Government of Karnataka has been smooth and has made the difference to this joint sector venture. The institute is an example for other vocational training centres aspiring to provide quality courses and excellent placements on account of good industry linkages.

Way Forward on Skill Development

Livelihoods based on hard skills such as carpentry, plumbing, electrical work, masonry and the like are not fancied and are seen as second-class livelihoods. At an aspirational level, youth want to get a college education and take up a white-collar job. Such white-collar jobs have almost vanished and, in any case, are not available to the extent of matching the numbers joining the workforce. The options available to youth about joining the workforce should be made clearer along with a message that a trade-based livelihood can be fulfilling as much as a desk-based white-collar job. The mindset change should take place when the adolescents are still at school. But the parents should also be covered in such a campaign for changing minds on what is a good career. The Sharada Prasad Committee has rightly focused on the need to introduce vocational education in schools.

The lack of private investments over the last three years has been a major reason for the stagnation in job growth in manufacturing related sectors of the economy. When the government claims improved business conditions and enabling environment for business, why private investments are not picking up. In about last nine months, low-cost resources with banks have brought down the interest rates. Bank credit off-take has significantly declined for want of demand. This indicates a disturbing undercurrent in business and commerce that public pronouncements apart, investors are unwilling to invest in new units, thereby limiting employment growth.

The shocks arising from macro events such as demonetisation and introduction of GST have also dampened business sentiment and increased cost of doing business. Labour regulations manage to vitiate the atmosphere of business and increase costs of compliance without improving labour welfare.

The skill development programmes suffer from "action before thinking." Employment creation can be a supply-side initiative if government wants to open up the public sector for hiring of people. Given the current trends of "minimum government," creation of enabling conditions is the only aspect of employment generation that government can legitimately pursue. On the demand side, the issue is not just that of hiring people, but for entities to figure out viable business models that would attract investor funds, bring in customers that buy products and services and of course a committed workforce. The tax and other regulatory framework should ensure that serious players are able to function under a certain and predictable set of policy-based regulations.

What should guide us in improving the employment situation? Think demand side. To get the employment generation on track, demand-side thinking is necessary. We need to find out what will make the private sector to increase investments, enhance level of activity and thereby demand more labour. Understand the user perspective. The activities relating to skill development then follow, depending on who is investing in what, what kind of human resources are needed therefore what the candidates want and what they are willing to do. Moderate aspirations in youth. Counsel the youth about good enough livelihood opportunities that can be sustained with skills. Ensure that the youth have some skin in the game even when they are made job-ready. They should be prepared to bear a part of the costs so that they take keen interest in the skill training. And, finally, focus on results, not the activities. Measure success by the number of new jobs created and number of trained people placed. The job is easier said than done. But with a young ministry and large amount of funds, skill-based employment is doable at scale.

ANNEXURE 6.1
Unemployment Rates as per Usual Principal Subsidiary Status (UPSS)

(in %)

Sl. No.	Name of the States/UTs	Second EUS (2011–12)	Third EUS (2012–13)	Fourth EUS (2013–14)	Fifth EUS (2015–16)
1.	Andhra Pradesh	2.4	2.3	2.9	3.5
2.	Arunachal Pradesh	6.4	10.2	6.7	3.9
3.	Assam	4.4	4.3	2.9	4.0
4.	Bihar	7.8	5.8	5.6	4.4
5.	Chhattisgarh	1.0	1.3	2.1	1.2
6.	Delhi	4.5	5.3	4.4	3.1
7.	Goa	15.9	9.9	9.6	9.0
8.	Gujarat	0.9	2.3	0.8	0.6
9.	Haryana	2.7	4.3	2.9	3.3
10.	Himachal Pradesh	1.3	2.8	1.8	10.2
11.	Jammu & Kashmir	4.2	8.2	8.2	6.6
12.	Jharkhand	3.6	5.9	1.8	2.2
13.	Karnataka	2.4	1.8	1.7	1.4
14.	Kerala	9.2	9.6	9.3	10.6
15.	Madhya Pradesh	2.1	1.8	2.3	3.0
16.	Maharashtra	2.6	3.2	2.2	1.5
17.	Manipur	2.5	2.2	3.4	3.4
18.	Meghalaya	1.5	3.5	2.6	4.0
19.	Mizoram	0.3	2.2	2.0	1.5
20.	Nagaland	4.3	6.2	6.7	5.6
21.	Odisha	2.4	5.1	4.3	3.8
22.	Punjab	1.6	4.7	5.4	5.8
23.	Rajasthan	1.4	2.3	3.1	2.5
24.	Sikkim	9.0	12.2	7.1	8.9
25.	Tamil Nadu	2.1	3.6	3.3	3.8
26.	Telangana	–	–	3.1	2.7
27.	Tripura	12.4	8.4	6.2	10.0
28.	Uttarakhand	4.7	4.5	5.5	6.1
29.	Uttar Pradesh	2.2	4.9	4.0	5.8
30.	West Bengal	6.1	5.9	4.2	3.6
31.	Andaman & Nicobar	10.5	9.8	13.0	12.0
32.	Chandigarh	2.8	5.6	2.8	3.4
33.	Dadra & Nagar Haveli	2.7	1.2	4.6	2.7
34.	Daman & Diu	0.6	1.2	6.6	0.3
35.	Lakshadweep	20.4	10.2	10.5	4.3
36.	Puducherry	4.4	10.1	8.8	4.8
	All India	3.3	4.0	3.4	3.7

Source: Answer to Rajya Sabha question no. 2506 dated 7 December 2016.

ANNEXURE 6.2
Ministry-wise Skill Training Achievements

S. No.	Ministry/Organisation	Targets	Cumulative Achievement: Number	Cumulative Achievement: % of Annual Target
1.	Ministry of Skill Development and Entrepreneurship (First PMKVY)	2,000,000	1,052,115	53
		1,250,000	150,904	
2.	Ministry of Skill Development and Entrepreneurship (DGT)	1,375,000	1,381,000	100
3.	Ministry of Agriculture (DAC&FW (606130), DAHD&F (250000), DARE/ICAR (903870)	1,760,000	677,438	38
4.	National Skill Development Corporation (Projects apart from PMKVY include NSDC Partners, Udaan Scheme & assessments done by SSCs)	1,910,500	751,070	39
5.	Ministry of Rural Development	599,987	548,595	91
6.	Ministry of Micro, Small & Medium Enterprises	557,000	200,936	36
7.	Department of Higher Education	488,060		0
8.	Department of Electronics & Info Technology	360,000	604,649	
9.	Ministry of Housing & Urban Poverty Alleviation	330,684	288,744	87
10.	Ministry of Women & Child Development	33,020		0
11.	Ministry of Textiles	440,000	27,386	
12.	Ministry of Social Justice & Empowerment	95,500	102,291	107
13.	Ministry of Tourism	110,000	46,983	43
14.	Ministry of Minority Affairs	57,000	32,192	56
15.	Ministry of Tribal Affairs	86,000		0
16.	Ministry of Home Affairs	7,000		0
17.	Ministry of Road Transport and Highways	17,500		0
18.	Ministry of Chemicals & Fertilizers	80,000	55,034	69
19.	Ministry of Commerce and Industry	144,000	60,705	42
20.	Department of Heavy Industry	44,000	43,248	98
21.	Ministry of Development of North Eastern Region	4,000	2,809	70
22.	Ministry of Food Processing Industries	1,219	5,509	452
	Total	**11,750,470**	**6,031,608**	**51.33**

Source: Answer to Rajya Sabha Question no. 1408 on 27 July 2017.

Farmer Producer Organisations

Chapter 7

Introduction

Policy and funding support for collectivising farmers into FPOs, especially in the company form, has given a boost to the number of FPOs being formed in the country. SOIL 2015 had devoted a separate chapter to FPOs. Given the developments in the last two years, this year's report revisits the theme for taking stock of changes, challenges and possible solutions.

The purpose of collectivisation of producers into a producer organisation is to ensure better income for the producers. Small producers do not have the volumes in goods and services for either purchase or sale to get the benefit of economies of scale. Besides, in agricultural marketing, there is a long chain of intermediaries. The producer who is at the end of the chain of these mostly opaque intermediaries end up paying a high price for what they buy and realising only a small part of the value for the produce they sell, a small proportion of consumer price. Aggregating producers into collectives is universally accepted as one of the most effective means of reducing the risk in agriculture, improving the access of small and marginal producers to technology and markets and strengthening their negotiating position. Through an organisation of their own, the small producers are expected to have better bargaining power, thus negotiating for better prices for both inputs as well as their produce.

> The 1991 liberalisation, which exposed Indian agriculture to international competition, had made it essential for small farmers to collectively fight for their interests. Member-controlled dairy and sugar cooperatives in western India have demonstrated formidable lobbying power in defending the interests of their members. Had we such strong member-controlled cooperatives in other spheres of the agricultural economy, the agrarian distress we witness today would have arguably been far less severe.
>
> *Source:* Tushar Shah, "Farmer Producer Companies Fermenting New Wine For New Bottles," *Economic & Political Weekly* 2, no. 8 (20 February 2016).

Larger Numbers of FPOs Being Promoted

NABARD has funded 792 producer organisation promoting institutions (POPIs) for formation of 2,160 FPOs out of which as of 31 March 2017, 1,924 FPOs having completed their registration formalities under different legal forms.[1] Out of these FPOs, 1,349 were registered under the Companies Act (as amended in 2013), and the remaining were registered under the Cooperative Societies Act, Societies Registration Act or Trust Act. During the last two years, with the availability of PRODUCE fund from the

[1] See http://www.nabard.org/about-departments.aspx?id=5&cid=470

Table 7.1: FPO Formation Under Different Government Programmes

State/Programme	No. of FPOs Proposed	No. of FPOs Formed
SFAC	741	636
NABARD	2,160	1,924
Maharashtra—World Bank programme	415	406
Karnataka—Horticulture Department	92	54
Odisha	100	100
Rajasthan	250	
Andhra Pradesh	1,000	
Tamil Nadu State Govt Prog.	4,000 over five years, 200 in 2017–18	

Source: Authors' compilation from different sources of data with different organisations and state government departments.

GoI, the numbers have scaled up. While the focus has been on collectivising already mobilised farmers under watershed and Wadi project areas, many FPOs have been stand-alone interventions. For example, in Odisha, out of 110 FPOs formed, 26 are formed in Wadi project areas and 16 FPOs in watershed project areas. Table 7.1 summarises the numbers.

Small Farmers' Agri-business Consortium (SFAC), mandated by the Ministry of Agriculture and Farmers Welfare, Government of India, supports the state governments in the formation of FPOs. Under direct funding of SFAC, as of June 2017, 636 FPOs have been registered and another 105 are in the process of registration making the total to 741 FPOs. These FPOs have been formed in 28 states and in the union territory of Delhi. State-wise, Madhya Pradesh (144 FPOs), Karnataka (120) and Maharashtra with 92 FPOs account for the largest share. In total, 740,669 farmers have been mobilised under 741 FPOs averaging 999 members per FPO.

FPO formation is supported by externally aided projects. In World Bank assisted Maharashtra Agriculture Competitiveness Project (MACP), registration of 406 FPOs has been completed, and the registration of the balance 9 FPOs is expected to be completed by end August 2017. Of these, 299 FPOs have started the work for setting up of the Farmer Common Service Centre (for post-harvest management and market linkage), and the first tranche of project's grant has been released to 236 FPOs.[2] The Uttar Pradesh Sodic Lands Reclamation Project has also formed FPOs under agriculture and capacity building for market access components. The Rajasthan Agriculture Competitiveness Project proposes to form 250 FPOs.

The expected organic growth for SHG federations to form producer groups is slow to pick up but gaining momentum. Kudumbashree has formed about six FPOs of which three are companies. Society for Elimination of Rural Poverty (SERP) in Telangana and Andhra Pradesh[3] is implementing World Bank assisted Inclusive growth projects covering small and marginal farmers, especially from SC and ST population. FPO formation is the institutional strategy being followed for improving the incomes of producers. Producer groups have been mobilised out of the SHG members, and FPO formation will gain momentum during the year.

Similarly, Mahila Arthik Vikas Mahamandal (MAVIM) with funding from International Fund for Agriculture Development (IFAD) has mobilised 100,000 SHGs and has taken up focused livelihood improvement among 110,000 members in four value chains; as a measure of improving structured linkages to markets, the institution plans to form FPOs of the women.

Some of the state governments are also promoting FPOs in large numbers; Andhra Pradesh, in 2016, announced a programme of formation of 1,000 FPOs for which ICRISAT is to provide technical support.[4]

[2] World Bank, *Maharashtra Agricultural Competitiveness Project, Implementation Status & Results Report.*

[3] Andhra Pradesh rural inclusive growth programme targets small and marginal farmers and the SC/STs in the 150 most backward mandals in state of Andhra Pradesh, covering 250,000 farmers in about 5,000 villages. Value chain development is the major component. Forming FPOs is the institutional strategy for sustainable interventions.

[4] See http://www.icrisat.org/increased-productivity-for-indian-farmers-through-farmer-producer-organizations/

The target is to bring one million farmers under FPOs. Similarly, the Government of Tamil Nadu, in 2017, has announced formation of 200,000 farmers to be formed into 200 FPOs with a budgetary provision of ₹100 crores. The farmers will be first mobilised in to producer groups of 100 members each and after six months of successful working, 10 producer groups will be brought together into an FPO. This scheme will be scaled up to benefit 4 million farmers through 4,000 FPOs. In Tamil Nadu, fragmentation of landholdings is a major challenge with 92% of operational holdings being small and marginal holdings; collectivization is considered as a strategy to address issues of high-cost labour with more mechanisation, introduction of new technology for productivity enhancement. A corpus fund of ₹5 lakhs will be given to each FPG of 100 farmers[5] for purchase of fixed assets such as micro-irrigation, farm implements, tractors and threshers. Crop planning, collective purchase of all inputs needed for the crop selected, sharing of farm labourers, adoption of modern practices, collection of farm produce, value addition and marketing at remunerative price are the activities being planned. In Uttarakhand, under the Integrated Livelihoods Support Programme funded by IFAD through the Government of Uttarakhand, 130 livelihood collectives are formed—as cooperative societies—to take care of farmers' needs of inputs, output marketing, other services and credit.

Some FPOs have formed on their own; the promoters are usually knowledgeable and better off farmers who are able to convince other farmers in the neighbourhood to form a collective. Maharashtra probably has the highest numbers of such FPOs; 324 FPOs are reported to have been self-promoted.

While there is no consolidated data available on numbers of FPOs, based on the figures of large funders, it is estimated that about 6,000 FPOs, mostly in company form, are functional in the country. In the last two years, the growth has been threefold.

Legal Forms

Producer organisations are registered under one of the following legal provisions:

1. Cooperative Societies Act/Autonomous or Mutually Aided Cooperative Societies Act of the respective state
2. Multi-State Cooperative Society Act, 2002
3. Producer company under Section 581(C) of Indian Companies Act, 1956, as amended in 2013
4. Section 25 Company of Indian Companies Act, 1956, as amended as Section 8 in 2013
5. Societies registered under Society Registration Act, 1860
6. Public trusts registered under Indian Trusts Act, 1882

Along with the funding support, the forms of collectives are also specified. NABARD in Odisha has ensured that FPOs are registered as producer companies. In Chhattisgarh, the preference of the state government is cooperative form and hence most FPOs are registered as cooperatives. So is the case with West Bengal.

Producer organisations registered as societies and trusts are transforming or promoting producer companies. While under Societies' Act, the registration of entities is simple and easy, such institutions can also promote the common interest of members/producers, they find limitations in doing business. Since producer organisations have to carry out business, account for income, expenses and profits, comply with tax regulations and be accountable to members, it is necessary that a commercial form of organisation is chosen. Either a cooperative or a company form is suitable as in such forms there is defined ownership, member influence on governance, sharing of

[5] About 10 such groups in a contiguous area which would be later federated into FPOs.

profits, statutory audit frameworks and ease of contracting with other business entities. Corporates prefer to deal with producer companies due to better regulations, governance, transparency and accountability norms to be followed. Moreover, in societies and trust forms, surplus generated cannot be divided among members as dividend and thus mobilising additional share capital from members becomes an issue which inhibits growth.

> Thirumaraikadu Kadalora Vivasayigal Koottammaippu is a federation of mango and vegetable producers functioning for the last three years in Nagapattinam district in Tamil Nadu. The federation has been formed under the Post-Tsunami Sustainable Livelihood Project being implemented with funding support from IFAD. About 3,000 farmers are members of the federation which has been registered as a society. The federation has been undertaking productivity enhancement measures and also collective sales of the produce. In order to fetch better income for the producers, the federation wanted to establish a mango-processing unit with corporate tie-ups for marketing of pulp. Nagai Organic Farmers Producer Company Limited is being promoted by the federation to ensure appropriate legal form for doing large business apart from providing comfort for corporates to have marketing tie ups.
>
> *Source:* Discussions with Thirumaraikadu Kadalora Vivasayigal Koottammaippu.

Size of FPOs

Design of an FPO needs to enhance greater interactions and business transactions and increase trust and social capital in the FPO.

As per the Act, 10 or more primary producers can incorporate a producer company. SFAC propagated 1,000 member FPOs based on viability and cost coverage parameters, and the FPOs formed with funding support from SFAC have adopted this norm. However, NABARD has not insisted on minimum membership but has given a guidance of 500 to 1,000 members as desirable. The statistics available with regional offices of NABARD show that members per FPO is small, ranging from as low as 50 to a high of 650 in the state of Odisha. In Maharashtra, the data for both NABARD as well as MCAP show smaller numbers ranging from 150 to 450 members. The idea appears to be to start small and increase the membership gradually.

Since the PO will require a minimum scale of operations to break even and remain in business, the size and scale of FPO matters. While in irrigated areas with more commercial crops and coastal areas being densely populated, FPOs with fewer members might be viable, in the case of rain-fed regions, more members will be needed to drive the business volumes.

Moreover, since social capital in terms of mutual trust, understanding and cohesiveness is necessary for a community-owned and managed institution, the geographic area should also be a determining factor. The geographic coverage at present varies from few villages to an entire district, and in some cases, multi-district operations are also seen. This is based on the mobilisation strategy of POPI and the commodities covered. In the case of special features of commodities such as organic, it is usual to have a larger geographic spread in order to generate adequate volumes for market entry.

> Swornajayanti Producer Company Limited was formed in December 2014 by 10 tribal women SHG members in Koraput district in Odisha. Since then the membership has grown to 3,000 members in 4 districts and the major activities are poultry farming and goat rearing. The company markets poultry bird in the brand name of "Adisha" Chicken. To have a continuous supply of birds and eggs, the larger membership has been found necessary since each household rears a limited number of birds.
>
> *Source:* FPOs in Odisha, NABARD, 2016 and discussions with Harsha Trust, POPI.

The National Round Table[6] on design features of the FPO in 2016 had some suggestions on size and location of FPOs:

- Optimal membership of an FPO ranges from 500 to 1500.
- The membership size depends on the context: tribal belts, mountain regions, where smaller number of members will have to be thought of.
- Cluster size and membership size based on boundaries that people understand: micro-watershed, gram panchayat.
- Basic units at village level comprising of about 15–20 members (through farmer interest groups, SHGs, production groups) which in turn come together to form an FPO of maximum size of 1,500 members at a gram panchayat level.
- If market demand requires size increase, instead of spreading the cluster size, increase the membership size within the cluster, more PGs in the adjacent clusters to be promoted.
- Be as small as possible, as large as necessary.

The recent learnings from experiences show that only 30–50% members actively participate in the early years of FPO formation; POPIs are now advocating small geographical spread for better visibility and also communication among members. POPIs prefer mobilising 150–200 members initially and register the company and, thereafter, gradually increase and optimize the numbers of members. There is now better understanding and agreement in focusing on even small and compact producer organisations that can break even over time, but with greater cohesion and sustainability.

Federation of FPOs

Since most FPOs continue to struggle to establish viable and sustainable business models and achieve significant revenues and returns to their members, SFAC has taken the initiative to establish state-level federations of FPOs to create a state-level umbrella support for the member FPOs. Eight such state-level producer companies are supported in the states of Madhya Pradesh, Rajasthan, Maharashtra, Gujarat, Tamil Nadu, Uttar Pradesh, Telangana and West Bengal.

These federations are registered under the Companies Act as producer companies and are seen as an effective solution to: (a) achieving better coordination among FPOs, (b) entering into policy dialogue with the State and Central agencies, (c) accessing services and inputs from government and private agencies, (d) leveraging opportunities in agribusiness and (e) seeking credit from financial institutions.

SFAC has nominated the state-level federations of FPOs as procurement agents under a price support scheme and Price Stabilization Fund schemes.[7] The state federations act as a support agency on behalf of SFAC to implement procurement operations at the field level. FPOs run and operate procurement centres wherein farmers can directly sell their commodity at MSP/market rate. This has been the major activity for all the federations of FPOs. The benefit to farmers under MSP has been substantial; last year for lentils, while the market price was ₹3,800–4,000 per quintal, the MSP rate was ₹5,050. Similarly, in groundnut, the price gain under MSP was ₹400 per quintal.

Madhya Bharat Consortium of Farmer Producers Company Limited (MBCFPCL) is a state-level federation of farmer producer companies functioning in Madhya Pradesh. Established in 2014, the federation has a membership of 76 farmer producer companies (FPCs) covering 2.24 lakh farmers.

[6] Nayak and Panda, "National Round Table Discussion on Optimal Design of Farmer Producer Organisations," a Synthesis Report.

[7] Launched by the GoI to procure pulses and onions directly from the farmers for the purpose of protecting the farmers from distress selling as well as stabilising the prices.

51 FPCs have subscribed to the share capital of the federation. These FPOs have been promoted by nine POPIs with District Poverty Initiative Project (DPIP), SFAC and NABARD funding.

MBCFPCL has transacted business worth ₹153.89 crores during 2016–17, ₹147 crores in trading of pulses acting as a state-level procurement agency on behalf of SFAC and ₹6.89 in seeds and others. Last year, the turnover was ₹68 crores. The commission of 1.5% earned as state-level procuring agency is shared equally between the federation and FPO. The federation is able to meet its operational cost of ₹1 crore annually at present with very limited support from ASA. The operational costs include costs of hiring warehouses and processing facilities for the seed business.

The federation procures, processes, packages and sells seeds of member FPOs; FPOs are free to market the seeds on their own. In the case of surplus, the federation supports for marketing. Memorandums of understanding (MOUs) are entered with FPOs specifying the quantities to be marketed. The federation is also supplying foundations seeds; but procuring good quality foundation seeds has been an issue both for FPOs as well as for the federation. Against 3,500 quintals planned for supply to the FPOs for the year 2016–17, only 25% could be supplied. However, this was the first year and the federation has gained valuable experience in the past two years in understanding the seed value chain. Seed replacement rates depend on market value of the commodity as well as monsoon arrival. In the case of low market prices for produce in the previous year, the farmers do not want to spend additionally by purchasing seeds in the current season. They use the seeds they already have. The federation has to find other markets for its indented seeds. MBCFPCL is in discussion with federations in Gujarat, Rajasthan and Maharashtra for seed marketing.

Moreover, the necessary infrastructure for conducting the seed business is to be set up. For seed business, we need warehouses to ensure the quality of seeds. In private warehouses, the exclusive storage of seeds is not possible; other produces are also stored, and mixed storage can lead to quality issues. Hiring of warehouse space is not a solution since most warehouses are situated near towns and are not near production and marketing areas to have adequate oversight. SFAC had a scheme for storage and warehouses under which the federation had developed proposals for member FPOs that had land to get warehouses constructed through grants.

The federation is borrowing from IDBI bank, NABKISAN and Ananya for seed business since the normal holding period in seed business is 6 months. The federation has also been borrowing for settling farmer dues under the MSP scheme of SFAC. The verification of documents (farmer-wise documentation to ensure procurement is actually from farmers and not traders), accounting and auditing of the operations is time consuming. The federation and member FPOs mention that under government procurement, prompt settlement is an issue. The federation has been forced to borrow from financing institutions to pay the farmers in reasonable time. The interest cost of the financial outlays of the procurement period of 6 months can be high and eat in to the meagre commission. SFAC and GoI should look into paying the financial cost (interest on the borrowed money) to the federations.

Gujpro Agri-business Consortium Producer Company: The federation of FPOs in Gujarat has been formed to provide technical support for member FPOs to interface with large-scale market players in select commodities. The federation has 25 shareholders; the membership is open to FPOs dealing in groundnut, pulses and mango. Though there are about 190 FPOs functional in Gujarat, the federation is expanding the membership slowly keeping in view the core competence and human resource capability of the federation to cater to the marketing needs of the members. The federation is conscious that each commodity requires specific expertise to handle the market linkages.

Sijita Sangh, a network of NGOs working on natural resource management and agriculture, has promoted the federation. SFAC provided ₹1.5 lakhs for mobilisation and registration and ₹10 lakhs for initial capital support. The federation is in profit since last year.

The federation established leads with about 70 buyers to provide market linkages for the produce. These buyers required samples, quality specification and price expected. Though firm orders were received, FPOs were not able to standardise the quality; the federation's work for the past two years has largely focused on building capacity of FPOs for ensuring quality supply. The key learning has been that unless the produce is available in the godown/warehouse (sorted, graded and well packed), firm commitments for marketing cannot and should not be given. Lifting produce directly from farmers before transporting the same to buyers can result in quality issues. Produce should be aggregated from farmers and quality control measures should be implemented before the same is marketed.

During 2016–17, two major initiatives have been taken; during kharif season, on behalf of NAFED, about 8,000 metric tonnes of groundnut worth ₹33 crores was procured. During rabi season, for SFAC, the federation procured 2,800 metric tonnes of lentils valued at ₹13 crores. The commission earned was 2% for groundnuts and 1.5% for tur; the federation has shared 50% of the commission to FPOs.

The federation also tried export of mangoes to European markets during the year. The process is lengthy and the applicable stringent quality norms meant that the rejection rate was higher. For the export of fruits in the month of May, the process has to start in the month of September. The farms planning to export the produce have to be registered with APEDA. Farms also have to be prepared to ensure quality specifications of mangoes—fruit fly traps need to be established and usage of chemical fertilisers have to be appropriate. This may involve 5% additional expenditure. There are stringent standards for harvesting and transportation. The farms have to register with the department of plant quarantine, register for a packhouse wherein detailed process of washing, hot water treatment, ripening in ripening chamber have to be followed. Every box has to be checked and sealed by department of plant quarantine. The transportation has to be through sealed refrigerated trucks. All the reports including a phytosanitary certificate is to be submitted at airport and only thereafter it can be exported. Getting the fruits in good volumes for export quality is a problem. Sixty tonnes were exported last year and the federation finds that this is the quantity one farmer produces. Hence, the wholesale markets in Ahmedabad were also tried. However, the price difference between the local markets and Ahmedabad was not large enough to be profitable; moreover, the federation needs ripening chambers to intervene in local markets effectively.

The work so far has shown that in a near-perfect market like Gujarat, the margins available for aggregation and sales are very limited and the volumes are insufficient to make an impact in wholesale markets. The federation is considering value addition as the way forward for improving incomes of the farmers. The federation through FPOs purchased groundnut pods from farmers, processed them to kernels and sold to a large buyer in 2016–17. Based on this pilot, during 2017–18, the federation is tying up with large peanut exporters for supply of kernels, hiring groundnut processing centres for processing pods into kernels to ensure steady supply of kernels. At present, the exporters and processors shell peanuts and store in cold storage. If FPOs can supply in a sustained way and at a reasonable price, the exporters are keen to enter into a partnership. Of kernels, 1,200–1,500 MT can be supplied, but this will require adequate working capital.

The federation is also tying up with the Gujarat State Seed Corporation, the major supplier of seeds in the state for seed production and distribution for four major crops, groundnuts, wheat, gram and moong. FPOs will also be dealers of the corporation for sales of all types of seeds needed by the members.

The key issues faced by the federation are (a) lack of human resources (though there are several opportunities, the three member staff team is unable to take advantage of these). The federations need limited period support for procurement officer and consultants; (b) lack of storage facilities with federation and member FPOs.

Rajasthan: The federation has 71 FPOs as members and has been functioning for the last 2 years. SFAC supported the initial costs followed by the Government of Rajasthan under RKVY for a year. Presently, ACCESS Development Services, which is spearheading the state-level federation, is providing for the staff costs since the ACCESS team also looks after the work of state-level federation. Under the proposed partnership with SFAC for procurement of pulses and vegetables, the state-level federation will have to appoint exclusive staff and also draw up plans for cost overage.

The federation has been involved in policy advocacy with the Government of Rajasthan during 2016–17. The draft policy for FPOs has been developed and is under consideration of the Government of Rajasthan. One of the path-breaking work carried out by the federation is dialoguing with the government to remove key hurdles in making available mandi licences to FPOs. The federation has also been facilitating member FPOs' access to government schemes such as custom hiring centres; 30 FPOs are getting custom hiring centres with machinery worth ₹10 lakhs each. The procurement under MSP has been carried out by individual FPOs during 2015–16. During 2016–17, very limited procurement could be done since mandi prices were better than the MSP. Henceforth, the state-level federation will be the designated procurement agency that will procure through the member FPOs.

State federation is developing blueprints for retail trade of spices such as coriander, chilli and turmeric by FPOs since they find corporate tie-ups to be wasteful; the value chain analysis and market study shows that the retail trade is feasible. The state federation is also in dialogue with the Government of Rajasthan for establishing farmers' markets in 10 urban/semi-urban centres for the FPOs to directly sell their produce. FPOs are also finding stiff competition from Gujarat farmers and traders. The Government of Gujarat has invested in technologically improving the agriculture through effective subsidies, micro-irrigation, protected farming under greenhouse/polyhouses, improved seeds availability and farm mechanisation leading to higher productivity. There is lot of scope for similar productivity enhancement in Rajasthan and the federation is in discussions with state departments to route the government schemes through FPOs.

Utkal Krushak Samanwaya Producer Company Limited (Odisha): With adequate numbers of FPOs getting formed under NABARD funding, there has been a move to form state-level federations in other states. Sahabhagi Vikash Abhiyan along with Harsha Trust, both POPIs, has promoted a state-level consortium of FPC in Odisha—Utkal Krushak Samanwaya Producer Company Limited (UKSPCL) with 22 member FPOs spread over 20 districts in Odisha. FPOs with minimum business volumes of ₹10 lakhs can only become members. The target is to include all 100 FPOs operational in the state eventually. UKSPCL, formed in December 2016, aims at providing marketing support to members. The federation is looking at the direct air connectivity from Malaysia to Bhubaneswar as an opportunity for marketing of fresh vegetables in Malaysia and Singapore markets. The federation is in discussions with APEDA, Odisha Agriculture University, horticulture department and airport authorities to develop blueprints for export.

Funding Support for FPOs

NABARD, SFAC, government departments, corporates under CSR and international aid agencies provide financial and technical support to the POPI for promotion and handholding of the FPOs. Among the major agencies that have been involved in promoting and developing FPOs, NABARD and SFAC are vital. Organisations such as HIVOS, Rabobank Foundation, Sir Ratan Tata Trust, Ford Foundation, ICCO and Axis Bank Foundation among others are currently part of this effort. Each agency has its own criteria for selecting the project/promoting institution to support. The funding criteria also vary.

SFAC commenced funding of FPOs in 2011–12 under the two Central Sector Schemes for Vegetable Initiative for Urban Clusters and Integrated Development of 60,000 Pulses Villages in Rain-fed Areas. SFAC now supports special FPO projects being taken up by some state governments under general RKVY funds as well as under the National Demonstration Project under the National Food Security Mission and Mission for Integrated Development of Horticulture.

From its own internal resources, NABARD started to support producer organisations through its Producer Organization Development Fund (PODF). Subsequently with the GoI special fund, namely PRODUCE fund, it has systematically deepened its support to establish producer companies in the country on a mission mode. Additionally, it enlarged the business scope of its subsidiaries, namely NABKISAN and NABFINS, for providing credit support to FPOs. The quantum of funds under PRODUCE fund per FPO was ₹9.06 lakhs for 3 years. It included revolving fund of ₹50,000. PRODUCE fund has been fully committed. NABARD proposes to form 3,000 more FPOs in the next two years by setting aside funds from its profits. For a cluster of five FPOs, the funding will be ₹8.5 lakhs. Many POPIs find this to be inadequate and if they have to avail of this support, they need to raise additional resources for FPO promotion.

Most of the funding support presently available is for three years. Based on the experience of past five years, there is consensus emerging that FPOs need support from POPIs and other technical service providers for 5–7 years. In tribal areas, the time frame increases to 7–10 years. Farmers have some experience with societies and cooperatives, but a company is a new form. The compliance requirements are quite challenging. Substantial support and handholding are needed for graduating the FPOs to full-fledged service providers to their members.

Government of Karnataka[8] has put in place more comprehensive support than mere FPO promotion. The government is engaging resource institutions for formation of FPOs and providing management costs for FPOs for three years. After realising the need to support farmers after FPO registration, the Department of Horticulture, Karnataka, during 2015–16 started facilitating FPOs by giving revolving fund of ₹15.00 lakhs and 90% subsidy support (maximum of ₹22.50 lakhs) to establish custom hiring centres. 67 FPOs have received revolving fund and 59 FPO have been supported to establish custom hiring centres.[9] Some of the state governments such as Rajasthan and Andhra Pradesh are formulating policies for infrastructure support for post-harvest management.

[8] See http://www.karnataka.gov.in/pppihd/Pages/Farmer-Producer-Organization.aspx

[9] See http://rkvy.nic.in/(S(nd0uzghpmljf1qsqwlicizvp))/Uploads/SucessStory/KARNATAKA/2017/2017012054FPO%20Success%20Story%20(RKVY)final%20new.pdf

While the numbers of FPOs have been on the rise, there is a growing concern that funders and POPIs are leaving the FPOs to manage on their own after the funding period is over. There is no centralised database to monitor how many FPOs are in what stage of functioning. There are reports that many are becoming defunct after POPI has withdrawn. There is also a growing discomfort among the serious POPIs that the failures that are seen on the ground are not getting adequate attention of funding agencies for any course correction.

Government to fund for profit companies is a major initiative which should be appreciated. Two areas of concerns are as follows. In government programmes, there is excessive concern with numbers; longevity, sustainability, ownership—none of these are keenly monitored. The second issue is there is no mechanism for reflections, refinements and course correction. Failures are not discussed frankly. There is a limitation of accepting failures. Everything has to succeed. Lack of success is seen as misappropriation of funds. In this environment, no course correction has been feasible.

Source: Based on interviews of POPI personnel.

Capacity Development of POPIs and FPOs

Compared to 2015, the capacity development of CEOs and board members has seen major improvements. SFAC and XIMB undertook curriculum development, namely Management @ Grassroots, specially designed for FPOs, which is being widely used by trainers. National institute of Agricultural Marketing has designed a three-month residential certificate course for CEOs and other management staff of FPOs in association with Bankers Institute of Rural Development (BIRD), Lucknow. The course focuses on business development, implementing business plans and bringing sustainability to their operations.

Since there has been explosion in the number of POPIs, NABARD has engaged 19 Resource Support Agencies in providing necessary training and handholding to POPIs for undertaking the promotion of FPOs. NABARD has also supported training and exposure visits for FPO boards and CEOs. For example, NABARD, Odisha, engaged 27 POPIs for FPO promotion and funded 10 capacity development courses. CEOs of FPOs were deputed to a three-month course being conducted by XIMB costing ₹40,000 per participant funded by NABARD. The NABARD regional office also organised exposure visits to Nashik, Maharashtra and also to Chennai.

According to POPIs, finding the CEO who would work in remote rural locations is a major challenge. Moreover, the CEO is expected to have accounting and financial management knowledge apart from agriculture and marketing skills. Many CEOs find the going tough in the multiple competencies expected of them. In the absence of strong backstopping either from POPI or within the FPO, the CEOs become less effective.

Voice from the Field

I was posted as CEO of an FPO functioning in Bundelkhand region by the POPI. Since I am a woman with non-agricultural background, the Chairman of the board of FPO did not have much trust in my abilities. With MSW degree and very little knowledge on accounts and finance management, I was expected to fulfil all the responsibilities of CEO from the day of my posting. I was not aware of legal compliances to be fulfilled; there is no manual to inform CEOs of various compliances. I learnt from mistakes and had to pay fines from my pocket. There is no centralised system for reminding CEOs of FPOs for filing various compliances. CEOs should be comprehensively trained before they are placed on the job.

There are situations which even training does not teach you how to handle. The board directed that the FPO should get licenses for agri inputs and mandi license; without paying extra charges to lower level officials, it is impossible to get these licenses. There is no accounting head to book these expenditures. Other CEOs sometimes pay from their pockets and make other adjustments for getting these licenses. I struggled to get licences the normal way but the chairman felt I was negligent.

If the funding agency delays release of payment of salaries, the POPI I was working for could manage for a short time. When the delays became longer from funders, even POPI could not ensure cash flow for salaries. I had to learn to manage with 3–4 months' delay in salary payment. Many CEOs left because of such uncertainties and delays.

Source: Based on interviews of POPI personnel.

In the next stage in FPO development, policymakers/funders should enable development of a cadre of specialised service providers who can take care of accounting, legal compliance and other support services to FPOs. CEOs should be freed from these tasks to do marketing concentrating on business.

The model of Vrutti, a Bengaluru-based POPI, is relevant in this regard. Vrutti has formed 95 producer companies in six states in the country. In the initial stage, Vrutti provides services required by the FPO to commence its operations and strengthen member enrolment. Thereafter, the service requirements of FPOs increase—they need support in accounting, governance, marketing, financial management and member relations. Vrutti had formed clusters of about 10 FPOs each and created a Business Accelerator Unit (BAU) in the cluster. The BAU has all the expertise required to comprehensively serve the FPO and help it in statutory and accounting compliance, procurement processes, value chain linkages for marketing and accessing new buyers and markets. The cost of each BAU is about ₹38 lakhs and each FPO in the cluster will have to pay about ₹3.8 lakhs to the BAU per year to get full range of services. At present, Vrutti is able to raise grant funds (From NABARD, Godrej Agrovet, Azim Premjee, SFAC, etc.,) for meeting the cost of the BAUs, but it is preparing the FPOs for meeting costs of the different services once the grant funds cease. Vrutti targets providing cluster-based services for the first five years with grant funds and thereafter the FPOs will bear the charges.

There are no detailed studies on the prevailing governance and management systems of FPOs. While some agencies are developing grading tools for grading FPOs, there is no data available to show the status. There are reports of serious imbalance between governance and management in many FPOs. This aspect requires a detailed study. IDF, Bengaluru, which is working with 20 FPOs in different stages of maturity, pointed out that the POPI leadership and FPO leadership should be on the same page in order for FPOs to perform well. Governance and compliance with Companies Act are key aspects of initial stage training of FPOs.

The state federations and also technical service providers like TechnoServe highlight the high quality human resources needed by an FPO which they are not able to hire or, even if they hire, are not able to retain. This is the key challenge that can constrain the growth of the FPOs. Some of the government programmes are deputing young professionals as additional hands for CEOs.[10] But professionalising the human resources with adequate skills in accounting, financial management, business skills is a task POPIs are struggling with. Motivating the existing staff to see the working with FPOs as a career is a governance function which many of the boards do not seem to be performing. There have been delays in release of salary payments by some of the large funders which POPIs are not able bridge. Such delays also raise concerns about security in the minds of CEOs who want assured salaries.

NDDB Dairy Services (NDS), a wholly owned subsidiary of the NDDB, is promoting

[10] JEEViKA, Bihar is deputing two young professionals in each FPO.

producer companies with professional staff. It functions as a delivery arm of the NDDB for field operations relating to promoting producer companies and productivity services. It has professionals drawn from the cooperative, private and developmental sectors. NDS is assisting producers in establishing producer companies managed by competent professionals. The experience shows that the operational costs are about ₹1 crore for a three-year period, including the technical support costs of NDS. The FPOs have been able to attract high patronage from members and also non-members because of professional management of FPOs. The benefit to members is also visible; in different regions, members have gained 20%–30% hike in milk prices.

One emerging trend is for the financing institutions (other than banks) to take up capacity building of FPOs. For example FWWB and Samunnati Finance see capacity development in FPOs as a necessary condition of growing their own business. Anilkumar, CEO of Samunnati, says,

> If we have to grow a relationship we need to work with smaller entities. Rather than expecting the FPOs to build their capacity on their own, lenders should take it as their responsibility. The interest of the FPO and the lender are aligned in the business growth.

Samunnati offers non-financial products that are meant for capacity development of FPOs, and for the lender, these constitute the risk mitigation strategy. Five aspects are evaluated by Samunnati—governance, management team, technology, statutory compliance and accounting and MIS, and based on this they develop a capacity development plan. Samunnati is investing in technology "Samunnati Pay" card-based solutions and offers cashless disbursement; this solution is offered to an FPO which then is given to members for cashless disbursement. Samunnati is able to disburse loans to larger number of members through FPO through this technology-based solution. Standard operating procedures for MIS and accounting have been developed by Samunnati which are adopted by the FPOs.

NABKISAN also takes up FPO building and strengthening initiatives. NABARD has provided grant funds to NABKISAN for the purpose. A manual of FPOs formation and operations has been brought out during the year. NABKISAN is in the process of identifying mentors to guide FPOs in their business and governance.

Key Activities of FPOs

The producer organisations are undertaking one or more of the following activities: (a) productivity enhancement, (b) Inputs supply, (c) facilitating for finance, (d) sharing market information, (e) aggregation and marketing (including grading and sorting), (f) value addition and (g) linking farmers to commodity exchanges.

While some of the FPOs are undertaking a number of activities that cater to member farmer needs, it is also a fact that a substantial numbers of them are not doing any business or meaningful activity. The present monitoring systems by funders and also resource agencies are weak on capturing the activities undertaken by FPOs. Moreover, the funding pattern of NABARD, SFAC and other donors are input oriented rather than outcome oriented. The payments to POPIs are not based on business outcomes of the FPOs. Thus, there is little incentive for POPIs to ensure activities in FPOs beyond the mobilisation and capacity development phase.

According to NABARD,[11] majority of FPOs are undertaking aggregation, marketing and input distribution activities. About 1,515 FPOs are undertaking business activities, and their total business turnover is about ₹100 crores. However, the interactions with POPIs as well as other funding agencies show that not more than 30% of FPOs (excluding dairy and poultry producer companies) are doing any meaningful

[11] NABARD, *Annual Report, 2016–17*.

business in inputs or aggregated marketing. This is an aspect to be studied, and corrective measures should be taken.

Lack of funds is quoted often as the reason for lack of activities. However, with the share capital mobilised, it is possible to start small. There are other activities such as productivity enhancement, facilitation of credit linkages which can reach to all based on needs. Thus, while availability of finance is a necessity for business, the lack of it cannot be an excuse for no activity being undertaken by many FPOs. Moreover, the experience so far shows that inputs supply can reach up to 70% of farmers over a 5–7 year time frame. Aggregation of produce and marketing service usually reaches 30% of the members.

Productivity Enhancement

FPOs can contribute very effectively for productivity enhancement and cost reduction of inputs. Productivity enhancement techniques can reach out to most of farmer members. Seed producing farmers needing higher order skills are trained in production techniques and these trainings and demonstrations are often organised in collaboration with seed companies.

Some FPOs are carrying out demonstrations of package of practices for each season for the major crops grown by the members. However, there is little follow up on adoption of package of practices. The funding allows hiring of local resource persons (LRPs) to mobilise farmers in the initial years. How effectively these LRPs are used is uncertain. There is plenty of scope to systematize the training of LRPs in productivity enhancement measures, conducting farmer groups meetings with fixed agenda for discussion on improving techniques and monitoring the outcomes through simple tools and techniques such as farmer diaries. Farmer diaries can capture the inputs and outputs crop-wise apart from package of practices adopted by farmers. This can be linked to input business; for example adoption of improved seeds and showcasing the increase in yield will be able to convince farmer groups about adoption and, thus, generate business for the FPO for improved seeds. IDF is experimenting with a farmers field school concept to encourage FPO members in rain-fed agriculture for improving productivity. The Kabini Organic Cotton Producer Company (promoted by MYRADA and MYKAPS) near Mysore had its members trained under the farmer field school on production of organic cotton; now the entire area has shifted away from BT cotton to organic cotton, where avoided cost of production is of the order ₹4,000 per acre as reported by the farmers.

There is not much clarity on how to reduce cost of production for member farmers. FPOs are not making serious analysis on this aspect. Few POPIs like IDF has facilitated discussions and exercises in FPOs with farmer members on how much do they currently spend on inputs, what inputs can be produced locally, where FPOs can intervene, etc. Local production of inputs, especially making bio-fertilisers and pesticides, is a service that FPOs can provide.

Dr Venkatesh Tagat, development consultant, mentions that increasingly agricultural production is becoming specialised and farmers, especially the younger generation, are looking for services which will enable them to undertake agriculture without too much drudgery and avoid some of the riskier processes in farming. While mechanisation is being explored, there are activities related to agricultural production which can be offered as services. Seedling nurseries are gaining acceptance and are becoming businesses. There are examples of vegetables, paddy, sugarcane nurseries for seedlings where germination is managed by the entrepreneur and farmer gets the ready seedlings gaining popularity. Similarly, pesticide spraying services can be offered. FPOs need to plan for such common services to offer to the members. In Jawadhu Hills in Tamil Nadu, the FPO (promoted by Hand in Hand India) was producing vegetable seedlings and planting material for trees and selling to its members. The seedlings had a good market from members as it reduced their cost of procuring the same from a nearby town by more than 60%. Farming services as a business can extend to seedlings, crop-saving irrigation, insecticide spraying, hiring of machinery and even harvesting. FPOs are best equipped to provide these services to their members, ensuring quality and reasonable pricing.

Procurement and Supply of Inputs and Facilitating Finance for Inputs

FPOs who are undertaking business are mostly into input supply. Few state governments like Karnataka are proactively making FPOs eligible for licenses for seeds, fertilisers and pesticides; in other states, the FPOs still struggle to go past the bureaucratic hurdles. Moreover, the minimum educational qualifications have been prescribed for the staff to handle the business effectively. To find such staff in remote areas is a hurdle that FPOs need to overcome.[12]

The FPOs find that their ability to break into existing markets is limited and a significant market share can be built only over time. In Rajasthan, even FPOs operating for three years are able to clock only sales of ₹15 lakhs under input supplies. To build markets, some of the FPOs are selling inputs for non-members with differential pricing.

Seeds account for a major part of input cost and hence FPOs are undertaking supply of good quality seeds by tying up with companies/state seeds corporations. The competition from local dealers/traders is severe. The dealers are able to avail discounts from companies due to their ability to book seeds six months in advance and also in large volumes. When FPOs take dealership for sale of seeds, the company is also insistent that FPOs cannot sell lesser than the rates offered by the traders. Thus, the FPO faces constraints in competing with the traders. Partially, the issue is also that of management ability of FPOs who have to plan the requirement of seeds in advance and make the bookings. The skills of FPO staff have to be improved to capture larger share in the seed market. Area and crop-wise planning has to be carried out taking into account the seed replacement ratio and weather predictions, and bookings have to be executed at least 3 months in advance. In the case of FPOs that procure produce from members for marketing, seed sales at the beginning of the crop season are an essential aspect of their business. Uniformity of the variety and quality of the crop can be ensured by seed marketing so that at the aggregation of harvested produce, the problems are minimal.

Two other key issues also affect the purchasing behaviour of farmers: (a) the relationship that has been built with the traders over the years in supply of quality inputs and (b) the availability of inputs on credit. FPOs will have to earn the trust of member farmers and address the issues of credit. The past experiences of some of the FPOs in supply of inputs on credit from own funds have not been good, and hence tie up with banks and financial institutions are being tried. IDF-promoted FPOs are acting as business correspondents of banks. YES Bank has been keen to engage FPOs in Rajasthan as business correspondents for their loan products. Samunnati is working with ASA-promoted FPOs for financing of farmers for seeds and other inputs.

FPOs are also entering into supply of fertilisers. While IFFCO is licensing cooperatives for sale of fertilisers in Odisha, the same facility is not available for producer companies in some states like Rajasthan. The state federation reports that none of the member FPOs could get a fertiliser license. Policy direction from IFFCO and state governments to treat FPOs on par with cooperatives will facilitate licenses and business. The demand for urea is high among farmers and, thus, FPO will not only satisfy member needs but also build its business. This aspect of providing preferential

[12] State governments insist on graduate in diploma—agriculture, chemistry, botany, certificate course of IMAGE.

licences for seed and fertiliser for FPOs was pointed out in SOIL 2015 as well. It seems that the governments' focus on promotion of FPOs stops when the enabling conditions for doing business are brought to the table for a discussion.

FPOs mention that a challenge in input supply, especially seeds, is the fast-changing cropping pattern. If diseases and price fluctuations affect certain crops, farmers switch to others to avoid losses. In Rajasthan, farmers have switched from ginger and turmeric to soya bean due to disease issues. Switch to maize from cotton is experienced in some areas of Maharashtra and also Odisha. Such shifts without an assessment of suitability of the crop and technical advice will not be beneficial to the farmers, but for FPOs, planning for inputs supplies is also a challenge. FPOs need to be aware of member-level problems with different crops grown in the local area. This will help the FPO to strategize the cropping pattern for its members with technical inputs from reliable sources and also plan the marketing of seeds and inputs to members. The lessons of the past few years are that planning for seeds business requires continuing close contact with members.

On an average, about 25% of members were availing input services from FPOs in the states visited. There are a few FPOs where the patronage is higher at 60% but these are exceptions. The variation between the business volumes planned and achieved is 50–75%. While, partially, lack of finance is an issue, but more fundamental issues are that of member buy-in. Overall, FPOs find the margins are low and the businesses have to be carefully managed.

Centre for Indian Knowledge Systems (CIKS) is a non-profit organisation based in Tamil Nadu working in the area of sustainable agriculture for the last two decades and has formed 27 FPOs. A.V. Balasubramanian, founding director, mentions that in the first three years, the major advantage to FPOs is in providing input supply. Too much emphasis on procurement in the initial phase can be very challenging for FPOs. Input supply is an easy point of entry as farmers can examine the quality and price of the inputs by comparing with the market and take decisions under conditions of certainty. In the case of output marketing, there are bound to be uncertainties except where state-supported procurement operations are in force.

Mechanisation

Farmers' collectives offer opportunities for adopting mechanization; some of the FPOs in states of Karnataka and Rajasthan are availing state government schemes for farm equipment and custom hiring centres. One of the objectives of the Tamil Nadu Government is to promote mechanised farming in farmer collectives. Companies such as EM3 and John Deere have been pursuing tying up with FPOs, but not many FPOs are keen to borrow for purchase of equipment. POPIs and FPOs are hesitant to borrow and want to avail themselves of grants/heavily subsidized equipment from government schemes.

> In Osmanabad, traditionally soya bean and tur (lentil) have been cultivated, but farmers have been facing acute farm labour shortage. As it was not economical for a single farmer to invest in expensive equipment, in 2012, the farmers in Sarola decided to form a producer company—VRD Agro producer Company. Since the farmers have adjoining pieces of land, mechanized farming has been a feasible option. The company took loans of ₹34 lakhs from banks and invested in equipment for cultivation as also for processing of soyabean. The reported cost reduction on account of mechanisation is of the order of ₹200–₹300 per quintal of outputs.

Disseminating Market Information

Very few FPOs disseminate market-related information to farmers. Some of the state-level federations have plans to address this requirement since this is a service sought after by the farmers. They need clear advice on price trends and when to make the sales.

The Rajasthan State Federation of FPOs has focused on sharing market information with FPOs. 18 commodities' profiles have been prepared; these commodities are grown by members of 45 FPOs. Based on sowing data, information gathered from market centres and lead farmers, data on area covered, production and market arrivals, the federation is forecasting price for next three months. The federation advices farmers to offload at least 50% of goods, if the price prevailing is better than the last three years' average price. According to the federation, price trends are difficult to gauge; during 2016–17, the prices behaved differently; immediately after harvest, the prices were high and over the next three months the prices fell. The prices of chilli and coriander widely cultivated in the region fell to a 10 years' low. Since small and marginal farmers sell their produce immediately after harvest and larger farmers and traders usually store and sell, this trend has not affected most of the FPO members. However, the federation finds that more sophisticated market prediction tools are necessary to provide advice to the farmers.

Aggregation and Sales of Produce

Aggregation and sale by FPOs on their own appear to be limited. They have participated in procurement by SFAC and NAFED under MSP support programmes. Under the MSP, the government provides the funds to procure and hence the participation has been high. Under the Maha Farmers Producer Company Ltd or MAHA-FPC, 205 FPCs are federated. During 2016–17, 149 FPCs—mainly in Osmanabad, Latur, Buldhana, Ahmednagar, Akola, Hingoli and Yavatmal districts—undertook procurement of 33,227 tonnes of tur from 26,803 farmer members. These purchases were done under the government's price support scheme (PSS), wherein the FPCs bought the crop from their members at the official MSP of ₹5,050 per quintal and delivered these to the godowns of the central and state warehousing corporations after cleaning and grading. The FPCs registered a total turnover of ₹167.79 crore on PSS operations, which was inclusive of a 1% handling fee charged on the MSP paid to farmers. Promoted by Vrutti in Gulbarga, Karnataka, 10 FPOs procured pulses for a value of about ₹110 crores under the SFAC pulse procurement scheme. The role played by the state federations of FPOs has been mentioned in the earlier section.

Stakeholders mention that procuring with their funds has been negligible due to low fund availability and difficulties of finding remunerative markets; the quality has to match with price and the costs have to be managed. Only seed producers, organic producers, dairy and poultry producer companies seem to have higher turnover. AKRSP has linked with safe harvest for residue free pulses, and the arrangement reportedly fetches 20% higher prices for the farmers.

Getting mandi license for aggregation and trading has not been easy for the FPOs. After policy advocacy by state federation, the Rajasthan Government has removed certain conditions to facilitate mandi license for FPOs. Government of Karnataka has given directions that the FPOs are to be provided with APMC commission agent license and trader license with priority allotment of godown space in APMCs.

One point which emerges strongly in the discussions with state federations as well as POPIs is the low margins available in commodity trading. Unless large volumes are available for sale, the logistics and handling costs do not permit a decent return.

> FPOs wanting to do sustainable business need to find niche products and markets. In ordinary products, competition from regular marketing channels/traders is severe and it is difficult to beat them or match them in price and volumes. The product niches such as in seed production, organic farming, etc., should be explored by FPOs to gain returns and avoid excessive competition.

> The FPOs, instead of trying to sell what has been produced by members, need to understand what the market wants and persuade members to produce accordingly. Vegetable farmers in Tumkur area have tied up with a start-up in Bengaluru for vegetable sales. Now, they have learnt to stagger the production to meet the weekly targets of the marketing agency.
>
> *Source:* Dr Venkatesh Tagat, Ex CGM of NABARD and development consultant.

There are suggestions from some POPIs to establish a price risk fund to develop the skills of FPOs in commodity trading. FPOs have neither skills in trading nor deep pockets to make investments. FPOs dealing in commodities for the first time can be provided the cover for initial two years. This will instil confidence in FPOs to undertake aggregation and sales.

Marketing to Institutional Buyers

For products with unique identifiable qualities, the FPOs have distinct advantages over others in establishing partnerships with institutional buyers and corporates. FPOs involved in seed production and organic farming have firm institutional buyers who are also honouring their commitments. In fresh vegetables and fruits, the rejection rates have been high and workload in sorting and grading is also heavy leading to many ineffective partnerships that have not progressed beyond one season.

The Maharashtra Agriculture Competitiveness Project makes available commodities available with each FPO and the months of produce availability so that large traders/institutional buyers can procure from these FPOs. The project has also organised regular buyer–seller meets. Recently, some 276 agreements were signed between FPCs and traders, exporters and bulk buyers at the first buyer–seller meet in Pune, organised under the auspices of the Maharashtra Agriculture Department and the Maharashtra Agriculture Competitiveness Project. These agreements have been signed between FPCs and buyers for a volume of 79,751 tonnes of grains, pulses, fruits and vegetables at a value of about ₹260 crore.[13]

Adhering to the schedule of deliveries at the contracted volumes and quality has always not been possible as expressed by CEO of the Gujpro federation of FPOs. This is an aspect on which FPOs and POPIs should work intensively and prepare members to carry out production in a manner that meets market requirements and honours contracts. The Rajasthan state-level federation is in discussions with corporates for marketing of spices and vegetables; discussions are ongoing with ITC, Nestle, Patanjali, Sumintor India organics, Kevintor and also large Gujarat-based exporters. Some of the members opined, "it is a waste of efforts and time since the corporates have lot of specifications, high rejection rates and they also want to procure at the lowest possible price. Except showcasing the fact that the FPOs/federation forged corporate linkages, there is little benefit to the farmers. We would rather set up retail operations."

Processing and Sales[14]

In many crops, mere aggregation and sales do not produce superior returns. However, if the FPOs undertake even primary processing, they might be able to realise a much better value for their members. A number of FPOs in each state have taken up primary processing so that they go up the value chain and unlock the trapped values. Vrutti shared the example of some of the FPOs that had invested in processing. Vrutti is working with support from

[13] See http://www.financialexpress.com/market/commodities/farmer-producer-companies-across-india-looking-to-form-apex-body/218333/?gclid=CjwKCAjwt8rMBRBOEiwA2F2biOL4gpbEPso3zzuNqkICGnTcDeYpbykatj Wprcgd 3l0Fd2ypiJf-XhoCuKIQAvD_BwE

[14] Include drying, cleaning and grading brand building, packaging, labelling and standardisation quality control.

District Administration (North Bastar) on establishment of inclusive Custard Apple Value Chain with three FPOs and around 10,000 farmers. A custard apple pulping and deep freezing unit has been set up. These pulping units have the potential to increase the realised value of wild custard apple collected by farmer by 5–8 times. The custard apple was earlier bought by commission agents at throwaway prices, and custard apple was only a marginal source of income. These efforts can organise the collection and marketing process and provide a strong secondary source of income for these farmers.

Kabini Organic Cotton Farmers Producer Company (HD Kote) has been marketing organic cotton to buyers. Last year they had decided to go one step further and sell ginned cotton to prospective buyers. This will give them the necessary experience to determine whether they should go in for a ginning unit of their own, as the volume of cotton production in their area of operation is quite high. VAPCOL, promoted by BAIF, procures raw cashew from members. Marketing of raw cashew does not produce good returns and further local employment opportunities are lost for the tribal women who can process cashew into kernels which is a labour-intensive task. VAPCOL has been processing raw cashew through the member cooperatives and on its own through the processing facilities set up. Similarly, in the case of Mango and Gooseberry (Amla), VAPCOL carries out processing—into pulp, pickles, candy and the like and markets in retail consumer packs as well in bulk packing. The processing provides additional returns in the market, employment for farmer households (especially women) in manual aspects of processing besides stabilising the price of Mango sold as a table fruit.

Vrutti also reported working with an FPO in Karnataka for production of cold-pressed edible oils for which there is niche market. The FPO is operating traditional oil expeller units that bring out the oil at lower temperatures and the cold-pressed oil is branded for marketing. A neem powder making unit is set up in Tamil Nadu in a profit-sharing arrangement by Marudam FPO (promoted by CIKS) and leased out to the village-level farmer groups.

While many innovative and enterprising activities in processing and value addition are taking place, it would be naïve to assume that all FPOs will be able to successfully engage in this. Primary processing is easily done at the FPO level. At times, the volumes of processing will necessitate decentralised work processes so that storage before and after processing does not become a daunting problem. Value addition of a higher order requires some technical understanding, market awareness, a loyal membership that supplies raw material without fail and quality control procedures that meet market standards. Investment requirements can be high, and the pay-back period long. FPOs would need adequate capitalization, good technical backstopping and marketing in order to be able to take the investment decisions of a higher order.

Marketing Through Commodity Exchanges

Farmers have forever been in search of better markets where pricing is transparent, settlement of payment is hassle free and treatment of products is certain especially relating to quality and weight. Their frustration with the existing market systems has been on all the three aspects—pricing, lack of transparency and unfair practices in handling produce. The commodity exchanges provided a window through which farmers can satisfactorily address their market access problems. But with individual farmers' volumes being too small, approaching commodity exchanges was not feasible. With FPOs coming into existence, on an aggregated market volume, farmers are able to approach commodity exchanges. According NCDEX, during 2016–17, about

16,000 farmers, belonging to seven FPCs, have received up to 20% higher farm-gate prices for their wheat, maize, mustard seed, and soyabean which were actively hedged on NCDEX. The farmers belong to Madhya Pradesh, Bihar and Rajasthan. NCDEX is collaborating with IFFCO, Tata Trust, Reliance Foundation, Bill and Melinda Gates Foundation, BASIX, TechnoServe, JEEViKA, Vrutti Livelihoods, CARE India and SFAC to link about 50,000 farmers to access the platform during 2017–18. Forward trading is to help farmers get correct price signals before planting begins, managing price risk at harvest time and receiving other forms of support including post-harvest training on quality standards, financing and warehousing.

TechnoServe is assisting four producer companies formed under the World Bank-funded Bihar Transformative Development Project in Bihar (implemented by JEEViKA) to market their produce through commodity exchanges. The initiative started in 2014–15 with the women FPOs in Dhamdaha Block, Purnia district. They have been able to maximize the use of or leverage an electronic trading platform to sell their produce directly to nationalised buyers through technical assistance provided by TechnoServe India. Most of the farmers and women farmers are small, marginal farmers with an average landholding of 1.39 acres. While the marketable surplus of the farmers is nearly 90%, they have limited access to sell their produce in the mandis or bigger markets in bigger towns and cities. In the absence of an alternate solution, they have to depend on multiple intermediaries to sell their produce. The intermediary chain is large, from collection agents at the village level to brokers at each mandi, to large traders who eventually sell the produce to institutional buyers across the country, each intermediary charging a commission and sharing from the final price the farmer gets. In addition, collection agents in the villages follow manual grading processes and are known for weighing malpractices that lead to significant losses (approximately ₹60–₹80 on each quintal of produce procured from farmers). Repealing the Agricultural Produce Marketing Committee Act has also worsened the market infrastructure and trading regulations. Price is now decided by a few big traders and grain quality is judged by its look and feel, without the use of moisture metres. This combination of an unorganised trade network consisting of multiple market intermediaries with weighing and grading malpractices significantly reduced the final price farmers get for their produce.

Based on an initial assessment of the producer groups in Purnia, their crop profile and existing post-harvest challenges faced, TechnoServe recommended the Aranyak Agri Producer Company Limited, to adopt an aggregation and market linkage business model which eliminates multiple layers of intermediaries and thus ensure better price realisation.

Electronic weighing and digital moisture metres were introduced to ensure transparency, quality and better price. On the basis of business plans prepared for the producer groups and the producer company, working capital was arranged on loan from the local community institutions with support from JEEViKA. TechnoServe India and JEEViKA team finalised partners such as the central warehouse in Gulabbagh, registered with NCDEX eMarkets Limited (NMEL) for the sale of produce, signed agreements with transporters and also purchased necessary equipment at producer group and producer company levels to ensure smooth operations.

The availability of moisture metre with every producer group helped the members to dry and clean the maize before sale, thus making it Grade A maize. Until last year, in the absence of moisture metres, the produce of the members often fell into Grade B as it did not meet quality standards.

The farmer groups ensure quality In 2014–15, out of 1,100 members in farmer interest groups about 30% participated and sold about 1,000 metric tonnes of maize. These figures have continued for the FPO. The initiative, thereafter, was taken up in three more FPOs during 2015–16 and results are given in Table 7.2.

Table 7.2: Quantity and Value Traded Through NCDEX and NEML

Producer Companies	Major Achievements
Aranyak Agri Producer Company Limited, Purnia	Maize (traded 1,014 MTs) 2015–16 Farmers traded: 299 Total turnover: ₹1.29 crore (2015–16) Total turnover. ₹4.0 crore (approx.) till March 2016
JEEViKA Women Agro Producer Company Limited, Khagaria	Maize (traded 1,000 MTs) Total turnover 1.36 cr (approx.)
Samarpan Jeevika Mahila Kisan Producer Company Limited, Muzaffarpur	Wheat (500 MT); Litchi (6.09 MT) Total turnover: ₹93 lakh
Sahyog Women Jeevika Agri Producer Company Limited, Nalanda	Potato: 413 MT, Onion: 155 MT Total turnover: 45.14 lakh

Source: Annual report 2015–16,[15] JEEViKA.

TechnoServe facilitated linkages with NEML for the trading of vegetables and fruits. The data shows 11.5% incremental income at farmers' level through direct access to institutional buyers, elimination of multiple layer of intermediaries, transparent weighing and grading practices with option of off-season sale.[16] The patronage bonus received from the producer company will also give additional earnings for the farmer members.

Source: "Looking Beyond Large Markets or Mandis,"[17] discussions with Suryamoni Roul, Vice President, TechnoServe.

Participating in commodity exchanges requires skill and capacity development in POPIs and FPOs. As CIKS mentions, "Commodity selling in NCDEX is new area where we would like to enter. We will need technical support for two years to run a pilot for which external funding support is needed because such technical support will be expensive."

Resource Management

Apart from producing returns to the farmer in the short term, the FPOs have the opportunity and the responsibility to persuade them to shift to optimize natural resource in their own interest as well as that of future generations. Krishna Gopal, Access Livelihood Consulting Services, mentions that FPOs should look at performance from member impact perspective, performance in relation to sustenance of underlying resource—be it water, land, animal, etc.—increasing governance effectiveness. GIZ[18] explains that the primary advantages of FPOs stem from their potentially coordinated, quick, efficient and long-term response to climate change, owing mainly to the close cooperation between farmers to deal with resource efficiency, as well as product management at a scale which can majorly affect their economic, social and environmental vulnerability. There are very successful examples of input (fertiliser and pesticide) management in cereals and cash crops demonstrated by many FPOs as an entry point activity leading to improvement

[15] See http://brlp.in/documents/11369/33955/Annual+Report+2015-16.pdf/5f259394-dd98-4be2-9110-760f9b3eae76?version=1.0

[16] See http://livelihoodalliance.org/uploads/resources_files/Jeevica_Maize_Production.pdf

[17] Ibid.

[18] Please also see Annexure 7.1 at the end of this chapter for a comprehensive note by GIZ on how FPOs can contribute to sustainable farming through sound natural resource management approaches.

in the access, quality as well as quantity of inputs, positively affecting the economics of agriculture as well as the environmental aspects.

Insurance Services

Till last year, the producer companies could not facilitate insurance services. Insurance Regulatory and Development Authority in April 2017 has included the FPCs registered under Companies Act, 2013, in the list of "Micro Insurance Agents." With this, the producer companies should be in a position to facilitate distribution of micro insurance products to their members.

For farmers, the most relevant insurance is crop insurance. However, their knowledge and conviction about the product has been negligible. While farmers availing bank loans are compulsorily insured, there are many who do not either borrow or own land and have kept away from crop insurance. The fast-changing cropping pattern is also another issue; while a farmer may be growing potato now moving away from traditional cereal crop, the revenue records still show only cereal crops depriving farmers of the benefit.

CIKS experience shows that 90% of farmers do not believe in insurance and consider it a waste of money. POPIs should design awareness programme through FPOs for farmers and lead them towards insurance of crops. For farmers who do not borrow, FPO acting as a nodal point for crop insurance will be a boon. FPOs should play a role in not only sales of insurance products but more importantly in getting timely claim settlement. As a member-owned organisation, FPO should see its primary role as acting in the best interest of the members, even if the members, for the time being, are resistant.

Overall, the Policy Environment Has Also to Be Enabling in the States

National policy and process guidelines on FPOs had been framed by the Ministry of Agriculture in 2013. These are detailed and also provide guidance what the state governments can do to provide a facilitating environment for the functioning of FPOs. Besides the formation of FPOs on a large scale through centrally sponsored and state-financed programmes and schemes, DAC suggests[19] the following steps to be taken by the state governments to support and strengthen FPOs:

- By declaring FPOs on a par with cooperatives registered under the relevant state legislation and SHGs/federations for all benefits and facilities that are extended to member-owned institutions from time to time.
- By making provisions for easy issue of licenses to FPOs to trade in inputs (seed, fertiliser, farm machinery, pesticides, etc.) for use of their members as well as routing the supply of agricultural inputs through FPOs at par with cooperatives.
- By using FPOs as producers of certified seed, saplings and other planting material and extending production and marketing subsidies on a par with cooperatives.
- By suitable amendments in the APMC Act to allow direct sale of farm produce by FPOs at the farmgate, through FPO-owned procurement and marketing centres and for facilitating contract farming arrangements between FPOs and bulk buyers.
- By appointing FPOs as procurement agents for MSP operations for various crops.
- By using FPOs as implementing agencies for various agricultural development programmes, especially RKVY, NFSM, ATMA, etc., and extending the benefits of central- and state-funded programmes in agriculture to members of FPOs on a preferential basis.
- By linking FPOs to financial institutions such as cooperative banks and state

[19] See http://nhm.nic.in/Archive/FPO-Policy&Process-GuidelinesDAC2013.pdf

financial corporations for working capital, storage and processing infrastructure and other investments.

- By promulgating state-level policies to support and strengthen FPOs to make them vibrant, sustainable and self-governing bodies.

Many states are yet to work on the above features.

Financing of FPOs

Finance is the crucial element that is determining the business volumes and outreach of the FPOs. RBI has considered loans up to ₹2 crores to FPOs as priority sector lending.[20] This includes (a) crop loans to farmers which will include traditional/non-traditional plantations and horticulture, and loans for allied activities; (b) medium- and long-term loans to farmers for agriculture and allied activities (e.g., purchase of agricultural implements and machinery, loans for irrigation and other developmental activities undertaken in the farm, and developmental loans for allied activities.); (c) loans to farmers for pre- and post-harvest activities; (d) loans up to ₹50 lakh against pledge/hypothecation of agricultural produce (including warehouse receipts) for a period not exceeding 12 months.

While some stakeholders consider ₹2 crores as inadequate coverage under priority sector lending, the fact is that most FPOs are yet to win the confidence of banks. NABKISAN, Samunnati finance, Friends of Women's World Banking (FWWB), Ananya Finance for Inclusive Growth are some of the major lenders to FPOs. The main stream banks are lending to very few FPOs; this is based on feedback on POPIs since separate data on bank lending to FPOs is not available. Adequate finance continues to be a constraint for the FPOs. Even well-established POPIs are unable to leverage adequate finance to support the business plans of the FPOs they have promoted.

NABKISAN sanctioned ₹14.45 crores as loans to 51 FPOs during 2016–17.[21] The average loan size is ₹10–20 lakhs. Comfort letter from POPI facilitates the loans. NABKISAN maintains equity to loan ratio of 1: 4. In the case of active POPIs, good governance and effective CEO, track record in business, loan proposals up to six times equity are considered provided these proposals are justified with sound business plans. NABKISAN has also acted as a wholesaler and during 2016–17 has funded FWWB ₹10 crore, Ananya ₹10 crores first loan and ₹8 crores next loan, and Samunnati ₹1 crore for on-lending to FPOs. NABKISAN avails refinance from NABARD which is available at 8% and is set to go lower.

NABARD directly has lent to FPOs but is now scaling down the portfolio. NABARD directly extended financial assistance of ₹9.03 crores (₹8.36 crore as loan and ₹0.67 crores as grant) to 13 POs during 2016–17. The disbursements amounted to ₹11.19 crore (₹10.49 crore as loan and ₹0.70 crore as grant) including the sanctions of the previous year. FPOs find the collateral requirements needed to avail the loans from NABARD to be stiff.

Friends of Women's World Banking, seen as early stage funder, have been financing FPOs since last five years and many of the 75 FPOs financed so far have received their first loans from FWWB. As of 31 March 2017, ₹6.95 crores is outstanding in case of 33 FPOs in 7 states. The model that FWWB follows is lending to a FPO for the initial three years and once the credibility and track record is built and FPO operations are scaled up, encourage the FPO to borrow

[20] RBI, "Master Direction Priority Sector Lending: Targets and Classification," Master circular RBI/FIDD/2016-17/34. FIDD.CO.Plan.2/04.09.01/2016-17.

[21] NABARD, *Annual Report 2016–17*.

[21] NABARD, *Annual Report 2016–17*.

from mainstream banks. Since FWWB finances the early stage FPOs, the leveraging goes up to 10 times the owned funds of the FPOs. 31% of the loan disbursements during 2016–17 are for purchase of dairy animals by members. The institution has on time repayment of 98% during 2016–17.

Samunnati is a new generation value chain finance company, which has lent to 140 FPOs including cooperatives in the last two years and disbursed around ₹75 crores. FPOs have largely borrowed from Samunnati for inputs; average loan period is 3.5 months. According to Anil, CEO,

> The conventional methods of assessing the FPOs, will not lead to substantial financing needed in the early stage. Risk appetite has to be of a different order for the FPO lenders. The traditional assessment of vintage of organization of 3 years of balance sheet and turnover ratio analysis, etc., are not relevant for FPOs. All of these metrics are now demonstrated in an environment of constraint. FPOs never had access to adequate funds and hence have to be assessed through other methods. Banks are not able to take such informal calls and non-conventional assessments. Actual strength of FPOs is in social capital; how the board is capacitated, member ownership and the cohesiveness of members are more important than volume of turnover. The share capital they mobilise can be taken only as a token measure of member interest in the FPO. Financing for activities that add value to members and validate company's existence further strengthens the social capital and loyalty. Financial institutions should offer to work with the FPO to build its track record. We start from value based services to members that should result in higher turnover, productivity gains and advisory services, market linkages and all of this result in profitability of the entity.

Ananya Finance for inclusive growth has financed 45 FPOs since the last two years and as of 31 March 2017, The loan outstanding was ₹16.34 crores in respect of 33 FPOs and agri-enterprises working with FPOs and small and marginal farmers. The lending is largely for working capital. About 15% loans disbursed are for on-lending to members. Ananya mentions that FPOs function in such areas where MFIs are largely not operational and thus member exposure to lending institutions is very limited. There is potential to lend to individual farmers through FPOs. However, for this, lending systems have to be developed and implemented in FPOs. Their system should be such that they are able to share data with credit bureaus. Ananya is partnering with IDBI bank to offer customised loans to FPOs. The leveraging ratio is five times the own funds of FPOs. Apart from lending, Ananya has also been strengthening the capacity of FPOs.

IDBI bank has been lending to FPOs as well as federations of FPOs; the key hurdle for IDBI bank in expanding this portfolio has been lack of branch network which constrains the numbers of FPOs than can be financed. Some commercial banks have taken minimal exposures to FPOs.

Of the loans by these institutions, 85% are for working capital for FPOs, for input supplies to farmers. Increasingly, FPOs are also borrowing for on-lending to farmers for dairy animal financing. Since droughts have been recurrent, farmers want to diversify their income and find dairying profitable. The repayments have been reportedly regular.

POPIs have a large influence on which lender is chosen by FPOs. Largely, the level of documentation and guarantee needed determines the source of loan. If the financing institution is demanding collateral and a three years' balance sheet then many FPOs will not qualify to get loans. The next critical factor is the rate of interest. Third is term of loans as to what conditions are imposed. POPIs also appreciate the flexibility the lenders offer. The CEO of FPO says,

> Though bank loan is cheaper, we have preferred to link with FWWB because they offer greater flexibility. If rains are delayed, we have the flexibility to shift the purpose of loan from agriculture to other purposes up to 25% loan received from FWWB. Moreover,

> FWWB views FPOs track record and their own assessment of credit worthiness and not strict about leveraging ratio of 4 times owned funds. FWWB is one of the agencies who looks at social and equity dimensions while assessing the FPOs. Hence we have comfort in taking loans from FWWB though the pricing is slightly higher.

DILASA, an Aurangabad-based POPI, echoed these feelings. Referring to Samunnati Finance's higher cost loans for marketing, Sanjay Unhale[22] says,

> They do charge higher rates. But they are able to take a decision in three days and disburse immediately. They believe in their appraisal and do not look for collateral. For our FPOs, if they do not get the loans in time, it is an opportunity lost. They can manage a higher rate of interest as the loan duration is short. They cannot manage loss of an opportunity to market their produce.

On the issues faced by member FPOs, the CEOs of the federations mention

> Availability of finance is the major issue; our business is not of high margin. High interest rate is a problem since it eats into the slender margins we work on. Currently finance available is at high cost for FPOs. Another connected issue is ability of FPOs to offer inputs on credit. Seeds are high cost input. Older FPOs are able to meet 70 to 80% of the seed requirement of members. In some only 50% of seed requirement is met by the FPOs since the farmers need credit for seeds whereas FPO is unable to offer seeds on credit. ASA, POPI has tied up with Samunnati for direct financing of farmers through FPOs; now Axis bank, Ananya are also coming forward since in kind credit is being disbursed and the recovery is being made out of production. Thus the utilisation and recovery are well designed. However, the issue again is high interest cost to the FPO and consequently to the members. Loans to members at 14–15% rate of interest will be more suitable.

[22] He is the founder of DILASA, an NGO based out of Aurangabad. The NGO is engaged in promoting more than 100 FPOs in Maharashtra under different programmes.

> If these business plans are not very grounded and they don't get financial support to execute these business plans, they merely remain exercises which lead nowhere. The FPOs are willing to pay higher cost to get access to finance. While production loans are available to farmers at 4%–7% in different states, not many institutions are ready to lend for post-production credit. How can we double farmers' income with such reluctance to lend?
>
> *Source:* Vipin Sharma, CEO, Access Development Services.

Credit Guarantee Mechanism for FPOs

SFAC pioneered the credit guarantee scheme to ensure collateral-free loans to FPOs; credit guarantee is available for loans up to ₹1 crore and the guarantee cover is available up to 85% of loan amount. The guarantee cover is found to be more useful for second-stage FPOs with at least 500 members, with two years' balance sheets and business plan. SFAC sanctions credit guarantee for a credit facility sanctioned in respect of a single FPO borrower for a maximum two times over a period of five years; longer term loans for 3–5 year loans are also provided guarantee cover. SFAC has entered into MOU with 20 banks including NABFINS for a credit guarantee scheme. However, SFAC has provided guarantee to only about 21 FPOs between 2014–15 and June 2017 (see Table 7.3). These loans have been sanctioned to FPOs operational in six states with Tamil Nadu ranking high with nine loans.

Rabobank also offers credit guarantee but stakeholders mention that procedures are rigorous, complex and take time. Only few FPOs will be able to comply with the conditions laid down by Rabobank according to POPIs. NABKISAN reports that Department of Agriculture, Karnataka, and market innovation fund of JEEViKA, Bihar, offer credit guarantee up to ₹50 lakhs which they are able to avail of. First Loss Default Guarantee available from Tata

Table 7.3: Bank-wise Sanctions of Credit Guarantee by SFAC Cumulative as of 30 June 2017

Name of the Institution	Number of Cases	Credit Guarantee Cover Sanctioned (₹ in Lakhs)
IDBI bank	4	261.66
NABARD	4	152.80
State Bank of India	2	62.90
Canara Bank	4	144.50
Yes bank	1	21.25
NABKISAN Finance Limited	2	75.65
Indian Bank	4	212.50
Total	21	931.26

Source: http://sfacindia.com/FPOS.aspx

Trust (up to 15% of loan value) has enabled NABKISAN to lend to 43 FPOs. There is a low offtake for credit guarantee probably because there is low interest for lending to FPOs; also a few bankers are looking for 100% credit guarantee and not just partial guarantee.

Issues in Loans

Start-up capital: The equity mobilised initially is small, and hence loan leveraging is also limited. In addition to promotional grant to POPIs, start-up capital can be made available to FPOs, probably as a revolving fund at POPI level, input distribution can start early and can also cover more numbers of farmers. Many farmers do sharecropping and leasing of land and those who don't have land in their names find it difficult to raise crop loans for purchase of quality inputs. Unless FPOs supply seeds and fertilisers tying up loans for these farmers with financing institutions, it is difficult to reach the next stage of growth. At present the start-up funds are negligible.

Early-stage funding: There needs to be substantial funding for early stage business.[23] Working capital is crucial for FPOs once they begin activities like bulk purchase of inputs, since the share capital of FPOs is not adequate. While early-stage funders such as FWWB and Samunnati are operational in the market, their outreach is still very limited. Banks are still hesitant to fund the FPOs in their early stage.

Experience of POPIs: Many of POPIs are new to FPO formation and also do not have adequate hands-on experience in agri-marketing and businesses. With large numbers of FPOs getting formed in a target-oriented manner, the number of POPIs have also increased. While established POPIs with longer track record of forming FPOs are also facing difficulties in providing comfort to the banks and financial institutions, the position of new POPIs is worse. With inadequate finance, the turnover FPO is low, transactions and outreach is very limited and FPOs are not adding much value to the members. Without a track record of transactions and profitability, no further access to funding is possible. Thus, most FPOs are caught in a vicious cycle of lack of funds to carry out business.

While some of the established POPIs have 75–100 FPOs each, they approach the lenders for financing of only 5–10 FPOs. While there has been reluctance from banks to lend to FPOs and the other financing institutions are limited by non-recognition under priority sector lending, it is also a fact that POPIs are not linking all their FPOs with lending institutions. Hardly 20% of the FPOs have been credit linked even in the case of large FPO promoters. This has been primarily due to weak mobilisation of members, lack of accounting and bookkeeping in FPOs, poor governance leading to lack of confidence in POPIs to link the FPOs with financial institutions. Some of the FPOs are asked to do limited business through their own funds (equity and membership fees) before they are considered ready for financial linkage. Various stakeholders mention that hardly 25% of the 6,000 FPOs promoted are credit worthy and only about 15% will move to larger scale funding for collective marketing, value addition, etc.

[23] Venkatesh Tagat and Anirudh Tagat, "How Do We Fund Our Farmer Producer Organizations?"

Moreover POPIs also determine which FPOs should borrow from where. Their views and priorities determine FPOs' choice of financing institutions. Some of them are hesitant about interest rates that they consider high (16%–18% interest rate is seen as high). They consider 12% as reasonable rate of interest. The issue becomes complicated when the FPOs want to provide inputs on credit; FPOs are not able to offer interest subvention/subsidised rates that are policy directives of government to banks. Some POPIs find it unacceptable that the farmers have to pay higher interest rates to FPOs than what they have to under direct bank finance. Due to these ideological differences, POPIs do not encourage loans with higher interest rates. Moreover, frequent farm loan waivers from the banking system also add to the dilemma since bank loans to FPOs are not eligible for farm loan waiver.

POPIs, being voluntary organisations, have not done much borrowing or engaged in enterprise activity on their own. This lack of experience is a block to thinking a loan arrangement for the FPOs. Secondly, their development outlook carries an ideological baggage that views interest on loans as a necessary evil. The commercial prospects of a loan, even with higher costs producing a much higher income flow are not adequately considered by the POPIs. The POPIs require to be trained on loan financing of FPOs and what kind of loans at what costs are feasible for what purposes. The POPIs should be able offer all feasible options to the FPOs and facilitate them to take a decision and not become gatekeepers that prevent or allow entry of credit and other services.

Product suitability: The present loan products available from the major lenders are not suited to the business and cash flow requirements of the FPOs. FPOs largely need working capital, whereas the usual product on offer is a term loan with a monthly/quarterly repayment structure. This results in underutilisation of the loans and often funds lying idle in bank account resulting in higher interest expenditure. Samunnati offers well-structured loans that are offered for very short term of even five days. Cash credit type of facility is available to FPOs, thus reducing the interest cost. Ananya also offers more structured loans; while a limit is fixed based on the need assessment, the actual disbursement is based on cash flow requirements of the FPO. Further, instead of monthly repayments, the FPO has to pay back the loan in quarterly instalments.

Priority sector lending: Direct bank loans to FPOs are eligible to be categorised as priority sector loans as per the direction of RBI; however, largely other institutions are lending to FPOs. Some banks are reluctant to lend to such wholesalers since such loans are not eligible to be categorized as priority sector lending. Few banks are comfortable in lending to wholesalers; however, they lend at market rate of interests. Such high cost of funds increases the ultimate rates of interest to the FPO/member. Apart from NABARD, MUDRA also now refinances loans to agri-businesses under their schemes. But both NABARD and MUDRA recognize only banking channels for refinance who are not interested in lending to FPOs. And institutions such as Samunnati, Ananya and FWWB are not eligible for refinance though they are the major lenders to FPOs. Banks with surfeit of funds are unwilling to lend to small institutions and those non-bank lenders willing to lend do not have adequate resources. Whatever little they can borrow from banks as bulk loans is done at high rates (without the priority sector tag) which pushes up the cost of loans in the hands of FPOs. While government policy on agricultural loans wants to subsidise interest costs to farmers, the policy framework is conducive for farmer organisations to access low-cost loans that they can pass on to members. This needs to be dealt with by government, RBI and the banks. The non-bank institutions which are nimble footed, willing to take risk calls, able to design customized products and offer very efficient service should be encouraged, especially in a banking environment that is unwilling to open up to FPOs.

Equity Grant Scheme of SFAC

SFAC provides up to ₹10 lakhs by way of equity grant to FPOs. FPOs find that SFAC equity grant support is easy to access. The details of equity grant support extended by SFAC are given in Table 7.4.

SFAC has been accommodating grant support for as low as ₹1.40 lakhs as seen from Table 7.4.

Sustainability of FPOs and Role of POPIs

Business Sustainability: FPOs have been primarily formed to enhance the income of the farmer members though a host of services. How these services are designed and delivered will determine institutional and financial sustainability of the FPOs in the long run. Even mature FPOs find that patronage from members is not assured and only when the members do not find other avenues do they turn to FPOs for finding markets. As discussed earlier above, the FPOs are still in the beginning in the learning curve in servicing members' needs.

Table 7.4: Equity Support from SFAC

States	Number of Cases from 2014–15 till June 2017–18	Amount of Equity Grant (₹ in Lakhs)
Andhra Pradesh	1	1.40
Bihar	1	2.57
Gujarat	5	34.96
Haryana	4	25.52
Karnataka	1	4.93
Kerala	1	6.85
Madhya Pradesh	36	140.93
Manipur	1	5.66
Maharashtra	14	88.15
Rajasthan	3	21.95
Tamil Nadu	23	163.65
Telangana	3	12.01
Uttar Pradesh	13	86.33
Uttarakhand	1	10.00
West Bengal	20	99.94
Total	127	704.86

Source: Provided by SFAC.

Institutional Sustainability of FPOs: The institutional sustainability of FPOs is a function of cohesive governance, managerial capability, good operating systems, patronage and ownership of members and continued relevance and purpose to members. To meet all these requirements in FPOs, POPIs need adequate time and competence in own staff as well FPO staff.

POPIs are from different backgrounds and their own domain knowledge on building strong FPOs is improving. There is agreement emerging that FPOs need at least five years of handholding from POPI before they can function on their own. Diligent POPIs are ensuring adequate funding to provide the necessary support to the FPOs till their business operations are scaled up. Other POPIs that are unable to source alternate funds are not able to provide continued guidance and mentoring support with the funding getting to a close at the end of three years under many programmes (including SFAC and NABARD).

There is no data on how many FPOs have been functional after the POPI has withdrawn. Many FPOs are becoming dormant after the closure of projects as per stakeholders. SFAC initially gave only a two-year funding support. Many of the FPOs formed with such limited period support are not reported to be functional. Since these are mostly companies, there is a definite process for winding down operations; non-compliance with company directives and compliances under the Act can affect the board of directors. Some have become defunct without returning the share capital mobilised. The recent action against dormant companies by the Ministry of Corporate Affairs also reportedly includes some FPOs. For want of support from POPIs (and of course from the grant funders), if FPOs go dormant, then the directors face legal action. Knowing fully well that the directors in FPOs are usually not highly educated and are not fully cognizant of their responsibilities under the companies Act, it is somewhat reckless to ask them sign up to promote a company under conditions of uncertainty regarding promotional funding. This aspect deserves full consideration at policy levels. Institutions providing funding for setting up FPOs should not do it in a way that sets up the company, its members and board for a fall and legal action.

Financial Sustainability: The first step towards financial sustainability is mobilisation of share capital from members. Member-contributed equity indicates the commitment from members. The share capital per member raised at the initial stages has been between ₹100 and ₹500. In many FPOs it has been difficult to get the members to contribute. Members are not sure of the benefits of becoming a shareholder, do not have adequate trust to contribute any money or want to wait for an year or two to take a decision based on the work done by the company. FPOs that demonstrate their capacity and willingness to serve the members are able to mobilise equity by adding more members and raising additional contributions from members. If the FPOs take up easy entry point, activities such as input supply, access to government programmes, financial linkages, they would be in a position to pitch for increased equity. It would be easier to ask members for additional equity on the record of either reducing cost of inputs or improving realisation on marketed produce. Some FPOs raise additional equity from members from out of higher prices realised for their produce. But FPOs that fail to take up any activities that impact members find it difficult to go beyond the small initial contributions made to equity. Some FPOs hope for capital funds coming as grants from other sources. As indicated earlier, SFAC has an equity grant scheme which provides funding to FPOs that have raised a reasonable level of capital from members. Government of Tamil Nadu has a scheme for additional equity support to FPOs that have been provided a grant by SFAC. However, such support is available to a few FPOs and after they have been able raise equity from members.

In raising equity, POPI has an important role. POPI should be able to identify people of standing and local credibility for the first board for the FPO. The board should be able to articulate a clear vision and how members can benefit over the next few years with the FPOs' interventions. A well-planned campaign to enrol members and collect equity contributions should be designed and implemented. In many FPOs, the confidence of POPI in the business plan is low; the initial board might not inspire confidence in people and there is no clarity on what the company will do over the first few years. IDF in Karnataka, while forming FPOs, was able to influence members into contributing ₹1000 as the initial equity, apart from ₹250 towards a risk fund in the FPO. This is based on a concrete business plan and a package of benefits for members over the first three years.

The ability of FPOs to generate revenue to cover all the staff costs is determined by its business lines and services offered to members. According to Access Development Services, Rajasthan, the operating costs of an FPO is about ₹6–8 lakhs per annum. The FPO should have an annual business turnover of about ₹1.5 crores with a profit margin of about 5–6% in order to meet the costs of operation. The FPO in the initial stages requires about 20% of the projected turnover in its own funds; if the owned funds are less, it would not be able to leverage borrowings to the extent necessary. Profit margins are higher in input supply and low in commodity marketing. In both inputs and outputs, volumes hold the key to revenues. With a given volume of equity and borrowed funds, FPO should be able to achieve many cycles of purchase and sale within the year so that turnover volumes are achieved. Use of trade credit on the input supply side, shortening payment cycles in procurement operations from the buyers, shifting credit directly to members, especially for inputs so that the FPO, while earning a margin, need not carry financial liability on its books, and arranging trade finance to fund procurement operations are ways in which FPOs can expand turnover with limited funds.

A target of cost recovery and how much revenue is needed from each business line should be planned and implemented. FPO should also examine the scope for offering fee-based services that will help the members reduce their costs and bring a revenue to the company.

Taxation FPCs are discouraged by income tax on their profits on par with other commercial enterprises. Since agriculture income is exempted from income tax, it would be appropriate that similar exemptions are also given to profits of producer companies set up by farmers.[24] Compliance with Goods and Services Tax (GST) introduced this year is proving vexatious, and hopefully after the initial hiccups, it will settle down. FPOs are subject to GST, even as the farmers from whom the procurement is made are not. The FPOs have to deal with the problems of registration with GST authorities if their turnover exceeds ₹20 lakhs. They have to maintain detailed records and provide daily information to input supply companies if they are in input business.[25]

[24] Rawat, "Farmer Producer Companies: A Ray of Hope for Small Farmers."

[25] Biswas, "GST and Rural India: When Doing Business is Taxing for Farmers," *The Indian Express*.

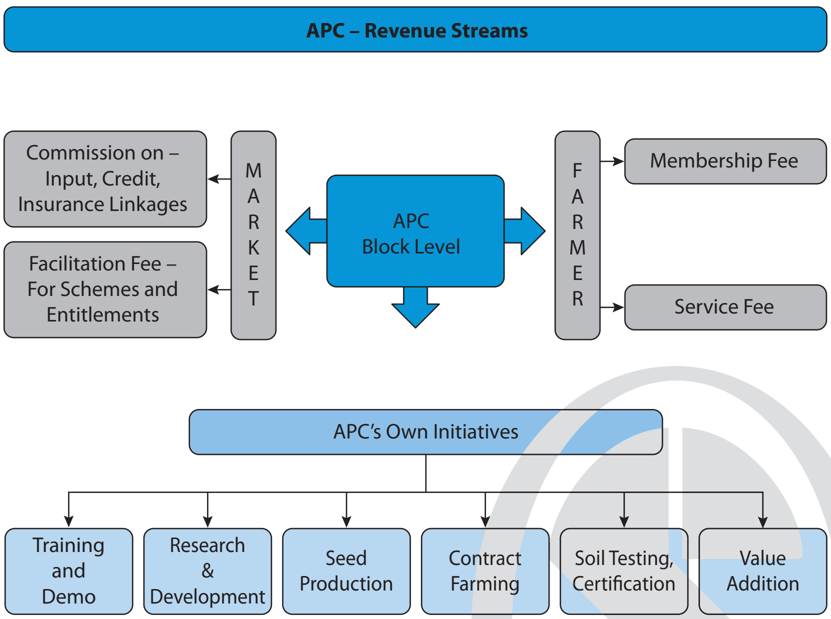
> The Swaroop Shetkari Producer Company Ltd had a turnover of ₹1.5 crore in 2016–17. Nearly half of this came from the supply of seeds, fertiliser and pesticides to its 250-odd members, who are mostly farmers belonging to Sultanpur village in Aurangabad's Khultabad taluka. Being in the agri-inputs business requires the FPC to submit purchase, sale and opening/closing stock data on a daily basis to the companies concerned. "The companies say it is necessary for their GST compliance," remarks Deepak Pandurangrao Chavan, Director. His FPC, too, is in two minds about foraying into branded dal retailing because of the levying of the 5% GST.

While FPOs dealing in unbranded commodities are exempt from GST, if they try to process, pack and brand their produce, they become subject to a 5% tax levy. While food grains and pulses are exempt, oilseeds are subject to 5% GST. An FPO in the business aggregation and marketing of oilseeds has to be conscious of the additional costs of the levy on their competitiveness and compliance load. FPOs which can improve income realisation of farmers by processing and retailing, become uncompetitive with a 5% GST levy as the margins in commodities are thin. "The 5% GST on branded pulses puts a dampener on the plans, especially of FPOs that are eyeing the retail market with a view to maximise their farmer-members' share in the consumer rupee," notes Yogesh Thorat, managing director of MAHA-FPO. According to him, GST's cost is not just about adding 5% to the product price:

> There is also the cost of compliance. One must keep in mind here that FPOs are all in rural areas. For their owners, who are farmers, this is the first experience in corporate dealing. Uploading daily invoices and filing returns thrice every month is certainly a deterrent, just when they have started doing business.[26]

[26] Ibid.

CIKS, A Tamil Nadu-based POPI, has worked out different streams of revenue for their agriculture-based producer companies:



Source: Center for Indigenous Knowledge Systems.

CIKs identifies six possible lines of activities that the FPO can undertake on its own account to generate revenues. While some of these such as seed production, soil testing and value addition have clear revenue possibilities, training and research and development may not produce revenues unless the membership of FPOs is able to comprehend the benefits and becomes willing to pay a service fee of any kind.

Role of POPIs

The promoting institutions occupy a critical space in the life of FPOs. They are required for the initial period of 5–10 years for creation, nurturance and handholding of the new organisation, depending upon the location of the FPO. POPIs need to have operational experience of incubating new organisations and enabling them to become incrementally independent and eventually autonomous. Tushar Shah mentions four design principles for an FPO, namely, choose an appropriate purpose central to members, get the right operating system, ensure patronage cohesive governance, and secure, retain and continually nurture member allegiance. The role of POPIs in giving shape to each of these four principles is central to the emergence of a strong member-based organisation. Promotion of an FPO is unlike that for other programmes, projects and institutions supported by the NGO sector. In the other types of projects, it is necessary to ensure that money is spent with impact and efficiency. The benefits delivered are the measure by which the projects and the NGO are assessed. In the case of FPOs, NGOs have to deal with creating a commercial organisation, with equity stake being invested by the members. The organisation has to work on commercial principles and account for its financial performance. It has to be profitable, cover costs, enlarge business and discharge its loan and other statutory obligations by itself. The statutory, accounting and governance requirements to be met by FPOs are not part of the previous experience of most POPIs. Hence, those entering the FPO space should be clear in their mind as to the reason for their entry. If the POPI looks on FPOs as another project (the newest fad) in which some funding can be accessed, it would be a great disservice to those members who will come together and put in equity on a promise of a better future through their own company. Secondly, the POPIs should hesitate to take up the role of boards in the FPOs. In a number of FPOs the POPI dominates decision-making, leaving little space for the board to develop the experience of decision-making and risk taking. The future of the FPO, in such cases will be compromised and leave them dependent on one organisation or other. POPIs should bring in a governance culture in FPOs that enables them to take decisions on when and where to seek external advice and services, and when to initiate action on their own. The ability to make informed choices is what needs to be built. POPIs also do not plan beyond the initial phase of funding and leave the scene when the funding runs out. With the knowledge that FPOs might require handholding for a longer period than for which support is available, POPIs should figure out how to continue support and identify sources of funding therefor before commencing the work.

> Basix has promoted 256 FPOs across nine Indian states. In community mobilisation and FPO formation, the membership size depends on the supporting organisations and varies from less than 100 to 2000. In terms of governance, it gets difficult to bring the marginal farmers to the board meetings, and many times individual interest overpowers the collective benefit. The FPOs have a business mix of procuring inputs in bulk for farmers, arranging credit, facilitating insurance and extension services, aggregation of produce for collective marketing and processing produce for value addition. Capability building for board members for management is a challenge and requires regular training. Capital generated through contribution for share from members is not always sufficient to generate business and hence requires external assistance in the initial period. Having qualified and capable managerial staff is a challenge for all FPOs. Recently Basix has developed a tool for assessment of capability and maturity of FPOs.

What Is Missing and What Needs to Be Done?

While speaking to different stakeholders, for both the SOIL 2015 and 2017 reports one striking fact is that there is no single agency responsible for creating the right eco system and enabling framework for operationalising the FPO strategy for the country as a whole. Many of the issues that were discussed in the 2015 report continue to be debated in 2017 as well. The need for policy coherence is paramount and then consequent investments that go into building sustainable institutions can be better designed. There are three examples in the country from which lessons can be drawn.

The AMUL experience shows professionalisation of cooperatives. The largest farmer member producer collective ecosystem in the world has successfully made members participate in the governance and organisation of the cooperatives from primary to apex levels. The concept of equity contribution, member patronage of the cooperative, sharing of surpluses and profits in line with member patronage, focus on clean milk production systems, pricing according to quality, fixing fair prices in the interest of not just members but also future sustainability of the organisation, focus on processing, value addition and high-end marketing and a distinctly commercial and market focus are impactful lessons that AMUL brings to the sector. While lobbying with government for a favourable dispensation, continuing work with the members at the production end of the chain is equally important.

NABARD built the SHG bank linkage programme from scratch, investing systematically into building capacity of NGOs and other civil society organisations to form groups, funded SHG member training, sensitised government officials from various departments and invested heavily in bankers training. SHG loan portfolio has grown because of NABARD's continuous nurturing of the concept and coordinating with various government agencies to create an enabling policy environment. NABARD took care of ecosystem for SHG movement and dealt with the hurdles in the way of its development in the initial years. Once the movement caught the attention of the government and others, it gathered momentum and developed different directions of its own.

SIDBI fund for micro credit (SFMC) played a crucial role in sector building for the growth of MFIs. SFMC brought in high quality trainers to build staff capacity. SFMC brought in rating agencies to develop rating tools for rating MFIs to build confidence of bankers and investors to lend and invest in MFIs. Chartered accountants were trained to understand the nuances of carrying out audit of MFIs. Young professionals were supported to be placed in MFIs for specific functions such as MIS and product development. MIS developers were supported for providing MIS solutions to MFIs to ensure adequate monitoring and transparency. MFIs were encouraged to report in MIX platform all the data relating to operations—outreach, financial details, products details, etc. SFMC supported the national industry associations to build member capacity and also build their competence for policy advocacy. SFMC gave loans to some of the riskier clients and stabilised them through outcome-oriented capacity development grants so that other banks could lend the growth. Without the capacity development and initial loans from SFMC, Bandhan would not have grown to be the universal bank today. Thus, SFMC created ecosystem for the growth of the sector.

In the case of FPOs, one assumed that the SFAC would take care of the ecosystem needs and policy framework. But the SFAC's role is determined not by any long-term focus, but by the officials at the helm of the organisation. SFAC has confined its role to providing equity funds to a few FPOs in each state and guarantees for loans. Over the last 18 months, one does not see SFAC discussing policy and strategy issues of FPOs. For the growth of FPOs, we need a national organisation to provide an enabling environment. Either NABARD or SFAC have to be designated and charged with the FPO promotion role. There should be a clear vision and plan on how the FPOs should grow. Instead of the 2–3 year support that is being made available, funding agencies should fund stage-wise growth—first stage, formation, mobilisation and capacity development; second stage, establishing of business; and third stage, deeper investments in value chains. The three stages can extend for 5–6 years with an understanding that not all FPOs will reach the third stage. The financial instruments—equity support, credit guarantee, risk funds—have to be scaled up. Bankers need to be sensitised and trained. Small finance banks have to be roped in to lend to FPOs. HR cadre for FPOs should be developed. Lending by banks to intermediate lenders such as FWWB, Ananya, Samunnati and Manaveeya need to be considered as part of priority sector lending on par with the loans to MFIs by banks. A pool of rating agencies and service providers (for accounts and audit, various compliances) has to be developed. Technical service providers have to be roped in for second and third stage development into output marketing and value addition. GoI, state government, NABARD, SFAC and other donors have to ensure sustainable, responsible funding which will benefit members. Encouraging members to part with their hard-earned money as share capital only for the FPO to not deliver on promises or, even worse, become defunct will find any future mobilisation of farmers difficult.

Pravesh Sharma,[27] former CEO of SFAC looks at FPOs as the trigger for change. Change impulses should come from both ends of the value chain—the production back end and marketing front end. With 86% of farm holding being fragmented, the country has a large number of people who cannot access a market for goods and services either for purchase or sale on level terms. They needed more strength to develop ideas and confidence to be able to deal with requirements of a transforming agriculture and produce markets. FPOs according to him are a logical step. The FPOs can provide the strength in numbers, volumes in demand and supply and the political muscle to negotiate from a better position. FPOs will be well functioning where membership is good, and where the FPO can show early successes even in small measure, the membership will become committed. While support being extended for mobilisation, infrastructure and market

[27] He was part of the Indian Administrative Service and CEO of SFAC. Now, he is an entrepreneur and CEO of Sabziwalla, a vegetable and fruit marketing company working with several FPOs and retailers.

access, equal importance is not attached to providing a level playing field vis-à-vis the private sector players. The marketing front end which the FPOs want to occupy along with other players has the private sector fully entrenched. While a favourable policy dispensation that provides preferential treatment to farmer collectives will fast-track the progress of FPOs, at least a level playing field should be ensured. This is in terms of mandi licenses, permissions to deal in fertilisers, seeds, easing of conditions in registrations for different purposes, influencing banks to provide loans and overall reducing cost of doing business. He also feels that more of discussion and dialogue through workshops and the like are required, and solutions should be found rapidly. The quest for "quality" FPOs should be shed in favour of functional FPOs that meet members' needs.

It is also time to answer a few critical questions on how do we see FPOs in future. Are farmer collectives needed in large numbers? Should we drive the FPO movement with predetermined targets without a basis on whether farmers need it and how they will benefit from it? What is right size for a FPO? What determines the size—turnover, number of members or the ability to employ adequate staff for the work FPO has to do? What level of equity reflects serious intent on part of members to own their organisation? Do we see FPOs playing a role in improving farm incomes? If so, how do we reduce additional costs in their hands in the form of taxation and statutory compliance? How do we remove regulatory barriers that make it difficult for FPOs to be fully functional in chosen business lines? While there are no systematic studies on impact of collectivisation on the income of the farmers, there are examples of where FPOs have succeeded which show what can be the future strategy. Instead of promoting FPOs in large numbers as a number game, there should be clear thinking and strategy on where FPOs can bring in value.

ANNEXURE 7.1[28]
FPOs as a Vehicle for Climate Change Vulnerability Reduction at Scale for Indian Agriculture

With more than 60% of the population of developing economies relying on agriculture and related sectors, negative impact of climate change on crop production hampers food security and puts the livelihood of millions of farmers at risk. Developing countries such as India, which have most of their populations dependent on climate-vulnerable sectors like agriculture, are prone to the adverse effects of climate variability and changes. It is estimated that agricultural production will have to increase by 6% by 2020 in India to satisfy the expected demands for food and feed.

Countries that strive to ensure economic growth and poverty reduction will face hindrances in a major way because of the impacts of climate change on sectors like agriculture, where risk exposure of farmers is high. Agriculture and rural development, and their close dependence on natural resource base, are affected most by variations in the intensity, duration and onset of precipitation, fluctuating temperature regime and increased prevalence of extreme weather events. Dealing with increasingly erratic vicissitudes of nature entails huge costs for the state for adaptation and risk management.

Reducing the emission intensities per unit of output in agriculture value chains and practising adaptation to the consistent effects of climate change are the two critical ways in which the agriculture sector can cope and can work towards increasing production and productivity

[28] This note was contributed by the GIZ, India, team: Sabine Preuss, D. Unnikrishnan, Rajeev Ahal, Ashirbad Das and Deepak Chamola.

of crops, thus ensuring food and nutrition security leading India to meeting its Nationally Determined Contribution (NDC) targets set under the Paris Agreement.

Ex-UN Secretary General Ban Ki Moon's message clearly points to the potential strength of farmer collectives in initiating joint action against the impact of climate risks on agriculture:

> Co-operatives have long fostered inclusive and sustainable approaches to economic and social development at the local level. It is in keeping with this focus that co-operatives work creatively, in areas such as environmental sustainability and carbon neutrality, amidst struggle to adapt to climate change and strengthen their resilience against its impacts.

In large agriculture sectors in developing economies like India dominated by millions smallholders, farmers' collectives, rather than individual farmers, will be in a better position to manage participatory and community-based responses to climate change and climate variability. Thus, FPOs which include farmers' federations, cooperatives and producer companies could better adopt and promote local adaptation strategies at a scale that could reduce the impact of short-term climate variability as well as long-term climate change issues on smallholder agriculture.

The State Action Plan on Climate Change (SAPCC) of many states have identified and prioritized climate change adaptation actions for many sectors, especially agriculture. Some of the time-tested strategies identified for agriculture are: crop diversification, integrated resource management, risk mitigation and transfer strategies, and adoption of innovative and improved adaptive agronomic practices and farming technologies. These are aimed largely at increasing the resilience of rural communities against climatic hazards, and associated vulnerabilities. Individual farmers face difficulties in bringing in resource efficacy and have to make compromises on production and productivity, leading to a situation where smallholder farmers fail to see the reason to be resource efficient and environment friendly. For example, in organic farming, to be successful and to achieve economies of scale, production management following the principles of resource efficiency needs to be done on larger tracts of lands, which requires farmers to follow a conversion period. This will succeed and produce marketable surplus only if large tracts of farmers aggregate and federate into FPOs with a singular mandate of sustainably accessing the markets and reducing farming related risks. Individual farmers choosing to "go organic" will find it difficult if not impossible to gain cooperation from surrounding farms to prevent inorganic input contamination.

The primary advantages of FPOs stem from their potentially coordinated, quick, efficient and long-term response to climate change, owing mainly to the close cooperation between farmers to deal with resource efficiency, as well as product management at a scale which can majorly affect their economic, social and environmental vulnerability. There are very successful examples of input (fertiliser and pesticide) management in cereals and cash crops demonstrated by many FPOs as an entry point activity leading to improvement in the access, quality as well as quantity of inputs, positively affecting the economics of agriculture as well as the environmental aspects.

In India, farmer groups have come together to form water user associations (WUAs) for participatory irrigation management (PIM) to mitigate climate risk by building, maintaining and managing water-harvesting structures and irrigation management processes and systems. Some of these associations have also federated into FPOs, further facilitating farmers by bringing additional dimensions like forward and backward linkages in agriculture value chains.

FPOs are also a better means to enable more and more private sector participation at scale for agriculture, as many agriculture-based supply chains are either impacted by climate change or contribute to climate change by way of greenhouse gas emissions. Operations with farmer collectives will enable the private sector to make informed investment decisions to manage climate risks and adapt to climate change at scale, which will have long-term cost implications for the companies. This is an emerging area in India and already we have seen some successes in private sector driven financial mechanisms as well as financial products, both from the business investment perspectives and corporate social responsibility perspectives, especially when operating in the high-risk natural resource management area.

Use of financial hedging instruments like futures and forward markets by FPOs to avoid any possible losses in case of market volatilities either due to the investing environment or in the case of any natural catastrophe can assure income stability to member farmers. NCDEX for example has covered more than 13 FPOs involving about 25,000 small and marginal farmers on its trading platform. But individual farmers may not be able to use the forwards and future markets with their limited volumes.

Crop insurance provides an important safety net to farmers against climate change vagaries. The government flagship programme PMFBY is moving towards solutions at scale. FPOs can play a significant role in facilitating enrolment (including farmers that do not borrow from banks) and claim settlement of member farmers under this programme. On account of aggregated volumes, FPOs will be able to convince insurers to broaden the menu of products and provide holistic coverage of farmer, their farming system, as well as families (through crop insurance, health insurance, life insurance, etc.). The income streams from insurers to FPOs can improve their viability, reduce vulnerability of farmers and also provide a platform for private sector to actually deliver relevant and suitable insurance products.

Large collectives of farmers dealing with coordinated cropping strategies and with similar socio-economic as well as geographic situations are in a unique position to build capacities and increase the level of awareness about low carbon or low greenhouse gas emitting agriculture as well as the need to adapt to the inevitable climate change. Technology adoption, efficient resource use as well as replication are some of the future areas that hold potential for sustainable agriculture. FPOs possibly emerge as an important farmers' base to bring out solutions to low carbon technologies to contain the post-harvest biomass burning, animal waste management, etc.

The current and future policies and missions around bringing in climate resilience and low carbon development in Indian agriculture should not discount the role of collectivisation and institutionalisation of farmers into incentive-driven producer organisations as a better means of reducing the vulnerability of smallholder farmers at scale, leading to a lasting impact. This will be a strong and complimentary strategy for more evidence-based planning and implementation of climate change adaptation and mitigation strategies at farm level for India.

Corporate Social Responsibility—Has It Become a Pursuit of Choice?

Chapter 8

India is among the very few countries across the globe to have statutorily mandated spending by corporates on socially relevant projects from out of their profits. While there are lots of views on the nature of the regulation stemming from the Companies Act 2013, from the Government of India's point of view CSR activities are seen as a means of strengthening the relationship between the business and the communities with which it has to engage. Kedar Srinivas[1] explains,

> The CSR regulations seek to establish and sustain harmony and synergy between the company and its socio-economic surroundings. As companies grow, the local areas should also prosper. The community, especially around the company locations, should understand nature of the corporate and its operations. CSR spending and projects provide the opportunity to companies to communicate with the people.

Not only the government has mandated spending 2% of profits of select companies, but also it requires the company to be fully aware of what it is doing under the label of CSR and take cognisance of the results it achieves. The compliance required from companies to the CSR regulations entail a board-approved CSR policy, board approval for specific strategies and plans relating to CSR spending, monitoring of performance of the CSR projects and activities and public disclosure of the results achieved by CSR activities as part of their annual report to the shareholders and the public.

In the first year of implementation, understandably most companies which had to undertake CSR activities for the first time were unprepared and ill-equipped. In our report in 2015, we had covered the status of CSR in the country. The companies at that time were still in the process of finalising CSR policies, setting up board-level committees on CSR, hiring CSR professionals and figuring out the thematic and geographical areas where they would launch their activities. Over the last 3 years, the corporate sector has come a long way. During this 3-year period, the hype built around the CSR has considerably reduced. There were estimates of ₹25,000–30,000 crore being available as CSR budget were doing the rounds. CSR spending creating significant impact was also discussed. But now there is greater clarity on what companies have to do and how much money will be available for CSR projects. The number of companies with CSR obligation as reported to the Ministry of Corporate Affairs (MCA) were 2,775 in 2014–15 and it reduced to 2,691 in 2015–16 (Table 8.1).

[1] CEO, JSW foundation, Karnataka and former Secretary to GoI, spoke to the author during a discussion for the purpose of this report.

Table 8.1: CSR Spend by Companies Range-wise

			% Share to Total	
	2014–15	2015–16	2014–15	2015–16
No. of Companies	2,774	2,691		
Top 10	2,774.4	3,207	32	33
Top 50	5,075.3	6,538	58	67
Top 100	6,082	7,526	69	77
Total	8,803	9,822		

Source: Ministry of Corporate Affairs Website.

While there was a reduction in the number of companies with CSR spending obligation in 2015–16, the amount of spending had increased by 11.6%. As per the data made available by the MCA, more than 75% of the CSR spend by corporates were done by the top 100 companies. In terms of areas, education accounted for more than 30% of the overall spends (Figure 8.1). Health, malnutrition, sanitation and the like accounted for another 30% of the overall spend. Livelihoods and rural development did not hold that much of an attraction to the corporate entities. There were also contributions made for environment, animal welfare, encouraging sports, natural resource conservation, slum area development and the like.

State-wise, Maharashtra seems to attract most of the funding followed by Karnataka,

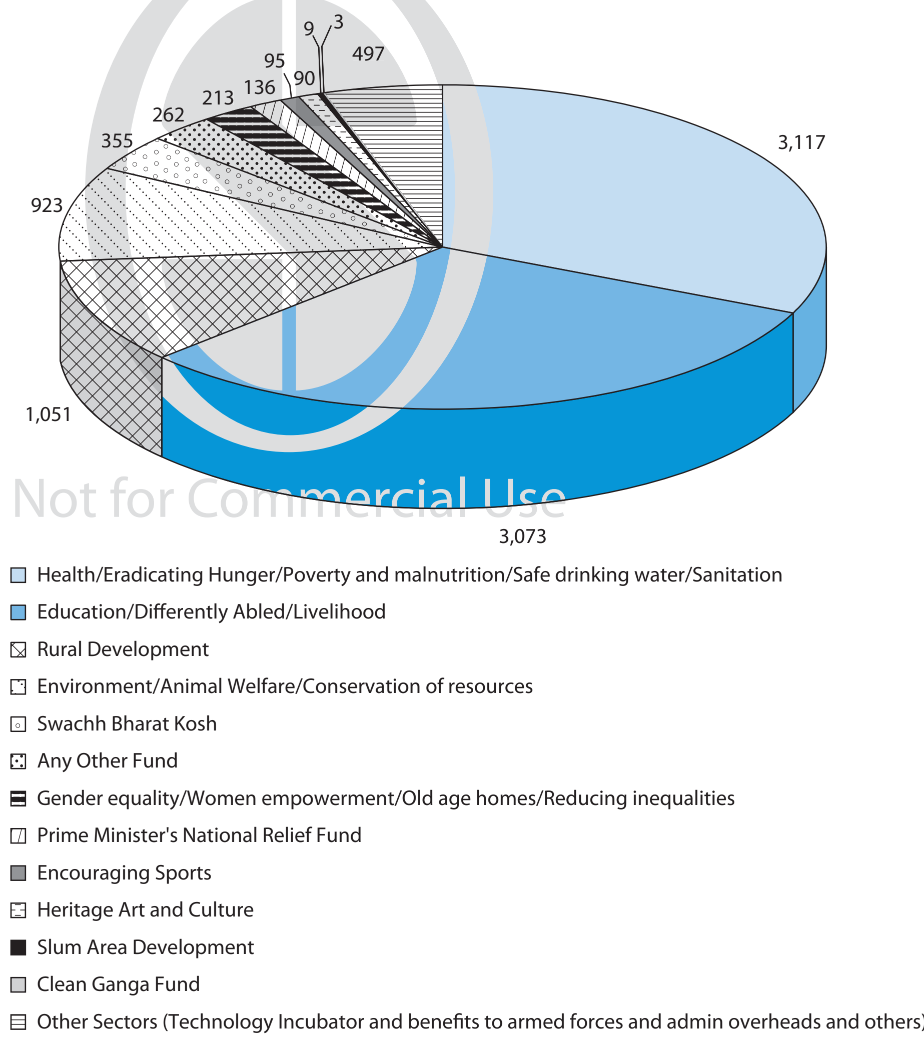


Figure 8.1: Sector-wise Distribution of CSR Spending, 2015–16 (₹ Crore)

Source: MCA, Chart by the authors.

Table 8.2: Top Ten States in CSR Spending (2015–16)

Top Ten States by Spend	Amount (₹ Crore)
Maharashtra	1,138
Karnataka	408
Andhra Pradesh	379
Gujarat	338
Uttar Pradesh	322
Rajasthan	285
Tamil Nadu	261
Delhi	237
Odisha	231
Madhya Pradesh	215
Total	3,813

Source: Compiled by the authors from data in MCA website.

Andhra Pradesh, Gujarat and Uttar Pradesh in the top five positions (Table 8.2). States with higher incidence of poverty and underdevelopment did not seem to attract CSR funding. Companies possibly tried to engage the local areas in which they had their manufacturing operations or their offices located. Northeast did not get almost any attention from out of the CSR spending. Of course, a number of projects were not identified closely with specific states and had a multi-state exposure. Of the total ₹9,820 crores spent in 2015–16, almost 50% (₹4,871 crores) were spent on all-India projects. The possibility that some of these funds would have reached the other states cannot be ruled out.

Of the companies surveyed, 82% had spent the prescribed 2% of their profits for CSR activities. 12% companies had a budget outlay that was higher than the prescribed 2%. In terms of themes, education had a share of 30.2% of the spends followed by health at 26%. Environment had a share of 23.3%. Poverty alleviation, livelihoods, reducing inequality and such themes had a much smaller share. Companies seem to prefer engagement with education, health and environment sectors where the project design may not be complex and monitoring of progress and results much easier. Though the GoI had offered the easier option of contribution to Prime Minister's Relief Fund, Clean Ganga Fund, Swachh Bharat Fund, etc., not many companies took this route. They seemed to prefer investing projects in thematic areas of their choice. These trends seemed to continue in 2016–17. NGOBox[2] in their analysis of data of 300 big Bombay Stock Exchange (BSE) listed companies reported that health care attracted 17% and education 32% of the CSR budget. Rural development projects attracted 14% of the budget, which is an improvement from last year levels. Implementation of CSR through partners was the most preferred mode, by about 55% companies. Those that directly implemented CSR projects were 20% and those that had set up their foundations that were engaged in implementation were 24%.

NGOBox has been compiling the data on CSR over the last 3 years. Their analysis, which is confined to the top 250–300 companies listed in the BSE, confirms the trends as reported by MCA. The review of CSR spends for the year 2016–17 carried out by NGOBox by examining the position of top 300 companies (Table 8.3) listed in the BSE found that 64% of companies had managed to spend the entire allocation or even more than what was allocated for CSR. Of the companies, 21% spent less than 75% of the allocations in 2016–17. In terms of thematic focus, 36% went for education and skilling, 16% for health care and 17% for rural development. 55% of the CSR spends were done through implementing partners.

KPMG had brought out a CSR survey of channelising top 100 companies that have CSR obligations. The survey confirmed that companies are getting their act together much better with the passage of time. The governance structures that are supposed to

[2] NGOBox is a CSR platform that is engaged in providing information, advocacy, training and CSR project implementation.

Table 8.3: CSR Compliance (2016–17)

Number of companies analysed	300
CSR budget as per regulation ₹ Cr	7,626
Actual CSR expenditure	6,871
Companies that spent 2% or more of profits %	67
Spending on Health and education %	49
Top five states in CSR spending	Maharashtra, Gujarat, Odisha, Karnataka and Tamil Nadu

Source: NGOBox, *CSR Spend Analysis of FY 2016–17 BSE BIG 300 Companies: India CSR Outlook Report* (Udaipur: NGOBox, September 2017).

be in place in companies have mostly been brought in. However, some areas requiring improvements have been identified. The survey found that companies were not clear in their communication on the CSR objectives in their CSR policy document. Of the companies, 27% had indicated that any surplus of the previous year will not be dealt with in any particular manner. Only 4% said that any surpluses left out of earmarked CSR funds will be carried over to the following year. In 10% of the companies, there were no details about the monitoring framework that will look into the implementation of the CSR policy. 89% companies had set up CSR committees and 99% of the companies had disclosed the composition of the CSR committee in their annual report. In most cases, the CSR committee had more members than the minimum mandated and at least one independent director was part of the CSR committee in about 52% of the samples surveyed. The vision of the company in its CSR effort had not been communicated by 50% of the companies surveyed. Though it is not mandatory, one would have expected corporate houses with their communication teams in place to explain their vision of CSR to the public at large. The director's report also did not disclose the extent of spending made under CSR in 50% of the companies.

The CAG had reviewed the implementation of CSR regulations by public sector enterprises. Including 7 Maharatna and 17 Navratna category companies, 76 public sector enterprises were covered under the review. Eight companies were found not to have formulated a CSR policy in terms of the Companies Act regulations. Of the 57 profit-making public sector enterprises (PSEs), only 53 had made an allocation of 2% of average net profits for CSR as required; four companies did not meet this requirement. 21 out of 57 companies did not maintain information on the actual expenditure made out of the allocations for CSR. Nine public sector enterprises spent below 2% of funds even though they had allocated adequate amounts as per the regulations. In all 15 PSEs which did not spend the required 2% of profit had different reasons. Generally, the common reason seems to be that they were not fully prepared and they would carry over the unspent balance to the following year. There were also explanations that while the overall commitment for CSR projects was adequately high, the first year phasing actually required a much lower disbursement. There was also a further reasoning that the approval process within the company took a long time and the projects for funding under CSR had a delayed start making it difficult to spend the budget.

As regards implementation mechanism, 57 companies implemented it both on their own and also through implementing agencies. Eleven other companies relied entirely on external implementing agencies. In terms of activities that were funded out of CSR, 28% was allocated for environment sustainability, 33% for education and skills and 34% for health care. This pattern of bulk of resources going towards education and health care is consistent with what the private sector enterprises do in the CSR space. However, in the case of public sector enterprises, the allocation for rural development at 25% is a significant differentiator compared to the private sector companies where the allocation for rural development was less than 10%. In a number of PSEs, planning for the actual implementation of the sanctioned project, the desired outcomes of the funding and also an estimate of quantum of resources required to complete the sanctioned projects were not achieved. Monitoring of CSR activities by constituting a transparent monitoring mechanism was done by 61 enterprises. The contents of CSR policy implementation progress, etc., were displayed in the annual report in the case of 67 companies out of 73. The recommendations by the CAG were that the administrative ministries should ensure that CPSEs (a) complied with provisions of the Companies Act, (b) avoided delays in planning, (c) set up performance milestones and (d) avoided delays in expenditure. Secondly, the suggestion also was that the shortfall in spending the budgeted allocations should be dealt with in a much better manner than currently being done. Either the companies should have a plan for spending the entire allocation fully within the period or have strategies for carry-over of the same in a phased manner till the completion of sanctioned projects. The annual report should list the reasons for underutilisation. The CAG also impressed upon the government that the administrative ministries concerned should ensure that the impact assessment of CSR activities should be carried out time to time and presented to the board as well as disseminated outside. Being a first-time review, the CAG has been comprehensive in terms of compliance to the provisions of the act and the regulations. The substance of CSR projects being "impact on the ground," hopefully CAG would focus on impact aspects in its next review. The reasons why some of the companies could not spend the CSR allocations had to do with the processes of identifying projects and implementing partners, which takes time. The companies also reported that the capacities in the NGO partner were not what it was assumed to be, and this adversely impacted the time schedules.

There were a number of corporate entities to which the authors had reached out to understand the CSR focus and how the corporate are dealing with the real-world issues in complying with the provisions of the Act and making meaning on the field. Jindal Steel Works (JSW) Foundation in Odisha and in Karnataka, Cognizant Foundation, ITC, Vedanta Group, Janalaxmi Financial Services, Lupin Foundation were some of the corporate houses with which the authors have had discussions. JSW Foundation has a unique Janam Se Janani Tak (JSJT) theme that is committed to working towards the betterment for the cause related to children, adolescent girls, women and beyond. Through JSJT, JSW Foundation reaches out to the girl child and takes care of all her needs. Right from her schooling, to training her in a vocational skill of her choice in her adolescent years, up until the time she is a mother. The JSJT cycle of employment continues in loop. JSJT also guides the inclusion of vulnerable women to undergo various skill training programmes and small-scale enterprises to restore their pride and dignity. At JSJT efforts are directed towards enabling an ideal scenario where women and girls have access to quality education, health care and livelihood skills. We help them build their own destiny and empower them to take vital decisions in their family and society at large. The seven-stage cycle used by JSW to slot its different programme activities under JSJT are pregnancy, child birth, *anganwadis*, schooling, adolescence, earning mother and empowerment. JSW is working in 1,000 villages in nine states. It has covered 2,000 child deliveries under medical supervision, 25,000 children below six years of age and lactating mothers for improving nutritional status, real-time growth monitoring of 50,000 children using a mobile app, 250,000 people through rural health outreach programmes and 200,000 children with midday meals in schools. JSW has other activities too in its CSR basket relating to livelihoods, natural resource management and sanitation. In natural resource management, it has helped watershed-based approaches and water conservation. More than 6,000 candidates have been trained in vocational skills and placed.

Cognizant Foundation was incorporated as a non-profit company in 2005, carrying out CSR activities of the parent company Cognizant, the IT major. Its focus areas have been education and health. In the recent past, it has forayed into livelihoods projects too. The foundation sees its role as a funder of projects and getting them implemented through management of implementing partners. Cognizant is present in many locations in the country. Wherever there is an office of Cognizant, a corporate social committee is set up. Staff in such offices with necessary orientation act as extended arms of the foundation which has its office in Chennai. Cognizant runs a global volunteering programme. Staff volunteer typically to work in schools. A unique project funded is named the 100% programme. It has selected 100 schools with the objective of getting 100% of the students pass the school-leaving examinations, and 100% of the students pursuing higher education and later 100% finding employment. In health, the foundation focuses on eye care, but other aspects of health are also taken care of. In livelihoods, the foundation has entered skill development and looking to achieve a placement rate of 75%. The foundation felt that partner selection is the key to good CSR projects and impact on the ground. Good NGOs with the bandwidth for large programmes, managerial capacity and competent staff in the ground were hard to come by. Most CSR staff are chasing a few large and well-organised NGOs. A valid observation on the regulations raised by the foundation was that it would have been enough to bring in the larger companies under compulsory CSR. The smaller companies, which are in very large numbers, may not have capacities to spend their CSR budget for good impact, and they would be difficult to monitor.

Vodafone Foundation was of the view that setting up dedicated foundations is the better way for implementing CSR projects for large corporates. The boards and board committees in corporates have several issues to consider and decide on. The window for dealing with CSR issues for the boards will be small and the window should be utilised by the corporate for getting strategic advice and feedback on impacts. The corporate should invest in a core professional CSR team that may carry the CSR function. CSR function should be understood in the same manner as any other function in the corporate—say accounting or HR—professionals bring the ideas and implementation strategies and approach the board for approval of ideas and funding, and later report back on results. The CSR staff should have competencies in project selection with the background of design and implementation. Otherwise, there is risk of NGOs deciding the priorities, and corporates end up with funding without contribution on thematic and geographic preferences. Vodafone Foundation confirmed that it also finds it difficult to get quality partners. The foundation has a rigorous due diligence process for partner selection that entails examination of core competence, organisational capacity, governance structure and standards and past track records. The projects to be funded are co-created along with the partner. The foundation also invests in capacity building and institution building of the partners. On delivery of results and information reporting, several weaknesses were being noticed by the foundation. Vodafone also has a volunteering scheme for staff. Staff go on a sabbatical of 8 weeks for volunteering. Last year, 50 such volunteers went to different institutions. But the foundation is not oversold on volunteering as it has several administrative and logistical problems. The benefits to the host institutions is always not very visible.

The mining and extraction industries such as Vedanta, Jindal are now allocating a portion of their CSR funds for longer term interventions such as watershed development and Wadi programmes. They are partnering with NABARD to raise additional resources to implement these projects.

The general feeling among the companies/foundations was that the CSR obligations of companies made a lot of sense. In a number of these companies the CSR-related work predated the changes to the Companies Act in 2013. Those who were actually doing CSR activities prior to 2013 had to make very few changes in order to comply with the regulations. The new aspects to be taken into account by those already engaged in CSR activities were the requirements that companies should deal with CSR policy and strategy at the board level, be conscious of the impact, invest in a monitoring and evaluation system, and report to shareholders and public as part of annual reports. In the process, the companies also have to ensure that CSR spending does not become a means of providing donation or offering charity but actually is an investment in required areas that represent gaps in government/public-sector spending. While the CSR budget across the country runs to almost about 10,000 crores in 2015–16, the amount is a very tiny proportion (1.8%) of the overall government expenditure on development and social sector which amounted to about ₹560,000 crores in the 2017–18 budget. Moreover, the management cost vis-à-vis actual funds spent on development also requires some norm setting.

CSR cannot solve the large problems with different complex aspects. CSR ideally should try and plug gaps either in programmes or in geographies. It is difficult for CSR projects to assume that they could replace government expenditure or mimic government systems at scale. In terms of implementation strategy, companies follow one or more of the following three approaches: (a) Recruit staff in the company to directly carry out the CSR activities—design, implementation, monitoring and reporting results. (b) Set up a foundation (or use an existing one) to carry out CSR activities with the company funding the foundation, and the foundation is then responsible to design, execute, monitor and report to the company. Company holds the overall responsibility for appropriate spending and results while reporting to the shareholders and the government. (c) Identify suitable partners—usually NGOs—to carry out CSR activities based on an agreement either as a framework or in detail on the nature, size and geography of the project and also the deliverables. A company can use all the three modes simultaneously to good advantage. The NGOs then report to the company which is used by the company to report to regulators and shareholders. Here, too, the company is responsible for all compliances. Some of the larger companies with diversified CSR objectives in multiple themes use their own staff, their foundation and a number of partners in different locations to carry out their activities. In any case, the company should have core CSR staff to administer grant making and monitor activities on the ground.

A common thread in the discussions with the industry CSR professionals was that the talent pool of NGOs with commitment and capacity was very shallow. Many NGO partners who have aspirations to do well do not have the capacities and are very unprofessional in the implementation and reporting processes and apathetic to quality issues in implementation on the ground. The interface between efficiency and productivity conscious corporate sector that looks to maximise value for money and NGOs that have been utilising grant support on projects with extreme flexibility and not much of monitoring and reporting has been a very difficult one. Corporates had to put in efforts to make NGOs understand that periodic submission of information, producing results and being accountable for quality performance are non-negotiable requirements from the corporate sector. The NGOs on their part had their own set of problems with the corporates and their CSR staff. The assumptions in some parts of the corporate world are that social and development sector projects can have clearly laid down input–output ratios, capable of fitting in to time and motion ratios, and can be run with exact cost–time outlays. The uncertainties of climate, human relations and the social relationships were not really issues in a corporate design of CSR projects. The NGOs on their part had to educate the corporates that development projects dealing with vulnerable people and fragile geographies have processes very different from manufacturing or corporate services. The development and social sector projects demand a lot more flexibility and patience. However, this interface between the corporate sector and the voluntary sector is producing new dynamics where there is considerable mutual learning. The short-term adversarial relationships are turning out to be positive learning experiences over the long term.

The CSR managers' key decisions relate to choice of projects for CSR funding. The CSR managers' dilemma in deciding between allocating funds for a set of CSR projects with a long term horizon and spending the money within the year needs to be appreciated. If spending the money within the year becomes the centre of focus, several short-duration quick-spend projects such as health camps or distribution of notebooks in schools and the like might result. If sustained impact in the local area has to be created the corporate will need long-term projects that make fundamental investments and also build capacities in the recipients to manage the same. There is a need to carefully look at the current regulations on allocation of funds and actual expenditure of funds to facilitate companies take a long-term view and fund project where the implementation will be in a phased manner but the results would be of a high quality and sustainable over the long run. The NGO partners also like certainty and continuity while partnering. Short-duration projects where typically staff have to be engaged for a year or so is a very difficult proposition for NGOs. Hiring of staff is with a view to retaining them over a period of time so that the investment in building capacity of the staff can be reasonably recovered over time. For this to happen, the NGOs need to get projects with a longer term implementation plan. Such projects also ensure that the expertise is retained in the NGO, and the corporate benefits from high-quality HR in the NGO. The regulations do not compel companies to spend the entire CSR budget during the year. Companies can underspend and explain the reasons for the shortfall and carry over the balance to the next years. If long-term projects require funding according to the pace of implementation, funds allocated in one year can be disbursed at the appropriate time, just as in the case of any investment project of the company!

An aspect which is impacts all the companies is the availability of qualified CSR professionals. Companies have had to make do with managers and administrators of a general kind who may or may not understand the nature of development projects that are typically supported under CSR initiatives. The ability to plan, to strategise, to prepare an action matrix to monitor and measure impact takes a set of diverse skills that is not available in plenty except in a few large voluntary organisations. The CSR department also becomes an employment generator for staff being retrenched after a project is mechanised/project is completed. Preparing a set of CSR professionals for a corporate sector should be taken as a priority. There are few courses being offered in some private universities and institutes which probably would fill in this gap. Quite a number of the corporate entities also look to using their own staff in volunteering for development-related work in the field. While staff volunteering for development work in the field might not qualify as CSR expenditure, the company sees the value of connecting staff with people at the bottom of the pyramid so that they become much more sensitive to their environment and also the nature of work that the company does. While some companies have had pleasant and positive experiences (Box 8.1), the NGOs who host such volunteers in the field have not always been comfortable with this arrangement. Volunteers come for short duration of time and try to work in conditions that are alien to them; they demand facilities and comforts which may not be available in the field. Secondly, their knowledge of the local context being very limited, their interactions with people and the suggestions they offer oftentimes are not suitable and may not be relevant. Volunteering in such cases ends up as a kind of a development tourism opportunity for the staff and a distraction for the NGOs and the people in the field. The gains, if any, in many cases are not clear. But there are some projects where the volunteers teach in schools or train people in use of digital platform or carry out specific activities such as planting trees and bringing sanitation and health awareness, where the gains are positive and the volunteers and NGOs come away happy at the end of the experience. So in volunteering, companies need to choose the locations and the hosts with care and invest in greater awareness of the local context in their staff.

Box 8.1: *Volunteering in Mahindra and Mahindra*

ESOPs—the Mahindra Way

It is not about ideas, it is about working on them together and making them happen. A company's commitment to CSR is positively linked to the employee's commitment to the organisation. Esops (Employee Social Options) is Mahindra Group's flagship employee volunteering programme through which it supports employees in engaging in activities with a positive social impact. Esops is a platform offering employees across Mahindra Group of Companies located throughout the country a set of social work volunteering options. These options are created and implemented exclusively by employees themselves based on the needs of underprivileged communities in and around their areas of operation. In this manner, Esops enables our employees to give not just their wealth but also their time. To fund these employee initiatives, each sector of the Mahindra Group donates 50% of its CSR budget. In FY 2016–17, many small and big initiatives were carried out in these focus areas, over and above flagships endeavours. The number of volunteers increased from 18,876 in FY 2015–16 to 19,730 in FY 2016–17. Volunteering hours increased from 115,365 in FY 2015–16 to 160,035 in FY 2016–17. Under Esops programmes, 448,607 lives benefitted through various initiatives.

Major Esops Projects				
	SANSKAR	BANDHAN	PRAYAS	ENB
Thematic focus of the programmes	All round development of youth to enhance their employment opportunities	Provide health facilities and support to enhance maternal and child health	Creating awareness on HIV/AIDS, providing nutrition to sero-positive children and vocational training to persons affected by HIV	Provide eye care & cataract surgery
Beneficiary groups	Youth from poor socio-economic backgrounds who have passed SSC	Women and school going children (for health camps) and women over the age of 40 (for cancer detection)	Children (6–12 years) for nutrition programme. All PI HA for vocational training	All residents where the camp has been put up
Programme components	Basic computer skills, English language skills, personality development	Health camps, Ante-natal camps, cancer detection camps	Awareness programmes, rehabilitation of CLHAs & PLHAs	Health camps
Strategy to identify area of intervention	Area and focus of work was identified by the Esops team	Interactions with local health authorities and villagers	By understanding of the floating population around Nashik	Community needs assessment
Challenges faced by the programmes	Retaining children-Drop out rate is 15%	Reaching out to women in remote areas	Creating awareness and challenging people perception	Expansion of the project

Tribal Development Under CSR by Tata Trust

Collectives for Integrated Livelihood Initiatives (CInI), set up by the Tata Trust, launched the project for tribal development in 2015. CInI aims to cover 101,000 tribal households in four states—Jharkhand, Odisha, Maharashtra and Gujarat—and make them *lakhpatis* by 2020 by trebling their income from farming and animal husbandry to ₹1.2 lakhs per annum. In these four states, CInI covers seven blocks in five districts of Jharkhand (East Singhbhum, Hazaribag, Deoghar, Dumka and Khunti), two blocks in one district of Odisha (Keonjhar), eight blocks in three districts of Gujarat (Mahisagar, Sabarkantha and Dahod), and two blocks in two districts of Maharashtra (Nandurbar and Dhule). The income augmentation takes place through a four-pronged strategy comprising high-value farming, livestock (primarily piggery and goats) and non-timber forest produce like lac and horticulture. Through a combination of high-value agriculture and piggery, the project claims to have lifted more than 41,000 tribal families out of poverty of which 15,000 earn more than ₹1 lakh income per year. Apart from focus on income-generating activities, CInI has also carried out interventions in education and sports. The school dropout rates among children have fallen to less than 5% in CInI schools. The trust intends spending ₹500 crore over the next five years.

CSR Reporting

Companies are expected to include a CSR report approved by the board to the shareholders. The report is expected to contain the policies, activities undertaken, amounts of expenditure, efficacy of the projects, impact on the ground and related issues. The report is also expected to provide reasons for shortfall in spending if any. Some companies have used the report creatively to inform the public at large of not just the CSR activities under the CSR budget but other activities in the normal course of business that have social or developmental impact. ITC, for example, reports on its philosophy of CSR, the strategies, interventions and outcomes. It has categorised its interventions according to themes identified under the CSR regulations (Box 8.2).

Box 8.2: *Extract from ITCs CSR Report*

ITC's overarching aspiration to create significant and sustainable societal value is manifest in its CSR initiatives that embrace the most disadvantaged sections of society, especially in rural India, through economic empowerment based on grassroots capacity building. Towards this end, the company has adopted a comprehensive CSR policy outlining programmes and plans to undertake projects and activities to create a significant positive impact on identified stakeholders. All these programmes fall within the purview of Schedule VII of the provisions of Section 135 of the Companies Act, 2013, and the Companies (Corporate Social Responsibility Policy) Rules, 2014. The footprint of the Company's Social Investments Programme (SIP) projects is spread over 26 states covering 184 districts. The key elements of the company's CSR interventions are to (a) deepen engagement in identified core operational geographies to promote holistic development, designed to respond to the most prominent development challenges of your company's stakeholder groups; (b) strengthen capabilities of non-government organisations (NGOs)/community-based organisations (CBOs) in all the project catchments for participatory planning, ownership and sustainability of interventions; (c) drive the development agenda in a manner that benefits the poor and marginalised communities in our factory and agri-catchments, thereby significantly improving human development indices (HDI); (d) move beyond mere asset creation to behaviour change through focus on demand generation for all interventions, thereby enabling participation, contribution and asset creation for the community; (e) continue to strive for scale by leveraging government partnerships and accessing the most contemporary knowledge/technical know-how.

Beyond CSR—Sustainability

Under CSR, companies spend a part of their profits on projects that have a development or social focus to find a connect with community. The urge to remain connected, relevant and earn the respect of community as a responsible business entity has traditionally motivated the corporate sector. With a statutory backing, corporates now do what was being done by earlier voluntarily. Globally, companies are expected to do much more than be socially responsible. There was talk of a double bottom line wherein the social and economic outcomes of a corporate had to be balanced. A triple bottom line reporting by corporates focuses on economic, environment and social performance. The activities of the company in these three spheres and the impact of business on the three areas is reported upon. Extracts from the Sustainability Report of Tata Steel in India which among the top companies in CSR performance have been provided in Annexure 8.1 at the end of this chapter to gain an understanding on what can be done by Indian Companies beyond CSR.

Conclusion

The CSR has come to stay despite hesitation in the initial 2 years. The corporates have taken to CSR as an essential part of their work. However, the board-level attention is an aspect which needs to go beyond documentation and be taken in spirit. The few companies which have done tremendously well both in terms of the amount of spends and in the quality of the programmes have provided the leadership for other companies to follow. Those who have been in the CSR space much before the 2013 Act came into being have the experience and expertise to continue with what they were doing with significant changes to ensure compliance with the current regulation. While the low-hanging fruits in education, health, sanitation projects are being plucked under CSR, the corporates should go for more complex projects in livelihoods that ensure sustainability. Even in the simpler projects, the design should concentrate on making the local areas, institutions and beneficiaries sustainable so that after CSR projects withdraw, the households are able to fend for themselves.

ANNEXURE 8.1
Tata Steel—Sustainability Report

- Strategic focus area: Impact-based CSR
- Stakeholders: Government, regulatory bodies, community
- Our goal: Positively impacting more than 2 million lives
- Our enablers: (a) Expand reach and impact of our initiatives in areas of health, education, livelihood, water and civil infrastructure, skill development, sports and ethnicity and (b) leverage collaborative and financing opportunities

We are aware that the regions that we operate in are largely socio-economically backward and have been impacted by political unrest. An overwhelming majority of the population in these regions is dependent upon rain-fed, single-crop agricultural produce for their livelihood. A major concern in these regions is the development of the Scheduled Castes (SC) and Scheduled Tribes (ST) who constitute a major percentage of the population. We promote affirmative action based on positive discrimination to improve levels of education, employment, employability, entrepreneurship, while preserving the ethnicity of this section of the population. The Tata Steel CSR Advisory Council comprises eminent personalities from academia and development sector, who provide policy-level inputs for improvement of our CSR interventions. The priority areas for improvement identified in Jharkhand and Odisha are health, education and livelihood. The other areas of intervention are skill development, ethnicity, water, civil infrastructure and sports.

Thousand Schools Project

This ambitious project aims at making the Right to Education (RTE) Act a reality in six blocks of three tribal districts of Odisha—Jajpur, Keonjhar, Sundargarh. The project envisions better access to school for children while improving the quality of education that they have access to. Improved teaching quality is imperative for quality education. Some of the key initiatives in this direction are:

1. Instituting effective classroom pedagogy to strengthen the foundation level learning of children.
2. Enhancing teachers' capabilities.
3. Making available quality teaching and learning materials in classrooms.
4. Setting up of school libraries and introducing tablet-based classroom content.
5. Establishing an effective academic monitoring mechanism.
6. Enabling proper functioning of school management committees (SMCs) mandated by the RTE Act to have oversight of school functioning and performance.

Impact

1. 22,000 children have been positively impacted through this project.
2. 400 habitations are child labour free across the six project blocks.
3. 6,375 out of school children have been mainstreamed into education.
4. 3,646 children have been helped to transition from primary to middle school.
5. 12,705 school-going children of primary classes have been helped to improve their learning levels significantly in language and mathematics (evidence-based).

Key Initiatives

Education: Improving the access and quality of education for all and scholarships for meritorious students.

- Delivered three-model schools to the state government in FY2017 with the required classroom infrastructure; another five are ready for handover.
- Scholarships to 3,083 students in FY2017 over 2,883 in FY2016.

Sports & ethnicity, Preserving culture:

- Over 800 boys trained in various nuances of football over 11,000 youth underwent training in tribal languages and scripts.

Health: Primary health care, maternal and child health care, specialised health care and adolescent health programmes.

- 46% reduction in neonatal mortality rate, 39% reduction in infant mortality rate.
- Held 7 camps, screened around 3,700 people, conducted close to 600 cataract surgeries and dispensed spectacles to many people.
- 436,992 people benefitted through mobile medical units in FY2017 (533,597 in FY2016).

Sustainable livelihoods: Enabling people

- 9,633 farmers trained in FY2017 on the system of rice intensification (SRI) method (8,350 in FY2016).
- 5,451 farmers trained in vegetable cultivation in FY2017 (4,238 in FY2016).
- Reached out to nearly 1,500 rural women in FY2017 to improve their economic condition and aided them in becoming self-reliant through livelihood collectives.

Chapter 9

Conclusion—Towards Equitable Growth and Sharing Economy

The vision of India in the 2015–16 union budget and the MDGs accepted by the GoI have two major planks. One is that the growth will be inclusive and the other is that growth will be equitable. In the last year's report, while concluding, a reference was made to the continuing conflicts between different interest groups and segments. These conflicts resulted from attempts to deny equitable share of growth and incomes and from exclusion of people from what is rightfully theirs. The need for balancing the power equations and relative positions of strength between those who are more affluent, entrenched and powerful and those who are not was never stronger than now. There is no doubt that the Indian economy has been growing at a brisk pace over several years and that too with reduction in the poverty levels among the poorest sections of population. However, we need to pause and ask whether the growth actually solved the problems of many of these people who are at the very bottom of the pyramid. The Global Wealth Report 2016 brought out by Global Wealth Research Institute finds that the top 1% of Indian population has 58.4% India's wealth; the top 10% has 80.7% of the country's wealth (Table 9.1).[1] In contrast, the bottom 1% does not have any assets but has a debt level that is the equivalent to 0.7% of country's wealth. Of the Indian

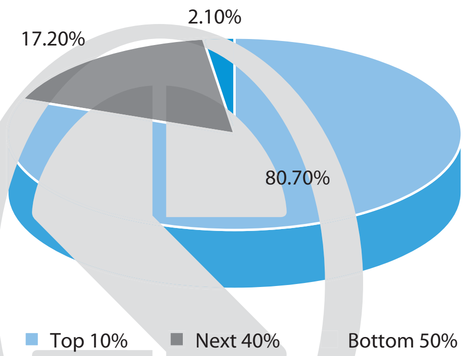


Figure 9.1: Skewed Distribution of Wealth

Source: Global Wealth Report 2016.

population put together, 50% accounts for a wealth holding of only 2.1%.

This is an extreme skew in distribution of wealth across the population. If the position relating to distortion in distribution of wealth had remained the same over a number of years, one could say that the poor could not get an increasing share of wealth but were able to get share in the fruits of growth. If there had been a gradual reduction in the share of top 1% or top 10% of population in the country's wealth, one could conclude that the state and others in engendering economic growth had acted with a sense of responsibility and gradually brought down the inequalities in wealth distribution. But in this case, the top 1% of population had increased its share of wealth from 36.8% in the year 2000 to 58.4 in 2016. The top 10% combined share, which was around 65.9% in the year 2000,

[1] Data from *Global Wealth Report 2016*, Global Wealth Research Institute; chart by the authors.

increased to 80.7% in 2016. Over a 16-year period, the top 1% and top 10% of the affluent have increased their wealth and, thus, gathered an additional share of about 22%. The gain of the affluent 10% is the loss of remaining 90% population in wealth share. The fruits of economic growth have gone disproportionately much more towards the affluent sections of the society. This distorted distribution of wealth carries the seeds of conflicts.

The Gini coefficient, which measures income inequality, has also worsened. The coefficient, which was 45.18 in 1990, has increased to 51.36 in 2015 as per the World Bank's data. A Gini coefficient of zero means absolute equality in distribution of income and 100 reflects absolute inequality in distribution of income. While growth has been happening, the inequality in income distribution has also been increasing. With all the poor-friendly, farmer-centric social and welfare programmes, if the country had not been able to reduce income inequality, then the quality of growth must be questioned. The measures that the successive governments have been taking in the past do not seem to have produced the desired impact in reducing income and wealth inequalities.

Reasons for rising inequality lie within the set of assumptions made in the country's march towards economic progress. A market-oriented reform process since the 1990s assumed that the market is always right and the role of the private sector is only to maximise profits. Wealth creation and accumulation in individuals was viewed with appreciation. Exclusive attention to GDP growth as a sole metric of progress took the focus away from the poorer sections of society. The human cost of development in terms of gender disparities and unsustainable exploitation of natural resources needed more attention. The theory of economic growth and development in the country based on the socialistic models for the first 40 years after Independence went to the other extreme in the early 1990s. While the market is an efficient mechanism of price discovery and exchange, it can allocate resources efficiently only for the short term. The market does not know how to allocate resources and invest in future from a strategic point of view that helps in achieving development sustainability with profits and growth. While maximising profits in the private sector is necessary to encourage investments that lead to employment and other positive consequences, profiteering and expropriating income and wealth of others is probably an aspect that should have been prevented.

Increasingly, the pricing policies on public goods move more towards privatisation of infrastructure and profit plus pricing that will keep entities afloat. But then what about the vulnerable majority population that is asked to pay for infrastructure? While cost recovery that takes place in these cases is affordable to those who are better off, those in the bottom half of India would find it very difficult to afford these costs which originally were a part of public expenditure. GDP is at best a measure of aggregate progress that a country makes in terms of its economic activities but is never a measure of how the individuals have actually performed. The divergence between growth and poverty and value added and employment has never been satisfactorily understood and acted upon.

Further, GDP is not a complete measure of the actual value of goods and services produced in the country. In India, the informal sector's contribution tends to get counted much less and the value of unpaid work is not counted at all. Thus, it discriminates against women and their economic value to the country.

Oxfam in its report "Economy for the 99%" points out the glaring differences between the very affluent and the poor and the inequalities (Box 9.1). The report sketches out a foundation comprising several measures, on which economies can be built to deal with inequality.

Box 9.1: *The Difference Between the 1% and the 99%*

- Since 2015, the richest 1% has owned more wealth than the rest of the planet
- Eight men now own the same amount of wealth as the poorest half of the world
- Over the next 20 years, 500 people will hand over $2.1 trillion to their heirs—a sum larger than the GDP of India, a country of 1.3 billion people
- The incomes of the poorest 10% of people increased by less than $3 a year between 1988 and 2011, while the incomes of the richest 1% increased 182 times as much
- A FTSE-100 CEO earns as much in a year as 10,000 people working in garment factories in Bangladesh
- In the US, new research by economist Thomas Piketty shows that over the last 30 years the growth in the incomes of the bottom 50% has been zero, whereas incomes of the top 1% have grown 300%
- In Vietnam, the country's richest man earns more in a day than the poorest person earns in 10 years

Source: Oxfam International, *An Economy for the 99%* (Oxford: Oxfam International, January 2017).

The first of these is the resolve to work for the 99% of the population which has a very small share of income and wealth. Secondly, the governments across the world must cooperate and not compete. The globalisation of business has made governments compete with each other in terms of creating the so-called "enabling conditions" that provide tax heavens and relaxations from labour and environment norms. This needs to be avoided to ensure that the rich and corporations pay their taxes anywhere in the world and that resources are available to deal with the needs of the rest of the population. Similarly, the companies, even while they are on the job of making money for their investors, should ensure that all their stakeholders benefit from their operations in a far more equitable manner than at present.

Thirdly, ways must be found to end the extreme concentration of wealth and extreme poverty. This is done by a concerted effort to look into the tax rates and the extent of taxes that the rich pay when compared with all others in the country. In terms of paying taxes, the share of taxes paid by those who owned the maximum wealth is much less in proportion compared to what others pay. The regressive tax measures which impact the poorer sections much more need to be replaced with taxes that target the richer groups of people. Fourthly, gender equality and the parity of treatment in determining women's space in work, wages and in society must be brought in. This has to be a positive, affirmative action that will value women for what they contribute and their potential to improve the quality of livelihoods. In terms of measuring and valuing progress, equal emphasis should be given to developmental and the social aspects of growth and not just economic growth alone. These measures according to Oxfam will help countries to build a more human economy that works for the remaining 99%, which today is deprived of a due share in wealth and incomes.

The *India Exclusion Report*[2] makes us focus on the different exclusions that take place in the Indian economy. In the midst of the celebrated growth that the country has achieved, it is also true that India has slipped down in the global hunger index from 83 in 2000 to 97 in 2016. This is the result of not having enough food but a high proportion of India's people continuing to be undernourished and far too many children under the age of 5 being malnourished. The child mortality rates also are too high. While India has managed to reduce the level of hunger, there are other much smaller countries with severely limited resources than India such as Rwanda, Cambodia and Myanmar that have managed to make better progress than India since 2000.

[2] *India Exclusion Report 2016*, ed. by Harish Mander.

The other major area of exclusion is in employment. The job growth has been not keeping pace with the economic growth. Right from the year 2000, employment in the organised sector had started falling, while at the same time employment in the unorganised sector started to increase. Estimates are that about 475 million people are employed with very little job security and with almost no legally enforceable rights. Their working conditions are highly uncertain in the informal sector. These persons could stand to lose their jobs anytime with no protections whatever either from the employer or from the government. In the post-demonetisation scenario, reports of job losses were plenty. CMIE estimated that about 1.5 million jobs had been lost in the first quarter of 2017 as a consequence of demonetisation. These losses could have taken place, to a large extent, due to the absence of protections and the nature of employment in the informal sector. A corollary to this is also a very low labour productivity which creates problem for the employers. Formalising a highly productive employee is easier for the employer to accept. So the two issues of raising labour productivity and securing employment from voluntary and involuntary exclusions should be addressed together.

The agriculture sector has traditionally disguised unemployment. Several people who were living on the margins of agriculture and allied activities with casual employment for uncertain periods during the year are today aspiring to move to the nearest towns and cities in search of jobs. These are jobs which are unskilled, mostly construction works, as security guards and the like. A survey[3] carried out in 18 states of farmer households revealed that more than 60% farmers would move to a city if they get a job (Figure 9.2). As regards children, 60% farmers did not want their children to do farming. Of the farmer children also, 60% wanted to migrate to cities.

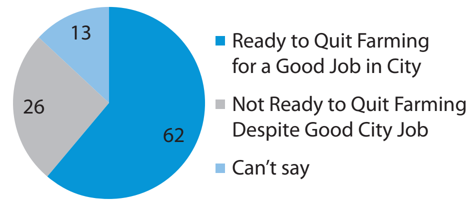


Figure 9.2: Farmer Readiness to Move to City Jobs (% of Farmers)

Source: Centre for the Study of Developing Societies, *State of Indian Farmers: A Report* (New Delhi: Centre for the Study of Developing Societies, 2014).

But the number of people that want to move out of agriculture and number of such jobs that are available in the urban areas do not seem to match. Though there are a range of skilled, semi-skilled jobs for which people are reportedly required (according to the survey carried out by NSDC last year), there are no clear indications from any specific employers or employer groups that in fact such jobs are available. Even if these jobs were to be available, the level of incomes at which they are offered are inadequate to bring people above poverty or strengthen their household's livelihood. While the relocation of people employed in agriculture is inevitable, it should be planned and the availability of "gainful" alternate employment should be ensured.

Digitalisation in different walks of life to improve efficiency, accuracy and targeting is being encouraged. While the positive impacts are well known, reliance on ITC measures tends to exclude, poor, rural and marginalised people. Low digital literacy, expensive means of access, difficulty of acquiring documents that help link up digital platforms and unreliability of digital services in remote areas and rural contexts tend to exclude people from public goods and welfare benefits. While modernising and transforming India, the marginalised and vulnerable sections of people should also be taken along. That can happen from affirmative action for inclusion, not from statutory actions that exclude.

Are there changes that look promising in recent times that will deal with inequality and exclusion? Certainly there are.

[3] Centre for the Study of Developing Societies, *State of Indian Farmers: A Report 2014*.

The implementation of Forest Rights Act restores the balance of power vis-à-vis tribal communities, includes them in the national mainstream and provides equitable access to their land. This is a path-breaking effort which undoes many years of wrongful alienation of lands from tribals. The new crop insurance scheme has dropped several conditions of the past that excluded many farmers. The changes made to PMAY has made it much more inclusive and more broad-based. The National Food Security Act providing a social safety net to 75% of rural population is a strong inclusion effort. No doubt the NREGS is a major milestone in building a social safety net based on public employment, but the implementation should improve to make it deliver the promises made in the Act. More thinking on changes in more programmes and new schemes are on the anvil. Streamlining of the tax policy and laws is a critical requirement from an equity and distributive justice point of view. The introduction of a comprehensive tax might be a sensible measure from a logistics and trade point of view. But in a broad sweep, several vulnerable people who had been outside the tax net have been brought into a highly regressive tax regime.

Government is unwilling to increase personal taxes on the income of the affluent or their wealth. Distributive justice requires that those who use the country's resources and markets to generate high personal or corporate incomes should also contribute more to the public exchequer. But the direct taxes to GDP ratio is low (Figure 9.3) and does not seem set to increase in the near future. The unwillingness to raise more taxes from a small number of affluent people leaves no other alternative but raising tax revenue from a large number of poor people.

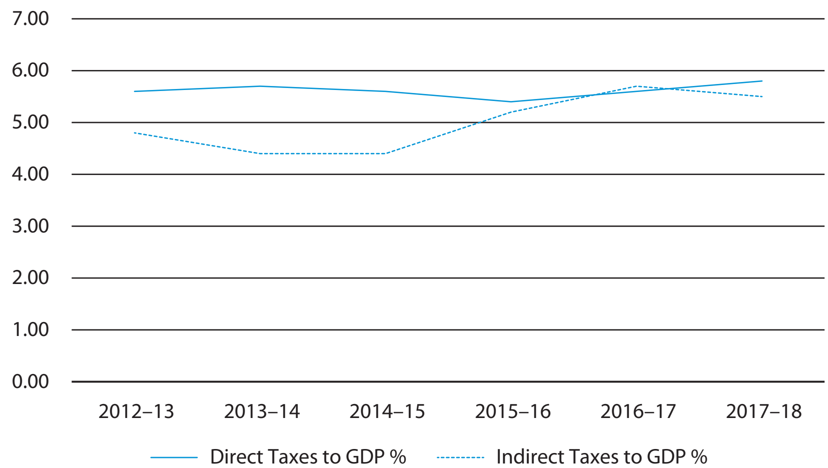


Figure 9.3: Increasing Indirect Tax to GDP Ratio

Source: Compiled by the authors from union budget documents of different years.

GDP growth alone cannot testify that the quality of lives has improved. Access to services, basic amenities, income opportunities and actual incomes for a large number of the vulnerable poor will establish that livelihoods are becoming better and more sustainable. When people are able to enjoy their freedoms and are able to make choices, they can increase their happiness. Let us move towards an inclusive and equal society that can enjoy the fruits of growth at the country level and the fruits of one's own labour at the individual level.

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