



FARM LOAN WAIVERS IN INDIA

Assessing Impact and Looking Ahead

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2021



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Cover page designed by Sirjan Pratap Saini

ISBN – 978-93-5578-502-2

Published by:

Dr. K J S Satyasai, Chief General Manager,

for and on behalf of Department of Economic Analysis and Research

National Bank for Agriculture and Rural Development

C-24, G-Block, Bandra Kurla Complex

Bandra (E), Mumbai-400051 www.nabard.org

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This study has been supported by the National Bank for Agriculture and Rural Development (NABARD) under its Research and Development (R&D) Fund. The contents of this publication can be used for research and academic purposes only with due permission and acknowledgement. They should not be used for commercial purposes. NABARD does not hold any responsibility for the facts and figures contained in the report. The views are of the authors alone and should not be purported to be those of NABARD.

Foreword



Agricultural distress has always been a cause of concern for the policymakers. Indebtedness has been identified as one of the main reasons for this distress and farm loan waiver has been a popular measure adopted for alleviating the distress. Since 2012, more than 13 state governments have implemented waiver schemes in their respective states. This is a relevant topic and demands work on assessing the associated costs and perceived benefits on different stakeholders.

The report concludes that by treating the debt overhang with a farm loan waiver while leaving distress due to income instability and unpredictability in production unaddressed, governments appear to be treating only a symptom, i.e., indebtedness, of a much more complex problem. The condition of the farmers does not improve as a result of farm loan waivers and takes only a few years for farmers to become indebted again before they need another round of waiver soon. I hope that further research should be directed to account for gaps in quantitatively measuring farmer distress and building evidence-based solution to tackle the multi-faceted problem of farmer distress in the country.

I hope that the finding of this study along with the recommendations suggested by the authors would help state governments, banks, researchers, and other stakeholders.

Dr. G.R. Chintala
Chairman
NABARD, Mumbai

Foreword

Bharat Krishak Samaj (BKS) is a producers' organization that is an advocate for healthy, regenerative, inclusive and equitable food systems that benefit producers, consumers, our country and the planet. BKS studies the problems of food systems, as it works to protect, advance and promote interests of agricultural producers in India by assisting in formulating and promoting national and international agricultural policies.

This project was awarded to the organization by NABARD due to BKS's deep rooted connections with farmers. Also, considering farmer centric schemes such as a farm loan waiver, it was felt that an independent-research by a farmer centric organization would add value to the ongoing discussion on improving their efficacy.

In this regard, under the circumstances of the challenges posed by the pandemic, Shweta Saini and her team have done a great job in researching the topic. They have conducted detailed surveys of 3000 farmers in the three states of Punjab, Maharashtra and Uttar Pradesh.

With regards to the findings of the report, it was found that loan waivers received by farmers cannot be a panacea for the level of farm distress prevailing in the country. There is now evidence to corroborate that farm loan waivers schemes are at best a temporary relief in the much larger, multi-faceted and structural problem of persistent agrarian distress in the country. It is evident the governments could improve farm loan waiver inclusivity by holding Gram Sabha meetings to identify those in distress. Even though agriculture is a state subject, much of the distress can be attributed to factors beyond the state boundaries.

If not for the Covid-19 pandemic-induced resource crunch, I am sure the states would have done more. Nevertheless, considering the timeline and scale of the crisis, the problem can only be solved by including producer organizations in designing a targeted response and central government committing substantially more resources.

I am sure the report will be of use to not only academics, policymakers, journalists and students but equally useful to producer organizations and civil society to make more structured demands of the establishment that lead to positive outcomes.

Ajay Vir Jakhar
Chairman Bharat Krishak Samaj (BKS), New Delhi

About NABARD Research Study Series

The NABARD Research Study Series has been started to enable wider dissemination of research conducted/sponsored by NABARD on the thrust areas of Agriculture and Rural Development among researchers and stakeholders. '*Farm Loan Waivers in India – Assessing Impact and the Road Ahead*' a collaborative effort between NABARD and the Bharat Krishak Samaj, New Delhi is the twenty second in the series. The list of studies in the series is given at the end of this report.

Agricultural Indebtedness, a persistent problem, requires an in-depth analysis so as to address the issues in all dimensions. It has been at the heart of most farmers' movements that India has witnessed.

The present study focusses on the evolution of Farm Loan Waiver (FLW) schemes in India since 14th century till date, their political, social and economic motivations and check the impact that such schemes have had on the two most important stakeholders in the agricultural credit chain i.e., farmers and financial institutions. The study addresses some major questions like whether state funding FLW worsened the quality of expenditure in the states, whether FLW triggers inflation, how farmers perceive FLW and behavioural changes in the banks in their day-to-day operations post implementation of FLW scheme with special focus on 03 states: Punjab, UP and Maharashtra.

The study reveals that agricultural indebtedness can be cited as one of the main reasons for the agrarian distress as the latter is much more than indebtedness. There is a need felt that FLW scheme should target/ cover majority of farmers. A proper system should be in place where loans of those farmers will be waived off who are in distress as in some of the cases benefits of FLW scheme reach farmers not in much distress. This can be achieved if proper institutional system is in place covering maximum farmers under FLW and various insurance schemes.

Hope this and other reports we are sharing would make a good reading and help generate debate on issues of policy relevance. We look forward to your feedback.

Dr. K J S SatyaSai
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September 2021

From the Authors

Farm loan waivers (FLW) seem to have evolved a political connection over time. During the election campaigns, political parties compete to be the first to promise a waiver on agricultural loans. In addition to their political mileage, these waivers are positioned as a *ram-baan* solution to any distress faced by Indian farmers. But despite several successive governments implementing these loan waivers, the distress of farmer continues, in fact it appears to have become more acute in recent years. So, does that mean FLW was not an efficient way to alleviate farmer distress? Or was it only a short-term solution? How important is indebtedness in a farmer's distress equation? We provide data-based answers to many of these questions in this report.

During the research on this project, Covid-19 pandemic proved to be a major difficulty. In particular, the work on the primary survey was exceptionally challenging. The safety of the survey teams and of those being surveyed was of utmost priority. Logistical arrangements required regular maneuvering and several administrative clearances. Simultaneously, the research team had to ensure the credibility and robustness of the collected data. The study also required regular rounds of interactions with stakeholders like bankers, government officials, traders, and farmer groups and logistical restrictions due to Covid-19 made it most challenging to execute. Nevertheless, with the use of proper quality controls and hyper-monitoring, the team has worked hard and feels confident in presenting the results from the collected primary data.

The report can be a valuable source of data-backed evidence on farm loan waiver programs which can be beneficial for different stakeholders ranging from policymakers in the states and the centre, to the academia and researchers. The report can help researchers with relevant and up-to date literature on the topic. Ideally, the policymakers and governments may like to refer to the study before designing and implementing distress alleviating policy relief measures for farmers. With this spirit, we hope the study will add positively to discussions on data centric policy interventions for improving the lives of our farmers.

Happy Reading.

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Acknowledgements

We would like to thank Bharat Krishak Samaj (BKS) for hosting the research team and for providing administrative support and intellectual independence throughout the Project. Special mention here is of *Late* Mr. Devender Sharma who left us due to Covid-19. He held the Project together and we miss him dearly at this stage of completion of the Project. We also thank Mr. U.S. Bhatia for helping the team with managing the accounts. A big thanks to Mr. Omveer for endless rounds of tea and coffee.

This Project would not have been possible if it were not for the approval and guidance of Dr. Harsh Kumar Bhanwala, the *former* Chairman of NABARD. His perspectives on the topic of farm loan waivers were immensely useful. The current NABARD Chairman, Dr. G.R Chintala has been the Project mentor and we thank him profusely for guiding the work. We would also like to thank Dr. Gyanendra Mani, Chief General Manager, NABARD for guiding us on the research work in its initial stages. The authors also acknowledge the support and independence of research offered to them by Dr. K.J.S Satyasai, Chief General Manager DEAR, NABARD. In addition, we would thank the officers of NABARD, especially Ms. Pankaja Borah and Ms. Shivangi Shubham, for their support.

We would like to profusely thank the reviewers of the study: Mr. D. K Jain, Former Chief Secretary, Maharashtra and currently Member of Lokpal, Mr. Alok Ranjan, Former Chief Secretary, UP, Dr. H.K Khan, former Deputy Governor, RBI, Dr. Lars Brink, Independent advisor and formerly with Agriculture and Agri-Food Canada and the OECD, and Dr. Balwinder Singh Sidhu, Agriculture Commissioner, Punjab. Their comments were immensely useful and the authors thank them for their guidance and time on the work. A special gratitude is due for Mr. T. Nandakumar, Former Secretary, Government of India, who not just guided the report through its several stages but also reviewed the report. His criticism was constructive and guidance was valuable.

We would also like to thank Mr. Amit Mohan Prasad, former Principal Secretary Agriculture, UP. A special acknowledgement is for Mr. Sanjiv Kumar Mittal, Principal Secretary Finance, UP. We also thank Ms. Abha Shukla, Principal Secretary CMT, Maharashtra and Mr. Anil Kavade, Co-operation Commissioner and Registrar Institution, Maharashtra for their help and guidance. Mr.

Avijit Saha, Business Head, Rural and Inclusive Banking, ICICI and Ms. Pratibha Saini, Senior Manager, Credit, Punjab National Bank have been very patient throughout our regular interactions and the authors are very thankful to them for their cooperation and guidance. The authors would like to thank Mr. Gaurav Rawtani, a practicing lawyer for his timely guidance on interpreting the legal aspects of FLW schemes.

For the primary survey, we would like to thank Mr. Sanjay Nagi, Managing Director, Market Insight Consultants (MIC) and Mr. Sunil Raina, Project Head, MIC for executing the survey and for being patient throughout the daunting challenges which came too often due to the Covid -19 related restrictions. Your perseverance and patience were commendable. We also thank all other personnel of MIC involved in the collection and compilation of field data in the sample states. A special thanks to Mr. Jagjit Singh who not only successfully conducted the farmer survey in the Punjab state but also ensured qualitative inputs from the families of suiciding farmers. Mr. Naveen Bhandari (Maharashtra) and Mr. H.M Siddiqui (Uttar Pradesh) rescued the survey that was suffering due to the extremely challenging times of Covid-19. We thank them for their tireless efforts in ensuring the completion of survey in compliance with the requisite quality parameters and timeframes.

The authors would also like to thank Mr. Harpal Singh Shergill for helping the project with timely inputs from the ground and for organising the pilot survey in Punjab (Ropar). In addition, we thank Mr. Manik Rasve and Mr Sam Singh and Mr. Atul Singh from ‘Pardada Pardadi Educational Society’ for their valuable cooperation in facilitating our researchers in undertaking the pilot surveys in Maharashtra (Parbani) and Uttar Pradesh (Bulandshahr) respectively.

This Project benefitted from research support by Mr. Rajender Singh, Ms. Harnoor Kaur, Ms. Kritika Yadav and Mr. Ankit Saha. Their contribution has been valuable in this work.

The authors are indebted to all the farmers who spent their precious time and provided useful information to the study teams which helped us to come out with the work. We also thank the banking officials of the several public sector and private banks, RRBs and co-operatives who have guided us through multiple telephone calls and have responded to our queries. Their contribution has been very valuable for us.

Authors

Abbreviations

A&A	Agriculture and Allied Activities
ACP	Annual Credit Plan
ADWRS	Agricultural Debt Waiver and Debt Relief Scheme, 2008
AHH	Agricultural Households
ALA	Agriculturist Loans Act
ANBC	Adjusted Net Bank Credit
AOAA	Agriculture and Other Allied
APP	Advance Payments Program
APY	Atal Pension Yojana
ARC	Agricultural Risk Coverage
ARDRS	Agricultural and Rural Debt Relief Scheme, 1990
BPS	Basis points
CAGR	Compound annual growth rate
CALA	Canadian Agricultural Loans Act
CAPEX	Capital Expenditure
CCE	Crop Cutting Experiment
CEOBE	Credit Equivalent amount of off-balance sheet exposures
CMT	Co-operation, Marketing and Textiles
CO	Capital Outlay
CPI	Consumer Price Index
CSMSSY	Chhatrapati Shivaji Maharaj Shetkari Sanman Yojana
DBT	Direct Benefit Transfer
DE	Development Expenditure
FI	Financial Institutions
FIMCLA	Farm Improvement and Marketing Co-operatives Loan Act
FLW	Farm Loan Waiver
FLWB	Farm Loan Waiver Beneficiary
FPO	Farmer Producer Organization
FWB	Full Waiver Beneficiary
FY	Financial Year (April to March)
GDP	Gross Domestic Product
GOI	Government of India
GLC	Ground Level Credit
GR/GO	Government Resolution/Government Order
GSDP	Gross State Domestic Product
GVA	Gross Value added
GVA A&A	Gross Value added for Agriculture and Allied Sectors
HH	Household
HR	Haryana
IOI	Incidence of Indebtedness
IS	Institutional Sources
ISS	Interest Subvention Scheme
JLG	Joint Liability Group

KCC	Kisan Credit Card
KCC AH&F	Kisan Credit Card for animal husbandry and fisheries
LAB	Local Area Banks
LHS	Left hand side
LILA	Land Improvement Loans Act
MAPA	Ministry of Agriculture, Livestock, and Procurement
MGNREGA	Mahatma Gandhi Employment Guarantee Act 2005
MH	Maharashtra
MSME	Micro, small and medium enterprise
NABARD	National Bank for Agriculture and Rural Development
NAFIS	NABARD All India Rural Financial Inclusion Survey 2016-17
NCRB	National Crime Record Bureau
NIS	Non-Institutional Sources
NPA	Non-Performing Asset
OD	Overdraft
OSL	State's Outstanding liabilities
OTS	One Time Settlement
PACS	Primary Agricultural Co-operative Societies
PAIS	Personal Accidental Insurance Scheme
PCARDB	Primary Co-operative Agriculture and Rural Development Banks
PCR	Provision Coverage Ratio
PB	Punjab
PRI	Prompt Repayment Incentive
PSB	Public Sector Bank
PSL	Priority Sector Lending
PWB	Partial Waiver Beneficiary
RHS	Right hand side
RIC	Regional Investment Corporation
RIDF	Rural Infrastructure Development Fund
RRB	Regional Rural Bank
SAA	Service Area Approach
SARFESI	Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest
SCARDB	State Co-operative Agriculture and Rural Development Banks
SCB	Scheduled Commercial Banks
SDL	State Development Loans
SHG	Self Help Group
SLBC	State-level banking committees
SMF	Small and Marginal farmers
SOF	Scale of Finance
YMD	Year of Maximum Disbursal (FLW)

Executive Summary

Agriculture indebtedness has been identified as one of the main reasons for the agrarian distress in India. To alleviate the hardships of indebted farmers, the most commonly used political tool has been farm loan waivers (FLW). Since 2012-13, 13 states and union territories (UTs) have implemented FLW schemes; some states have done so more than once and more states are likely to follow suit as they go for assembly elections in 2022 onwards. It therefore becomes necessary to analyse the impact of a FLW scheme on different stakeholders.

The current study focuses on the impact of FLW on farmers, bankers, banking and credit discipline, and state finances. These schemes have been studied and evaluated using primary survey data and secondary data analysis. Three states - Punjab, UP and Maharashtra have been chosen for the primary survey.

Tracing back from the ancient and medieval times to the present-day Lead Bank Scheme and the Priority Sector Lending (PSL), the report presents an exhaustive account of the agricultural loaning practices followed in India for supporting farmers and promoting agriculture. The report makes a historical analysis of farmer's vulnerabilities to uncertainties and traces evolution of the use of FLW as a tool for distress alleviation.

Some inferences from the analysis presented in the report include the following.

Indebtedness in Indian agriculture is inevitable. By writing off a farmer's past dues and providing him/her an access to fresh credit, governments make an effort to reduce farmer's distress. But the problem is with the cyclicity of debt. A farmer in India is plagued with multiple distortions that makes the business of farming volatile and unviable. The production cycle, coupled with other factors, makes it impossible for farmers not to be indebted, and the income instability makes it difficult for him/her to come out from a cycle of debt.

Indebtedness is more a symptom of farmer distress than its immediate cause. Inability to earn enough income makes a farmer indebted and the recurrent losses and falling margins makes him default on his loans. This default deepens his distress, sometimes driving him/her to take the extreme step of committing suicide. This may be referred to as his vicious cycle of poverty where *income losses - debt- distress- further debt - further distress* continues unabated for a farmer. A

farm loan waiver addresses this indebtedness, which appears to be a result or a symptom of a much more complex problem. Therefore, with unaddressed factors of distress (like successive crop failure(s), inability to get remunerative prices for their crops or a personal loss), the condition of an FLW-beneficiary farmer only improves for a short period of time and in a matter of time that beneficiary farmer is indebted again and driven to a point of needing another round of waiver soon. Therefore, in such a scenario, a farm loan waiver only proves to be a ‘jury-rigged expedient’ — i.e., a quick fix that needs to be applied at regular intervals.

Organically, the farm loan waiver schemes were supposed to be a reaction to situations of extreme plight like drought or flood. However, by increasing the frequency of waivers and by universalizing its distribution that is mostly unconnected to levels of farmer distress, the benevolent purpose the scheme was to achieve appears to have been diluted leading to worsening credit culture in the country. Besides, implementation of FLW schemes is expensive and is found to be associated with worsened quality of expenditure in the implementing state in that year.

To support a distressed farmer in a sustainable manner that empowers him/her in both the short and long run, therefore, requires a rethink. This report makes a case for a deeper analysis of the structural factors that consistently cause distress to farmers.

One of the suggestions made is to create a real-time dynamic distress index of farmers. This index can integrate the available high-frequency data on weather conditions, existing and upcoming climatic conditions, debt burden on farmers, data on agricultural commodity prices, etc., and monitor them on a real-time basis to track and predict the level of farmer distress. Technology breakthroughs like use of space technology, AI and blockchain in agriculture can be harnessed to bring dynamism and credibility to the system. Results from this index can be used by the policy makers to plan and design a timely and targeted method of supporting distressed farmers. Depending on the kind and severity of distress, the support can be given as a combination of unconditional grants, loan restructuring and/or a complete loan waiver. This type of data-backed real-time intervention will not only help alleviate distress of farmers, but will also provide governments with much needed policy bandwidth to effectively time and plan a targeted, and efficient policy support for the distressed farmer.

A farm loan waiver, on the other hand, may be reserved as a tool as it was originally designed to be a one-off event meant for situations of extreme plight. It was to provide temporary relief to the

distressed farmer until underlying conditions improved. Therefore, rather than relieving all the borrowers, irrespective of the distress levels, from their responsibility to repay the loans, the governments should instead nurture a healthy credit culture and invest in farmers and their farming so as to empower them via a robust ecosystem that helps him grow in a sustainable and a profitable manner. This will go a long way in making our farmer *aatmanirbhar*.

Chapter 1: Introduction to the Report

A farmer in India is plagued with multiple challenges that makes farming a highly risky business. To alleviate the hardships of the farmers, a popular political policy choice has been Farm Loan Waivers (FLW). Since 2012-13, 13 states and UTs have implemented farm-loan-waiver schemes; some states have done so more than once. More states are likely to follow suit as they go for assembly elections in 2022 onwards.

Farm loan waivers are expensive; some states fund their waivers by reducing allocations in their capital outlays while others increase their expenditures pushing up their fiscal deficit (data from RBI 2018). Growing number of political parties are finding it expedient to promise farm loan waivers particularly closer to election time. Not much thought is given to the fiscal, economic, and even the social impact of FLWs on the economy, particularly on the credit culture. Therefore, it becomes necessary that concrete evidence in this regard is collated, and analysed. This study attempts to do that.

About the Project

The primary objective of the Project was to analyse the motivation, design, implementation and impact of farm loan waiver (FLW) schemes in India. This has been done using primary and secondary data. The study focuses on the impact of FLW on farmers, on the economy, finances of the state governments, and banking and credit discipline. As stated before, the survey of farmers was conducted in three states- Punjab, Uttar Pradesh, and Maharashtra.

Research Questions

While FLWs stay the central theme, the strategy was to relook at the broader concept of farmer distress. Major questions answered in the work are given below.

1. How do state governments fund the farm loan waivers? Since FLWs are expensive schemes, then, how does a state manage this increased expenditure? Does the additional expenditure increase a state's fiscal deficit? Or are funds shuffled between various

departments within the state? Does an FLW deteriorate the quality of expenditure in the state?

2. Impact of FLW on rural inflation: Technically, an FLW itself does not increase the availability of funds in the hands of the beneficiaries but it does address the debt overhang that restricts his/her ability to raise fresh credit. Therefore, does FLW scheme trigger inflationary pressures in the state?
3. Does a FLW damage repayment culture in a society? Do banks lend less in areas/states which have implemented FLWs?
4. Who takes the final burden of funding an FLW? Is it only the government? Or do the banks also share any burden? Is there a burden that falls on the farmer?
5. What factors cause distress to farmers? Is indebtedness the most important factor causing the distress?
6. Does an FLW reduce farmer distress? Is FLW a permanent solution to farmer distress or is just an emergency response to a situation till more permanent solutions come about?

Answers to these and more questions can be found in this report.

Organization of the Report

The Report has 9 chapters that chronologically takes the reader through various themes around FLWs in India.

Chapter 2 presents an exhaustive account of the agricultural loaning practices followed in India for supporting farmers and promoting agriculture, tracing back from the ancient and medieval times to the present-day.

Chapter 3 presents the historical analysis of farmer's vulnerabilities to uncertainties and the use of FLW as a tool for distress alleviation. From ancient government's aversion to the use of loan waivers to current governments' affinity for FLWs, this chapter traces evolution of this policy tool.

Chapter 4 explains the research motivations behind choosing the three states (Punjab, UP and Maharashtra) for the primary survey. It also details performances of the three states on key agricultural metrics.

Chapter 5 uses secondary data analysis to detail the impact of FLW schemes on rural inflation, state budgets and the banking culture in the states of Punjab, Maharashtra and Uttar Pradesh. This includes a detailed analysis of state financial indicators like fiscal deficits, development expenditures, level of market borrowings, etc. A department wise expenditure analysis is used to identify if funds had to be shuffled between departments to finance FLW.

Chapter 6 introduces the primary survey, outlining its sampling design and the survey methodology. Chapter 7 presents the results from the primary survey. In this Chapter, the survey responses are analysed to draw inferences and identify trends and patterns in farmer behaviour and attitudes, particularly regarding their borrowing profiles and experience with the FLW schemes.

Chapter 8 summarizes results from the primary survey and secondary data analysis. This Chapter collates the overall findings to identify key themes and conclusions.

Chapter 9 suggests a new framework for understanding farmer distress and designing alternate methods for helping alleviate situation of distressed farmers.

The learning from this entire research will be useful for governments to understand factors that cause distress to farmers and will enable them to formulate policies targeted to alleviate distress of farmers. This should also help governments take informed decisions when formulating future farm loan waiver schemes.

The study also helps in creating, for the first time in India, a comprehensive document on farm loan waiver schemes. It will contribute to developing a deeper and more scientific understanding of the ground realities on the issue of impact of farm loan waivers on the agriculture sector, the banking sector and the overall economy.

Chapter 2: Agriculture Credit in India: from *takavi* to priority sector lending

Given the centrality of agriculture and farmers in the Indian economy, over centuries kings and administrators have undertaken various initiatives and innovations to ensure that farmer gets timely access to credit. An evolution of agricultural credit policies in India is outlined below.

Ancient, Medieval¹ and Mughal Period

In ancient times, farmers took loans mostly from private individuals and, in many societies, the idea of charging interest on such loans was considered immoral and unreligious (Sharma 1965). The *Baudhayana Dharmasutra* stated that if a *brahmana* (who belonged to the highest social cast in the Hindu system) charged interest on loans, he would be condemned as a *sudra* (one who belonged to the lowest social caste). In Islam too, *riba* (or usury) was forbidden by the Quran and was regarded as a sin (Gilbar 2012). Nonetheless, the practice of charging interest prevailed and *usury* gained ground. *Usury* refers to the practice of lending at unreasonably high rates of interest that is above legal/prescribed rate of the times. According to ancient and medieval Indian Sanskrit texts, the practice of usury was equated with the practices of an evil man.² The practice was considered even worse than the "murder of a *brahmana*" or "abortion" (Sharma 1965). A brief snapshot of the evolution of the concept of interest on loans is presented in Annexure 1.

The rationale behind not charging interest was to bring justice and equality (Quran calls this *iqamat al-adil* or establishment of justice) in the community (Sharma 1965, Gilbar 2012, Chapra 2000). Back then, charging of interest on loans was associated with the exploitation of the weak intensifying their distress while the affluent and powerful thrived on it. Interest, thus, was seen to worsen socio-economic inequality in societies (Gilbar 2012).

As the demand for loans increased over time, the practice of charging interest flourished throughout communities.

¹ The period between 1206 AD (the year of accession of Qutub-ud-din Aibak as Sultan of India) and 1761 (capture of Delhi by the Marathas) is ordinarily accepted as the medieval period of Indian history (Randhawa 1982)

² The idea is reproduced in the 9th century by Medhatithi (Manu VIII, 152)

In ancient India, it started with a particular sect of society, *Vaisyas*, who were allowed to live on loans and interest income (Sharma 1965). By medieval times, *Brahmanas* and *Kshatriyas* were also allowed to practice lending on interest. Even though the interest to be charged was fixed and declared legally (referred to as *dharmya vrddhi*), the practice of usury flourished despite being condemned on social and religious grounds (*Brhaspati's* concept) (Sharma 1965). With the charging of usurious rate of interest began the suffering of those who borrowed.

In ancient times, the normal rate of interest was 15 per cent per year³ (Habib 1964). By the 7th to 9th centuries, this rate had increased to 24 per cent. However, the rate of interest was variable. For example, the rate of interest increased with *varnas* or social classes, i.e., lower the *varna*, higher was the interest charged. These rates also increased with the riskiness of loan repayment. For example, for the trading classes borrowing rates were generally high but there were sub-categories within the trading class; an ordinary trader could borrow at 60 per cent, but traders who traversed forests were charged 120 per cent and traders trading by sea were charged rates as high as 240 per cent (Kautilya, Arthasastra III, 11 from Habib 1964).

In both ancient and medieval times, agricultural loans were mostly taken in the form of agricultural produce or land. The interest was paid back in the form of produce comprising grains, cotton, leather, weapons, coal, etc., or *kayika* (or bodily interest where the borrower had to pay back interest with physical labour). From the 5th century BC onwards, loans were also given in terms of money.

Back then, land was an important asset. It could become collateral or the loan itself. Sometimes, the debtor would pledge the land's produce in return for the principal; or sometimes, when the debtor received land on loan, he had to return about eight times the value of the produce (Sharma 1965).

Agriculture in ancient and medieval times suffered largely because of rains, royal oppression, pest attacks, etc., but *kusida* (cumulation of interest) kept growing at all times and under all circumstances (Randhawa, 1982). The borrowing farmer's exploitation was considered an effective

³ Vyas, whose code was compiled sometime between A.D. 600 and 900, laid down rules for charging interest. In case there was a pledge or a collateral, the monthly rate of interest would be lowest – 1/80th of the principal (15% per annum). Against a surety, the monthly rate increased to 1/60th of the principal (20% per annum). But when money was lent on personal security, the monthly rate of interest became 1/50th of the principal (24% per annum).

way of collecting debts and had the backing of kings (Sharma 1965). This exploitation continued with successive generations in the case of unpaid debts. Sometimes, to alleviate the situation or to support farmers in paying land revenue and other taxes to the administration, kings would announce loans disbursement programmes. As per our research, the first instance of the state's involvement in extending credit to agriculture was during the rule of Ala-ud-Din Khalji (1296-1316) in the first half of the 14th century when loans were advanced against the surplus produce of farmers.

During the reign of Muhammad Tughluq (1325-51), another instance of state involvement in agriculture was observed when loans were advanced to farmers to encourage cultivation. After this, instances of state involvement in extending credit to farmers grew. For example, the peasantry around Delhi was allowed advances to dig wells and to procure seeds in return for a part of the produce pledged to state granaries. A few years later, the emperor constituted a whole body of officials assigned to allow advances (termed *sondhar*) to the farmers of the *Delhi-Doab* region (Habib, 1964). This practice continued through the Mughal era (16th and 18th century) when the administration issued instructions to its revenue officials to allow advances termed as *taccavi* (meaning bestowing strength) to the peasantry. These advances were to be made from the treasury to help farmers buy seeds and cattle (Randhawa 1982 and Habib 1964).

Later, these *taccavi* (or *tagavi* or *takavi* or *taqavi*) loans became the government's credit support to farmers. Through district-level officials, these loans were given by the governments for two purposes – to undertake agricultural activities and/or for investments in land for agricultural purposes (Roy 1915). In addition to this, farmers also took loans to settle their debts, which mostly arose because of the need to pay land revenue and additional tax levies. Land revenue, which is a tax levied on either agricultural production or land, was a major source of revenue for states/empires in ancient, medieval and British India. It was paid by farmers as a percentage of total produce or as a fixed proportion of the value of the land. Finally, farmers also incurred debt occasionally to replace draught cattle, to observe the rites of marriage and bereavement, or to meet expenses incurred in settling disputes among themselves (Habib, 1964).

Agricultural Credit during the Colonial Period (1858-1947)

In colonial India, various classes of creditors provided agricultural credit. A local *bania*, 'ordinarily combining shop-keeping with moneylending', was observed in large villages and towns. In smaller villages, lending activities were undertaken by anyone who had saved enough; "it is generally the case that every man and woman, who saves a little money, invests a great part of it in such business" (BECR 1930). Lending was independent of caste hierarchies and ancestral occupations. Credit was advanced by *mahajans* (moneylenders), merchants, affluent *ryots* (farmer or tenant farmer), petty proprietors and *thekedars*.

In most cases, creditors who provided agricultural loans were 'non-agriculturists'. This caused the expropriation of a portion of agricultural income and depletion of the already scarce stock of agricultural capital (Chaudhuri 1969). Contemporary evidence states that the farmer's dependence on the moneylender was very much a part of rural life. The *raja* (landlord), the *ryot*, and the *mahajan* were parts of a machine, where the whole machine would come to a standstill without the participation of any of them (Temple Collection 1857).

The usual forms of credit during these times were of two types: periodic grain loans and mortgage (or collateral)-bearing money loans (Chaudhuri 1969). The grain loans had two forms – grain for seed and grain for food. There were other loans such as loans in kind and loans against the commitment of physical labour (referred to as *kavika* in medieval times). The need for these loans usually arose where farmers had no land of their own (agricultural labourers), or ploughs, or even if they had both, their income from their own land was insufficient to support them (Sharma 1965 and Chaudhuri 1969).

On indebtedness, Mr. John Boxwell, Commissioner of Patna, found that rural indebtedness was very natural in a province like Bengal, stating that "in a low state of civilization, people are unable to do their saving. Their *mahajans* do it for them and make them pay well for it" (Temple Collection 1857). The misery of indebted farmers at the hands of these private moneylenders continued unabated at least until the Deccan Riots of 1875 (Kumar 1965).

The Deccan Riots mark a critical juncture in the history of agricultural credit in the country. The Riots started in Western India's rural Maharashtra region in 1875 and laid the foundation for a

social transformation that paved way for significant reforms targeted at alleviating farmer distress in the country. These riots were triggered by the usurious practices of moneylenders. In a systematic manner, debt-ridden distressed farmers boycotted moneylenders and attacked them to obtain debt-bonds and similar documents, which according to farmers, were signed in ignorance, or acquired by fraud. These documents were then burnt publicly and the riots continued for a few months. Later, the Deccan Riot Commission was established to study the riots and propose a solution to ease the misery of farmers. The Commission found that the prime causes behind the riots were rural indebtedness and the usurious interest demand of moneylenders. The Commission proposed regulation of moneylenders and gradual institutionalisation of rural credit as solutions (Kumar, 1965). This laid the foundation for the Deccan (or Dekkhan) Agriculturists' Relief Act, 1879 (DAR Act). The Act abolished imprisonment for debt, which was a formidable weapon in the hands of the moneylenders. The Act also laid the foundation for alternatives to repay where a farmer could seek to repay in instalments, and was provided protection from being alienated from properties that were not used as collateral for the loan. Even though the DAR act was originally intended for the relief of farmers in four districts of Maharashtra state – Poona (now Pune), Satara, Sholapur and Ahmednagar – the act was later extended to other parts of the state through subsequent amendments (Saingne and Phadke 1906). This Act represented an important landmark in the country's credit legislative history (Sivaswamy 1939) as it protected the borrowing farmer from the grave abuses that characterised rural moneylending.

Subsequently, the Land Improvement Act, 1883, and the Agriculturist Loan Act, 1884, were passed (Detailed in Chapter two). These Acts allowed low interest agricultural '*takavi*' advances to farmers. The Hindu rule of *dam-dupat* (or the rule that the interest charged should not exceed the principal) was observed in many Indian provinces like Baroda, Bhaunagar, and Morvi (Roy 1915). To address persistent rural moneylending problems, the Co-operative Societies Act was passed in 1904. The MacLagan Committee, 1915, further encouraged India's co-operative movement by recommending the establishment and expansion of co-operative institutions to every province (Mohan 2004). However, despite these developments, studies commissioned by RBI in 1936 and 1937 found that usurious moneylending systems still dominated rural credit, and the contribution of the co-operative movement was negligible (Mohan 2004). This was because many co-operatives were found saddled with frozen assets due to massive over dues by farmers.

In summary, the concept of agricultural credit developed almost over seven centuries but still up until Indian independence in 1947, the farmer was primarily indebted to private moneylenders.

Agriculture Credit since Independence

After India's partition in 1947, political and economic administration in India suffered a setback. The country inherited 82 per cent of the population and 75 per cent of the area under cereals. The area (gross cropped area) under irrigation fell from 24 per cent to 19 per cent (Chopra 1981 and Saini and Kozicka 2014). In 1951, institutional sources of credit helped farmers meet only about 10 per cent of their total credit needs, and for the remaining 90 per cent, the farmers still depended on non-institutional sources (RBI 2013). The country suffered from food deficits, and the growth rate of the agricultural sector was low. For the sector to grow, farmers required, among other things, seamless access to affordable credit at all times (Mohan 2004).

As a result, the government set up numerous committees and expert groups to identify solutions to farmers' credit problems. Several national-level reforms (Annexure 2) were put in place to directly or indirectly increase agricultural credit supply to farmers. Some of these policies included:

1. Nationalisation of banks in 1969 (which made it easier for the central government to leverage the existing base of commercial banks and, via social control, directed lending to identified priority sectors)
2. Rural branch expansion scheme of 1970 (that helped improve farmer's physical access to financial institutions)
3. Priority sector lending or PSL 1972 (under the PSL, financial institutions are mandated to offer a certain minimum fixed percentage of their total net bank credit (NBC) to sectors identified as priority sectors)
4. Introduction of Regional Rural Banks (RRBs) in 1976 (as per Mohan 2004, RRBs represented a unique banking structure that (i) combined the local feel and understanding of the requirements of a rural area, (ii) had characteristics of co-operatives; and (iii) the professionalism and large resource base of commercial banks);

5. Establishment of the National Bank for Agriculture and Rural Development (NABARD) in 1982 (NABARD is today the apex body that provides financial assistance, undertakes development of institutions, plays a pivotal role in policy planning, provides refinancing to institutions, and encourages aggressive efforts in the area of rural credit)
6. Multiple agency approach to deliver institutional credit to farmers – over time, several types of institutions have been created to provide credit to Indian farmers
7. Policy innovations like the introduction of *kisan* credit cards (KCC) in 1998, setting of the target to double agriculture credit in 2004, and the interest subvention scheme of 2006 gave much-needed thrust to government's efforts in providing increased institutional credit access to farmers.

All these interventions were critical for the Indian agricultural sector. For the current study, however, we develop on PSL and KCC below.

1972: Introduction of Priority Sector Lending (PSL)

Post-independence, lending by commercial banks was directed mainly towards large industrial houses. Sectors like agriculture, small-scale industries, and other weaker sections were neglected in this period and could not access bank credit primarily due to two reasons: (i) the urban bias of lending institutions and (ii) the high degree of risk associated with sectors like agriculture. In 1969, only about 2 per cent of the bank credit went to the agricultural sector (Dasgupta 2002).

With the nationalisation of banks in 1969 came social control of banks that enabled leveraging the commercial banking system to lend to the agricultural sector (Mohan 2004). India's fourth 'Five-year Plan' (1969-74) emphasised "the growth of agriculture to enable other sectors to move forward" (NITI 2020). The plan aimed to achieve an agricultural growth rate of at least 5 per cent during the period and, therefore, involved intensive programmes to improve agricultural production in many parts of the country. This is where the priority sector lending concept was first introduced in 1969 (Mohan 2004 and Dasgupta 2002). The description of these priority sectors was finalised in 1972 (RBI).

Initially, there were no fixed targets vis-à-vis lending to priority sectors. But in 1974, banks were advised to lend at least 33 per cent of their total advances to priority sectors. Later, in 1980, this share was increased to 40 per cent, and banks were given time until 1985 to achieve these targets.

Currently, priority sector lending is required to be at least 40 per cent of the ANBC (adjusted net bank credit)⁴ or the credit equivalent amount of off-balance sheet exposures (CEOBE), whichever is higher (RBI 2020). The priority sector today includes eight categories: agriculture, micro, small and medium enterprises (MSME), export credit, education, housing, social infrastructure, renewable energy, and others. At least 18 per cent of the ANBC has to be invested in agriculture, and 10 per cent of agricultural lending has to be for small and marginal farmers (SMF) (RBI 2015). Unlike the general parlance where SMF includes farmers with owned landholding sizes less than 2 hectares, it is important to note that under these revised guidelines, the SMF includes a) marginal farmers (landholding of up to 1 hectare), small farmers (landholding of more than 1 hectare and up to 2 hectares), landless agricultural labourers, tenant farmers, oral lessees, and sharecroppers (RBI 2015).

Until 2015-16, credit to the agricultural sector was divided into two parts – direct and indirect. Credit given directly to farmers or groups of farmers for the short, medium, or long term was direct credit and credit to corporates, firms and institutions engaged in agriculture and allied activities constituted indirect credit. In practice, the target of 18 per cent lending to the agriculture sector (under PSL) is split into about 13 per cent for direct credit and less than or equal to 4.5 per cent for indirect credit (RBI 2015). After FY2016, this distinction of direct and indirect credit was removed (RBI 2019). Now agricultural credit is split between the heads mentioned in Figure 1.

Farm credit, including the portion of credit meant exclusively for SMF, includes (i) loans for crops, (ii) medium- and long-term loans for purchase of agricultural implements, machinery, etc. (iii) loans for pre-and post-harvest activities (spraying, harvesting, grading, and transporting own produce); (iv) loans to distressed farmers indebted to non-institutional sources of credit; (v) loans under the KCC scheme; (vi) loans to SMFs for purchase of land for agriculture; (vii) loans against hypothecated or pledged agricultural produce; and (viii) loans to farmers for harnessing solar

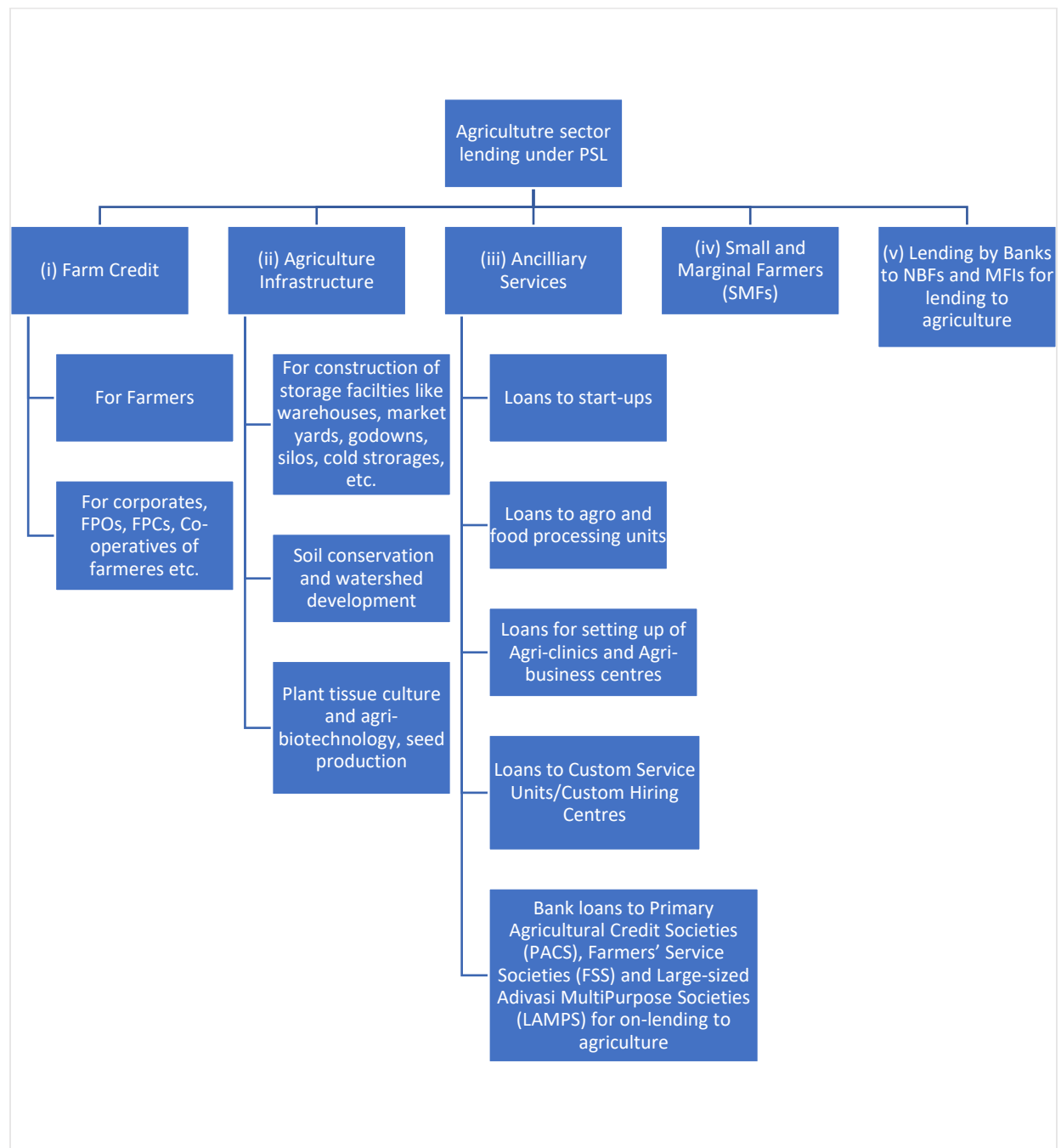
⁴ As per RBI (2020), Adjusted Net Bank Credit (ANBC) is the outstanding bank credit in India. In a very simplistic situation, ANBC is computed as total outstanding loans plus advances, minus bills rediscounted with RBI and other financial institutions plus investments in recap bonds floated by the Government of India, in non-statutory liquidity ratio (SLR) bonds under the held-to-maturity (HTM) category etc.

power. Loans to self-help groups (SHGs) or joint liability groups (JLGs) and loans to farmer producer organisations and co-operatives of farmers directly engaged in agriculture and allied activities are also included as farm-credit. The loans for agro- and food processing are part of PSL but counted under ancillary services.

As per revised guidelines (RBI 2019), a farmer today can get loans for the entire chain of activities throughout the production and marketing process. To address the problem of exclusion of vulnerable categories, PSL's focus on SMFs also includes loans to landless agricultural labourers, tenant farmers, oral lessees, and sharecroppers whose landholding size is within the limits of SMF (i.e., less than or equal to 2 hectares).

For delivering on PSL targets, policymakers designed distribution channels and innovated credit products and followed a multiple agency-approach to provide credit. Both the approach and the KCC or *kisan* credit card mechanism of credit delivery are discussed below.

Figure 1: Components of Lending to Agricultural Sector under PSL



Source: Created by authors based on information from RBI (2020, 2015)

Multiple Agency Approach for Administering Institutional Credit

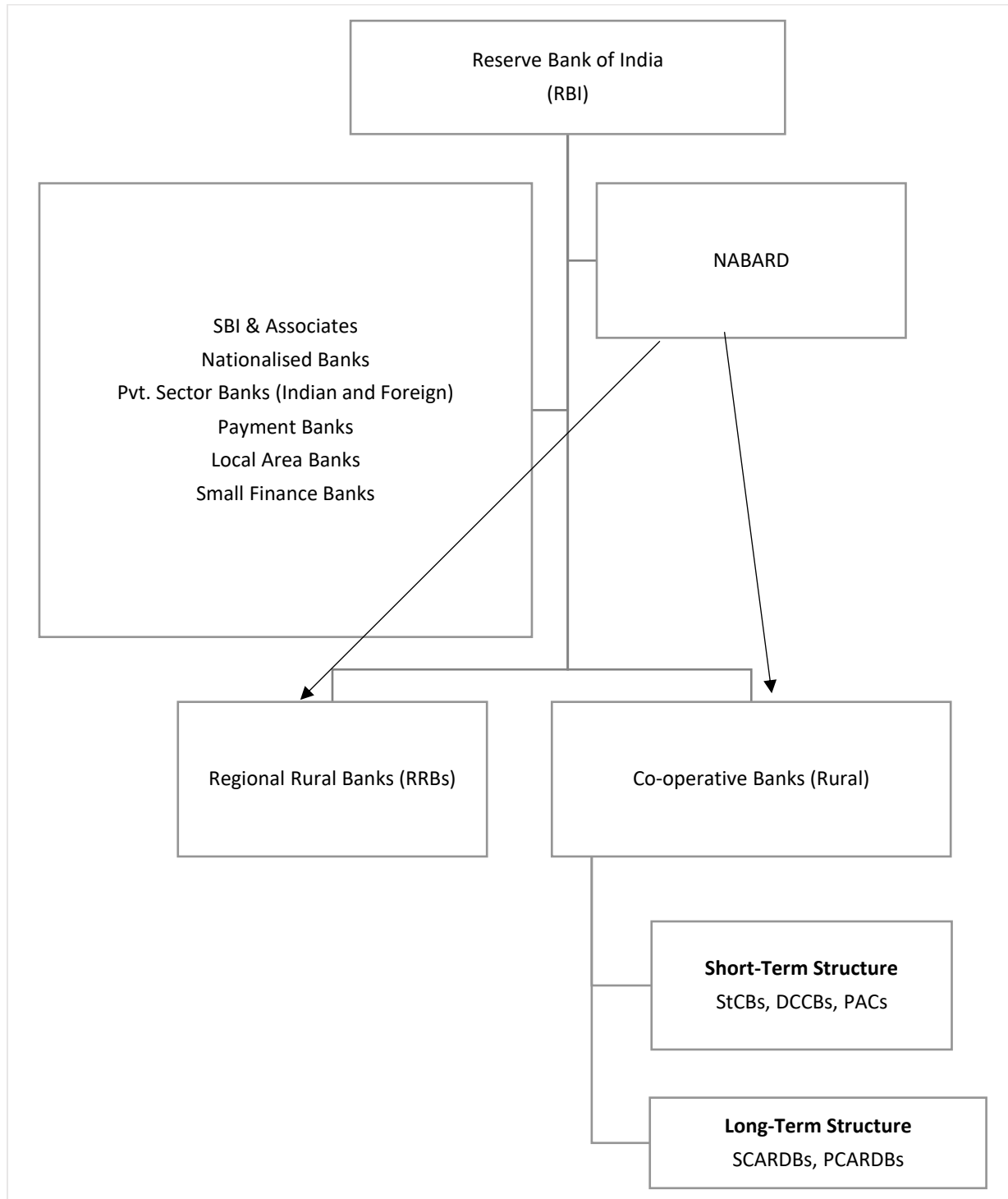
According to the Agriculture Census of India (GOI 2019), there are about 14.6 crores agricultural landholdings spread throughout the length and breadth of the country. To ensure financial inclusion of all farmers, policy makers followed a multi-agency approach of credit delivery to agriculture. This has allowed deeper penetration and has been reflected in an increased supply of credit. Over the years, the administrative structure of India's agricultural credit institutions has evolved and its state in year 2020 is graphically presented below in Figure 2.

As is evident from the diagram, the overall regulatory authority is the Reserve Bank of India (RBI). NABARD regulates RRBs and co-operatives providing agricultural credit (here only the rural credit structure has been considered).

The co-operative structure is designed to target two credit segments differently. Apex banks in both short-term credit (credit primarily for working capital) and long-term credit structures play a significant role in developing the co-operative credit structure. The short-term credit structure follows a three-tier system. State co-operative banks (StCBs) are apex banks at the state level, district central co-operative banks (DCCBs) lie at the intermediary district level, and finally, primary agricultural credit societies (PACS) lie at the bottom, serving a village or a cluster of villages.

In comparison, the long-term credit structure follows a two-tier system: state co-operative agriculture and rural development banks (SCARDBs) at the state-level and primary co-operative agriculture and rural development banks (PCARDBs) at the ground level. However, this structure is diluted in some states, and credit is disbursed directly through SCARDBs. In states without a long-term credit structure, a separate branch of state co-operative banks with rural financial institutions (commercial banks and RRBs) caters to long-term loan needs.

Figure 2: Institutional Framework of Agriculture Credit in Rural India



Source: Illustration made by authors using information from RBI

Note: StCB (State Co-operative Banks), DCCB (District Central Co-operative Bank), PACs (Primary Agricultural Credit Society), SCARDB (State Co-operative Agriculture and Rural Development Banks), PCARDBs (State-level and Primary Co-operative Agriculture and Rural Development Banks)

Earlier, co-operative banks were exempted from several provisions of the Banking Regulation Act, 1949 and were not under the RBI's direct supervision. With amendments to the Banking Regulation Act (GOI 2020) following the official notification dated September 29, 2020, co-operative banks also are now regulated by the RBI.

1998: Introduction of *Kisan* Credit Cards

The introduction of the *kisan* credit card (KCC) is a significant policy innovation that continues to successfully meet the credit needs of Indian farmers (Hoda and Terway 2015 and Gulati and Juneja 2019). NABARD prepared the model scheme in 1998-99. The scheme provides a flexible and simplified procedure for providing credit to farmers (RBI, 2019). Unlike other credit products, eligible beneficiaries of KCC are cultivators, joint liability groups (JLG), tenant farmers, sharecroppers, and oral lessees. KCC provides a revolving cash credit facility that allows for multiple withdrawals and repayments within the farmer's sanctioned credit limits (Satish, 2012).

Innovations under KCC is an ongoing process. To smoothen its use by farmers, the Government of India has been trying to replace the passbook system with ATM-cum- debit cards with facilities for withdrawal and loan extension (Gulati and Juneja, 2019). In the 2018-19 Union Budget, the KCC facility was extended from farmers engaged in cultivating crops to also include farmers engaged in animal husbandry and fisheries (RBI, 2019). The scheme, in its form in year 2020 (Annexure 3), aims at to meet both the short- and long-term credit requirements of farmers (Table 1). Short-term credit availed under the scheme needs to be repaid within 12 months from the date of issue, while long-term credit is payable within five years.

Table 1: Objectives of *Kisan* Credit Scheme

S. No	Objective
	To meet:
1.	Short-term credit requirements for cultivation of crops
2.	Post-harvest expenses
3.	Produce marketing loans
4.	Consumption requirements of farming households
5.	Working capital needs to maintain farm assets and activities allied to agriculture, like dairy animals, inland fishery, etc.
6.	Investment credit requirements for agriculture and allied activities like land development, minor irrigation, purchasing farm equipment

Source: RBI

Note: Points 1-5 are under the short-term credit limit portions and point six is under the long-term credit limit portion.

Features of KCC

1. A KCC card operates much like a **bank's overdraft (OD)** facility.
 - a. Under KCC, a bank sanctions a specific limit to a beneficiary and the balance in that account can turn negative up to the specified limit as in the case of an overdraft facility (OD). In both cases, the beneficiary withdraws and deposits money in this account throughout the year.
 - b. In the case of KCC, the interest is calculated based not on the issued/sanctioned-limit but on the actual amount availed by the farmer. This is the same as in the case of an overdraft facility.
 - c. In the case of an overdraft facility, a fixed asset is generally taken as collateral. In the case of KCC, the farmer's land (owned) is taken as collateral. In both cases, these securities undergo a due diligence process by the financial institution before the limit gets sanctioned. A farmer submits a *fard* or *jamabandi* or a record of land with his KCC loan application, and, upon sanction of the loan, the land gets attached with the sanctioned limit.
2. Estimating KCC Limit: Every loanee farmer gets a KCC limit. The issuing financial institution estimates this limit based on several parameters. The most critical element in

evaluating this limit is the **scale of finance** (SOF). A district-level technical committee (generally headed by the CEO of the District Central Co-operative Bank (DCCB)) shares the standard scale of finance each year with the financial institutions issuing KCCs. This SOF gives permissible levels of credit to be advanced for different crops in different districts of a state. The level of credit or the limit is defined on per hectare/per acre basis. A sample SOF is given in the Annexure 4.

According to the operational guidelines of the KCC scheme (RBI 2017), a farmer's KCC limit for a single crop is arrived at as follows:

$$\begin{aligned} \text{KCC limit for a single crop} = & \text{SOF for the crop} \quad (\times) \quad \text{Area under the crop} \\ & (+) \quad 10\% \quad \text{of} \quad \text{limit} \quad \text{towards} \quad \text{post-} \\ & \quad \text{harvest/household/consumption requirements} \\ & (+) \quad 20\% \quad \text{of limit towards repairs and maintenance expenses} \\ & \quad \text{of farm assets} \\ & (+) \quad \text{crop insurance}^5 \quad \text{and/or accident insurance, including} \\ & \quad \text{personal accidental insurance scheme (PAIS), health} \\ & \quad \text{insurance and asset insurance.} \end{aligned}$$

This limit is fixed for the next five years and it undergoes a 10 per cent increment each year. For actual estimation of the KCC limit, we present an example in Annexure 5.

In addition to the above, a farmer's KCC limit also varies with the following factors.

1. **Cropping intensity** – A farmer who cultivates more than one crop could get a higher KCC limit. Of course, the crops declared by the farmer are verified by the bank using the farmer's past land and cropping records, using the *girdavari*⁶ document of that area;

⁵ According to the RBI (2017), "Premium on insurance has to be borne by the farmer/bank according to the terms of the insurance scheme. It is required that farmer beneficiaries should be made aware of the insurance cover available and their consent (except in case of crop insurance, it being which is mandatory) is to be obtained, at the application stage itself."

⁶ *Khasra Girdawari* is an official document of record of a farmer. In this, the *patwari* of the village manually enters the name of land owner, the name of the cultivator (in case it that is differed from land owner), land/*khasra* number, the area, kind of land, cultivated and non-cultivated area, source of irrigation, name of crops sown and their condition, and the value of crops and the rate received. This is done at least twice a year.

2. **Higher valued crops** – KCC limit is also a function of the value (and cost of cultivation) of the crops produced. For example, in *kharif* 2020-21, the KCC limit in Ahmedabad (Gujarat) for banana was Rs.75,000 per hectare and for paddy it was Rs.60,000/ per hectare;
3. **Access to irrigation** – KCC limit grows with access to assured irrigation. Referring again to Gujarat, in Gandhinagar, SOF for irrigated cotton was Rs.88,000 per hectare and for unirrigated cotton, it was half that amount at Rs.44,000 per hectare.

A farmer may use the entire sanctioned limit or a part of it in a year, which determines the KCC used-limit, which is either lower than or equal to the issued- limit.

The interest charged on the KCC varies with the loan amount, landholding size, and the farmer's risk profile. The annual interest expense to be paid by the farmer is evaluated at the end of a financial year and is based on the used-limit of KCC. Table 2 below summarises the current levels of these interest rates.

Table 2: Rate of Interest Charged on KCC Loans

Limit	Effective Annual Interest Rate under KCC
<ul style="list-style-type: none"> • Up to Rs.3 lakhs for crop loans; and • Up to Rs.2 lakhs for KCCAH&F (Animal Husbandry and Fishery) 	7 per cent [^]
Rs.3 lakhs up to Rs.50 lakhs	One-year Marginal Cost of Fund Based Lending Rates (MCLR) + risk premium 7.85 per cent+ 3.25* per cent

Source: RBI.

Note: [^] base rate (rate above which banks cannot lend is set by Ministry of Finance, GOI) for 2019-20 was 9 per cent. The 7 per cent accounts for the benefit of 2 per cent under GOI's interest subvention scheme that reduces the effective interest rate. * This was the effective rate for SBI as on February 10, 2020⁷.

To make credit affordable for farmers, the Government of India provides an **interest subvention** of 2 per cent to lending institutions, namely public sector banks (PSBs) and the private sector commercial banks (in respect to loans given by their rural and semi-urban branches). This benefit

⁷ For the State Bank of India's agricultural loans interest rate structure, please refer <https://sbi.co.in/documents/26242/65574/1102201622-Agri+Segment++Interest+rates+10.02.2020.pdf/db4b25f4-f8f2-daff-f793-c6a66195a628?t=1581418462942>

is transferred to farmers, reducing their effective interest rate. The 7 per cent rate mentioned in the **Table 2** above accounts for this benefit.

In addition to this benefit, through the **prompt repayment incentive** (PRI) scheme the government incentivises farmers to repay their dues in time. Under PRI, farmers who repay their dues on time get an additional reduction of 3 per cent per annum on their interest rates. Therefore, a small or marginal farmer⁸ who takes a loan of up to Rs.3 lakhs under KCC will effectively pay an interest of 4 per cent if he repays his dues on time.

For small and marginal farmers, the KCC scheme has a special provision where loans up to Rs.1,60,000 are given to farmers without any collateral (RBI 2017). It does not mean that loans are offered to the landless. It just means that loans are given to landowners (or to those who can prove the right to operate/cultivate the land), but the land does not get attached to the issued KCC limit. Additionally, all KCC cardholders also get access to crop insurance.

In addition to the above incentives and subsidies, several states offer further subsidisation/waiver of interest on crop loans. Some state governments like Odisha and Maharashtra extend crop loans at zero per cent interest rate. Sometimes to curtail immediate farmer distress, states like Andhra Pradesh subsidise interest payments of farmers and make crop loan repayments by farmers interest-free.

In some states, financial institutions, mainly co-operative banks, through the primary agricultural co-operative societies (PACS) or by themselves, run a **dual-system** where they distribute the sanctioned-KCC limit to the farmers as a combination of cash and in-kind products. The farmer can use the cash as he would usually under KCC. The kind-part on the other hand is generally fixed and distributed to them in the form of physical inputs like fertilisers, seeds, pesticides, etc. Depending on which input dealer the PACS or the co-operative has tie-ups with, the inputs are distributed. In this regard, we present the example of a Tamil Nadu co-operative bank in Annexure 6. As per a Planning Commission study (2000), this dual system harms the borrowing farmers as it restricts their choices and encourages unethical activities like submission of false bills.

⁸ By mapping landholding size with average cropping pattern of say rice and wheat, we deduced that a loan less than or equal to Rs.3 lakhs will be taken by a small or marginal farmer.

But how successful have all the initiatives, programmes and schemes been? How have they impacted an average farmer? Is credit now reaching an average farmer? That is studied in the next section.

Evaluating Indian Agricultural Credit Trends, Components, and Challenges

This section presents the current situation of agricultural credit in the country. This analysis has been done in two steps.

First, an assessment has been made of the status of disbursement of agricultural credit in the country.

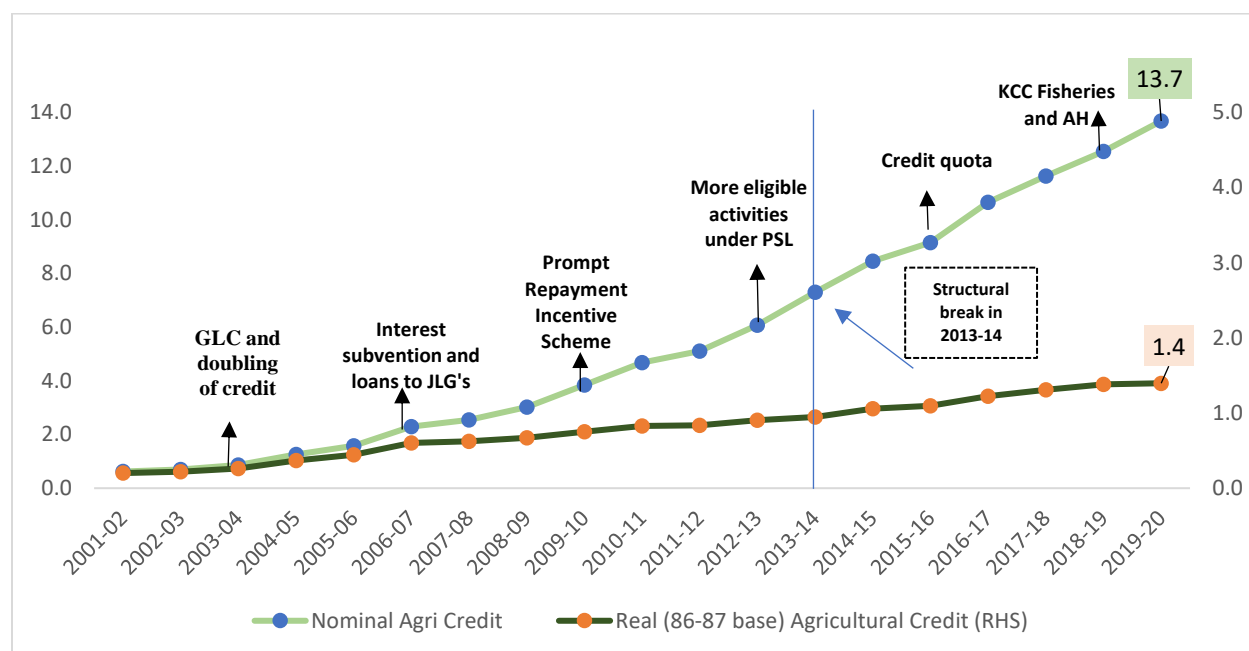
Second, farmers' interactions with the agricultural credit system have been analysed by examining the process they have to follow to get a loan, followed by an analysis of a farmer's dependence on non-institutional credit sources and an interesting dimension of the non-performing assets (NPAs) in agriculture is discussed towards the end.

1.1 Temporal Growth in Agricultural credit

In the year 2019-20, agricultural credit worth Rs. 13.7 lakh crores were disbursed in the country. In 2001-02, this value was Rs. 0.62 lakh crores, indicating a 22 times growth at a compound annual growth rate (CAGR) of about 19 per cent. In real terms (in 1986-87 base prices), CAGR was about 11 per cent. Figure 3 below summarises the trend in agricultural credit in India in nominal and real (1986-87 base)⁹ terms.

⁹ The nominal series has been deflated using CPI (Agricultural Labourer) with base year 1986-87.

Figure 3: Trends in the Disbursement of Agricultural Credit (Rs. lakh crores)



Source: NABARD and RBI for data and DES, GOI for identifying significant policy years marked in arrows against the year of their implementation/announcement.

Note: RHS is right hand side.

Policy innovations have been critical in raising the level of disbursement of agricultural credit in the country. A chronological list of policy interventions can be found in Annexure 2.

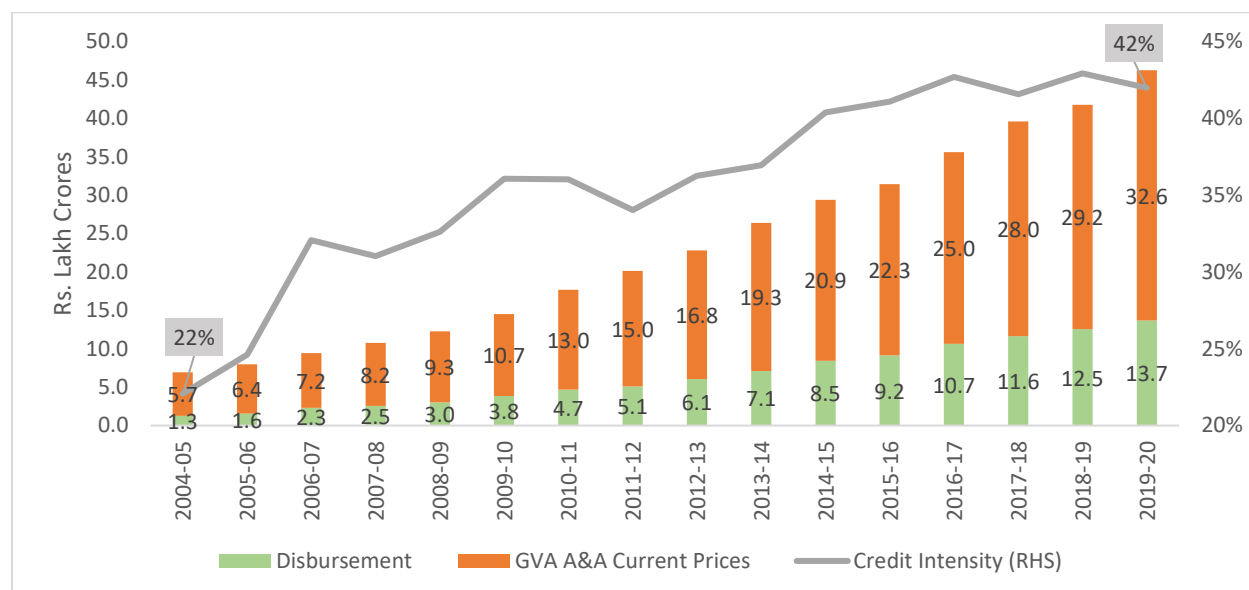
Using the Bai and Perron (2003) analysis for a structural break, we find that since 2001-02, there was a break in the trend of agricultural credit disbursement (in nominal terms) in 2013-14. From 2001 to 2013, credit disbursement grew at a CAGR of 21 per cent which fell to about 5 per cent thereafter.

1.2 Agricultural GDP and Credit Intensity

Agricultural credit intensity is the amount of credit used to produce Rs.1000 worth of gross value added in agriculture (estimated as the share of agricultural credit (disbursed) to gross value added in agriculture and allied activities (GVA A&A)). This share has been increasing over the years. In

2004-05, the credit intensity was 22 per cent and it increased to about 42 per cent in 2019-20 (Figure 4).

Figure 4: Agriculture Credit Intensity: GVAA&A, Credit Disbursement and Credit Intensity (%)



Source: NABARD Annual Reports for credit and Gross Value Added in Agriculture and Allied Activities at current prices is sourced from DBIE, RBI

This means that to produce one unit of GVA A&A, the country is utilizing more capital than it did 15 years back. Does it indicate falling productivity of credit in India's agricultural sector? Probably yes (Nair 2019) or probably not (RBI's Banerjee 2012). The RBI paper, interestingly, could not find a causal relation between agricultural credit and GDP. Instead, it identified factors like rainfall, access to irrigation, output prices and government expenditure to have a huge impact on the output of the agricultural sector. If higher credit disbursements have not pushed-up output, then should GOI's target for agricultural credit secularly rise each year in the country? Or is the impact of higher credit camouflaged under factors like increased access to irrigation that are facilitated due to access to credit? Or is it that the agricultural credit is being diverted for non-agricultural purposes and therefore inefficient in propelling output growth? Exploring this aspect further is beyond the purview of the current work, although this has been taken into account in the section on recommendations.

1.3 Agricultural Credit Disbursement and Outstanding

There are two measures, *inter alia*, of agricultural credit that are regularly monitored in the economy – agricultural credit outstanding and agricultural credit disbursed.

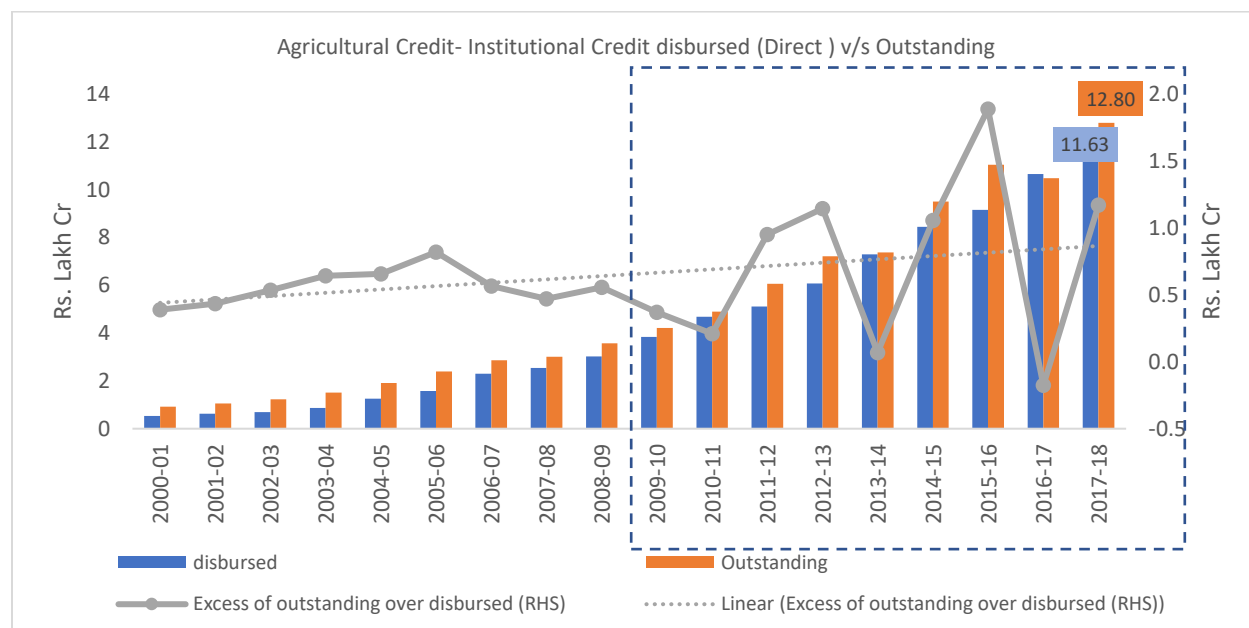
In a given year, the value of outstanding credit, which is a stock variable, will include (i) past outstanding amounts (principal + interest + other bank charges), (ii) loans disbursed during the year, (iii) interest charged on this loan, and (iv) additional charges *less* (v) amount repaid during the year. On the other hand, credit disbursed in a year is a flow variable that provides an estimate of the amount of credit disbursed during a particular year¹⁰.

If defaults on farm loans are carried forward from the past year(s), the value of outstanding credit is bound to be greater than the value of fresh credit disbursed in a year. For the purpose of accounting towards priority sector lending targets, a bank's total outstanding credit (to the priority sector) and not credit disbursed during the year is counted (RBI 2012). In other words, it means that if in a year a bank achieves its annual PSL target then one cannot say it for surety that fresh credit worth that year's PSL target has been disbursed. It just means that at that point in time bank's funds (which would include outstanding amounts cumulating over past years and fresh disbursement in the year) equal to the level of PSL target are invested into the sector. The work presented in this report focuses on disbursed credit rather than outstanding credit, unless specified. Trends in disbursed and outstanding agricultural credit are presented in Figure 5 below.

In 2017-18, fresh agricultural credit worth Rs. 11.63 lakh crores were disbursed in the country and as of March 31, 2018, outstanding agricultural-credit amounted to Rs. 12.8 lakh crores. In the 17 years since 2000-01, new credit issued each year increased at a CAGR of about 20 per cent, and the growth rate in outstanding loans was about 17 per cent.

¹⁰ For a cash credit account (or KCC-like schemes), disbursed credit is debit summation minus interest and other charges or sanctioned limit, whichever is lower, for the period under consideration (RBI 2013).

Figure 5: Trends in Outstanding and Disbursed Agriculture Credit



Source: NABARD and RBI

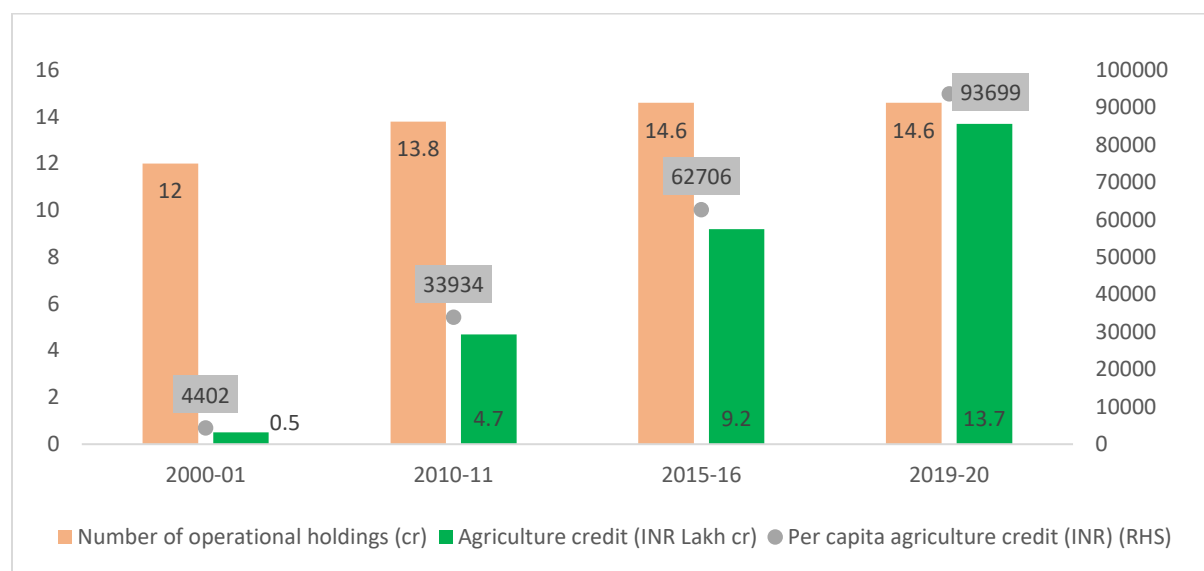
In the 17 years, on average, outstanding loans exceeded the disbursed loan amounts (represented by the grey line in Figure 5) by about Rs.65,300 crores in a year. The grey line shows high volatility around the year 2008-09, which incidentally is the year when the 2008-09 national farm loan waiver (FLW) scheme was implemented in the country (discussed in detail in the next chapter). This waiver paved way for several state-level FLW schemes which followed in ensuing years. An upward sloping trend line for this variable (excess of outstanding over disbursed credit) shows how defaults in credit seem to have grown over time.

1.4 Availability of Agricultural Credit per Operational Holding

Using the number of landholdings (from GOI's Agricultural Census 2001, 2010, and 2015) as a proxy for the number of farmers in the country, we find that on an average, a farmer got Rs. 93,699 worth of agricultural credit in 2019-20. In 2010-11, this was at one-third the value at Rs.33,934¹¹ and at about 1/20th the value, i.e., Rs.4,402 in 2000-01 (Figure 6).

¹¹ Estimated by dividing the value of agricultural credit disbursed in the year with the total number of landholdings in 2010-11 as per the Indian Agricultural Census 2010-11

Figure 6: Agricultural Credit Disbursed Per Operational Holding



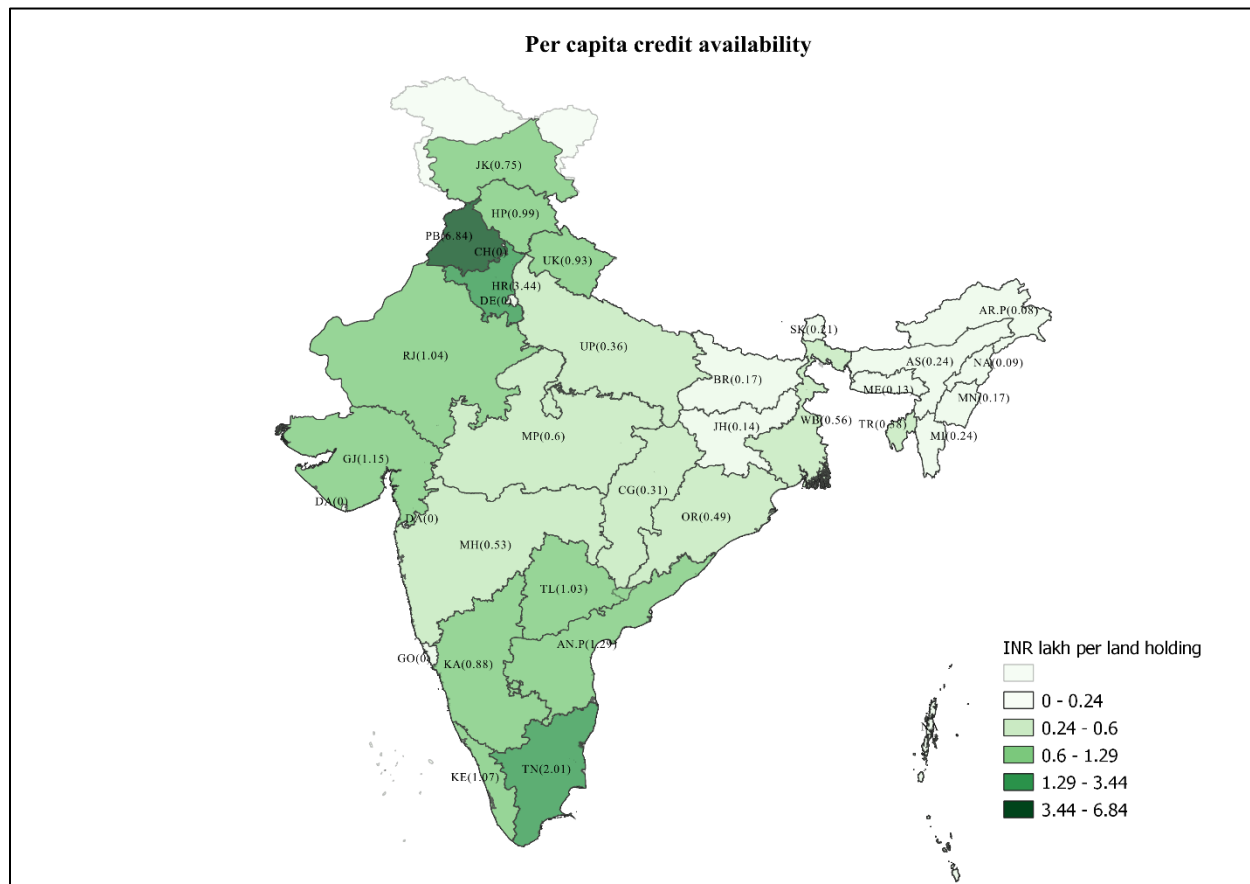
Source: NABARD Annual Reports and Agricultural Census, various years.

Note: As the latest Agricultural Census is available for 2015-16, the data on landholdings for 2019-20 is the same as 2015-16.

1.5 Distribution of Agricultural Credit among Indian States

Even though the amount of agricultural credit disbursement at the macro-level has been rising, there are considerable disparities in its distribution among states (Figure 7). For the triennium ending 2018-19, Punjab had the highest credit availability per operational landholding (Rs. 6.84 lakh/holding), followed by Haryana (Rs. 3.44 lakh/holding) and Tamil Nadu (Rs. 2.01 lakh/holding). The eastern Indian states seem to have suffered on this count. The bottom five states in terms of credit availability per landholding were from eastern India – Arunachal Pradesh (Rs.0.08 lakh), Nagaland (Rs.0.09 lakh), Meghalaya (Rs.0.13 lakh), Jharkhand (Rs.0.14 lakh) and Manipur (Rs.0.17 lakh).

Figure 7: State-wise Per Operational Land Holding Agriculture Credit Availability (Rs. Lakh)



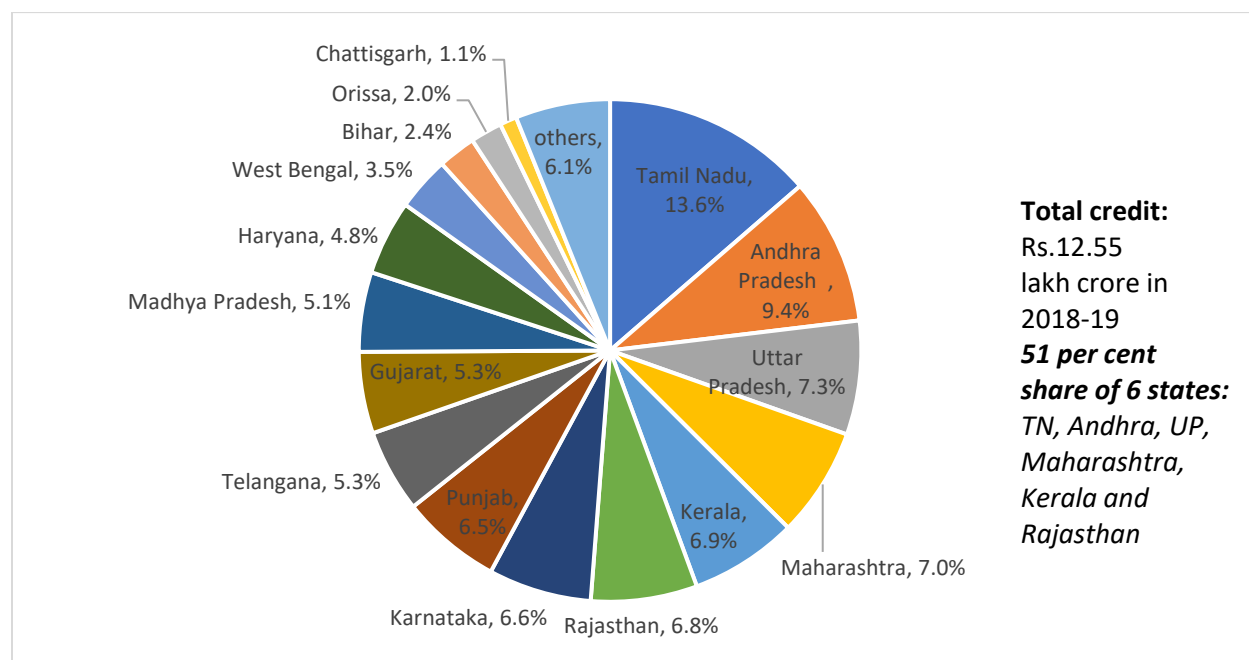
Source: NABARD and Agriculture Census (2015-16), Credit data is averaged for 2016-17, 2017-18, and 2018-19
Note: Data for UT's and Goa not available; hence, these are assumed to be 0. The number in parenthesis represents a state's agriculture credit availability per landholding (Rs. lakh).

On an average, 50 per cent of the agricultural credit disbursed in a year is accounted for by six states: Rajasthan (6.8 per cent), Kerala (6.9 per cent), Maharashtra (7 per cent), Uttar Pradesh (7.3 per cent), Andhra Pradesh (9.4 per cent) and Tamil Nadu (13.6 per cent) (Figure 8). Tamil Nadu has a disproportionately high share of India's agricultural credit¹². Simultaneously, it is evident that the north-eastern (NE) region and states like Jharkhand, Assam, and Himachal Pradesh received a lower share of nationally disbursed agricultural credit. Eighteen states, including those

¹² It was found by NABARD (2020), that value of agricultural credit shown by Tamil Nadu is excessively inflated and incorrect. The state wrongly adds agricultural loans given against gold as collateral as crop loans. These loans are outside KCC and, as per RBI (2017), should not be counted as part of PSL.

in the northeast,¹³ accounted for less than a 3.3 per cent share in total agricultural credit disbursed in the country.

Figure 8: State-wise Share of Total Disbursed Credit for Agriculture TE 2018-19



Source: NABARD

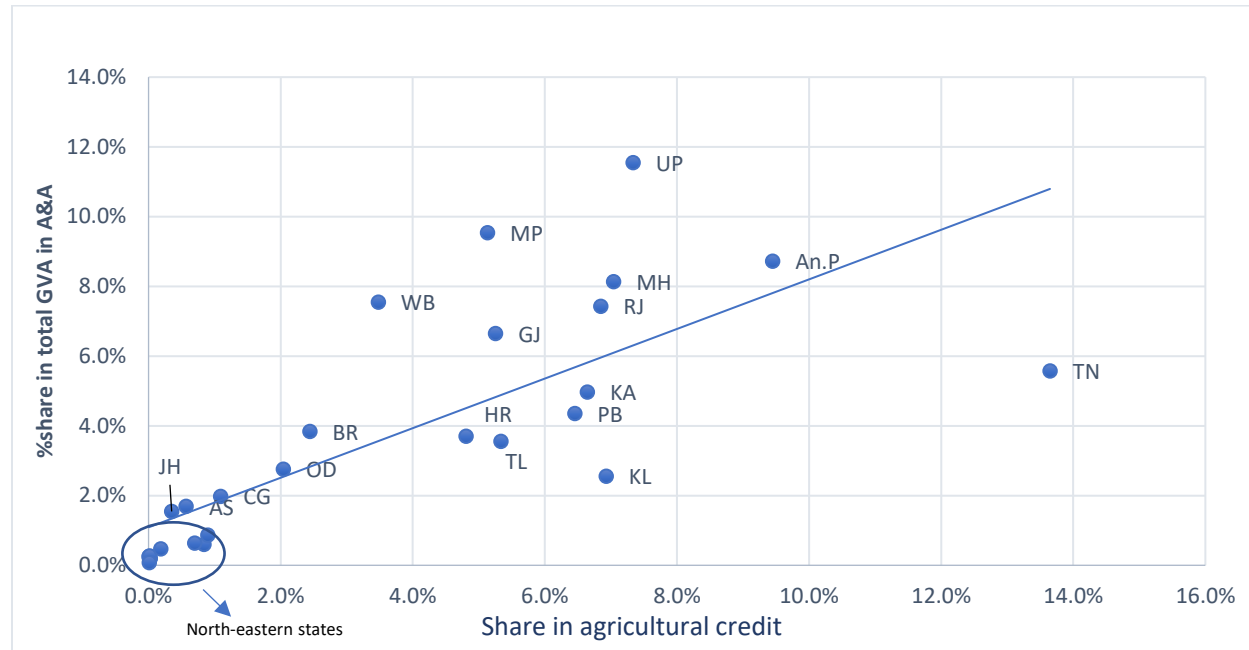
But is this agricultural credit going where agricultural output is coming from?

This has been estimated using two variables – (i) a state's contribution in India's GVA A&A (estimated by dividing state's GVA A&A with India's GVA A&A); and (ii) the state's share in disbursed agricultural credit (estimated by dividing agricultural credit disbursed in the state with total agricultural credit disbursed in the country).

The data reveals that a state's share in total agricultural credit (disbursed) in the country is strongly correlated (on average) with the state's contribution to India's gross valued added (GVA) in agriculture and allied activities (Figure 9). There is a strong and positive correlation of 0.75 between the two variables.

¹³ As per Economic Survey (2020-21), gross cropped area (GCA) and *kisan* credit card (KCC) crop loan disbursements are positively related. Therefore, the north-eastern region's (NER) low share in KCC crop loans is due to the fact that the NER accounts for only 2.74 per cent of the total GCA in the country.

Figure 9: Access to Agricultural Credit and its Relation to Agricultural Output



Source: NABARD for credit and RBI for GVA in A&A at current prices

Note: GVA was averaged for 2015-16, 2016-17 and 2017-18. Disbursed agricultural credit was the average for 2016-17, 2017-18, and 2018-19. UTs and Goa are not included due to data unavailability. Names of states are given in the footnote¹⁴

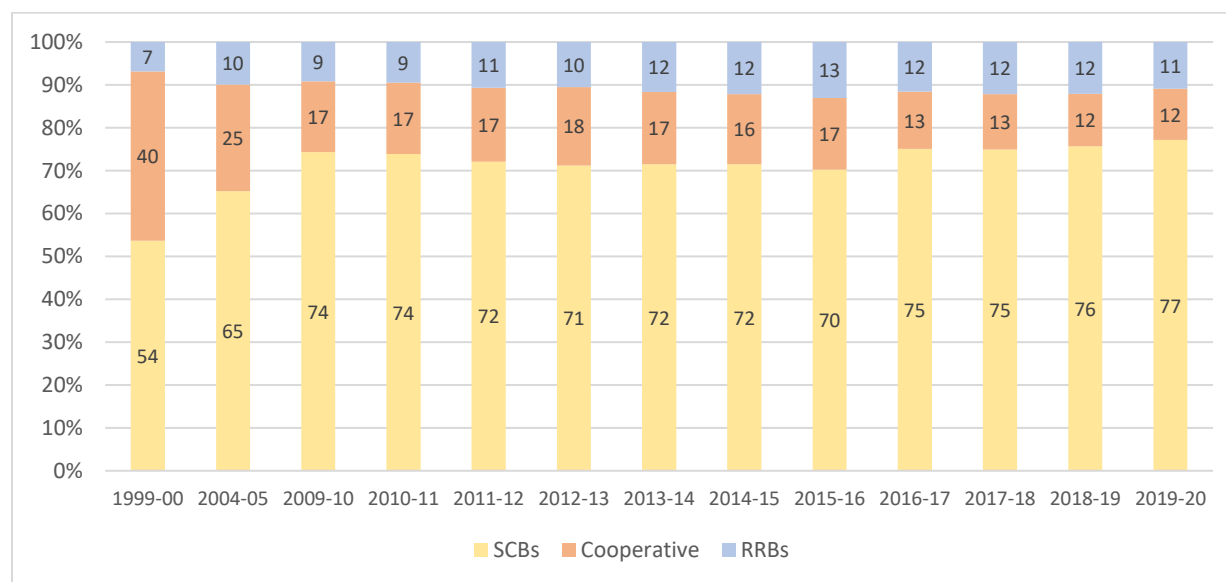
However, the causal relationship between the variables is unclear. Is it the greater GVA (A&A) that is pulling up credit demand (Misra, 2003), or is it the greater access to credit pushing up GVA (Das, Senapati, and John, 2009)? There may also be no direct relation between the two (Narayan, 2016), or both could be feeding into each other. A rigorous econometric analysis will be required to establish answers to these questions, which is beyond the purview of the current work.

¹⁴ Andhra Pradesh (An.P), Arunachal Pradesh (Ar.P), Assam (AS), Bihar(BR), Chhattisgarh (CG), Gujarat (GJ), Haryana (HR), Himachal Pradesh (HP), Jammu and Kashmir (J and K), Jharkhand (JH), Karnataka (KA), Kerala (KL), Madhya Pradesh (MP), Maharashtra (MH), Manipur (MN), Meghalaya (MG), Mizoram (MZ), Nagaland (NG), Odisha (OD), Punjab (PB), Rajasthan (RJ), Sikkim (SK), Tamil Nadu (TN), Telangana (TL), Tripura (TR), Uttar Pradesh (UP), Uttarakhand (UK) and West Bengal (WB)

1.6 Share of Institutional Agencies in Total Credit Disbursed and Outstanding

As stated earlier (Figure 2), several agencies serve the credit needs of farmers. NABARD records data for agricultural credit disbursed by SCBs, co-operatives, and RRBs. Their shares are presented below in Figure 10).

Figure 10: Share of SCB, Co-operatives and RRBs in Total Disbursed Agricultural Credit

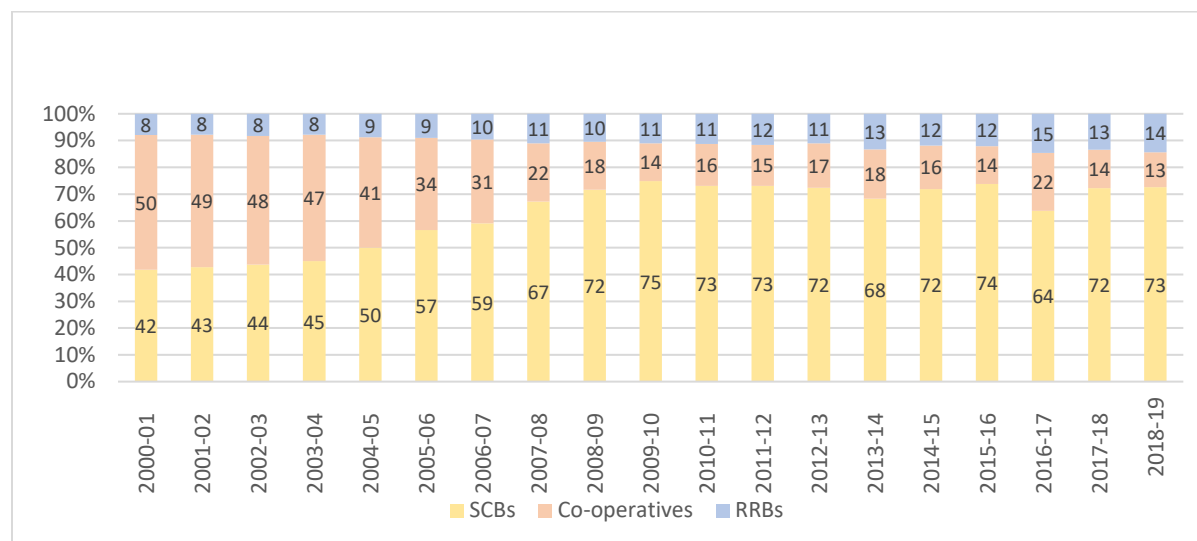


Source: NABARD (2019) Annual Report

At the start of the century (1999-2000), both co-operatives and scheduled commercial banks (SCBs) were essential suppliers of agricultural credit (**Figure 10**). RRBs were more localised with a smaller yet crucial role to play. However, 20 years hence, SCBs provide about 77 per cent of annual institutional agricultural-credit; with the share of co-operatives shrinking from 40 per cent in 1999-2000 to 12 per cent in 2019-20. The RRBs have gained over the years, *albeit* marginally.

In terms of outstanding credit, the share of SCBs in total outstanding credit in 2000-01 was 42 per cent which increased to about 73 per cent in 2018-19 (**Figure 11**).

Figure 11: Share of SCBs, Co-operatives, and RRBs in Total Outstanding Agricultural Credit



Source: Table 55 - Handbook of Statistics on Indian Economy, RBI

Note: Data unavailable for 1999-00 and 2019-20. 2000-01 used to note for 1999-00. Comparison is with all other years in Figure 5 above.

Link to the source:

<https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/55T6EF7BA8809CA47539B5D313F093DFA37.PDF>

Comparing Figures 10 and 11, the following observations can be made:

1. The SCBs lent more and had higher outstanding;
2. With a falling share in disbursed credit, the share of co-operatives fell in outstanding credit too; and
3. RRBs had a lower percentage share in credit disbursement (12 per cent in 2018-19) but a marginally higher share in credit outstanding (14 per cent in 2018-19).

1.7 Trends in Types of Agricultural Credit

Above, we have studied the various channels of supplying agricultural credit to farmers. Now, we look at the trends in two major types of agricultural credit. Based on their duration, agricultural loans are classified as short-term and long-term loans or as crop loans and term loans.

Short-term loans are usually for a period less than or equal to one year. Long-term loans are loans for a duration greater than one year. Farm credit consists of, among other things, both short term and medium/long-term loans to farmers.

Crop loans are short-term loans taken by farmers to undertake cultivation-related activities (including activities for traditional/non-traditional plantations, horticulture, and allied activities). The KCC loans are part of these loans. Term loans, on the other hand, are loans taken by farmers to purchase farm implements and machinery or to undertake irrigation and farm developmental activities, etc. For the purpose of this study, the terms short-term loans, KCC loans and crop loans have been used interchangeably. Similarly, long-term loans and term loans are used interchangeably.

Data on short-term (or crop) and long-term (or term) loans are presented in Figure 12 and 13.

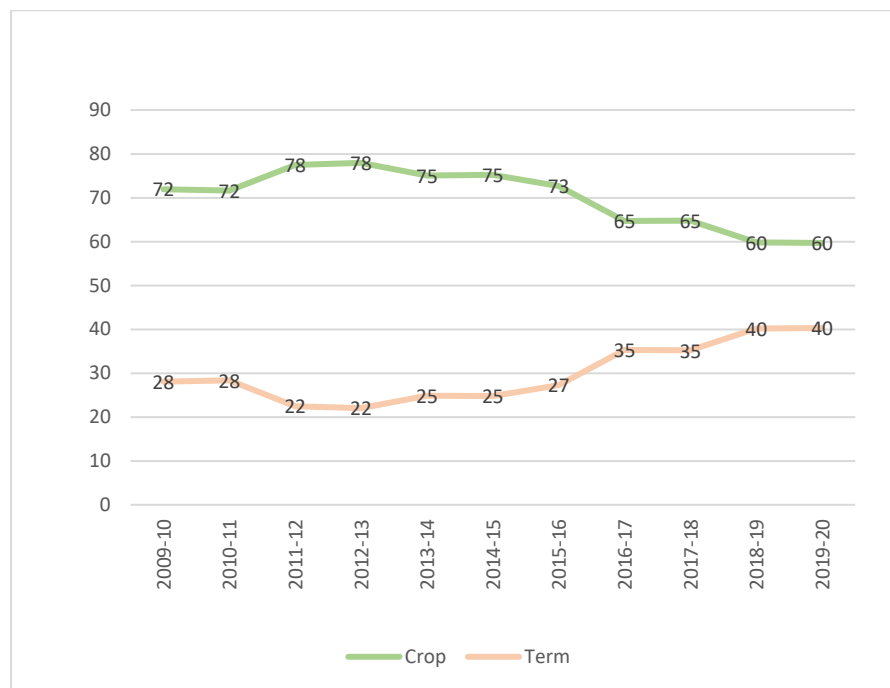
More than half of both the outstanding and disbursed credit in a year comprised short-term crop loans. In 2018-19, their share in total outstanding agricultural credit was 75 per cent and in total yearly disbursements the share was about 60 per cent. In addition to this, an examination of time series data indicates, *inter alia*, the following two points.

1. As a proportion of total disbursed credit, the share of crop loans has been falling and that of term loans been rising since 2012-13; and
2. As a proportion of total annual outstanding, the opposite has been happening. Since 2009-10, the share of crop loans (short-term) has been rising and that of term loans (long-term) been falling.

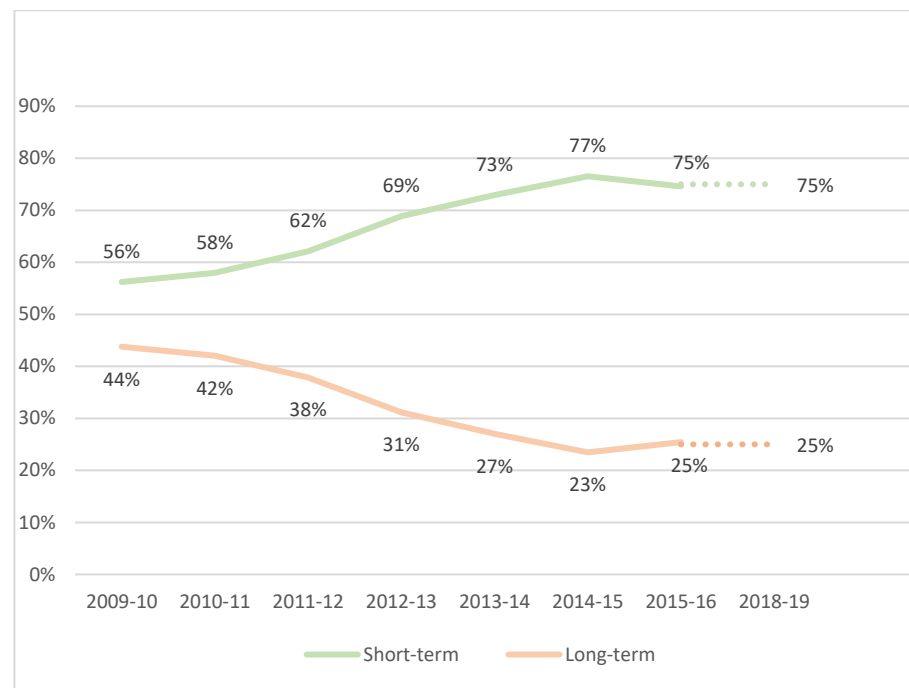
Point 1 made above is perhaps an indicator of rising investment by farmers, which is a good sign. However, a rising share of crop loans in total outstanding loans (point 2) despite a falling percentage share in annual disbursement is problematic¹⁵. This trend may indicate a fall-out effect of successive farm loan waivers declared by various state governments recently. As will be evident in the following chapters, most farm loan waivers have been declared on crop or short-term loans. These observations highlight the moral hazard problem arising out of farm loan waiver schemes. A more concrete analysis from the primary survey presented in this report will examine this issue in some detail.

¹⁵ It is important to note here that credit disbursement is a gross indicator of disbursement, whereas, the value of outstanding loans is a net indicator of credit, that is, net of repayments, and cumulatively sums unpaid dues from the past.

Figure 12: Share of Crop and Term Loans in Disbursed Agricultural Credit (%) Figure 13: Share of Short and Long-Term Loans in Outstanding Agricultural Credit (%)



Source: NABARD Annual reports



Source: Table 53 and 54, Handbook of statistics on Indian Economy, RBI **Note:** Data not available for 2016-17 and 2017-18 **Link to the source:**
<https://www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy> and
<https://www.rbi.org.in/Scripts/PublicationReportDetails.aspx?UrlPage=andID=942#CP12>
for 2018-19

1.8 Agency-Wise Performance under KCC

KCC is the most critical form of working capital loan available to the peasantry at highly subsidised rates of borrowing. According to the RBI, more than 6.6 crores KCC cards were issued until the year 2018-19. About 46 per cent of these cards were issued by co-operatives, a little more than one-third by SCBs, and less than 20 per cent by RRBs (**Table 3**).

Table 3: KCC details for 2018-19

Various aspects of KCC	Co-operative	RRB	SCB	Total	Units
Cards Issued	30,414 (45.9%)	12,253 (18.5%)	23,632 (35.6%)	66,300 (100%)	000 Nos.
KCC outstanding amount	127,436 (18%)	127,072 (17.9%)	455,079 (64.1%)	709,587 (100%)	Rs. crore
Amount outstanding per card on average	41,900	1,03,707	1,92,569	1,07,027	Rs.

Source: Report on Trends and Progress of Banking in India, Various issues, RBI and estimation by authors.

Note: Values in brackets are per cent share in total

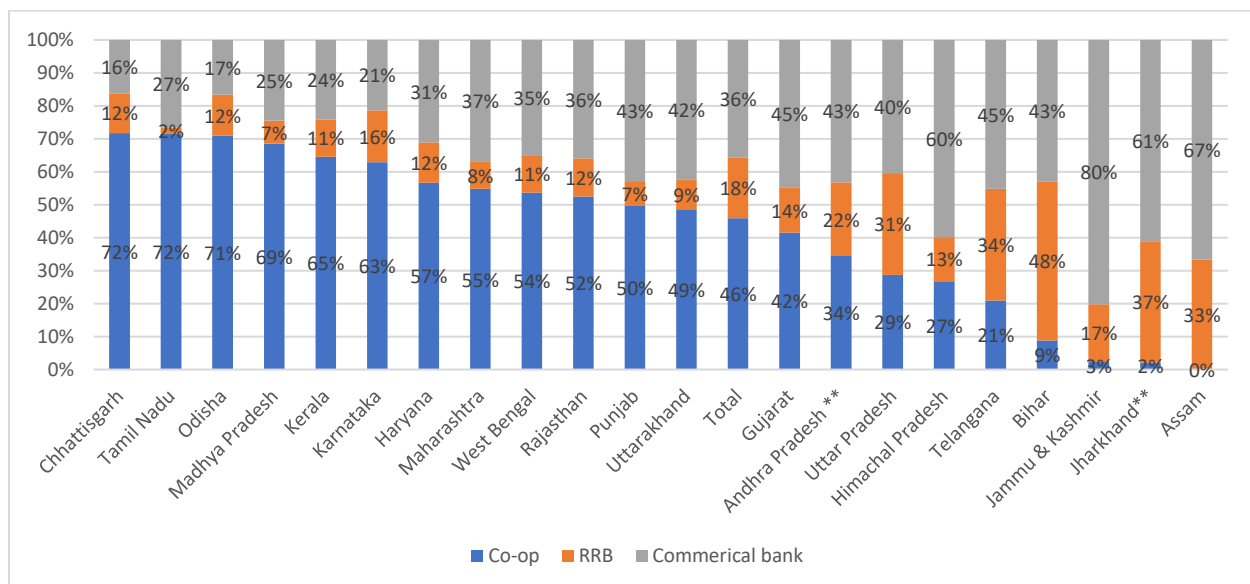
There was about Rs.7.1 lakh crores of outstanding KCC loans in the year 2018-19. Despite issuing 46 per cent of KCC cards, co-operative banks had a lower contribution to outstanding loans (18 per cent) compared to SCBs, which despite issuing only 36 per cent of the KCC cards contributed to more than 64 per cent of the total outstanding credit. This may be attributed to the fact that compared to co-operatives whose average outstanding credit amount per KCC was about Rs. 42,000, SCBs had a much larger outstanding per KCC of Rs.1,92,000 on average (refer to the last row in **Table 3**). With a larger outstanding amount, it is apparent that the amount of loan disbursed per card is also much larger in the case of SCBs compared to co-operatives.

An analysis of the disaggregated data on KCC at the state level reveals the following.

1. Concentration of KCC cards: Five states accounted for 50 per cent of the total number of KCCs issued in the country in 2019. These states were Uttar Pradesh (16.8 per cent), Madhya Pradesh (10.2 per cent), Maharashtra (8.7 per cent), Rajasthan (8.6 per cent), and Andhra Pradesh (6.9 per cent).
2. Agencies issuing KCCs: (Figure 14)

- a. SCBs: in the case of states like J&K, Assam, Jharkhand, and Himachal Pradesh where 80 per cent, 67 per cent, 61 per cent, and 60 per cent respectively of the cards were issued via SCBs;
- b. Co-operatives: In the case of states like Chhattisgarh, Tamil Nadu, Odisha, Karnataka, Kerala, and Madhya Pradesh, where 72 per cent, 72 per cent, 71 per cent, 63 per cent, 65 per cent, and 69 per cent cards respectively were issued via co-operatives.
- c. RRBs: They were important in the case of states like Bihar, Assam, Telangana, and Jharkhand.

Figure 14: Agency-wise State-wise Share in Issued KCC Cards in 2019



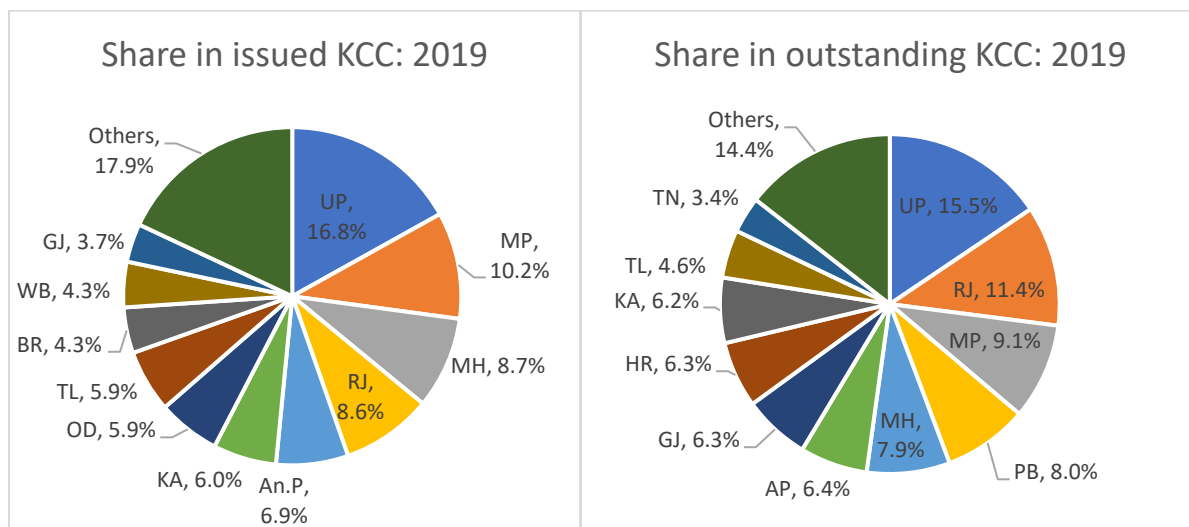
Source: Report on Trend and Progress of Banking in India, Various issues, RBI

3. Contribution of states to India's outstanding agricultural credit on account of KCC(Figure 15):
 - a. Again, it was a set of five states which contributed to more than half (52 per cent) of the outstanding amount. These were UP (15.5 per cent), Rajasthan (11.4 per cent), MP (9.1 per cent), and Punjab and Maharashtra (both about 8 per cent). Although Andhra Pradesh figures in the list of the five states that account for a

larger share of KCC cards issued as compared to Punjab, it is Punjab that contributes to a larger share of outstanding loans under KCCs than Andhra Pradesh;

- b. States like Odisha and Bihar have performed better; despite having a more significant share in India's KCC cards issued (5.9 per cent and 4.3 per cent respectively), their contribution to the outstanding amount is lower (2.5 per cent and 2.8 per cent respectively);
- c. Punjab emerged as an outlier state. In 2019, the state had a 2.9 per cent share in total KCC cards issued in the country, but its contribution to the country's outstanding KCC amount was about 8 per cent.

Figure 15: State-wise Share in Issued and Outstanding KCCs: 2019



Source: Report on Trend and Progress of Banking in India, 2019

Having discussed the supplier's (institutions') side of analysis, we next present an analysis of agricultural credit from a farmer's perspective.

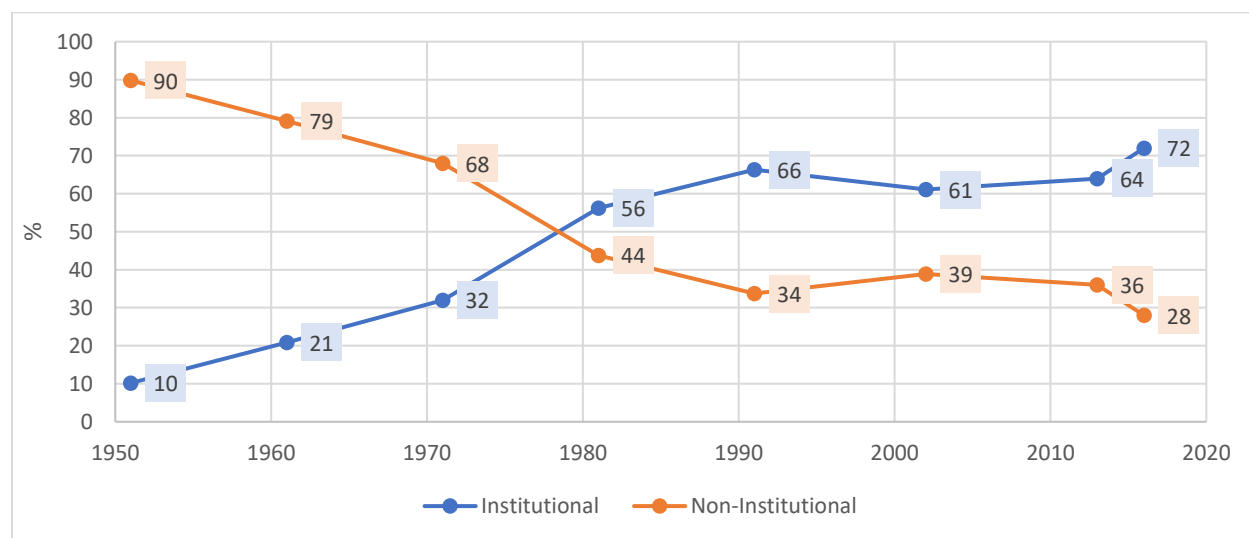
Three aspects have been looked at:

1. Who does a farmer borrow from?
2. How indebted is the average Indian farmer?
3. What are the systemic issues affecting farmers' access to credit?

2.1 Trends in Institutional and Non-Institutional Sources of Credit

A growing share of farmers' credit needs is now met through institutional sources (NSSO 2014). In 1951, about 90 per cent of an average farmer's credit needs were met through borrowings from non-institutional sources and 10 per cent from formal financial institutions (NSSO 1951). By the year 2016, the shares had almost entirely reversed (NAFIS 2016-17). Now, credit from formal financial institutions meets about 72 per cent of farmer's credit needs and for 28 per cent of his credit needs, he approaches local moneylender or traders or other non-institutional sources. Figure 16 presents a temporal map of these shares.

Figure 16: Source-wise Share of Borrowed Agricultural Credit



Source: AIDIS (NSSO), NAFIS

Within the institutional and non-institutional category of lenders, the data from NSSO and NAFIS (2016-17) are used to identify the individual categories of players (Table 4)

Table 4: Institutional and Non-Institutional Agricultural Credit by Source

Source	1951	1961	1971	1981	1991	2002	2013	2016
Institutional	10.2	20.9	32	56.2	66.3	61.1	64	72
Government	-	6.2	-	4	5.7	1.7	1.3	-
Co-operative Societies/Banks	6.2	12.5	-	27.6	23.6	30.2	28.9	6
Commercial Banks	4	2.2	-	23.8	35.2	26.3	30.7	46.2
Insurance, Provident Funds	-	-	-	0.8	0.7	0.5	0.1	0.9
Other Agencies*	-	-	-		1.1	2.4	3	21.5
Non-Institutional	89.8	79.1	68	43.8	33.7	38.9	36	28
Moneylenders	39.8	25.3	-	17.2	17.5	26.8	29.6	10.8
Relatives, Friends, etc.	-	-	-	11.5	4.6	6.2	4.3	22.7
Traders and Commission Agents	-	-	-	5.8	2.2	2.6	-	0.1
Landlords	21.4	15	-	3.6	3.7	0.9	0.4	6.1
Others	28.6	38.8	-	5.7	5.7	2.4	1.7	0.1

Source: AIDIS (NSSO) and NAFIS (2016-17)

*Note: The sum of the sub-heads does not equal 100 as loans from multiple sources were also recorded. * "other agencies" include financial companies, SHGs (bank linked), and SHG-MBFC/MFI. These institutions have eaten significantly into the share of co-operatives.*

Much in line with the analysis of data on institutional credit presented in the earlier section, here too, co-operatives and commercial banks emerge as the most critical sources of institutional agricultural credit (with a cumulative share of 52 per cent in total institutional credit in 2016-17).

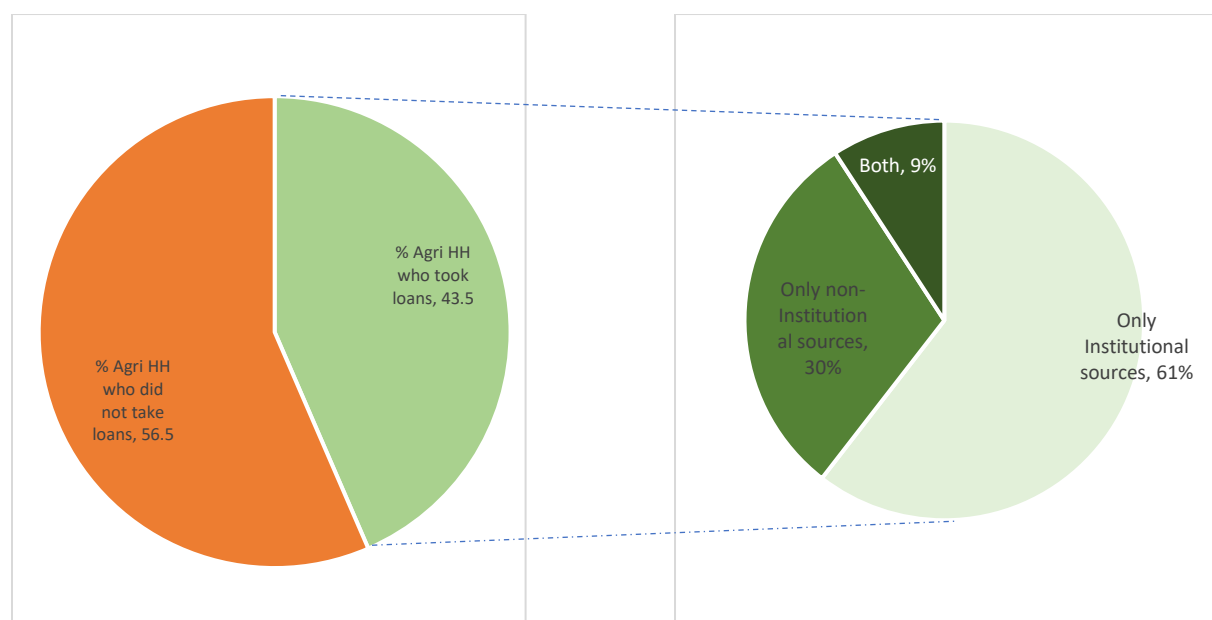
Within non-institutional sources, money lenders and friends and relatives emerged as the dominant sources. Over the years, however, the dependence on friends and relatives has increased, and that on moneylenders has decreased.

2.2 Proportion of AHHs Who Took Agricultural Loans from Institutional Sources

In the earlier section, we showed that as per NAFIS, about 72 per cent of agricultural loans were taken from institutional sources. But can we say that 72 per cent of the farmers took a loan from institutions? We explore this further by using the data from NAFIS (2016-17).

As per NAFIS, there were about 10.1 crores agricultural households (AHHs) in India in 2015-16 and of these (Figure 17), about 43.5 per cent took loans for undertaking agricultural activities. The remaining 56.5 per cent AHHs did not take any agricultural loans in that year. Of the 43.5 per cent of AHHs who took a loan, 61 per cent took their loans exclusively from institutions, about 30 per cent took exclusively from non-institutional sources, and about 9 per cent borrowed from both sources.

Figure 17: Proportion of AHH Who Took Loans (LHS) and Their Sources



Source: NAFIS (2016-17)

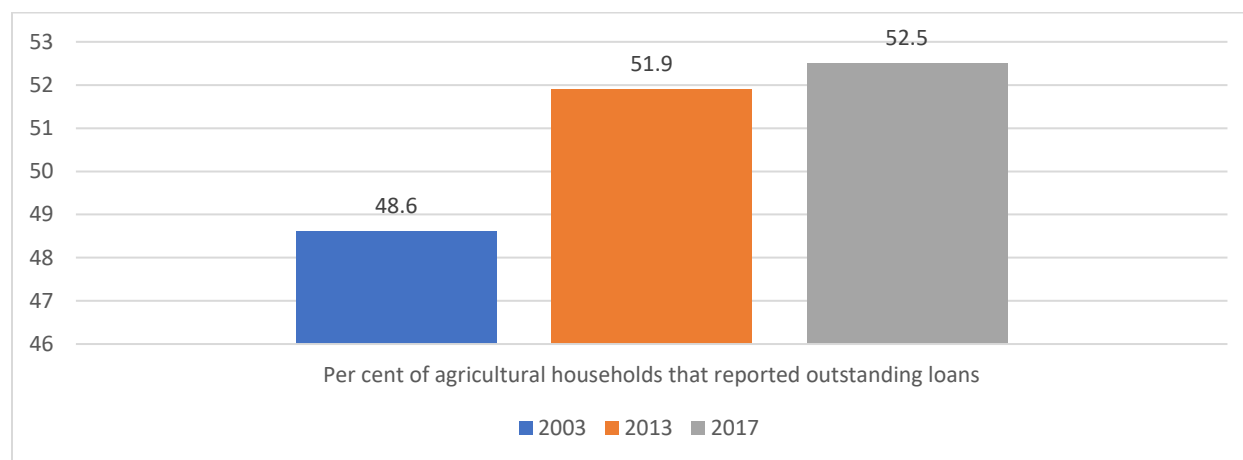
To estimate the proportion of total AHHs who took loans from institutional sources, we multiply 43.5 (i.e., the proportion of AHHs who took loans) with the sum of AHHs who took loans from institutional sources (i.e., 61 per cent + 9 per cent). We find that only about 30.3 per cent of AHHs took loans from institutions (Gulati and Saini 2018).

This means that 70 per cent of AHHs did not take any loan from institutions (Figure 17) and did not benefit from any scheme or interest subvention that GOI or state governments offer on agricultural loans.

2.3 Level of Indebtedness of Indian Farmers

As per NAFIS (2016-17), 52.5 per cent of India's agricultural households were indebted in 2016-17 and indebtedness among agricultural households has grown consistently since 2003 (Figure 18).

Figure 18: Incidence of Indebtedness (IOI) among Agricultural Households in the Country

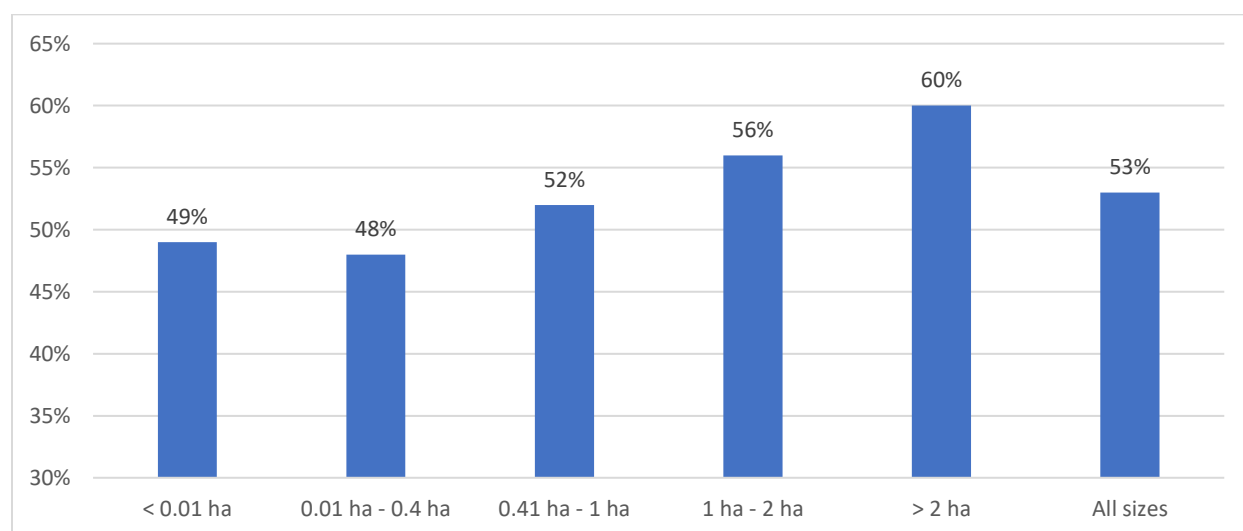


Source: Situational Assessment Surveys, NSSO various issues and NAFIS, 2016-17

Note: As per NSSO, indebtedness was calculated as the per cent of AHH that reported outstanding loans as on the date of survey.

The level of indebtedness also increased with landholding size (Figure 19).

Figure 19: Proportion of Indian AHHs indebted – Landholding size-wise (2015-16)

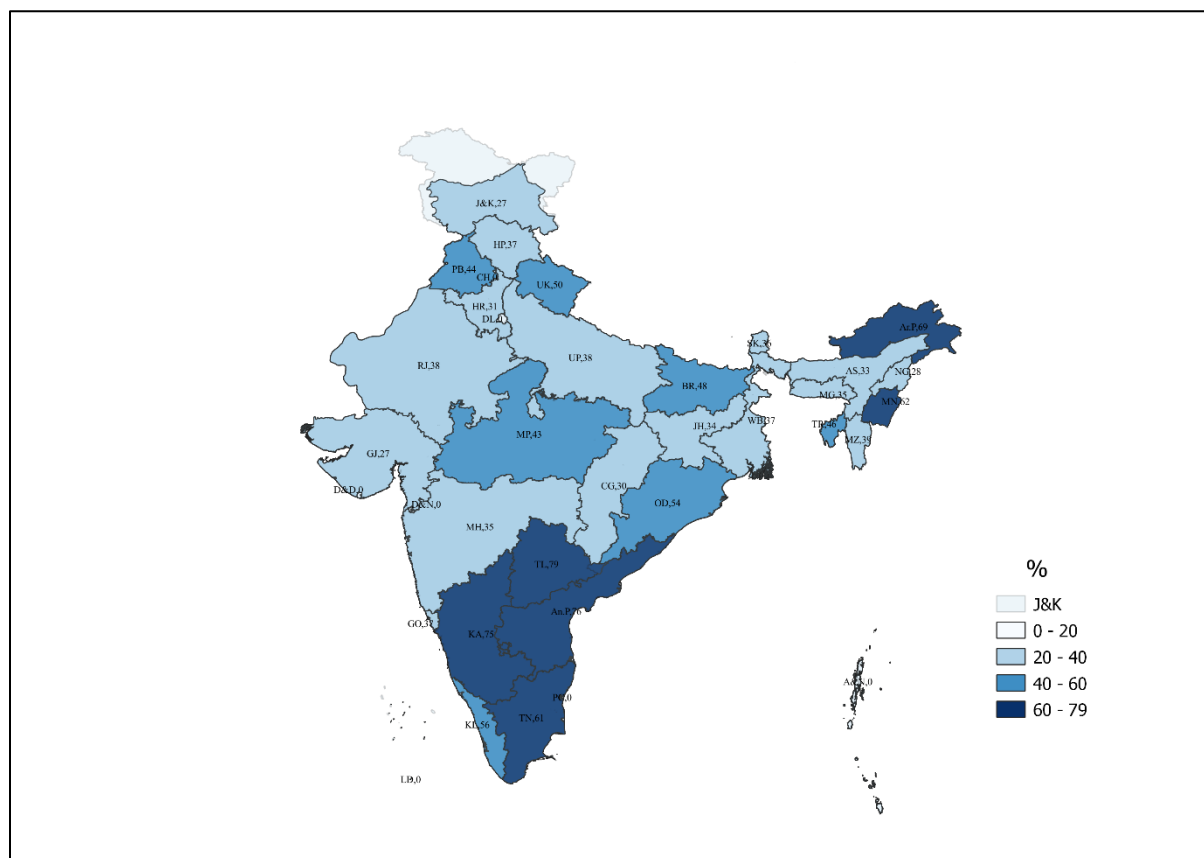


Source: NAFIS, 2016-17

Intuitively, a larger landholding size implies that the borrower has a bigger asset base and thus, is eligible for bigger loans. It appears from Figure above that larger the landholding size, greater was the share of borrowers.

There are considerable variations in the level of indebtedness of agricultural households among the Indian states (Figure 20). Indebtedness is relatively higher in the southern and eastern states. The AHHs in the southern states of Tamil Nadu, Karnataka, Andhra Pradesh, and Telangana are most indebted as the level of indebtedness among households in these states was as high as 61 per cent, 75 per cent, 76 per cent and 79 per cent respectively. In the north-eastern states of Arunachal Pradesh and Manipur, indebtedness was to the tune of 69 per cent and 62 per cent. Punjab (44 per cent) and Uttarakhand (50 per cent) were the states with high incidence of indebtedness in northern India.

Figure 20: Incidence of Indebtedness among Rural Households in India (per cent)



Source: NAFIS, 2016-17

Note: Data includes households with outstanding loans from both institutional and non-institutional sources. As data was only available for rural households, we use rural households as a proxy to gauge indebtedness among agricultural households. The numbers in the graph are percentage of households that had taken a loan as on the date of the survey

2.4 Systemic Gaps in Credit Delivery to AHHs

Before we proceed to the chapter on farm loan waivers, there are two observations about the existing agricultural credit system that mandate a brief analysis. The first relates to the logistical, administrative, social and economic hassles that prevent several illiterate, and financially vulnerable small and marginal farmers from approaching a financial institution. The second is an organic issue relating to the way non-performing assets (NPAs) are defined under agriculture, which puts a disproportionately high burden of repayment on already vulnerable farmers, pushing them into deeper distress.

2.4.1 How to Apply for Agricultural Loans?

An exercise was undertaken to identify the number of documents or certificates that a farmer needed when applying for a crop loan. The list of necessary documents is given below (**Table 5**).

Table 5 Common Requirements while Accessing Agricultural Loans by Farmers

Serial No.	Documents Required
1.	Know your customer (KYC) documents for identification
2.	Stamp size/passport size photographs of the borrowers
3.	Details of the cropping pattern or <i>girdawari</i> document
4.	Copies of land records regarding lands owned/leased as certified by revenue authorities or <i>fard</i> or <i>jamabandhi</i>
5.	Latest land tax paid receipts (if applicable)
6.	Original/certified copies of the title deeds and other required documents to satisfy that the applicant is the valid and legal owner of the land whenever landed property is offered as security/where developments are proposed and that it is free from any encumbrance.
7.	No dues certificate from other banks in the area (after <i>Aadhaar</i> becoming mandatory, this process is bypassed)
8.	Project report (wherever applicable)
9.	Proforma invoice (wherever applicable)

Source: Canara Bank

So, farmers willing to apply for a loan will need a minimum of at least 6 to 8 documents to get their application accepted. This number may rise or fall depending on the bank.

Besides this lengthy procedure of submitting documents, most banks give instructions regarding the loan application in a language that makes it unintelligible for those unfamiliar with Indian banking jargon. This impacts a large number of farmers. Research papers like D'Souza, 2020 documents the difficulties faced by especially the small and marginal farmers, in accessing institutional loans remain due to the conventional methods used to assess the risk profile of borrowers. It is no surprise that despite highly subsidised rates at which loans can be availed, large number of farmers still depend on non-institutional sources of credit where limited or no documentation is required. As we will see in Chapter 4, farmers prefer moneylenders, for example, over banks because it is easier and timelier.

2.4.2 Provisioning for NPAs in Agriculture and Support to Distressed Farmer

As per RBI (2015), a crop loan account is classified as a non-performing asset (NPA) when the instalment of interest (and principal) remains overdue for two crop seasons for short duration crops and for one crop season for the long duration crops.

For example, if a farmer takes a crop loan in April 2019 and he sows crops like rice and wheat, his first instalment of interest gets due in October 2019. If the borrower defaults on this instalment, then the loan account becomes “overdue”. If the farmer continues to default on subsequent instalments too, then by October 2020 his account is declared an NPA. Which means that his account is suspended and he cannot access more credit.

By October 2020, the farmer would have defaulted on three instalments - one that was due in October 2019, the next in April 2020 and the third in October 2020. As per the current policy, to operate his account again, the farmer would have to clear all the three instalments and only after that, he can have access to fresh institutional credit. His capacity to repay this cumulative amount from the earnings of one crop season thus determines if and how he comes out of the situation. To explain this, we take the example mentioned above forward:

An average Indian farmer earns about Rs. 3,140 (NAFIS 2016-17) per month from his cultivation activities and has a total monthly household income of about Rs. 8,931 (including income from non-farm sources, salaries, wages etc.). Assume this farmer took a loan of Rs. 3,00,000 in a year at annual interest of 7 percent. His 6-monthly interest instalment comes to about Rs. 10,500. Due

to crop losses in two consecutive seasons, say he defaulted on all his instalments. After 18 months his account becomes an NPA. To restart his account, he needs to pay a cumulative amount of Rs. 31,500 that is the aggregate of the three instalments of payable interest. Crop losses in two consecutive seasons would have meant that the income of the farmer would have been zero or very little in that year. Assuming he is able to realize value from his third cropping season, with an average income of Rs. 3,140 per month, this farmer would have earned about Rs. 18,840. His earning from cultivation would not suffice to cover this instalment. In case he used his total monthly household income (including income from cultivation, livestock, non-farm activities and wages and salaries), he would have earned about Rs. 53,586. Upon deducting the payment for the three instalments of Rs. 31,500, this farmer will be left with Rs. 22,086. As this farmer could not earn anything in the last year and his next income is only likely to come after six months, effectively this farmer will have to use this net residual income of Rs. 22,086 for meeting his cultivation and consumption needs towards 24 months. This implies that the farmer and his family will have about Rs. 920 per month to meet his expenses. In a family of 5, this translates to an average availability of Rs. 6 per day per capita. The poverty line for rural areas is Rs. 26 per day per person as per Planning Commission 2011-12. After adjusting for inflation this poverty line is bound to have risen since then. We need to recall that some part of the available funds will also have to be used towards purchase of seeds, fertilizers, and other inputs for the next crop. It seems almost inevitable that the farmer will not be able to survive and so, in absence of institutional sources, he will have no option but to borrow from the expensive non-institutional sources. Thus, he becomes part of a debt-trap where he continues to be unsure about the prospects of his future crops but still has to borrow to survive.

Little more than half (50.1 per cent) of India's gross cropped area (of about 200 million hectares in 2017-18) is irrigated, which implies that the remaining half of the gross cropped area depends on rainfall for irrigation. With such high dependence on rains, farming in any year is risky. Saini and Gulati (2014) point out that India faced droughts every 4 to 5 years since the year 2001. Besides, there are continuous threats from changing climate (rising or falling temperatures, volatility and ferocity of dry or wet spells, frost, among others), and if the weather is kind, there could be pest attacks to damage crops. Farming is already a high-risk business and financial returns fluctuate fiercely between years. Therefore, for 87 per cent of India's agricultural landholdings (which are small and marginal, with an average landholding size of less than or equal to 2 hectares), generating

a net income (after deducting for his family's consumption needs for the next six months) of Rs.31,500 in one crop cycle is next to impossible. This appears to be an unjust demand by the current financial regulations mandated by RBI. This situation seems widespread in India.

Government offers help in these situations via its refinancing policy. In case the farmer defaults due to failure of his crops caused by a natural calamity, the government provides relief to such persons through its refinance policy that gives the "Guidelines for relief measures to farmers affected by natural calamities – conversion of ST (SAO) (short-term seasonal agricultural operations) loans into medium term loans." As per this policy, the distressed farmer is provided relief through two ways: (i) restructuring of his existing loan and (ii) sanctioning of fresh loans as per his emerging requirements (RBI 2017).

As per the restructuring relief guidelines (RBI 2017, 2018), the short-term loans of the distressed farmer are rescheduled/restructured by the banks which is equivalent to converting the short-term loans into medium term loans. Such postponement of loan repayment gives time to the distressed farmer to resurrect and recover his losses in eventual crops. This period of postponement is a function of the severity of the calamity, its impact on losses in economic activity, and *inter alia*, the overall distress it has caused. A maximum repayment period of 2 years is provided where crop losses are between 33 and 50 per cent. In case the loss is 50 per cent or more then the postponement period can go up to five years.

This policy also provides for extension of fresh credit to such farmers so they may be able to continue to undertake cultivation. The limit of fresh credit will be a function of eligibility, scale of finance, repaying capacity etc.

The condition is that the state government should have declared the district/area as calamity affected. The calamities include 12 situations pertaining to drought, flood, pest attack, cyclone, earthquake, fire, tsunami, hailstorm, landslide, avalanche cloud burst and cold wave/frost.

But it emerges that due to this condition, several distressed farmers are unable to benefit from the refinancing policy benefits. For example, there is no support for farmers whose crop loss is assessed to be less than 33 per cent or who live in areas not declared as calamity affected despite having suffered a loss greater than 33 per cent. For such farmers, the current system of NPAs and its settlement process is difficult and is bound to deepen distress and indebtedness for such farmers.

To corroborate the excessive burden imposed on a farmer as compared to a non-agricultural borrower, an example can be found in “Annexure 7: Standardizing NPAs in Crop and Non-Crop Loans”.

A Possible Solution

In October 2020 what if the farmer had to only pay the first instalment amount of Rs.10,500 to get his NPA account standardized? There is a higher chance that this farmer would have been able to bear this burden from earnings in one crop cycle and service the debt while continuing to get access to fresh credit. In other words, by reducing the number of months for which the interest is due, the government can actually increase the likelihood of the farmer repaying and will also be able to provide timely help to the genuinely distressed farmer. The key then is to find a way to identify the genuinely distressed farmers? One way is of course what the government follows in declaring “natural calamity”, the other could be a district-level distress index. This index is proposed in the last chapter of the report.

Before proceeding to the next chapter, the key learnings from this chapter are summarised below:

1. Both agricultural credit disbursement and per capita average agricultural credit received by a farmer have been growing.
2. Some states get a disproportionately higher share than others in country’s total disbursed agricultural credit.
3. The share of short term (crop) loans in total disbursed agricultural credit has been falling, whereas it is rising in terms of total outstanding agricultural credit.
4. The share of term (long term) loans in total disbursed agricultural credit is rising, but is falling in terms of total outstanding agricultural credit.
5. Scheduled commercial banks are the primary source of credit under KCC. Co-operatives play an important role in Bihar and RRBs in Odisha. For most other states, SCBs issued most KCCs.
6. The process of taking institutional loans is cumbersome and involves several steps and documentation.

7. Currently, farmers meet an increasing share of their credit needs from institutions, although their dependency on non-institutional sources continues for more than a quarter of their credit needs.
8. The current practice of identifying NPAs in crop loans puts a disproportionate burden of repayment on defaulting farmers, increasing the chances of further default and exacerbating farmers' distress.

Chapter 3: Introduction to Farm Loan Waivers: a journey from aversion to affinity

The term 'farm loan waiver' (FLW) is best understood as a combination of the three words, namely farm, loan, and waiver. In the current context, a farm is a piece of land primarily used for carrying out agricultural and allied activities; a loan is an amount borrowed (from institutions, in the current context) to undertake farming and related activities on that piece of land and is currently outstanding or due for repayment, and a waiver (or remission) is to forego collection of the outstanding amount.

A waiver is different from the standard accounting practice of writing-off a loan. According to Anderson (1941), to “write-off a loan” means to decide that a sum is not capable of being recovered by any process known to law, all of which have been tried and failed or have been abandoned. A waiver, on the other hand, is letting go of the recovery of a loan amount that was otherwise possible to recover.

FLW schemes can vary according to (i) types of the beneficiary (where only a subset or all farmers get the waiver), (ii) category of loans (short-term or medium-term or long-term loans or all), (iii) extent of waiver (waiver of the entire outstanding amount, or overdue amount or sometimes a waiver could be of a fixed amount irrespective of the outstanding or overdue amount), (iv) based on the lending institution (some waivers are prioritised where, say, loans taken from co-operatives are waived first) and (v) nature of relief (waiver on principal amount, interest amount or both).

We showed in the last chapter that most agricultural lending schemes are targeted at landowners or those with the required documents to prove their right to operate the land. As the concept of FLW only applies to institutional loans, it can be said that it is designed to benefit only landowners. This can be taken to imply that a landless or tenant farmers¹⁶ or landowners who could not borrow from institutions are almost never likely to benefit from an FLW scheme.

¹⁶ The official data on tenancy under report the extent of actual tenancy in the country. As per NSSO (2012), close to 10.3 per cent of rural households leased-in land for agriculture. In terms of area, about 11.1 per cent of the area under operational holdings were leased in. When compared to past data, it appears that the rate of leasing in land for agricultural purposes has been rising. Sawant 1991 has shown that the reported levels of tenancy are lower as

Interestingly, as we trace the historical instances of FLW, we find examples of waivers on loans taken from non-institutional sources like money lenders. But such waivers were provided by the administration on a case-to-case basis and involved a mutual attempt to agree to scale down outstanding debt (Sivaswamy 1939). These instances have not been examined in detail in this study.

This chapter has three sections. In Section 1, we outline the historical evolution of the concept of farm loan waivers in India. In the same section, we also present selected experiences from some other countries related to debt/distress relief. A summary of research literature on the likely impact of FLW on various stakeholders is presented in Section 2. Lastly, in Section 3, we track recent Indian FLW announcements to understand the relationship between the timing of elections and announcement of FLWs and the results of the elections.

History of FLWs in India

In ancient and medieval times, agriculture was the most important economic activity and a high revenue source for kings (Ray 1915). From land revenue to price controls, the peasantry was heavily taxed and severely distressed. Evidence in this regard can be found under the reigns of kings like Alaud-Din Khalji (AD1296-1316), Ghiyath al-Din Tughluq in 1321 and Muhammad bin Tughluq in the late fourteenth century (Randhawa, 1982). It is documented that farmer suffered due to frequent droughts and famines. As per Ray (1915), there was "one year of drought in every three," "and a good crop was only once in three years." The high levels of risk and volatility made the situation of borrowing farmers precarious. According to Ray (1915), "it is hardly possible to conceive any conditions more certain to produce indebtedness among the poorer classes (of farmers) than these." Instability of production, volatility in the prices of produce, and heavy

there is concealment of data because tenancy is not yet completely legal in most Indian states. Therefore, actual levels of tenancy are much higher in India. According to Sawant 1991, the rate of tenancy reported by lessor of land is generally lower than what is reported by tenants.

taxation by kings, among other reasons, resulted in perpetual deprivation and poverty of farmers (Randhawa 1982).

In the fourteenth century, Muhammad bin Tughluq devastated the peasantry by rigorous cesses (Randhawa 1982). But soon, he realised that to collect more taxes, he needed the sector to grow faster. So, he started a department called '*diwan-i-amir-i koh*' that gave farmers loans to promote agriculture. These loans were called '*sondhar*' loans and were given on a large scale. The kingdom was divided into parts, and people appointed to take care of these parts were given an immediate 50,000 '*tankas/taka*'¹⁷ in cash to be distributed among farmers. The king encouraged digging of wells and tried to improve cultivation by changing cropping patterns. Unfortunately, these measures did not prove to be very useful, and when Muhammad bin Tughluq died in 1351, his kingdom was left in an economic slump. To revive the economy, his successor, Firoz Shah Tughlaq started by writing-off *sondhar* loans (Singh 2009), making this the first recorded instance (as per our research) of a loan waiver, where loans were waived to alleviate farm distress and revive the agrarian economy.

Over time, instances of loan waivers grew. Between 1420 and 1470, Sultan Zail-ul-Abidin ruled Kashmir. He was considered to be a generous leader as he revised the land assessment rules in his domain. However, towards the end of his reign, a famine occurred in the province. Then, by a royal decree, he waived all debts (Randhawa 1982).

Reign of King Akbar has interesting instances of policies to alleviate farm distress. He eased revenue collection norms and redesigned them based on formal measurement of land. To encourage cultivation, he changed the revenue system and applied slabs to various land classes. For instance, land which was untilled for the last two years received a deduction of 1/4th of land revenue in the first year of cultivation. In addition, he extended loans to cultivators to purchase seeds and cattle during times of distress. These loans were known as '*taqavi*' loans, and involved an annual interest charge of 2 annas per rupee (or about 12.5 per cent)¹⁸ (Habib 1964).

¹⁷ The currency denomination then in existence.

¹⁸ During this period, local officials also advanced loans in the name of *takavi*, out of their own resources. Farmers had to pay interest on such loans. The farmers who obtained *takavi* from these officials had to pay 2 annas per rupee (or 1/8th of the principal) as profit (per month, or for each harvest) (Habib 1964).

Over the years, the term *taqavi/takavi* evolved. As these loans form an important part of the history of FLW, we expand briefly on the *taqavi* system below.

The *Takavi* (or *taqavi*¹⁹) System

From historical literature (mostly 19th century), it appears that the system under which the government gave loans to cultivators or landowners to undertake agricultural activities was referred to as *takavi*, and the loans were referred to as the *takavi loans*.

For loans related to agriculture, Ray (1915) states that the imperial Indian government always aimed to create a “system of advances administered in a sympathetic spirit (that) was simple, liberal, and as elastic as possible”.

The imperial government would advance money for these loans to provincial governments at a rate of 4 per cent per annum, and district-level officials handled all *takavi* work and extended loans to applicant farmers.

In the 19th century, two special laws regulated *takavi* loans – the Land Improvement Loans Act (LILA) (19 of 1883) and the Agriculturists' Loan Act (ALA) (12 of 1884). We elaborate on these two below.

Land Improvement Loans Act (LILA) 1883

As per LILA, an improvement was any work that added to the land's letting value, and loans given to undertake these improvements were LILA loans. These works included: (i) construction of wells, tanks, and other works for storage, supply or distribution of water for agricultural, or cattle or for humans; (ii) the preparation of land for irrigation; (iii) drainage and reclamation from rivers or protection from floods, etc; (iv) reclamation, clearance, enclosure or permanent improvement of land for agricultural purposes; or (v) renewal or reconstruction of any forgoing works, or alterations therein or additions thereto; and (vi) such other works as the local government, may, from time to time, declare for the Act (Ray 1915).

In contemporary terms, LILA loans were much like term loans.

¹⁹ In historical texts, *taqavi* has been spelt as *taccavi* or *takavi* or even *tagavi* loans. We use these terms interchangeably throughout the text.

Loans were given to individual farmers and sometimes to a group of farmers (akin to the current concept of farmer producer organisations (FPOs)). Here a body of five or more villagers could bind themselves jointly and, based on their personal security (no need for collateral), get a loan equal to or less than five times the annual assessment or value of the land held by the group.

According to Ray (1915), in the 1920s, the average loan amount sanctioned per case under LILA was about Rs.5,000 (which is equal to about Rs.21.65 lakhs at 2020 prices²⁰). The interest charged was *one anna per rupee* or 6.25 per cent per annum (this rate varied between provinces, but this was the standard accepted by the Imperial Government (Ray 1915)).

Loans, under LILA, were generally given in three instalments:

1. Two-fifth the amount when work started,
2. Two-fifth the amount when the work was half-finished, and
3. One-fifth the amount when the work was passed as completed after due-inspection.

LILA loans were long-term loans and were given for even up to 35 years.²¹ Repayments were made yearly or half-yearly, and they began after the farmer started getting profits or after two and a half years of getting the last instalment, whichever was earlier. The Collector decided the repayment rules.

Agriculturists' Loans Act (ALA) 1884

The second special law under the *takavi* system was the ALA. For all the agricultural needs not covered under the LILA 1883, like purchase of seed or cattle, government provided loans under the ALA. These loans, too, were given to owners or the occupiers of arable land.

In contemporary terms, ALA loans are similar to crop or short-term loans except that the crop loans now involve an overdraft-like facility. ALA loans, in comparison, were paid-out like normal loans with or without instalments. Additionally, second and subsequent instalments under ALA

²⁰ This has been calculated using three ratios (i) In 1920, approx. Rs. 1= 0.1 GBP and (ii) 1 GBP in 1920 = 45.71 pounds in 2020 prices; (iii) 1 pound = Rs. 96.17 in 2020. Using this data, we found that Rs. 1 in 1920 = Rs. 433.05 in 2020. Prices in 1920 have been converted to 2020 prices using the same formula throughout the text.

²¹ According to Ray (1915), some loans went up to perpetuity too as those were attached to the life of the “work”. For example, a loan for constructing a well was connected to the life cycle of the well and, for a well-made long lasting well, the payments were allowed to go to perpetuity.

loans were conditional, unlike in the case of crop loans today (although existing cropping pattern, land type and crop type are assessed before sanctioning a limit say under KCC).

On an average, the amount of loan sanctioned per case under ALA was about Rs.700 (which is equal to about Rs. 3.03 lakhs at 2020 prices)²⁰. Based on oral or written applications submitted by farmers seeking loans, collectors sanctioned loans on a case-by-case basis. This loan, too, was given to an individual farmer or a group of farmers. The interest charged on these loans was *one anna per rupee* or 6.25 per cent per annum, the same as for LILA loans.

The smaller-valued loans were given in a single instalment, and the larger-valued loans were disbursed in more than one instalment. In the latter case, all instalments after the first instalment were released conditionally after "the sanctioning officer had an inquiry made locally and satisfied himself that satisfactory progress is being made with the work for which the loan was sanctioned" (Ray 1915).

It is important to note that in the case of both LILA and ALA loans, arrears were treated as arrears of land revenue. This gave powers to the *tehsildar* to impose penalties and undertake the sale of collateral (land) in case required to settle unpaid dues. This practice of treating arrears on agricultural loans as arrears of land revenue continues till date (A brief explanation on this system is presented in Box 1).

Box 1: Equating loan arrears to land revenue arrears and penalties thereon.

Under the Seventh Schedule of the Indian Constitution, land is under List II – State List. Every year, state governments collect revenue on land from landowners. The payment is made on a per acre basis that varies across land size, land type, etc. Due to shrinking landholdings and evolving land reforms, land revenue (LR) to be paid by small and marginal farmers has been declining over time. In Uttar Pradesh, for example, farmers holding less than 1.26 hectare of land are exempted from payment of land revenue. Land revenue rates for holdings above 1.26 hectares vary according to the type and quality of land.

Since ancient times, land revenue has been a major source of funds for kings and governments and any default in payment of land revenue has resulted in punitive actions including imposition of penalties, auction of personal and commercial properties and even imprisonment to coerce the defaulter to repay. Arrears on farm loans were administratively treated as equal to arrears on land revenue. This equality allowed the administration to treat the two types of defaulters alike. In case of a default on farm loans, the revenue official had the power to imprison defaulting farmer and undertake the sale of the land to settle unpaid dues. The practice continues to date except that instead of the central government, each state has its own rules, which outline how the defaulting farmer should be treated.

In 2002, the central government enacted the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFESI) Act. This Act outlined the procedure for recovering loans from a defaulting borrower. Provisions under the Act allowed banks and other financial institutions to recover their loans by auctioning the personal and commercial properties of the borrower. Agricultural loans were outside the Act's purview. In terms of state laws in this regard, we give below the example of Uttar Pradesh.

In 1950, the state government enacted the UP-Zamindari Abolition and Land Reforms Act and, in 1973, the Uttar Pradesh Agricultural Credit Act. Under these laws, banks could recover their dues as arrears of land revenue. Under Section 11.A...“recovery in the case of personal security – (i) Where any amount of financial assistance is granted by a bank to an agriculturist and the agriculturist fails to pay the amount together with interest on the due date, then without prejudice to the provisions of Section 10-B and 11, the local principal officer of the bank...may forward to the Collector a certificate (also referred to as the recovery certificate) in the manner prescribed specifying the amount due from the agriculturist; (ii) The certificate referred to in sub- section (i) may be forwarded to the Collector within three years from the date when the amount specified in the certificate fell due; and (iii) On receipt of the certificate, the Collector shall proceed to recover the amount specified therein together with expenses of recovery as arrears of land revenue, and the amount due to the bank shall be paid after deducting the expenses of recovery and satisfying any Government dues or other prior charges, if any.

The Section 279 of the UP Zamindari Abolition and Land Reforms Act, 1950, provided the following procedure for recovery of arrears of land revenue: “...(i) by serving a writ of demand or a citation to appear on any defaulter;(ii) by arrest and detention of his person; (iii) by attachment and sale of his movable property including produce; (iv) by attachment of the holding in respect of which the arrear is due; (v) [by lease or sale] of the holding in respect of which the arrear is due; (vi) by attachment and sale of other immovable property of the defaulter, [and] (vii) (g) by appointing a receiver of any property, movable or immovable of the defaulter.].” The Act provided for arrest/detention of defaulter for up to 15 days under Section 281. Women and minor children were not liable to arrest or detention under this section.

At present, the UP-Revenue Code, 2006 (UP Act No. 8 of 2012) governs matters relating to revenue on agricultural land. Section 170 of the Act lays down the procedure for recovery of dues as arrears of land revenue. Section 171 has provision for the arrest and detention of a defaulter for a period up to 15 days. Banks are still able to issue recovery certificates if the loans have been issued under any scheme of the government.

In the case of Punjab, the Punjab Land Revenue Act of 1887 and Punjab Public Moneys (Recovery of Dues) Act, 1983, enables the collector to recover agricultural loans as arrears of land revenue. In case the recovery certificate is issued, the defaulting farmer can be imprisoned for 30 days. Similar rules prevail in other states like Maharashtra; however, this state does not permit “...arrest unless the default is willful and the defaulter is given an opportunity (of 10 days) to show cause against his arrest and detention.”

Disbursal and outstanding loans under LILA and ALA

In the ten years between 1891 and 1901, *takavi* loans worth Rs. 6.25 crores (i.e., about Rs.2,706 crores in 2020 prices)²⁰ were distributed in India (Ray 1915) (Table 6). That translated to an annual average of about Rs.62.5 lakh (or about Rs.270 crores at 2020 prices)

Table 6: Agricultural Advances by the Governments between 1891and1901

Loans	ALA	LILA	Total	Unit
Disbursed	3.48 (56%)	2.77 (44%)	6.25 (100%)	Rs. crore
Returned	0.75 (27%)	2.02 (73%)	2.77 (100%)	Rs. crore
Outstanding	2.73 (78%)	0.75 (22%)	3.48 (100%)	Rs. crore

Source: Ray 1915.

Note: Values in parenthesis are per cent share of the total.

Most LILA loans went to Madras, Punjab, and Bombay provinces for irrigation works, and most ALA loans went to Punjab, United Provinces (comprising parts of present-day Uttar Pradesh and Uttarakhand), and the Central Provinces (comprising parts of current day Madhya Pradesh, Maharashtra and Chhattisgarh) (Ray 1915). As this system was driven by district-level demand and not by an administrative mandate, an aggressive and proactive district collector determined how much *taccavi* loans got disbursed in his/her district. Ray (1915) further notes that about half these loans were given during the famine years of 1896-97 and 1899-1901.

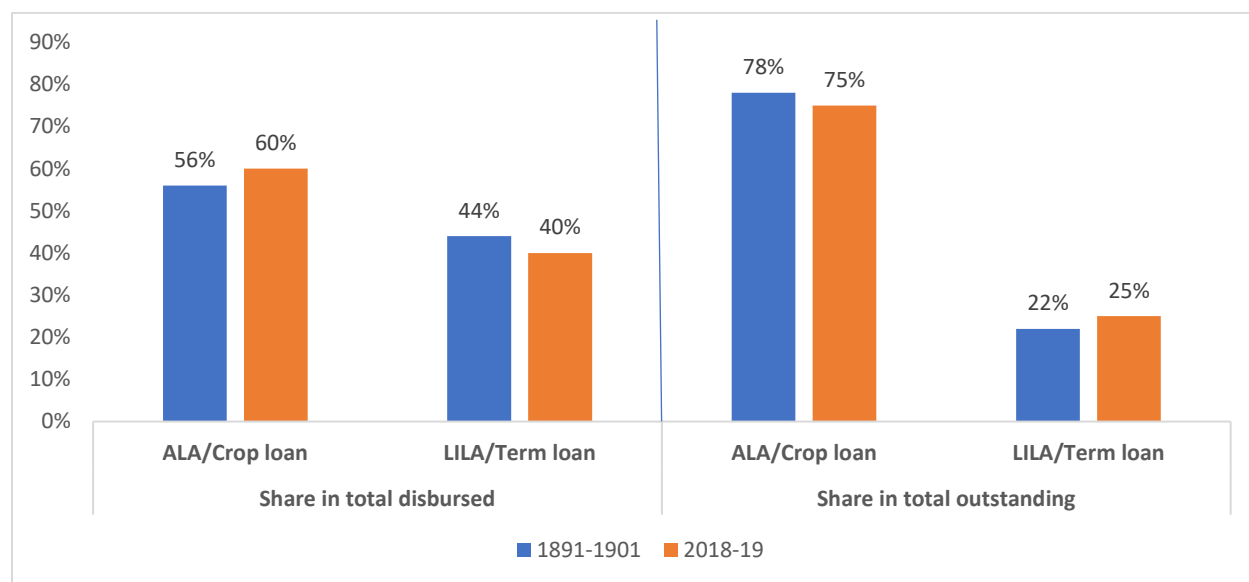
Two points can be inferred from Table 6:

1. More loans went out as agricultural loans (ALA) (56 per cent) than for land improvement (LILA) (44 per cent); and
2. As of March 31, 1901, there were about Rs.3.5 crores worth of outstanding loans, and close to 78 per cent of these were due to ALA loans.

An interesting fact emerges upon comparing data for 1901 (Table 8) with data for 2018-19 (Figure 12 and 13 in Chapter 1) (Figure 21). In both the years, the share of ALA or crop loans is higher in total outstanding credit than their share in the total disbursed credit. In 1901, 78 per cent of the outstanding loans were on account of ALA loans and, in 2018-19, this rate was 75 per cent.

Likewise, in case of total loan disbursements, the share of ALA (or crop) loans was 56 per cent in 1901 and about 60 per cent in 2018-19.

Figure 21 Pattern in Agricultural Loans Disbursal and Outstanding (1901 vs. 2018-19)



Source: Ray (1915) and DBIE, Reserve Bank of India.

Figure 21 suggests that farmers are likely to default more on crop (or ALA) loans than on long-term or LILA loans.

Is the lower duration of a crop loan causing the high rates of default? Or is it the inherent risk in agricultural operations (which are vulnerable to droughts, floods, pest attacks, etc.) that makes farmers default on these loans? Or is it both? Or more recently, is it the farm loan waiver schemes, where waivers are announced on crop or short-term loans that harms the credit culture of the state and makes farmers' default in anticipation of benefitting from an FLW, causing the high rates of default? We examine these questions in the following sections and chapters.

Suspension or remission of loans during distress

Returning to the history of FLW, our research shows that during times of distress or when there was "proof of the failure of crops from causes beyond the borrower's control, or of other exceptional calamity rendering the payment of instalments unduly burdensome to him," unpaid dues were found to be settled, *inter alia*, in three ways:

1. Suspension of payment: The collector had the right to suspend (or postpone) the payment of interest or principal amount due on the loan on a case-by-case basis. Every suspension was to be reported by the collector to the commissioner. In some cases, the total amount to be repaid stayed the same, and no interest was to be charged for the period of suspension (Sivaswamy 1939);
2. Reducing land revenue: During times of distress, sometimes, instead of waiving the loan or interest, the collector allowed waiver (or remission) on the land revenue to be paid by the farmer. This offered help to distressed farmers while retaining the loan with interest as originally decided (Ray 1915);
3. Remittance (or waiver) on loans: History has several instances where the principal or the interest or both were remitted during times of distress (Ray 1915). However, larger number of cases are reported where remittances were offered on the interest component of loans (Settlement Committee 1916). The Government of India permitted local governments dealing with *takavi* loans to hand out remissions to the lenders "when a work failed from causes beyond the borrower's control and when recovery of the loan in full would imply serious hardships (on the borrower)".

Remissions or waivers were 'State Charities'?

It is interesting to note that the Indian government in the early 1900s considered loan waivers or remissions as 'state charities' (Famine Commission 1901, Irrigation Commission 1901-1903, Famine Codes as given in Ray 1915). The government was of the opinion that loans, even during tough times, should always carry interest at the usual rate. With due regard to subsequent seasons and the circumstances of the borrowing farmer, "repayment of these loans should take precedence (even) over the recovery of arrears on land revenue." In times of famine or distress, the government preferred not to waive loans; instead, they tried to rely on offering a combination of free grants and repayable loans²² (Ray, 1915).

Before we progress with more recent history, four points from the past are summarised for reference.

1. *Takavi* loans are more like the institutional loans today.

²² There was a provision for free grants in the *takavi* system (Ray 1915).

2. Earlier, *takavi* loans were handled by district-level officials headed by district collectors. Today (as also seen in Chapter 1), district-level committees chaired by the district collector guide the credit system but the loans themselves are handled by the financial institutions that are regulated by the Reserve Bank of India (RBI). The Ministry of Finance, Government of India decides the rules under priority sector lending (PSL).
3. Earlier, district level officials looked upon farmers' loan (and remission) applications on a case-by-case basis, but this has changed over time with most decisions applying universally to a subset of beneficiaries, irrespective of independent circumstances.
4. Historically, governments appear to have favoured grants over loan waivers or remissions to support distressed farmers. The repayment of these agricultural loans took precedence (even) over the recovery of arrears on land revenue.

The 1980s

Haryana's farm loan waiver of September 1987 is the first significant farm loan waiver in recent history. The Lok Dal government of Mr. Chaudhary Devi Lal announced this first state-wide waiver before the 1987 state elections. For every farmer in the state, he promised to waive off loans of amounts up to Rs.10,000 taken from co-operative credit institutions (Gupta 1989). Eventually, Mr. Devi Lal won the election.

However, there was strong disapproval from the RBI, the then RBI Governor, R.N. Malhotra, who opposed the waiver vehemently and said that a state's Chief Minister could not issue instructions to nationalised banks who were only obliged to follow RBI guidelines (ORF 2017). But Mr. Devi Lal implemented the waiver anyway. The eligible beneficiaries under the scheme were cultivators, agricultural labourers, artisans, petty shopkeepers and other weaker section of society (Gupta 1989). The central government did not support the waiver; the state government raised funds by issuing bonds and raising taxes to deliver the waiver. The debt-relief cost the state exchequer about Rs.227.51 crores (Rs.2087.85 crores at 2019-20 prices)²³, although the state government originally budgeted about Rs.59.68 crores (Rs.547.65 crores at 2019-20 prices). It benefitted approximately 11.7 lakh beneficiaries (Gupta 1989).

²³ Calculated using CPI AL with 1960-61 as base

The 1990s

Mr. Devi Lal's political win in the state elections in Haryana triggered a spate of FLW announcements. Even though there was no concrete evidence correlating the announcement of FLW with the success in election, anecdotal corroborations led most other parties in the states and in the central government to declare FLWs.

The first big announcement came from the Janata Dal, which formed the government at the centre in 1989. Mr. VP Singh (leader of the Jan Morcha) announced a countrywide loan waiver (Agricultural and Rural Debt Relief Scheme (ARDRS)) where every farmer's overdue loan (up to Rs.10,000) was waived. The ARDRS covered short-term loans (including those restructured into medium-term loans) given by public sector banks and regional rural banks (RRBs) to farmers to undertake agricultural activities. Only loans given since April 1, 1986 which were overdue as on October 2, 1986, or were chronic over dues as on October 2, 1986 (cut-off date) were eligible for waiver. In the case of short-term loans (whether restructured or not), loans of only those farmers who experienced either two or more bad crop years or experienced the loss of any asset were eligible. This waiver scheme cost the government Rs.7,825 crores at the time and benefitted 3.2 crores borrowers. This scheme helped about 53 per cent of borrowers in the agricultural sector and remitted about one-third of the total outstanding farm loans (Shylendra and Singh 1995).

There were some policy innovations in FLW too. For instance, in 1996, the Tamil Nadu government did not waive the principal but waived the interest instead. It waived the 3 per cent penal interest on overdue loans that costed the state government about Rs.20 crores. Later in 1999, the Tamil Nadu government spent another Rs.36 crores to provide an interest waiver (7 per cent interest on outstanding loans was waived) on crop loans taken in the cropping season 1999-2000 (Raj and Prabhu 2018).

Right from the time of the announcement of the first biggest loan waiver in Haryana, the RBI has continuously argued against loan waivers pointing to their detrimental impact on the country's credit culture (ORF 2017). Despite such warnings, successive governments have continued with announcement of FLWs.

The 2000s

This decade is marked by an increase in the number of FLW schemes. The Tamil Nadu government announced five loan waiver schemes between 1996 and 2004. Interestingly, all provided waivers on interest (or penal interest) and not on the principal outstanding amount (Raj and Edwin 2018). As per anecdotal evidence (discussions with policy makers), it emerges that GOI was tracking farmer responses to these interest waivers. Encouraged by the farmer's positive response, the GOI announced its interest subvention scheme (as discussed in Chapter 1) of 2006-07. By reducing the effective interest burden on farmers, GOI aimed to make it easier for the borrowing farmer to repay.

While policy innovations were being introduced on one side (such as interest subvention policy of 2006), instances of FLW continued in various states, on the other. The most notable was the FLW declared by the central government in February 2008.

In February 2008, the ruling United Progressive Alliance (UPA) announced its intention to implement the Agricultural Debt Waiver and Debt Relief Scheme (ADWDRS). The country was entering a new election cycle (April 16, 2009), and the FLW announcement (February 29, 2008) was made in the background of rising household debt and non-performing assets in rural India (Kanz 2016). After the elections, when the UPA returned to power (May 22, 2009), the waiver scheme was launched as promised.

Unlike older FLW schemes, which generally focused on short-term loans, ADWDRS provided waiver on both short-term (production) loans and long term (investment loans). It included loans disbursed to farmers in the preceding decade (between April 1, 1997, and March 31, 2007). The loans taken from scheduled commercial banks (SCBs), local area banks (LABs), co-operative credit institutions, and regional rural banks (RRBs), which were overdue as on December 31, 2007, were eligible for waiver under the scheme. The benefit of the waiver differed between types of farmers. For short-term production loans, (i) small and marginal farmers (SMF) (< 2 hectares of land) were eligible for a full-waiver, and (ii) *other* farmers (> 2 hectares of land) were eligible for relief of Rs.25,000 or a quarter of their eligible overdue amount, whichever was higher. In the

latter case, the waiver was given as a one-time settlement offer, on the condition that the remaining amount would be repaid. In the case of investment loans taken for agricultural purposes, a farmer was defined in terms of the loan amount. An SMF was one with a loan of up to Rs.50,000 and "others" had loans greater than Rs.50,000. ADWDRS had cost the government Rs.52,000 crores and it benefitted more than 2.9 crores farmers (RBI 2017).

As a departure from the standard version of the FLW schemes declared in those years, Kerala introduced the Kerala Farmers' Debt Relief Commission Act in 2006 to provide relief to farmers in distress due to indebtedness (Kerala Government 2006).

“Annexure 8: Case Study - Kerala Debt Relief Commission Act, 2006” provides details of Kerala’s scheme. The Act was based on a pre-independence era model of farm debt relief brought to life by Sir Chhotu Ram (Nidheesh 2018). (Please refer Box 2 for further details on Sir Chhotu Ram).

The Kerala Farmers’ Debt Relief Commission was set up and it continues to function till date where debt relief (principal, interest or penal interest) to farmers was provided. The debt relief does not exceed “75 per cent if such debt is Rs. 50,000 or less and 50 per cent, if such debt exceeds Rs. 50,000, arrived at after settlement or whichever is less”. Landowners, tenants and agricultural labourers were eligible for debt relief under the Act. As per Kerala government’s revenue minister, from 2007 until November 2019, a sum of Rs.208 crores have been disbursed to farmers as debt relief by the commission (The Hindu 2019).

Can GOI adopt and apply this model to the entire country? That may not be practical as it would require political persuasion (Narayan 2019). Already the Kerala model has been criticised for its long processing time and delays, and limited coverage.

Box 2: Sir Chhotu Ram and Punjab's agrarian revolution

During the Great Depression (1930s), there was a greater fall in the prices of agricultural produce relative to the fall in the prices of manufactured goods. The fall in prices and stagnant production costs made it difficult for farmers to repay their debt (Chopra 1938). At the time, Sir Chhotu Ram was an influential farmer leader from Punjab and he chose to assist farmers by operating politically through the new Legislative Council established under the Montagu-Chelmsford Reforms (Wallace 1980). Sir Chhotu Ram belonged to the Unionist Party. He was able to change Punjab's political landscape. He insisted on the existing rural-urban division in the states. The rural-urban divide became significant in areas such as relief to farmers from indebtedness, distribution of taxation, allocation of revenues, education systems, distribution of government posts and the composition of the cabinet. Sir Chhotu Ram wanted a rural centric approach to governance in the state of Punjab (Wallace 1980). Specifically, for the agrarian revolution in the state, Sir Chhotu Ram and members of the Unionist party lobbied for important legislations. The most relevant, in our case, were the Punjab Relief of Indebtedness Act (1934) and Punjab Debtors Protection Act (1936), along with Punjab Registration of Money Lenders' Act (1938) and the Punjab Restitution of Mortgaged Lands Act (1938). The main aim of these reforms was to relieve farmers from the increasing burden of debt (Chopra 1938).

Punjab Relief of Indebtedness Act (1934): The important provisions under the act were related to first, the *rate of interest on loans*: The act stated that the rate of interest on secured loans could not exceed 9 per cent per annum compound interest and 12 per cent per annum simple interest. These rates were 14 per cent and 18.75 per cent respectively for unsecured loans. Second, the Act mandated the *establishment of settlement boards*. The boards were set up for amicable settlements between creditors and debtors. For the settlement, any of the parties could fill out and submit an application. Third, a *ceiling was imposed on loan recovery amounts in the courts*; this caveat stated that "no court shall grant a decree for a larger sum than twice the amount of the sum taken as principal (Chopra 1938)

Punjab Debtors Protection Act (1936): This act aimed to protect debtors from usurious moneylending practices. As part of the Act, there were restrictions on how creditors could recover amounts pending with debtors. Attachment or sale of standing trees and crops other than cotton and sugarcane were exempted under the Act. It also provides *partial* exemption for debtors. As per Chopra 1938, "Undoubtedly the Act places restrictions in the way of the creditor in the realisation of debts in certain cases, but here it will help the poor and the needy."

Punjab Registration of Money Lenders' Act (1938): The act aimed to regulate moneylenders in the state. As per the act, every moneylender was to register his name at the district collector's office at a registration fee of Rs.5. The moneylender was also required to apply for a licence (which includes a pre-prescribed fee on collection of payments), which is liable to be cancelled if the moneylender is found to be dishonest and fraudulent and/or he is found to charge rate of interest higher than that prescribed under the Punjab Debtors Protection Act (1936) and/or the moneylender has been held by a court for violating the provisions of section 3 of the Punjab Regulation of Accounts Act in more than two suits.

Punjab Restitution of Mortgaged Lands Act (1938): The Act laid rules that applied to mortgages prior to June 8, 1901. The Act states that if the district collector found that the mortgage benefits to the creditor equals or exceeds twice the amount of the principal loan amount, the mortgage can be returned back to the debtor. Besides, if the benefits of the mortgage to the creditor, while in possession, is less than the principal amount, the district collector can order payment of compensation by the debtor to the creditor based on pre-decided conditions. However, the pre-conditions at which debtor compensates the creditor (based on amount and duration of mortgage) were highly discriminatory (Chopra 1938).

In summary, the aim of these legislations was two-fold. First, to secure debtors from usurious money recovery schemes present at the time and second, regulating moneylenders in the state of Punjab.

The 2010s

Interestingly, after the central government's ADWDRS (2007-08), there were no major waivers until 2012, after which the frequency of FLWs has increased. Their tacit effectiveness as a political tool has kept the popularity of FLWs high (Himanshu 2019). Table 7 presents a snapshot of FLW schemes announced and implemented in India since 2012.

Table 7: Farm Loan Waiver Schemes Implemented in India since 2012

S. No	State	Year	Amount Budgeted (Rs. cr.) ²⁴
1	Chhattisgarh	2012	-
2	Uttar Pradesh	2012	1650
3	Karnataka	2012	3500
4	Andhra Pradesh	2014-15	43000
5	Telangana	2014-15	17000
6	Chhattisgarh	2015-16	6100
7	Tamil Nadu	2016-17	6041
8	Jammu & Kashmir	2016-17	244
9	Maharashtra	2017-18	34020
10	Uttar Pradesh	2017-18	36360
11	Punjab	2017-18	10000
12	Karnataka	2017-18	8165
13	Rajasthan	2018-19	18000
14	Madhya Pradesh	2018-19	36500
15	Chhattisgarh	2018-19	6100
16	Assam	2019-20	600
17	Jharkhand	2019-20	2000
18	Maharashtra	2019-20	22000

Source: Compiled by authors using various sources such as RBI, PIB, and news articles.

Since 2012, 13 Indian states have implemented FLW schemes. Some states like Uttar Pradesh (2012 and 2017), Maharashtra (2017 and 2019), Karnataka (2017 and 2018), and Chhattisgarh (2012, 2016, and 2018) have implemented several tranches of FLWs. Aggregating the budget outlays, we see that the 17 schemes involved an expenditure of about Rs.2.51 lakh crores.

²⁴ The amount budgeted is not equal to the amount actually spent. The actual value spent on waivers can be higher or lower than the amount mentioned in the budgets.

Farmers everywhere are distressed due to risk from factors beyond their control. Different countries use different combination of policies to support their distressed farmers. We next turn to selected global examples to identify ways countries support their distressed farmers.

Global Experience

This section outlines experiences of some selected countries regarding policies adopted to help their distressed farmers. We look at policies implemented by the Canadian, Brazilian and Australian governments.

Canada

In Canada, the federal government operates two major loan guarantee programmes under which financial institutions are able to offer loans to farmers at an interest rate lower than that charged on loans whose repayment is not guaranteed by the government. Moreover, the financially self-sustaining federal crown corporation, Farm Credit Canada, provides a range of financing options for farmers and related businesses.

Enacted in 2009 as the latest in a succession of similar loan guarantee programmes, the Canadian Agricultural Loans Act (CALA) is designed to increase the availability of loans to farmers to establish, improve and develop farms and to agricultural co-operatives to process, distribute, or market farm products. A full-time or a part-time farmer can be an eligible borrower. The maximum CALA loan is \$ 500,000 (Canadian dollar) per farmer for property and \$350,000 for all other farm-related purposes, with repayment periods of up to 15 years (Agriculture and Agri-Food Canada). The CALA guarantee protects the institutional lender. The lender must take the same care and exercise the same prudence as in conducting ordinary business and is required to register the loan with the CALA programme. In case of default on a CALA registered loan, and subject to the lender having met the requirements of the CALA programme, the government pays 95 per cent of the lender's loss. The defaulting farmer remains liable to pay the debt now owing to the government.

Operating for several decades, another policy is Canada's Advance Payments Programme (APP). It offers federal loan guarantees on loans taken by about 33 producer organisations (the APP administrators) from financial institutions (Government of Canada). This enables an APP administrator to make a payment to the farmer before all the product is sold, i.e., an advance payment. Based on 50 per cent of the value of the farmer's agricultural produce, the farmer can obtain an advance of up to \$1,000,000 per year. The advance (or loan) is interest-bearing and is to be repaid to the APP administrator within 18 months of the product being sold. If the farmer defaults on repayment and the government have honoured the guarantee to the financial institution, the farmer becomes indebted to the government. An additional feature of the APP is that the government pays the interest on the first \$100,000 of the advance.

Brazil

The most prominent case of tackling agricultural distress in the South American region has been that of Brazil. In the 1990s and 2000s, there was a surge in outstanding farm debt. To address this, the government, adopted a policy of debt regeneration for all farmers (Madre and Devuyst 2016).

Brazil has a National Programme for Strengthening Family Agriculture (*Pronaf*), which is intended to "stimulate income generation and improve the use of family labour, through financing activities of agricultural rural services and non-agricultural services developed in rural establishments or nearby community areas" (BRASIL 2012). For smallholder farmers, who have used *Pronaf* services for "agricultural costs or investment operations", *Proagro Mais* was implemented as a loss compensation mechanism based on cost indemnity principles. The main focus of *Proagro Mais* was to help avoid defaults on agricultural credit due to uncertainties associated with agricultural activities. To avail the benefits, farmers pay the minimum premium for which the federal government acts as an insurer against losses due to natural disasters (Onate, Ozaki and Ureta 2016).

Australia

Regional Investment Corporation (RIC) is a corporate commonwealth entity of the Australian Government providing finance to farmers and farm-related small businesses. RIC was approved through the Regional Investment Corporation Act, 2018, (Australian Government 2018). RIC provides crop loans, investment loans and drought loans. Until June, 2020, 635 loans, valued at AUD715 million had been approved by RIC. The tenure of these loans could be as long as 10 years and given at a variable rate of 1.77 per cent (RIC 2020).

In addition, the Australian government supports its distressed farmers via a direct cash support. Through its Drought Community Support Initiative, the Australian government aims to improve the economic status of stakeholders in agriculture facing hardships due to drought. The initiative was implemented in 2018 with a limit of AUD 3000 per household,²⁵ and an amount of \$65.4 million had been disbursed by the Australian government until 2019-20 (Australian Government 2019).

Clearly, price and production risk continue to haunt farmers globally but rather than loan waivers, the governments outside seem to prefer to support and empower their distressed farmers via loan refinancing, increasing repayment duration, debt guarantees to the lender, direct cash support and insurance programmes. Interestingly, these global experiences resound with India's own historical ideology and experience (section 2 in this Chapter) where, inter alia, British administration gave precedence to loan repayment and preferred to support distressed farmers mostly via grants.

So, how did Indian policymakers shift to FLW? Was it their efficacy in alleviating farmer distress that got them the political legitimacy? There are varying views in research literature on farm loan waivers that debate their efficiency, impact, and efficacy. In the following section, we collate selected literature on them.

²⁵ Assistance is provided to farmers, farm workers and farm suppliers/contractors.

Literature on Impacts of FLWs

We begin by presenting a review of existing research literature in Table 8. The table summarises recent literature relating to the design and welfare impact of debt relief²⁶ or loan waiver schemes implemented in India. Research papers are separated based on whether they favour FLWs or not.

Table 8 Existing Literature on FLWs

S. No.	Authors	Objective	Conclusion – In favour of FLW	Conclusion – Against FLW
1	Hazell 1992	Assess role of agricultural insurance in developing countries	Due to the uncertainty surrounding income from farming, households' fear repaying debts and meeting overhead costs and basic living cost. Debt relief to these small and marginal farmers comes as a risk-management strategy.	-
2	Shylendra and Singh 1994	To study the impact of	-	Debt waivers hamper the functioning of financial institutions as it increases loan over dues. Hence,

²⁶ The term debt-relief and loan-waiver are used interchangeably through the work.

		Agricultural and Rural Debt Relief Scheme (ARDRS) 1990 and performance of co-operatives		the paper suggests alternatives like effective insurance schemes and an incentive-based loan recovery system.
3	Jain and Raju 2011	To study the behaviour of households following a loan waiver	-	Encourages households to be less cautious while using loans for non-productive purposes, as they expect new loan waiver announcements. This leads to the moral hazard problem, with only 3 per cent of households repaying their post-waiver loans.
4	Ramakumar 2012	To study the impact of ADWDR scheme of 2008 on households	-	The study finds that there were inherent biases against informal sector borrowers under ADWDRS, 2008, as a high proportion of indebtedness was observed in states with a high share of informal sector loans. Besides, the results suggest that full loan waivers were relatively few.

		with informal sector credit.		
5	Robert 2012	To study the effect of debt relief on subjective wellbeing (happiness and life satisfaction)	It has been reported that beneficiaries of waiver schemes are happier and saw the positive impact of loan waiver schemes as it leads to an overall increase in well-being.	-
6	De and Tantri 2013	Study the impact of ADWDR 2008 scheme on the saving and consumption behaviour of households	Debt relief leads to an increase in savings in the form of investments in jewellery (which increased by about 12 per cent to 21 per cent), but there was no change in consumption.	-

7	CAG Report, Government of India, 2014	-		The report says that the ADWDR scheme of 2008 did not achieve its envisaged goal of alleviating the situation of distressed farmers. This was because of inclusion and exclusion errors, improper reimbursement of loans, and non-issuance of debt waivers to 13 per cent of eligible SMF.
8	National Institute of Bank Management (NIBM) Report 2011	Evaluation of ADWDRS, 2008	-	The report states that for borrowers whose loan accounts were closed due to ADWDRS, only 18 per cent could secure new loans from co-operatives; this number was 71 per cent for RRBs and 81 per cent for commercial banks. The reports also observed an increase in the profits of co-operative and commercial banks in 2008-09 and of RRBs in 2009-2010
9	Hoda and Terway 2015	To study the cost and benefit of agricultural credit and debt waivers.	-	Loan waivers are considered a major cause of moral hazard, as farmers become habitual defaulters due to their expectation of new waiver schemes, leading to scaling down of lending to farmers by financial institution.

10	Kanz 2016	To study the impact of debt relief on the economic decisions of households.	-	Loan waivers do not increase productivity and investment but have an impact on borrowers' expectations. ADWDRS loan waiver scheme failed to reintegrate beneficiaries into a formal lending relationship.
11	Gine and Kanz 2017	To estimate the impact of ADWDR 2008 on formal and informal credit markets.	Post-waiver, banks shifted lending of credit to less risky regions, which was good as it led to higher efficiency of credit allocation	<p>1. There were moral hazard costs of bailouts due to which there was significant reallocation of credit away from districts with greater bailout exposure.</p> <p>2. Led to greater defaults on loan repayments</p> <p>3. Had no positive offsetting impact on productivity, wages or consumption in the economy</p> <p>4. Showed that the relation between loan defaults and electoral cycle got magnified after bail-outs. There were greater defaults around election times in anticipation of bail-outs.</p>
12	Chakraborty and Gupta 2017a	To analyse loan waiver and borrowing-	Reduces rural poverty and provides a hedge against weather shocks for poor farmers so that they can continue farming activities and	-

		consumption behaviour of farmers	protect their existing consumption pattern.	
13	Chakraborty and Gupta 2017b	To estimate the efficiency and sustainability of loan waiver schemes and households' access to new credit	Such loan waiver schemes help to lift farmers out of the poverty trap and reduce the problem of debt overhang as government frees the collateral of households, enabling them to re-apply for fresh credit.	-
14	Mukherjee, Subramanian and Tantri 2017	To study the effect of debt relief on distressed and non- distressed borrowers	Results show loan sanctions to distressed borrowers increased, while non-distressed borrowers have little impact on loan sanctions. Debt relief was also found to smoothen consumption expenditure.	-

15	Mitra et al. 2017	To estimate the impact of farm loan waivers on fiscal deficit and inflation	-	Loan waivers result in fiscal policy shocks that affect market borrowings and crowd-out corporate borrowings. A rise in fiscal deficit increases inflation, which increases input prices for farmers and reduces their income.
16	Raj and Edwin 2018	To examine the impact of Tamil Nadu's Agricultural loan waiver scheme of 2016	-	Findings suggest that a) before elections, farmers switch to nationalised bank accounts to benefit from loan waivers, if announced; b) post-waiver, there is an increase in new borrowers and c) Large farmers divide their landholdings among their family members to take the benefit from future debt relief schemes.
17	The RBI Report on State Finances 2018	-	-	(a) Debt waiver schemes deflect the fiscal consolidation path of states, (b) Did not find any evidence of improvement in farm productivity after waivers, (c) Found a lower probability of obtaining credit after a loan waiver for beneficiaries. Hence, concluded that FLW affected credit discipline and vitiated the credit culture.

18	Phadnis and Goswamy 2019	The political study of farm loan waiver schemes	-	Loan waiver schemes are political agendas for parties as there is a difference between announcements intended to woo rural voters and their implementation.
19	Narayanan and Mehrotra 2019	To study the consequences of loan waiver and design instruments to reduce negative the impact on the banking sector.	(a) Waving farm loan is considered better than writing off large defaults of industries and businesses regularly. (b) It helps farmers cope with debt overhang and avoid future defaults (c) Government has introduced some measures to provide relief to debt-ridden farmers through debt swaps, rescheduling of loan repayments to private moneylenders or Andhra Pradesh. Farmers Agricultural Debts (Moratorium) Act which had very little impact compared to debt waivers. (d) Unpaid loans block the formal sector credit flow, which affects the lending operations of	(a) FLW may affect average fiscal deficit and lead to inflation. (b) Overall government borrowing imposes a higher interest burden for states and crowds-out corporate borrowings

			banks. Debt waivers are able to infuse credit in times of stress	
20	Kumar et al. AERC Punjab 2020	To examine the impact on livelihood of beneficiaries of the farm loan waiver scheme.	Post loan waiver, Punjab and Uttar Pradesh FLW beneficiaries saw: (a) a rise in income; no evidence of factors found other than debt waiver (b) higher investment in livestock inventory like cattle and buffaloes (c) rise in household expenditure (d) decline in dependence on non-institutional sector by 25 per cent (e) as per farmers, the loan waiver reduced agrarian distress, and indebtedness.	

Source: Compiled by authors

We summarize the above review under the following heads:

1. **Distribution of Benefits:** From an analysis of the 1990s ARDRS, Shylendra 1995 found the entire FLW disbursements to be regressive in nature as the benefit increased with the landholding size, which implied that larger farmers received a greater share of the disbursed benefits. The share of SMF in disbursed debt relief was 16.6 per cent and of other larger farmers was about 74.5 per cent. He also found that after ARDRS, accessibility to fresh loans increased with landholding size. Nand and Omar 2019 closely studied FLWs in Andhra Pradesh and Telangana and found a weak relationship between FLW and farmer distress levels. However, Mukherjee et al, (2018) found FLW to benefit distressed borrowers. They found that after the 2008 ADWDRS, the loan performance of distressed beneficiaries improved whereas that of non-distressed beneficiaries worsened.
2. **Intended benefits vs. Reality:** An FLW scheme is expected to benefit indebted farmers in many ways: (i) remove the farmers' debt-overhang (ii) help farmers re-access fresh institutional credit (that are stalled due to repayment defaults) and (iii) encourage farmers to invest in agriculture that should improve productivity and incomes. We assessed how these benefits played out in reality based on the following research papers:
 1. Positive Impact:
 - a. Robert (2012) concludes that beneficiaries are happier and face less stress. In a broader context, loan waivers resolve the problem of debt overhang of beneficiary farmers, which allows continued access to credit from formal credit institutions.
 - b. Debt relief becomes extremely important where the risk of default is high due to 'catastrophic systemic risks' faced by a large number of borrowers (Narayan and Mehrotra 2019).
 - c. Mukherjee, Subramanian and Tantri (2017) show that debt waivers generate substantial benefits for distressed borrowers and can smoothen their consumption expenditures.
 2. Not so positive
 - a. Chakraborty and Gupta (2017) found that eligible households in districts that received the waiver diverted funds to meet conspicuous consumption needs. They found the post-waiver consumption expenditure of beneficiary

households to be greater than that of non-beneficiary households by roughly Rs.8000 per month.

- b. Giné and Kanz (2018) found that an FLW beneficiary found it difficult to raise fresh credit. The authors found that this was due to credit rationing practiced by financial institutions.
 - c. Raj and Prabu (2018) corroborated the findings in point b after analysing the loan waiver scheme implemented in Tamil Nadu in 2016. They too found that in the period immediately following the implementation of the waiver, the probability of non-beneficiaries receiving fresh credit rose vis-à-vis beneficiaries.
 - d. Banik (2018) found that credit rationing for small farmers arose due to the moral hazard of non-repayment that arises following a loan waiver, especially in rural areas, where operation costs for banks were already high.
3. **Cost of FLW:** Quite often, the cost of implementing a loan waiver exceeds its benefits. For instance, districts with more exposure to the ADWDRS received 36 cents (Rs. 26²⁷) of fresh credit for every dollar waiver, and those with less exposure received \$4 (Rs. 293) of fresh credit for every dollar waived (Gine and Kanz 2018). The Economic Survey, 2019-20, drawing on the relation between development and debt relief, cites the study of Kanz 2016 who had examined the 2008 agricultural debt waiver. He argues that the waiver did not benefit small and marginal farmers (land less than 2 hectares) whose loans were fully written off more than other beneficiaries (land greater than 2 hectares) whose loans were only partially written off. He also concludes that the SMF beneficiaries of full waiver consume less, save less, invest less and are less productive after the waiver as compared to the partial beneficiaries.
4. **Moral Hazard:** The development of the problem of moral hazard in the farming community can be seen dating back to the first nationwide waiver implemented in 1990. After conducting a survey of beneficiary households of the ARDRS 1990, it was found that 54.4 per cent farmers attributed their distress to genuine reasons such as failure of crops or death of animals, whereas the remaining 45.6 per cent simply mis-utilised the loans or were

²⁷ For context, the amount has been converted into Rs. based on \$ to Rs. conversion rate on May 15, 2020, where \$1 = Rs. 73.28.

expecting a waiver again; hence, they did not fall under the category of a genuinely distressed farmer (Shylendra 1995). Punjab State Level Bankers' Committee (SLBC) 2018 in its 144th meeting to discuss 2017-18 financials pointed out that the implementation of the debt relief scheme in Punjab in 2017 led to the stoppage of repayments by farmers.

The problem of moral hazard also entails increased instances of wilful default by farmers. Rath (2008) argues that waiver schemes promote wilful default as farmers with a history of prompt repayment felt cheated by the announcement of a loan waiver. Thus, in anticipation of future loan waivers, farmers were hesitant to repay loans even if they were in a position to do so. Interestingly, Kanz (2016) found farmers indifferent to the social stigma that was associated with being a defaulter. After ARDRS 1990, there was an increase in the number of intentional defaults, especially by non-beneficiaries, due to expectations of waivers in the future, as they did not want to miss out on the benefits (Shylendra 1995). Gine and Kanz 2018 echoed the same results when they evaluated ADWDRS 2008. They found that after the announcement of the scheme, defaults among previously sincere debtors rose. Raghuram Rajan in 2019 contended that loan waiver schemes were counter-productive and ruined the credit culture by creating expectations of similar schemes among debtors. Manda and Yamijala (2019) connected farm loan waivers with elections and found that farmers associated upcoming elections with higher chances of announcement of FLW schemes, leading to a rising trend in payment defaults by farmers.

5. **Impact on the banking system:** Kumar et al. (2020) observed a decline in dependence on non-institutional sector by 25 per cent in Punjab and Uttar Pradesh after FLW. Data from RBI reports showed that after the ADWDRS 2008, there was a spike in the number of NPAs (Lokare 2017). This was also observed by measuring state-level changes in NPA level for 2017-18 over 2016-17, which showed a significant increase in NPAs for all states that had announced a loan waiver programme in 2017-18 or 2018-19, indicating the presence of a moral hazard problem (RBI 2019). This phenomenon has also been linked to election bound states as they witness a significant increase in bad loan portfolios due to expectations of loan write-offs (Manda and Yamijala 2019). Manda and Yamijala (2019)

also state that banks that fear having their profitability affected earmark a portion of their profits as provisions as prescribed by the provision coverage ratio (PCR) guidelines. Delay in doing so implies lowering the capital base of the bank by using money to write-off bad debts. This leads to two things – either there is a possibility of the bank incurring the business risk of being subject to restrictions on credit disbursement or branch expansion, or, in order to prevent this from happening, the government has to facilitate the replenishment of their capital base, which it does by using taxpayer money. In the case of inability to collect a higher amount of tax revenue, the budget eventually runs into a deficit, with the attendant risk of a huge economic crisis in the making (Manda and Yamijala 2019). The section “Impact of FLW on incentives to lend” in Chapter 5 provides more detailed analysis on changes in credit lending related to FLW schemes.

6. **Fiscal Burden and Inflation:** Uttar Pradesh, Punjab, and Maharashtra announced loan waiver schemes in FY 2017-18, amounting to Rs.77,000 crores. This roughly amounted to 0.5 per cent of the country’s GDP for that financial year (Banik 2018). Loan waivers come with unspoken fiscal risks for state finances and can ‘deflect’ the state from its fiscal consolidation path. We expand this in Chapter 5. A study of the 2017-18 and 2018-19 union budget estimates shows that of the total fiscal slippage of 13 basis points in the state average revenue expenditure, 5 bps can be reliably attributed to loan waivers (State Finances Report 2018).

It is important to note that empirically, in the long run, there exists a non-linear relation between the fiscal deficit and inflationary pressure. Mitra *et al* (2017) find that when the fiscal deficit rose by 40 basis points (bps) on account of waivers in 2017-18, it led to a permanent inflation of 20 bps, *ceteris paribus*. Leeper (1991) reproduces the results seen by Sargent and Wallace (1981) by analysing the relationship between higher deficits and higher inflation. They too came to the conclusion that the government’s fiscal deficit is likely to push up prices causing inflation, leading to concerns over a tacit tax imposed on the economy due to inflation. In the chapter 5, we check for changes in inflation due to the implementation of debt relief schemes in Punjab, Maharashtra and Uttar Pradesh.

The section “Impact of FLWs on inflation” provides our detailed analysis of the issue.

7. **Impact on Market Borrowings:** Recent farm loan waiver schemes have contributed to a rise in states' debt, while the increase in the debt of some states shows signs of debt unsustainability (Mishra, Gupta and Trivedi 2020). This implies that an increase in government borrowings may firm up yields on state development loans (SDL), leading to more fiscal troubles for states in future (Mitra *et al* 2017).

Due to the increase in government borrowings, there is an upward swing in the general cost of borrowing as well, which leads to crowding-out of private investment. Besides, private sector lending regulations lead to a reduction in agricultural credit disbursements due to credit rationing in the years loan waiver schemes are implemented, although this impact on market borrowings is transitory (RBI 2019).

8. **Impact on consumption:** There are studies that look at the welfare impact of farm loan waiver schemes in term of their impact on consumption. De and Tantri (2013), Gine and Kanz (2017) and Chakraborty and Gupta (2017) argue that though farm loans waivers do not increase consumption, they reduce the poverty of the beneficiary and indemnify against weather shocks as an FLW helps farmers to continue farming activities and protects their existing consumption pattern (Chakraborty and Gupta, A 2017a). Kumar *et al* (2020) found that in UP and Punjab, the expenditure of FLW beneficiaries rose after the implementation of debt relief schemes in the two states. However, Kanz (2016) who tried to empirically understand the ADWDR scheme's impact on consumption found no such correlations between debt waiver and consumption increases.
9. **Political Impact:** Jha, Mohapatra and Lodha (2019) state that political parties use FLW schemes for electoral gains. However, Kumar *et al* (2018) found it wrong to link loan waivers with political wins, given the nature of these schemes supporting the large, "smart" farmers as opposed to the small and marginal farmers who are often not able to even secure formal loans from banks and other financial institutions. We discuss and build on these varied views in the next sections.

Elections and FLW Announcements

The electoral win for the United Progressive Alliance (UPA) in 2009 after the announcement of their intention to introduce a nation-wide farm loan waiver just before the elections got many to positively correlate the two. This electoral win somehow assured political legitimacy to farm loan waiver schemes. There is growing literature on the topic. Kumar *et al* (2018) found it wrong to link loan waivers with political wins due to the limited reach of the scheme. They attributed this to the inherent nature of these schemes, which effectively support large, “smart” farmers (who had taken bank loans and defaulted) as opposed to small and marginal farmers who are often not able to even secure formal loans.

In a more recent work, Phadnis and Gupta (2019) undertook a political analysis of FLW schemes. Some of the key findings are: (i) political parties were not found to be driven by development agendas or ideologies when they announced FLWs, which implies parties – left-wing, right-wing or centrist – irrespective of ideologies, announced FLWs; (ii) the authors squashed the causality between droughts (which may be taken as a proxy for farmer distress) and FLWs, by showing how waivers had been announced in areas irrespective of drought intensities; (iii) until 2016, most waiver schemes were announced by states who could afford the waiver fiscally; however, after 2016, high fiscal debt did not deter several states from announcing waivers. The timing of waivers was found to be an important factor determining the correlation between waivers and electoral wins – proximity to elections mattered. The closer the announcement of waiver was to elections, the greater was the political mileage gained by parties.

We present a list of FLWs announced in the country in the last three decades in Table 9. Corresponding to each waiver, the time of the elections and the result of the election for the political party that announced the waiver is given.

Table 9: List of FLW Schemes Implemented in India Correlated with Election Cycles

S. No.	Waiver Implemented by	Political Party	Time of election	Election Result
1	Haryana, 1987	Lok Dal	Early 1987	Won
2	Central Government, 1990	Janata Dal	December 1989	Won
3	Kerala, 2006	Communist Party of India (Marxist)	May 2006	Won
4	Tamil Nadu, 2006	Dravida Munnetra Kazhagam	May 2006	Won
5	Central Government, 2008	Indian National Congress (UPA)	May 2009	Won
6	Maharashtra, 2008	Indian National Congress (UPA)	October 2009	Won
7	Karnataka, 2012	Bharatiya Janata Party	May 2013	Won
8	Chhattisgarh, 2012	Bharatiya Janata Party	December 2013	Won
9	Uttar Pradesh, 2012	Samajwadi Party	2017	Lost
10	Andhra Pradesh, 2014	Telugu Desam Party	May 2014	Won
11	Telangana, 2014	Telugu Desam Party	May 2014	Lost
12	Tamil Nadu, 2016	All India Anna Dravida Munnetra Kazhagam	May 2016	Won
13	Uttar Pradesh, 2017	Bharatiya Janata Party	March 2017	Won

14	Punjab, 2017	Indian National Congress	March 2017	Won
15	Maharashtra, 2017	Bharatiya Janata Party	October 2019	Lost
16	Karnataka, 2017	Janata Dal (Secular)	May 2018	Lost
17	Rajasthan, 2018	Indian National Congress	December 2018	Won
18	Madhya Pradesh, 2018	Indian National Congress	December 2018	Won
19	Chhattisgarh, 2018	Indian National Congress	December 2018	Won
20	Maharashtra, 2019	Shiv Sena	October 2019	Win/Lost ²⁸
21	Jharkhand, 2020	Jharkhand Mukti Morcha	December 2019	Won

Source: Compiled by authors.

Note: Won or lost depends on the party affiliation of the chief minister. In Karnataka (2012), the party won, but the government resigned within a week's time.

We see that only four out of the twenty-one political parties lost the election following the promise and implementation of farm loan waiver schemes. These parties were the Samajwadi party in Uttar Pradesh, Telugu Desam Party in Telangana, BJP in Maharashtra, and Janata Dal (Secular) in Karnataka. In the case of Maharashtra in 2019, Shiv Sena was a part of the alliance with the BJP when the loan waiver scheme was announced. Subsequently, in October 2019, the BJP did not form the Government but the Shiv Sena did as part of another alliance with the Congress and NCP.

After this macro analysis on FLW schemes, the work hereon will focus on the three selected states of Punjab, Uttar Pradesh and Maharashtra.

²⁸ Shiv Sena was in a pre-poll alliance with the Bharatiya Janata Party for the 2019 elections in the state. The coalition was unable to form the government. However, Shiv Sena came to power by making a post-poll coalition with pre-poll opponent parties namely, the Indian National Congress (INC) and the Nationalist Congress Party (NCP).

Chapter 4: The Three Focus States: basis of selection and FLW schemes details

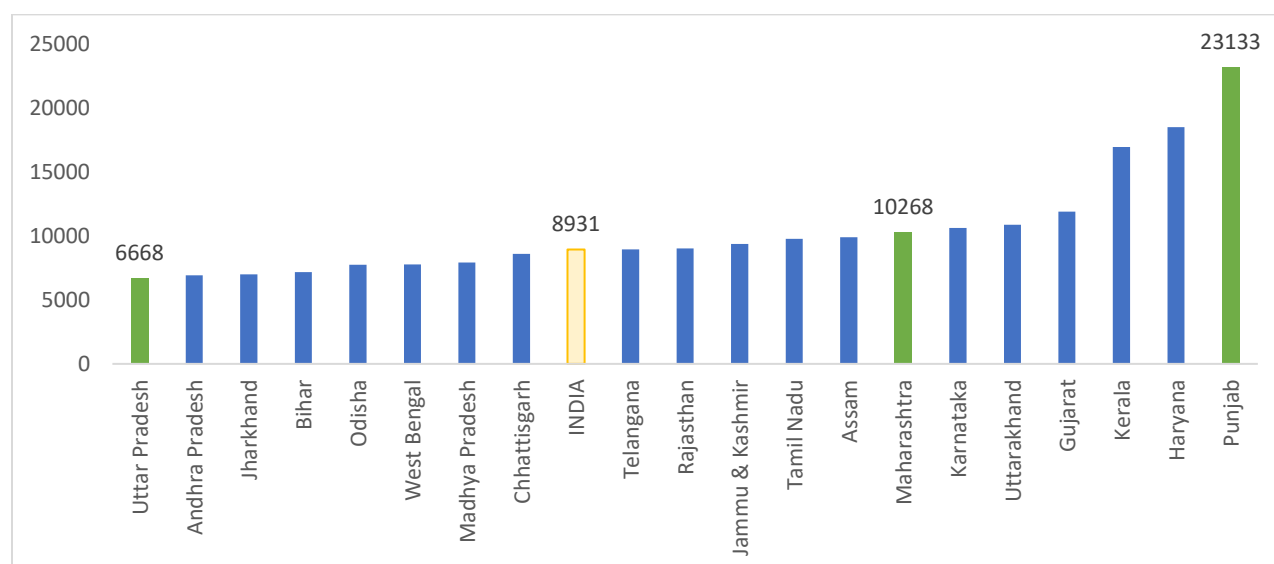
To understand the impact of FLW schemes, we narrow the analysis going forward to three Indian states of Punjab (PB), Maharashtra (MH) and Uttar Pradesh (UP).

It was important that we selected the states with caution. Four factors largely directed our selection:

1. **Level of farmer incomes:** The states were selected to represent the spectrum of farmer incomes – one state was to be selected from each of three set of states: (i) states with lower farmer incomes than all-India average; (ii) states with higher farmer incomes than the all-India average; and (iii) states with farmer incomes around the all-India average level.

According to NAFIS 2016-17, an average Indian farmer earned about Rs.8,931 per month in 2015-16 (Figure 1). Once we sorted the data on state-wise income from low to high, we found that farmers in Punjab earned the highest average monthly incomes of Rs.23,133 and farmers in UP earned the least at Rs.6,668 per month. By selecting these two states, we could evaluate the experience of the richest and the poorest Indian farmer.

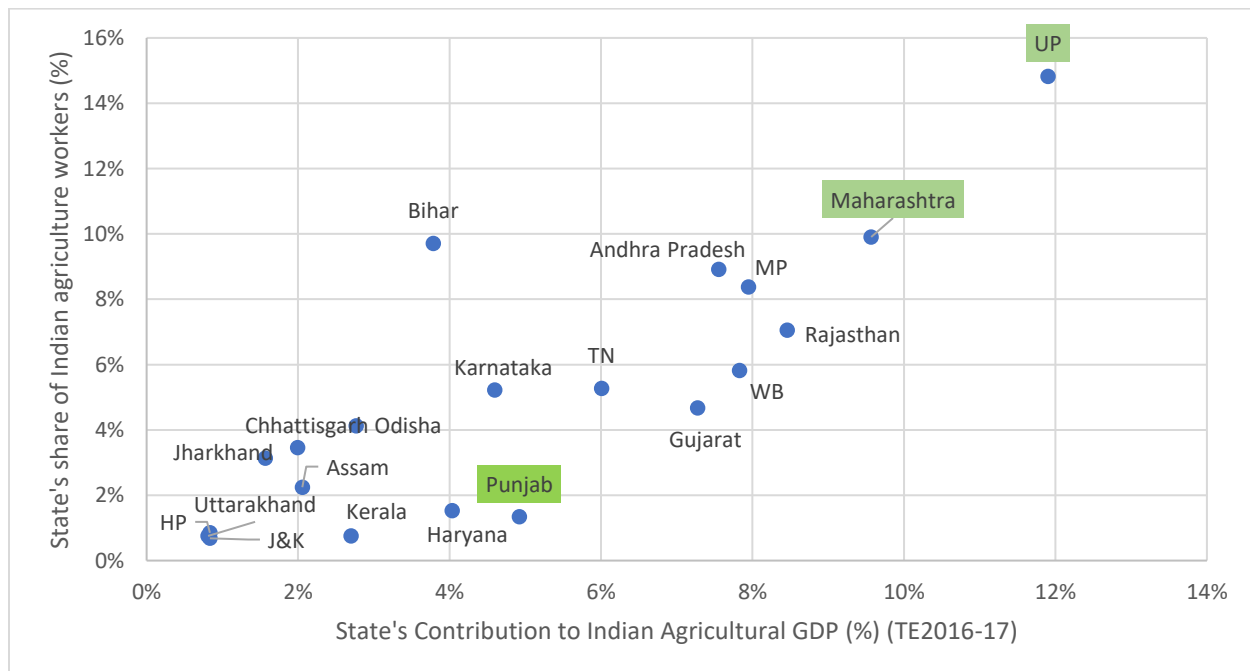
Figure 22: Incomes of Indian Farmers (Rs. /month)



Source: NAFIS 2016-17

2. **Level of farmer distress** – In the absence of any formal indicator of rural distress in the country, we measured distress via the pattern of farmers' suicides in the country. As per the data on suicides in India, published by the National Crime Records Bureau (NCRB), there were 1,34,516 suicides in the country in 2018-19, of these, about 8 per cent, i.e., 10,349, were farmers. Of total farmer suicides, about 34 per cent were reported in Maharashtra, the highest in the country. So, Maharashtra was also selected for the study.
3. **FLW experience of the farmers** – To avoid loss of information due to the time lag between the date of FLW benefit received by the farmer and the date of the survey, selection of the states should have been such where FLW schemes were recently implemented. In Punjab, Maharashtra and Uttar Pradesh, debt relief disbursements were made between 2017 and 2020, which suited our research perfectly.
4. **Representation of overall Indian agriculture** - The three shortlisted states together contributed about a quarter (26 per cent) of India's agricultural GDP. These states were home to about the 26 per cent of India's agricultural workforce (Figure 23). The selection of these three states enabled us to cover a significant proportion of the Indian agricultural workforce and output.

Figure 23: State-wise Share in` Agriculture Workforce and GDP



Source: MOSPI and Census 2011

Note: The three shortlisted states have been highlighted in green.

Landholding, Cropping Patterns and KCC Penetration in the three States

The Agricultural Census 2015-16 (2019) gives a state-wise estimate of the number of agricultural holdings and the area covered under them. Table 10 gives a summary of that information for the three selected states.

Punjab has 1.1 million operational landholdings, Maharashtra about 14.7 million and Uttar Pradesh about 23.8 million landholdings. In total, the three states account for 27 per cent of total Indian agricultural landholdings. Punjab has an average landholding size of 3.62 hectares, which is way above the national average of 1.08 hectares whereas, Uttar Pradesh and Maharashtra have an average landholding size of 0.73 and 1.35 hectares respectively.

Table 10: Number and Area of Operational Holdings

	Landholdings (million)		Area (million hectares)		Average landholding size (ha)
	Number	Per cent of total	Number	Per cent of total	
Punjab	1.1	0.8%	4.0	2.5%	3.62
UP	23.8	16.3%	17.5	11.1%	0.73
Maharashtra	14.7	10.1%	19.9	12.7%	1.35
India	145.7	100.0%	157.1	100.0%	1.08

Source: Agriculture Census 2015-16

The topography of the three states also differs significantly, covering several agro-climatic regions. Punjab represent the trans-Gangetic plains and UP represents the middle-Gangetic plains, upper-Gangetic plains and central plateau and hills regions. The western state of Maharashtra represents eastern plateau and hills, western plateau and hills, the west coast plains and the *ghat* region (IASRI). In summary, the three states cover seven of the fifteen agro-climatic zones in the country.

In terms of crops cultivated, the rice-wheat combination is dominant in Punjab and Uttar Pradesh, while the agriculture in Maharashtra is more diversified (Table 11).

Table 11 Important Crops in the Three States

State	Major crops grown
Punjab	Rice, wheat, cotton, sugarcane, maize, pear millets, <i>bajra</i>
Maharashtra	<i>Jowar</i> , <i>arhar</i> , cotton, soyabean, rice, wheat, groundnut, <i>tur</i>
Uttar Pradesh	Rice, wheat, maize, pigeon pea, <i>moong</i> , sugarcane, potato, tobacco, chillies, turmeric, banana, mango

Source: Department of Agriculture and Cooperation

In terms of KCC (Table 12), the three states accounted for 30 per cent of total operative KCCs in the country (2017). This share declined to 28 per cent in 2020 because between 2017 and 2020, number of operative KCCs declined by twenty-six lakhs in the three states. The highest reduction in operative KCCs was observed in Uttar Pradesh (13.8 lakh cards), followed by Maharashtra (12.38 lakh cards) and Punjab (12,000 cards).

As a proportion of India's outstanding loan amounts under KCC, the share of the three states increased from 27 per cent in 2017 to 30 per cent in 2020. Between 2017 and 2020, while the amount of both Punjab and Maharashtra declined, that of UP increased (whose outstanding amount increased by Rs.14,670 crores between 2017 and 2020).

Table 12 Number of Operative KCCs and Amount Outstanding under Operative KCCs

State	Number of Operative KCCs		Amount Outstanding under Operative KCCs	
	2017	2020	2017	2020
Punjab	1981 (3%)	1969 (3%)	60310 (3%)	56217 (8%)
Maharashtra	7007 (10%)	5769 (9%)	59570 (9%)	45109 (6%)
Uttar Pradesh	12035 (17%)	10649 (16%)	98400 (15%)	113070 (16%)
Unit	'000		Rs. Crore	

Source: Report on Trends and Progress of Banking in India, RBI

Note: Number in parenthesis is the per cent share in India total.

FLW Schemes Implemented in Punjab, Maharashtra and Uttar Pradesh

All the three states selected for this research implemented farm loan waiver schemes²⁹ in 2017-18 (Table 13).

Table 13 Order/Notification Numbers of the FLW Schemes

S. No	State	Notification/Order Number
1.	Punjab	Notification number 8/259/17-Agri/2(10)/19235 dated 17.10.2017 (Annexure 14 gives the order)
2.	Maharashtra	Order number 5928 dated 28.06.2017 Link: https://www.maharashtra.gov.in/Site/Upload/CM%20News/English/2017/June/24%20June%202017%20Chhatrapati%20Shivaji%20Maharaj%20Krishi%20Sanman%20Yojna%20for%20farmers.pdf
3.	Uttar Pradesh	Order number 134B dated 20.04.2017 Link: https://www.upkisankarjrahat.upsdc.gov.in/Go.html

Source: Compiled by authors using sources mentioned in the table

Karz Maafi Yojna (Punjab)

Punjab's *Karz Maafi Yojna* was announced in the election manifesto of the then opposition political party, the Indian National Congress (INC) in the year 2017 (Mukherjee 2017). The scheme was formally announced after the Captain Amarinder-led INC formed the government in Punjab in September, 2017 (Government of Punjab).

The scheme modalities were as follows.

1. The waiver was to be given on outstanding crop loans and did not include term loans. The outstanding principal plus interest on crop loans (normal as well as restructured and rescheduled owing to natural calamities such as droughts, based on RBI guidelines) as on the cut-off date March 31, 2017, were to be waived;

²⁹ We use farm loan waivers and debt relief interchangeably.

2. The waiver was given only to the state's small and marginal farmers (SMF). The scheme was to benefit about 5.83 lakh SMFs. According to the Agricultural Census 2015-16, there were 3.6 lakh small and marginal farmers in Punjab. So, the 5.83 lakh FLW beneficiaries were 161 per cent of the total number of small and marginal farmers in the state. There could be two reasons for this: a) either the number of small and marginal farmers have increased in Punjab since the Agricultural Census 2015-16, or b) the benefits under the FLW scheme were received by farmers other than SMFs;
3. For marginal farmers, all outstanding loans eligible for debt relief were to be considered for waiver, up to a maximum limit of Rs.2 lakhs. However, in the case of small farmers, only those, who had outstanding loans up to Rs.2 lakh, were eligible for FLW.
4. The waiver benefits were first distributed to settle the outstanding loans of co-operative credit institutions, followed by settlement of outstanding loans from public sector banks, and then private commercial banks. However, if there are several eligible loans, then a cumulative benefit of Rs.2 lakhs was to be provided as per eligibility, with co-operative, public sector and private sector banks being prioritised in that order.

The scheme was expected to cost the state exchequer Rs.10,000 crores and nearly 8.75 lakh farmers were to benefit from it.

Chhatrapati Shivaji Maharaj *Shetkari Sanman Yojana* (CSMSSY)

The Maharashtra government announced the *Chhatrapati Shivaji Maharaj Shetkari Sanman Yojana* (CSMSSY) in June 2017. The details of the scheme were as follows:

1. Crop and medium-term loans disbursed on/after April 1, 2009, up to March 31, 2016, were in *overdue* state as on June 30, 2016, and were unpaid up to March 31, 2017, were eligible for debt relief;
2. Debt relief was applicable to a farmer family as a unit. Farmer family meant husband, wife and their children below 18 years of age;
3. Loans from public sector banks, private sector banks, regional rural banks, *grameen* banks or district co-operative banks were eligible for debt relief under the scheme;
4. The overdue amount including principal and interest were to be waived up to a limit of Rs.1.5 lakh per farmer family;

5. Farmers who had outstanding loans of more than Rs.1.5 lakh, as on June 31, 2016, and had not repaid these loans up to July 31, 2017, were provided a one-time settlement (OTS) scheme. Under the scheme, the farmers had to credit loan dues exceeding³⁰ Rs.1.5 lakh into their loan accounts before December 31, 2017, to avail of the debt relief of Rs. 1.5 lakh. Farmers who had not availed crop loans in FY 2015-16 but had availed crop loans in FY 2016-17 and repaid the loan before July 31, 2017, were not eligible under the OTS scheme;
6. Finally, for crop loans availed in 2015-16, an incentive up to 25 per cent of the loan or Rs.25,000, whichever was lower on the basis of the amount repaid, was offered. Here the minimum relief amount was Rs.15,000 and, if the amount repaid is less than Rs.15,000, the actual amount was to be reimbursed by government to farmer/famer families (Source: Co-operation, Marketing & Textile Dept., MH)

The scheme was to benefit 0.89 crores farmers. According to the Agricultural Census 2015-16 (2019) there were around 1.5 crores farmers in the state, of whom 1.2 crores farmers were either marginal or small. The scheme was expected to cost the exchequer about Rs.34,020 crores.

Using notes from discussions with officials of Maharashtra government, a step-wise guide to the administrative procedure followed under the scheme is presented below.

Step 1: The government identified partners, i.e., the financial institutions (FI) (commercial banks, RRB's, co-operatives and other financial institutions) to extend debt relief to farmers and participate in the FLW scheme;

Step 2: FIs informed the government (after consultations through SLBC platform) whether they are willing to implement the debt relief scheme. Theoretically, a FI (those not under

³⁰ To take an example, if an account had an overdue loan of Rs. 2 lakhs as on 31.07.2017, then Rs. 1.5 lakh was waived by the state government if the farmer cleared the remaining Rs. 50,000. For clearing the Rs. 50,000, the farmer had to only pay 85 per cent i.e., Rs 42,500 and the remaining 15 per cent (Rs. 7,500) was to be borne by the bank, post which the farmer's account was cleared for fresh debt. This ratio of 85:15 varied with the age of the overdue loan.

government control) can opt-out of the waiver scheme³¹. However, in practice most FIs agree to participate as otherwise they would have to write-off the NPAs completely by using their own funds. Through the FLW, they are at least able to recover some NPAs.

Step 3: FIs are selected and official notifications/GRs are passed and the scheme becomes operational.

Step 5: Farmers apply/or are identified for debt relief and FIs write-off the loans.

There is no official record to support if this method was also followed in other states.

Kisan Rin Mochan Yojana (Uttar Pradesh)

After winning the assembly elections, the Yogi Adityanath - led BJP government launched the *Kisan Rin Mochan Yojana* on April 7, 2017. The scheme features were as under:

1. Outstanding crop loans (non-NPA) up to Rs.1 Lakh as on March 31, 2016, were eligible for debt relief under the scheme;
2. For NPA loans, based on overdue balances in banks' accounts the state government offered financial assistance through a one-time settlement (OTS) mechanism;
3. The financial institutions covered under the scheme included scheduled commercial banks, regional rural banks, and co-operative credit societies and banks (excluding urban co-operative banks).
4. A committee, under the chairmanship of the Chief Secretary, comprising bank and revenue department officials, was made responsible for the verification of the eligibility of farmers for debt relief. This committee calculated the eligible amount for debt relief to potential beneficiaries by taking the outstanding amount (including interest) less the repayment made towards the loan during FY 16-17.

The FLW scheme was expected to cost the state exchequer Rs. 36,000 crores, making this the largest debt waiver to be declared in the country. About 0.86 crores beneficiaries were initially

³¹ State governments cannot dictate banks on their working. For example, commercial banks in India are regulated by the Reserve Bank of India (RBI).

identified as beneficiaries under the scheme. According to the agricultural census 2015-16, there are 2.2 crores SMFs in the state.

District-wise Distribution of FLW Benefits

How were the FLW benefits disbursed spatially? Did the areas with larger share of the state's SMF get a larger share in the FLW benefits? The two variables are studied in Figure 24 and 25. A district's share in the total FLW benefits disbursed in the state are presented in Figure 24 and the relation between these shares and the district's share of state's SMFs is presented in Figure 25.

The darker the colour in Figure 24, the greater was the share of the district in the distributed FLW benefits in the state. For example, in Punjab the highest proportion of FLW benefits were distributed in Ludhiana district (about 8.3 per cent).

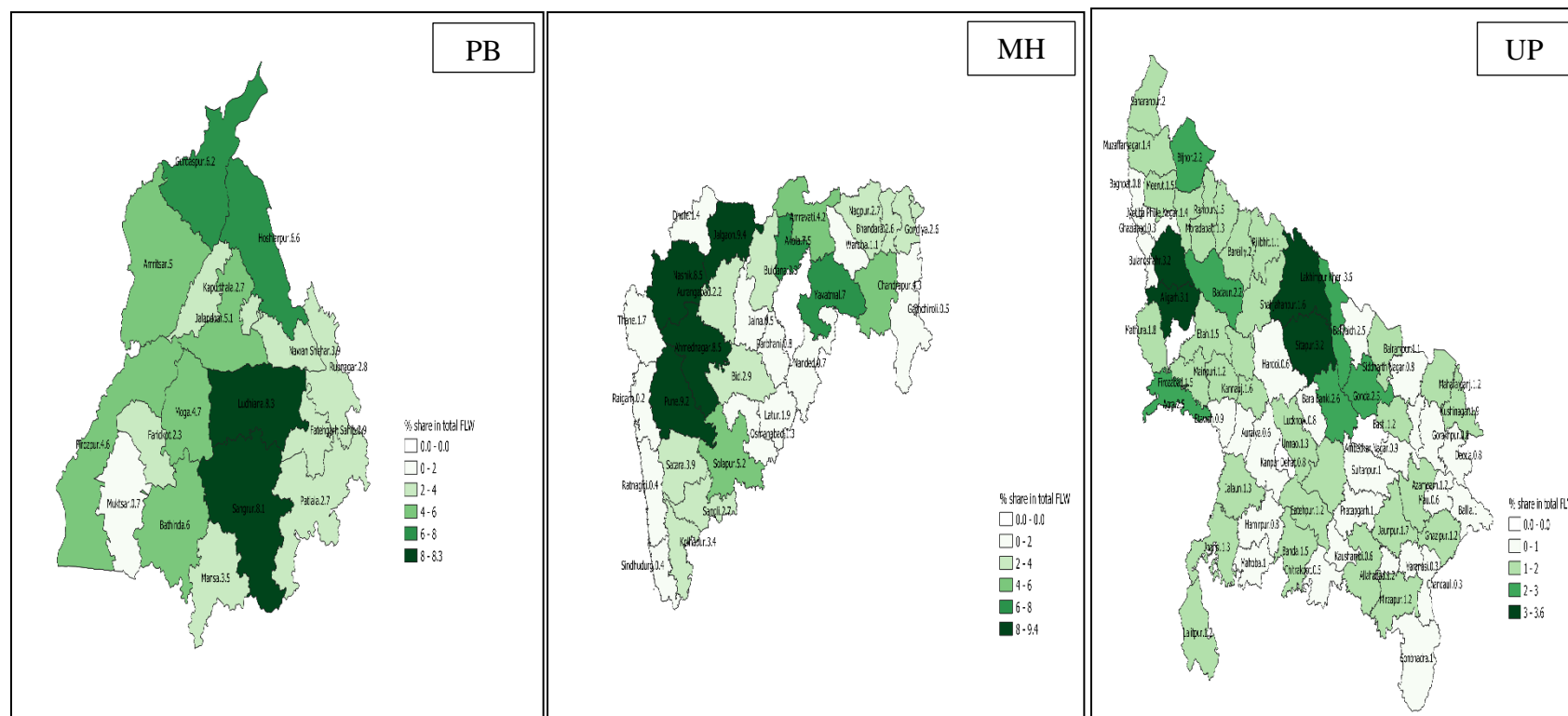
In Figure 25, two variables are plotted together: (i) the district's share in the total benefits distributed under the FLW scheme and (ii) the share of that district in the total number of small and marginal farmers (SMF) in the state. For example, in Punjab, 19.3 per cent of the state's SMFs lived in Hoshiarpur district, which garnered a share of about 6.6 per cent in the total FLW benefits distributed in the state; in the case of UP, Sitapur district was home to 5.8 per cent of UP's SMFs but its share in the distributed FLW benefits was 3.2 per cent. In Maharashtra, Ahmednagar had 7.1 per cent of the state's SMFs and got a share of about 8.5 per cent of FLW benefits.

Intuitively, if a district was home to a larger number of SMF, the share of that district in the state's FLW benefits should also be high (because the FLW scheme is targeted at distressed farmers who are mostly SMFs), unless the SMF in that district were financially excluded.

The average ratio of FLW benefits and the share of SMFs in a district for Punjab is 0.53, for Uttar Pradesh it is 0.51 and for Maharashtra, it is 1.1. A ratio of 1 implies that a district's share in distributed FLW is the same as its share in the state's SMF. In Maharashtra, 13 of the 30 districts (about 43 per cent) reported a ratio greater than 1. Both in the case of Punjab and UP, there was only one such district each: Pathankot in Punjab and Aligarh in UP.

Before proceeding to the primary and secondary research results in the following chapters, we elaborate on yet another important aspect related to FLWs below.

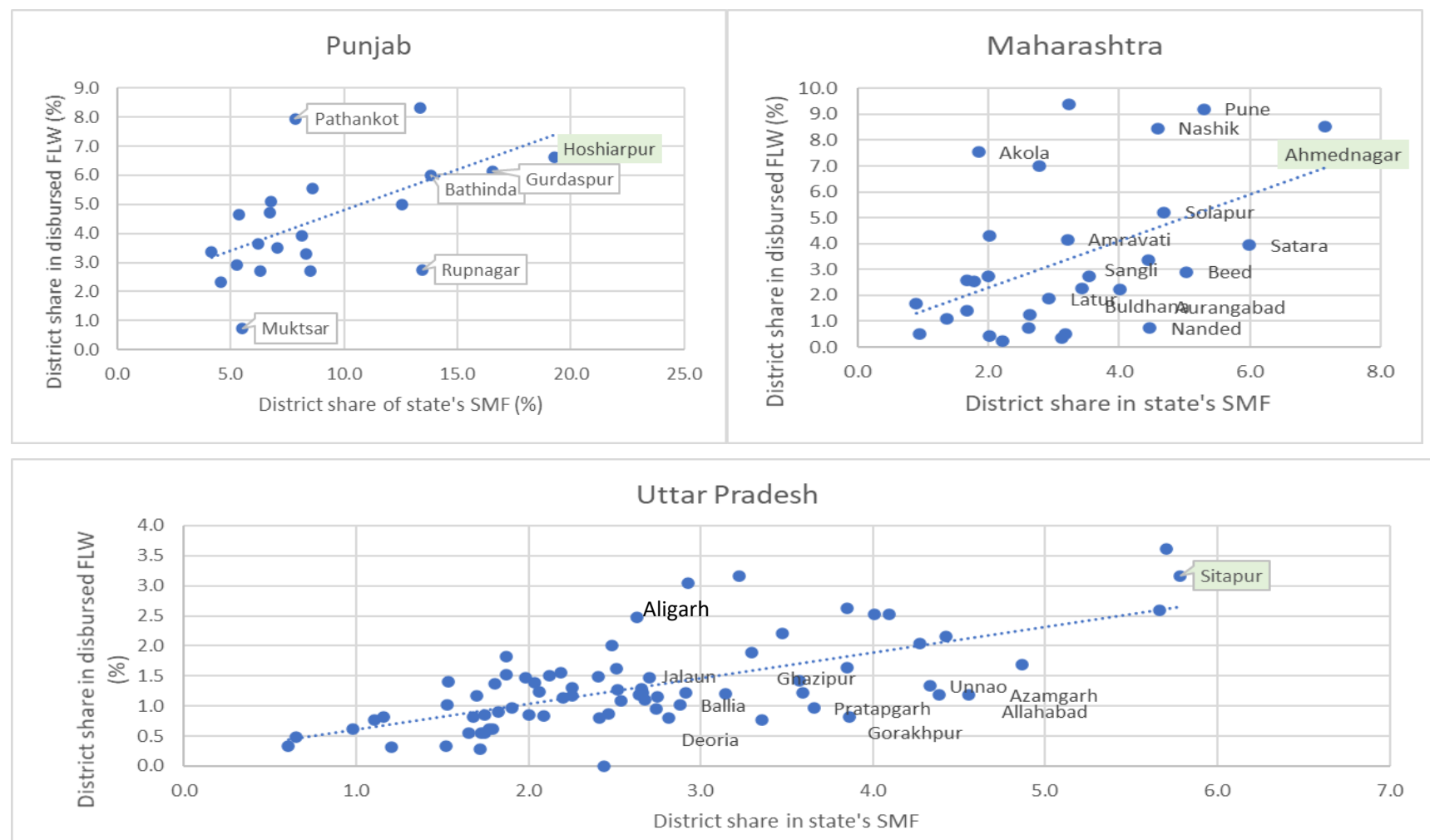
Figure 24: Spatial Distribution of Debt Relief Benefits in Punjab, Maharashtra and Uttar Pradesh



Source: State governments of the respective states.

Note: Darker the colour, greater is the share of that district in disbursed FLW benefits in the state

Figure 25: SMF Presence in the District and Share of FLW Received



Source: Respective state governments for data on FLW distribution and Agricultural Census 2015-16 for share of SMF in the district **Note:** Reference lines represent the state averages and are used to classify the nature of FLW distribution. Although in MH, the scheme was not specifically dedicated to SMFs, we use this classification for our analysis as a majority of the farmers are SMFs in the state.

Are the Provisions of the FLW Scheme Mandatory, Statutory or Discretionary?

Once an FLW scheme is declared by a political head of a party, then does the scheme become a law or a statute? Do banks have any discretion in the deciding their participation in the FLW? Are the stakeholders, including the announcing political party statutorily required to walk its talk? We answer that below using the Maharashtra FLW scheme example.

Based on the Maharashtra's FLW scheme, we can say that no implementing agency had any statutory powers at any stage. Since no Act was passed by the state legislature, the orders under FLW scheme did not have the force of a *statue*. Therefore, the scheme was not found to be statutory in nature. However, there exist a few grey areas. For example, various aspects related to the broad guidelines on the design of the farm loan waiver scheme were decided by the state governments. The scheme design includes decisions on the eligibility criterion for beneficiaries, the amount of benefit permissible, details of the waiver (is the waiver on principal, on interest or on both), if the waiver is specific to any geographical area, etc. Thus, the state government used its ***discretionary*** executive powers.

However, at later stages, when the government has to 'verify' with the FIs for their participation in the scheme, the FIs (theoretically) enjoy discretionary powers to accept/reject the government's proposal. However, once the FIs agree to participate in the FLW scheme and the government order backing the scheme is issued by the state government, the FLW scheme and its provisions become ***mandatory*** for all implementing agencies including government departments and participating financial institutions.

In summary, the provisions of the scheme are neither statutory nor strictly mandatory but are discretionary for all parties as the FLW scheme is a contract between two parties (state government and financial institutions) based on specific terms and conditions.

Chapter 5: Impact of Farm Loan Waivers: on state budgets, inflation and lending

In this Chapter, we analyse the impact of farm loan waivers on three aspects: (i) finances of the implementing state governments, (ii) on inflation in the state after an FLW has been implemented, and (iii) on incentives of financial institutions to lend further in the state where waiver has been recently implemented.

Impact of FLWs on State Finances

A farm loan waiver requires large sums of financial resources and, unless planned well, can easily strain the budget of the implementing state. Several researchers (RBI 2017, Suhag & Tiwari 2018, Phadnis & Goswamy 2019, Narayanan & Mehrotra 2019) have documented the impact of FLWs on public finances. Some of the impacts are summarised below.

1. A waiver amount is generally counted towards government's revenue expenditure; thus, an FLW is most likely to expand the revenue expenditure of the state;
2. A higher revenue expenditure is usually financed through higher market borrowings. Increased market borrowings lead to higher interest rates, which crowd-out private investments;
3. If some part of the FLW is financed from budgetary provisions, then it is likely to result in
 - a. a cutback in capital expenditure;
 - b. Deterioration in the quality of expenditure, where expenditure on asset formation like irrigation works, creation of cold storages and others, is foregone or reduced.
4. Financing of FLW expenditure from outside budgetary provisions widens the fiscal deficit with likely inflationary consequences.

In this section, results from a detailed analysis of budgets of the three selected states are presented. The data has been sourced from the state governments' official budget documents. For the years until 2018-19, the budgetary data of "actual spent" or actual expenditure (AE) is used. For FY 2019-20, the revised estimates (RE) are used and for FY 2020-21, budget estimates (BE) have been used.

Budget Analysis of Punjab state: Was FLW financed through a market cess?

As mentioned in the last chapter, the government order for Punjab's *Karz Maafi Yojna* was issued in October 2017. The waiver was to be given on outstanding crop loans on the cut-off date March 31, 2017. The waiver was capped at Rs. 2 lakh per beneficiary. The scheme was expected to cost the state exchequer Rs.10,000 crores and nearly 8.75 lakh farmers were to benefit from it.

Outstanding loans and FLW eligible loans

As per the data collected from Punjab SLBC, the amount of outstanding crop loans as on March 31, 2017, was Rs. 59,620.9 crores (Table 14). These outstanding loans were scrutinized as per the scheme specifications and the amount eligible for the loan waiver under the scheme was estimated to be only about Rs. 7000 crores (as per discussions with government officials involved in FLW disbursement process). Nevertheless, the scheme was announced to cost Rs. 10,000 crores at the time of the announcement (Punjab Government 2017).

Table 14 Outstanding Agriculture Credit (Rs. Crores) as on March 31, 2017

Loan amount	Crop Loan							
	Marginal Farmers (Land holding up to 2.5 Acres)		Small Farmers (Land holding 2.5 Acre to 5 Acres)		Others (Land holding above 5 Acres)		Total	
	Number	Balance O/s (Rs. cr)	Number	Balance O/s (Rs. cr)	Number	Balance O/s (Rs. cr)	Number	Balance O/s (Rs. cr)
Up to Rs. 2 lakhs	4,25,284	2,747.63	4,50,585	3,353.34	2,28,937	2,357.48	11,04,806	8,458.45
Rs. 2 lakhs to Rs. 5 lakhs	1,10,131	3,189.17	2,94,344	8,454.69	2,03,634	4,592.22	6,08,109	16,236.08
Above Rs. 5 lakhs	35,877	3,908.29	70,893	6,906.09	2,03,517	24,111.99	3,10,287	34,926.37
Total	5,71,292	9,845.09	8,15,822	18,714.12	6,36,088	31,061.69	20,23,202	59,620.9

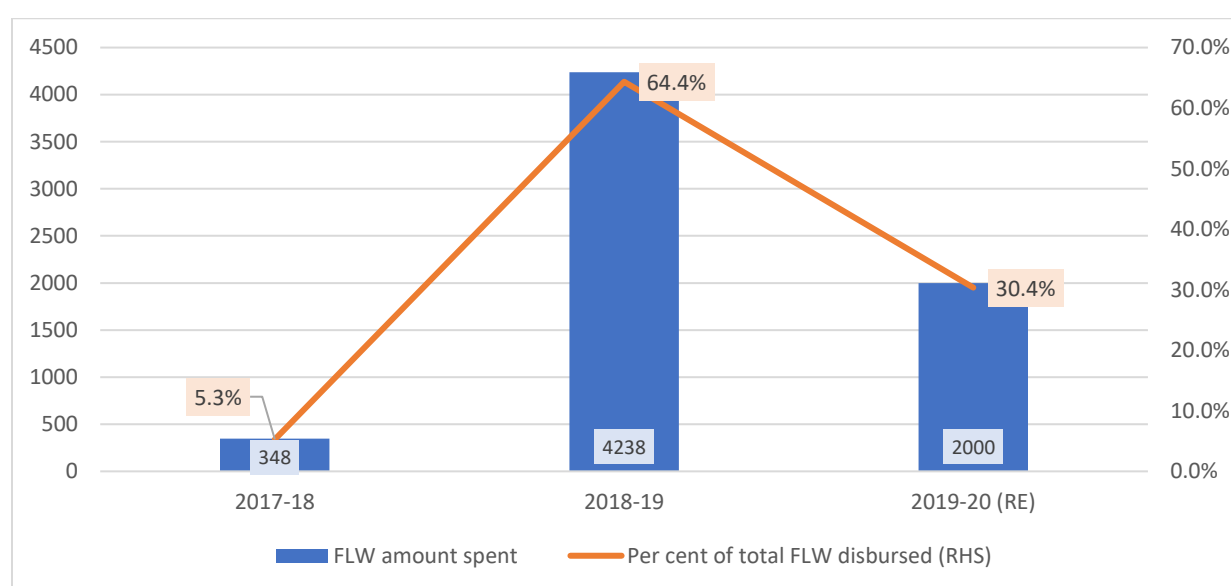
Source: Department of Agriculture, Punjab Government

Annual Disbursement Pattern of FLW benefits

According to the Punjab government's budget documents, till end of 2018-19 Rs. 4,586 crores had been distributed under the FLW scheme (Rs. 348 crores were disbursed in 2017-18 and Rs. 4,238 crores were disbursed in 2018-19). As per the revised estimates for 2019-20, an amount of Rs. 2000 crores had been set aside for distribution under the FLW scheme, making a total expenditure

of Rs. 6,238 crores under the scheme. From discussions with state government officials, it appears that the amount allocated for distribution in 2019-20 had not been completely distributed and therefore actual disbursement is most likely to be lower than Rs. 6,586 crores³². Till the figure of actual expenditure is known, the revised estimates mentioned in the budget document have been used for this research as per which FLW budgetary allocation is taken as Rs. 6,586 crores spread over three years (Figure 26).

Figure 26: Punjab FLW: Amount and Share of Total FLW Disbursed Between 2017-18 and 2019-20



Source: Punjab state budget documents. Data accessed in October 2020.

Note: (i) Total debt relief is calculated by adding sub-head 42 and sub-head 22 under crop husbandry (head: 2401) Budget of Agriculture Department. (ii) Expenditure for 2019-20 are RE or revised estimates and the actual expenditure incurred on debt relief may be lower or higher.

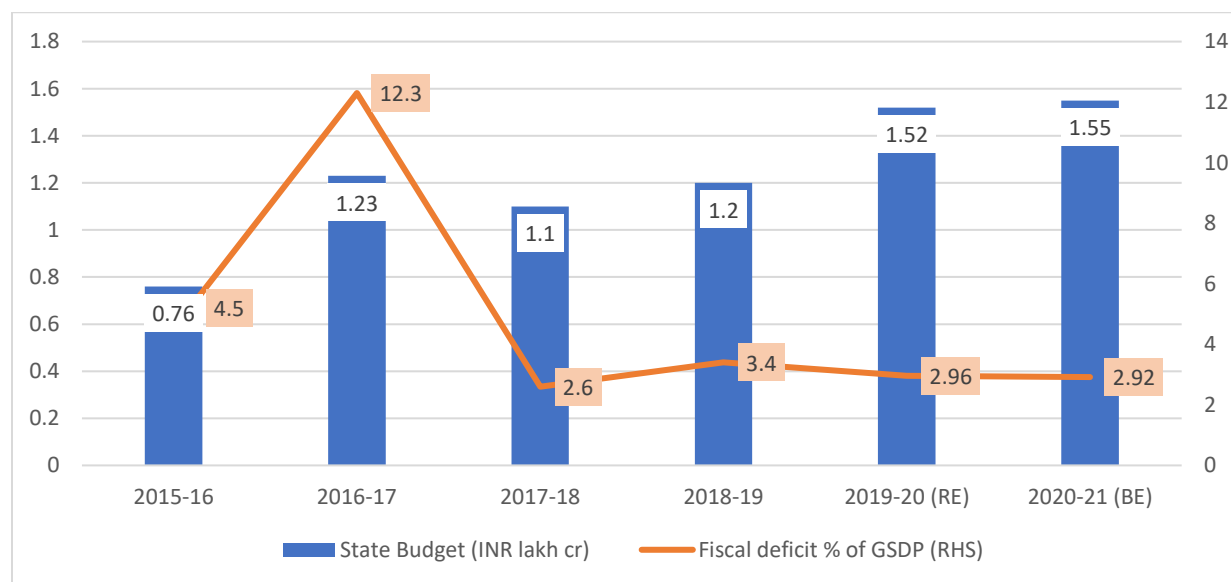
³²As per the discussions with the Punjab government officials, as on March 31, 2021, a sum of only about Rs. 4,624 crores had been disbursed under the scheme. The benefit was received by about 5.64 lakh farmers, out of these, 4,30,406 (or about 76 per cent) were marginal farmers, who were paid Rs. 3,643.5 crores and 1,33,734 (24 per cent) were small farmers who were paid about Rs. 980.83 crores. There are also cases of payments to 14,269 marginal farmers (amounting to Rs. 124.6 crores) and 19,610 small farmers (amounting to Rs. 155.88 crores), which had been accepted but were pending payment. The cases of 66,977 marginal farmers, who had to be paid a cumulative amount of Rs. 822.95 crores and 13,058 small farmers who had to be paid Rs. 139.82 crores were pending for verification with SDMs on account of pending self-declaration and/or social audit.

It appears that a majority of the FLW benefits (about 64 per cent) were distributed in FY 2018-19. To analyse the budgetary impact of FLW, the study focuses on the year when most of the scheme benefits were distributed, we call it YMD or the year when maximum disbursement under FLW was made. The following analysis of budgetary allocations is centred on 2018-19 and the aim is to identify changes made in inter-departmental and intra-departmental expenditures to accommodate the FLW expenditure. There is a chance that the state government borrowed funds from the market and thus there was not much impact on the state budget. The state expenditure data is studied with all these research motivations and results are presented below.

Overall fiscal deficit of the state

Punjab had assembly elections in February 2017 and the state budgetary expenditure shows an extraordinary spike in the ratio of fiscal deficit to the state GDP for the year 2016-17 (Figure 27). In subsequent years, especially in 2017-18 when the FLW was announced and in 2018-19, when a large part of the FLW was disbursed, both the expenditure and fiscal deficit were more moderate compared to their values in 2016-17.

Figure 27 Punjab Budgetary Expenditure (Rs. lakh crores) and Fiscal Deficit (per cent of GSDP)



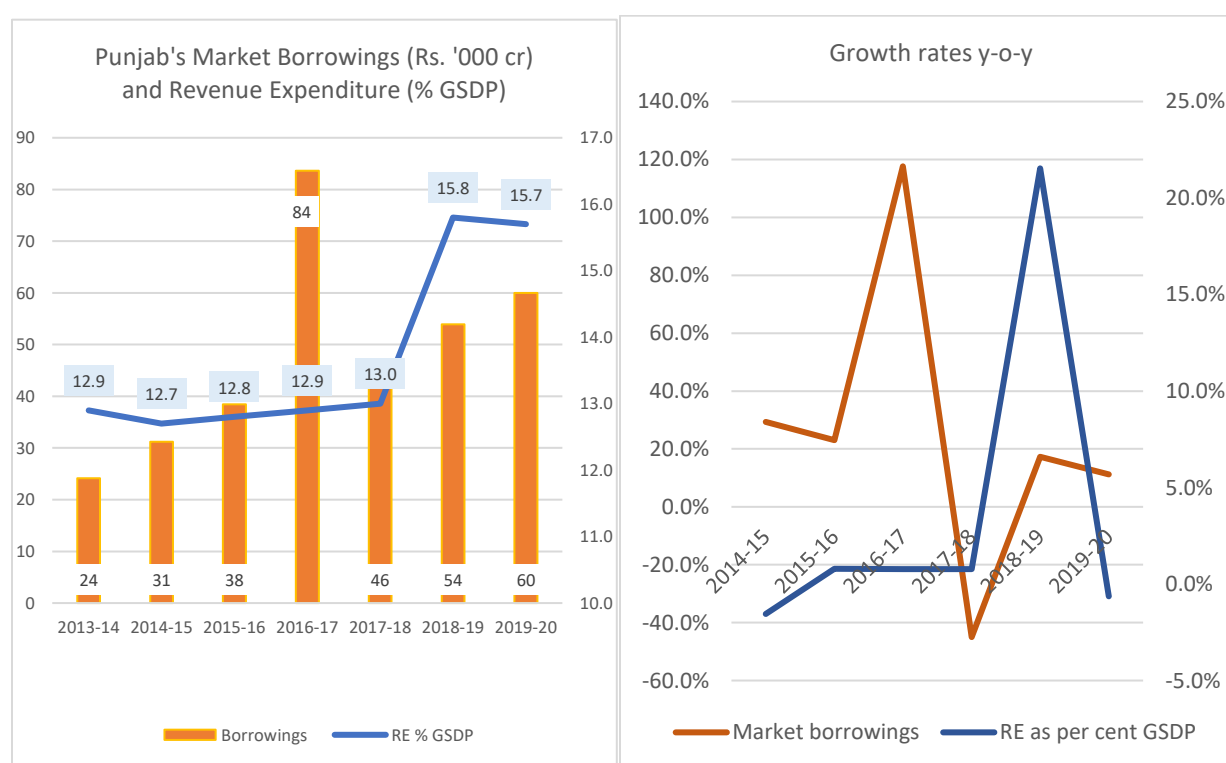
Source: Punjab state budget documents. Data accessed in October 2020.

In 2017-18, when the FLW was announced, the state budgetary expenditure was Rs. 1.1 lakh crores, lower than the previous year's budgetary expenditure of Rs. 1.23 lakh crores. In the subsequent year, when most of the FLW benefits disbursed, state expenditure increased.

An analysis of the components of state expenditure and revenues is as follows:

1. Market borrowings and revenue expenditure³³(Figure 28)– Barring the spike in 2016-17, when the state government's market borrowing shows an exceptional increase to touch Rs. 84,000 crores from Rs. 38,000 crores the year before, the rate of growth of market borrowings has been steady. After a fall of about 45 per cent in 2017-18, market borrowings again started to grow annually (RHS in Figure 28).

Figure 28: Punjab State Market Borrowings ('000 crores) and Revenue Expenditure (per cent GSDP) and Annual Growth Rates (Per Cent)



Source: Punjab state budget documents. Data accessed in October 2020.

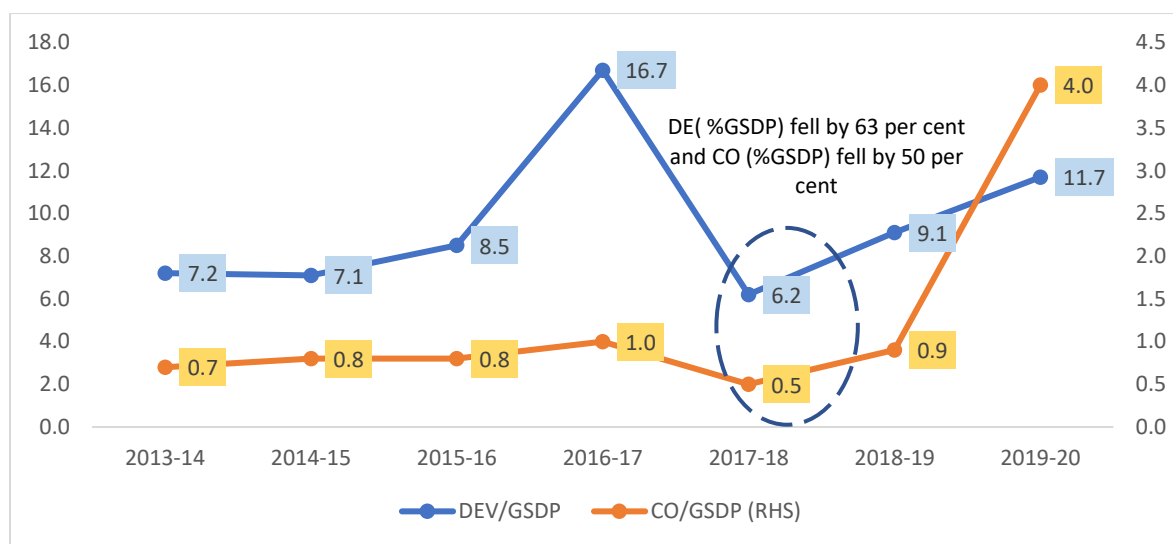
³³ Revenue expenditure is expenditure that does not result in the creation of any asset. In other words, it is expenditure to meet day-to-day expenses, transfer payments, etc. Salaries, subsidies and interest payments are accounted for under revenue expenditure.

The state's revenue expenditure as a percentage of the state's GDP shows a sharp rise from 13 per cent in 2017-18 to 15.8 per cent in 2018-19. Market borrowings increased by Rs. 8,000 crores in 2018-19 and by a further Rs. 6,000 crores in 2019-20.

Revenue expenditure has two sub-parts: development expenditure and non-development expenditure. Development expenditure (DE) is that part of revenue expenditure that is spent on sectors/departments like education, rural development, power, etc. Capital expenditure is the amount that the government spends to create productive assets. These are analysed below.

2. Development expenditure and capital expenditure/outlays³⁴ (As per cent of GSDP) (Figure 29): In the three years until 2015-16, development expenditure (DE) in the state averaged about 7.6 per cent of GSDP. After an abnormal rise in 2016-17, DE fell to 6.2 per cent in 2017-18. There was also a dip in the capital outlay, which halved from 1 per cent in 2016-17 to 0.5 per cent in 2017-18. In 2018-19, however, both started to rise, but the CO/GSDP was still below the 2016-17 level.

Figure 29: Punjab: Development Expenditure and Capital Outlay (as percentage of GSDP)

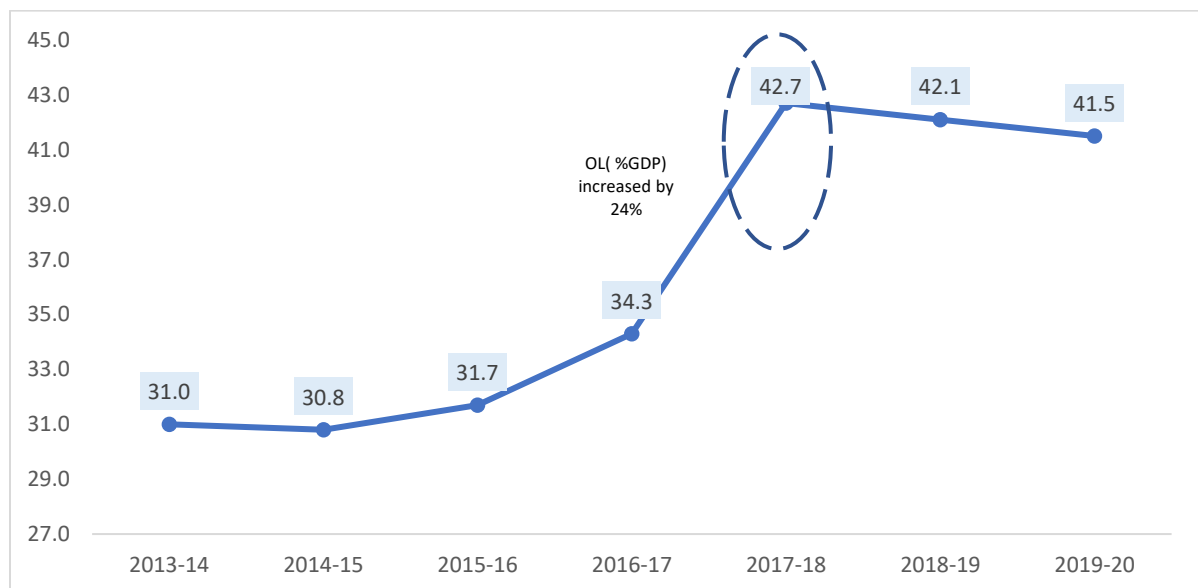


Source: Punjab state budget documents. Data accessed in October 2020.

³⁴ Outlay is a standard term used in the budget terminology of governments. Even though for past years for which the actual expenditure under this head is available and used here, we retained the official terminology.

3. **Outstanding liabilities (as percentage GSDP):** A state's outstanding liabilities are the aggregate of its internal debt (comprising state development loans (SDL), borrowings from National Small Savings Fund (NSSF), loans from Life Insurance Corporation (LIC), NABARD and banks and other financial institutions), loans and advances that the state has taken from the central government and 'other' means. There has been a steady increase in the ratio of Punjab's outstanding liabilities (OL) to the state's GDP (Figure 30). However, since 2015-16, the increase has been sharper and was the steepest in 2017-18. From 34.3 per cent in 2016-17, the ratio increased to 42.7 per cent in 2017-18, i.e., an increase of 24 per cent. Since then, the ratio has persisted above 40 per cent.

Figure 30: Outstanding liabilities of Punjab (as Percentage of GSDP)



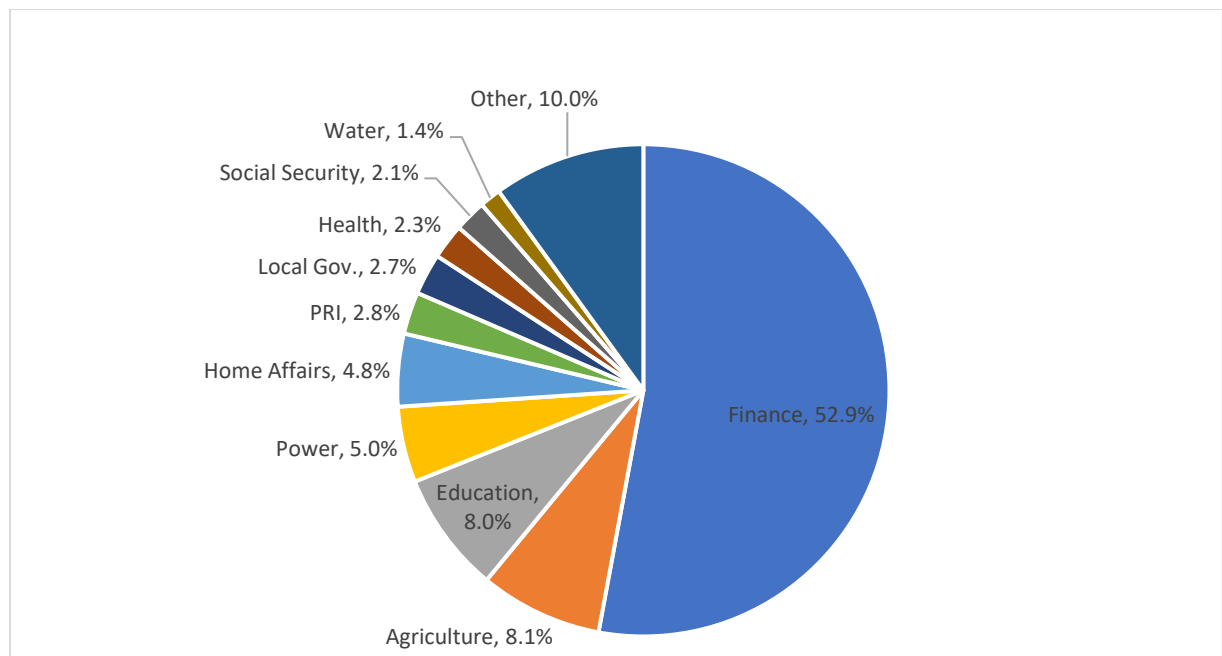
Source: Punjab state budget documents. Data accessed in October 2020.

Market borrowings are a sub-part of outstanding liabilities (Figure 28). In the case of Punjab, both market borrowings and outstanding liabilities have been rising.

4. **Budgetary Allocation among Departments:** According to state budget documents, the Punjab government has 42 departments. Annually, the state allocates funds among these departments through the budget. For the triennium ending 2020-21 (TE 20-21), close to 90 per cent of the state's budget was distributed among 10 departments (Figure 31). About 53

per cent of the state's allocations went to the finance department alone³⁵. Both, the agriculture and education departments followed next in allocation with about an 8 per cent share. The Power and Home Affairs departments each had about a 5 per cent share in the state budget. Close to 1.4 per cent of the annual budget was allocated to the department of water resources. About 0.8 per cent of the annual budget was also allocated to the department of water supply and sanitation, counted as part of "others" in the Figure below.

Figure 31: Share of Departments in Total State Budget for TE 2020-21



Source: Punjab state budget documents. Data accessed in October 2020.

Note: (i) PRI is used to denote rural development & panchayat department; (ii) Allocations for the FLW were made under the Agriculture Department budget in Punjab

To check if there were any changes in the budgetary allocation among departments particularly around the YMD (2018-19), changes in the expenditure (or budgetary allocations) of different departments were looked at via two methods:

³⁵ The budget for finance department includes expenditure on ways and mean advances, debt servicing, payment towards pay commission and pension payments. In FY 2021-22, Rs. 32,000 crores have been budgeted for 'ways and means advance', Rs. 20,000 crores for 'debt servicing', Rs. 9,000 crores on 'pay commission' and Rs. 11,000 crores on 'pension payments'

1. The share of a department in the state's total budget in a particular year and the changes in it; and
2. The changes in the department's expenditure levels between years.

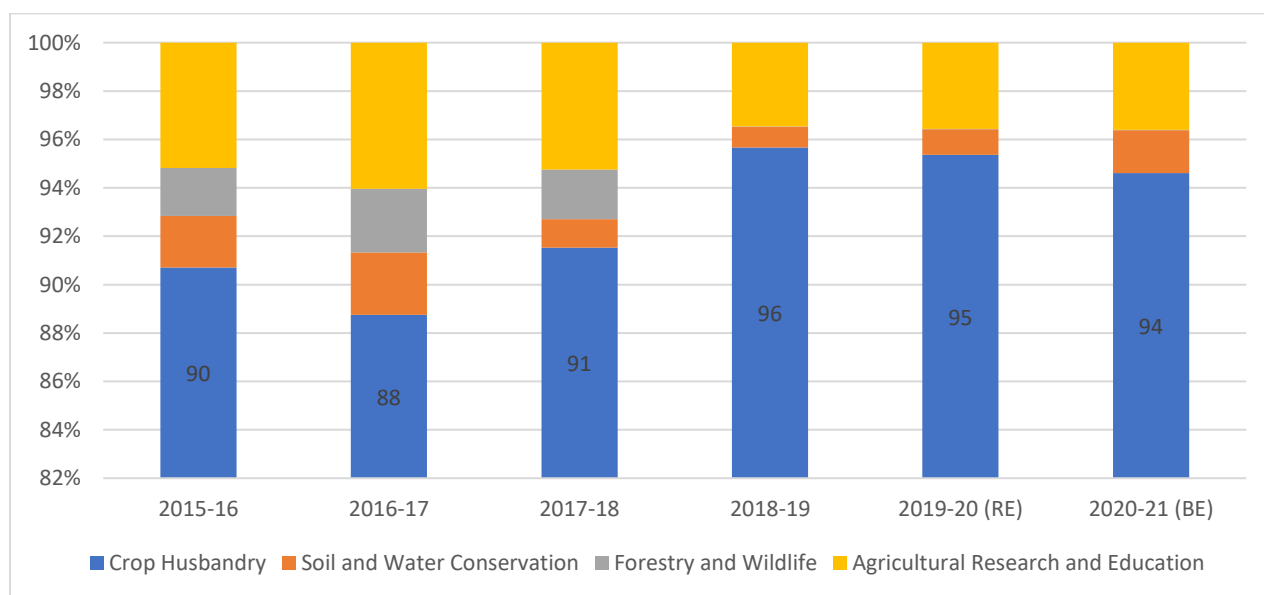
This expenditure data was analysed for six years (from 2015-16 to 2020-21). The following observations emerged from the analysis.

- I. Departments whose actual expenditures decreased in 2018-19 (compared to 2017-18) were the following:
 - a. **Power Department** – From Rs. 3,013 crores in 2017-18 to Rs. 2,202 crores in 2018-19, a reduction of about 27 per cent
 - b. **Home Affairs** – From Rs. 6,674 crores in 2017-18 to Rs. 6,211 crores in 2018-19, a reduction of about 6.9 per cent
 - c. **Health and Family Welfare** – From Rs. 2,830 crores in 2017-18 to Rs. 2,793 crores in 2018-19 a reduction of about 1.3 per cent
 - d. **Water Resources** – From Rs. 2,815 crores in 2017-18 to Rs. 1,422 crores in 2018-19. a reduction of 49.5 per cent
 - e. **Public Works** – From Rs. 2,329 crores in 2017-18 to Rs. 1,377 crores in 2018-19, a reduction of about 40.9 per cent
 - f. Other Departments – like **Employment Generation and Training, Labour, Co-operation, Water Supply and Sanitation.**
- II. Departments whose actual expenditures increased in 2018-19 (compared to 2017-18) were the following:
 - a. **Agriculture department** – From Rs. 6,917 crores in 2017-18 to Rs. 11475 crores in 2018-19, an increase of about 66 per cent; its share in the budget increased from 6.3 per cent (2017-18) to 9.6 per cent (2018-19). The expenditure under the FLW scheme is counted under this head. This change is analysed in point 5 below;
 - b. **Industries and Commerce** – From Rs. 56 crores in 2017-18 to Rs. 707 crores in 2018-19; an increase of more than 1000 per cent but its total share in the state budget was still less than 1 per cent; and
 - c. Other Departments: like **Rural Development and Panchayat, Elections**

5. **Budget allocations within the Agriculture Department:** As seen in Figure 31, about 8 per cent of the state budget is generally allocated to in the agricultural department. This share increased to about 9.6 per cent in 2018-19 when Rs. 11,475 crores were spent on the agriculture department and about 37 per cent of this, i.e., Rs. 4,238 crores, were spent on the FLW scheme.

Within the agricultural department, the expenditure is split further between sub-heads. The FLW scheme was under the sub-head of the “Crop Husbandry” department. In 2018-19, 96 per cent of agricultural department’s aggregate expenditure was made under the “crop husbandry” sub-head. In this year, the share of expenditure of “forestry and wildlife” department shrunk significantly and even the expenditure of “soil conservation” and “agricultural research and education” departments was cut (Figure 32).

Figure 32: Change in Intra-Agriculture Department Allocations in Punjab



Source: Punjab state budget documents. Data accessed in October 2020.

Note: There were not many changes in other sub-heads such as Capital Outlay on Public Works, Capital Outlay on Crop husbandry, Irrigation, Energy, Village and Small Industries and other agricultural programmes and they retained their share of around 0%.

The expenditure analysis of Punjab budget data yields the following conclusions:

1. Both developmental expenditure and capital outlay (as a percentage of GSDP) fell in 2017-18;
2. Outstanding liabilities and market borrowings both increased sharply in 2017-18 and 2018-19;
3. Key departments and departments requiring capital expenditure including “power”, “water resources”, “public works”, “health and family welfare” suffered budgetary/expenditure cuts in 2018-19 (YMD);
4. Within the agriculture department, the introduction of “debt relief” coincided with a reduction in budgetary allocations for “soil and water conservation”, “agricultural research and education” and “forestry and wildlife”.

Market Borrowing by Punjab Mandi Board and Cess

From discussions with senior official from the Department of Agriculture and Farmers’ Welfare (PDAFW), Punjab, it was found that the FLW scheme was partially funded by a loan taken by the Punjab *Mandi* Board from a private bank. The loan from the Punjab *Mandi* Board was utilised via the PDAFW to transfer waiver benefits. To repay this loan, the Punjab *Mandi* Board levied an additional 1 per cent cess on the arrivals of wheat and paddy in the *mandis*. These collections were used to repay the above loan. We could not find official documents corroborating and detailing about this loan. Nevertheless, such a practice highlights the monetary pressures and accounting innovations that state governments have to resort to finance expensive and populist schemes like FLW. Apart from this practice itself, the fact that the scheme appears to be partially funded through an additional market cess applied on paddy and wheat mandi arrivals may raise questions on state’s ability to finance FLW scheme out of budgetary allocations.

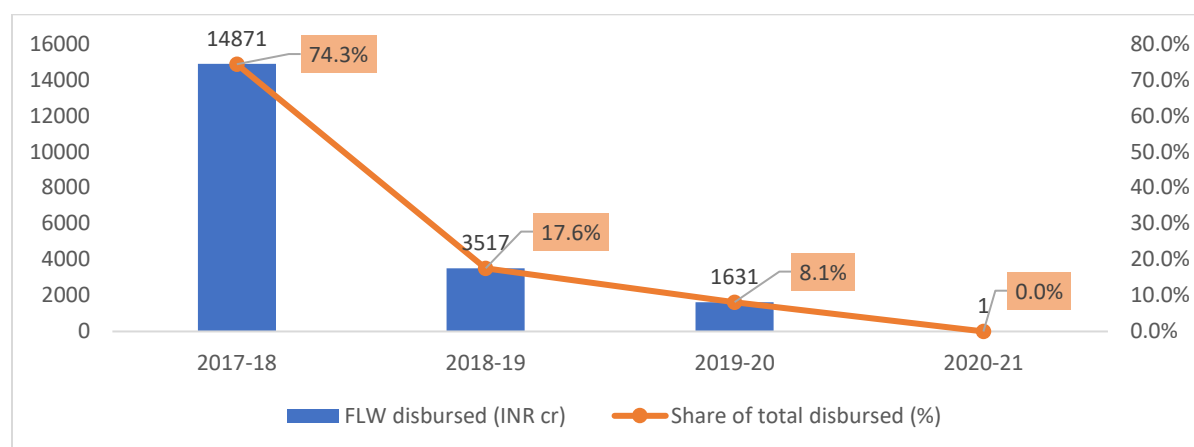
Maharashtra: Did the FLW deteriorate the quality of expenditure?

The government of Maharashtra announced the ‘*Chhatrapati Shivaji Maharaj Shetkari Sanman Yojana (CSMSSY)*’ in June 2017. Short/Crop and medium-term loans disbursed on/after April 1, 2009, up to March 31, 2016, which were in *overdue* state as on June 30, 2016, and were unpaid up to March 31, 2017, were eligible for debt relief. The waiver was capped at Rs. 1.5 lakh per farmer household. The scheme was to benefit 89 lakh farmers. The total cost to the state exchequer was estimated at Rs. 34,020 crores.

Value of the waived loans

As per the state government’s budgetary expenditure data, loans of Rs. 20,020 crores were waived in the four years since 2017-18 under the CSMSSY scheme (Figure 33). About three-fourth of the Rs. 20,020 crores were distributed in 2017-18, making this year as the YMD (or the year in which maximum waiver benefits were distributed under the scheme).

Figure 33: Maharashtra’s FLW: Yearly Amount Disbursed (Rs. Cr) and Share of Total (%)

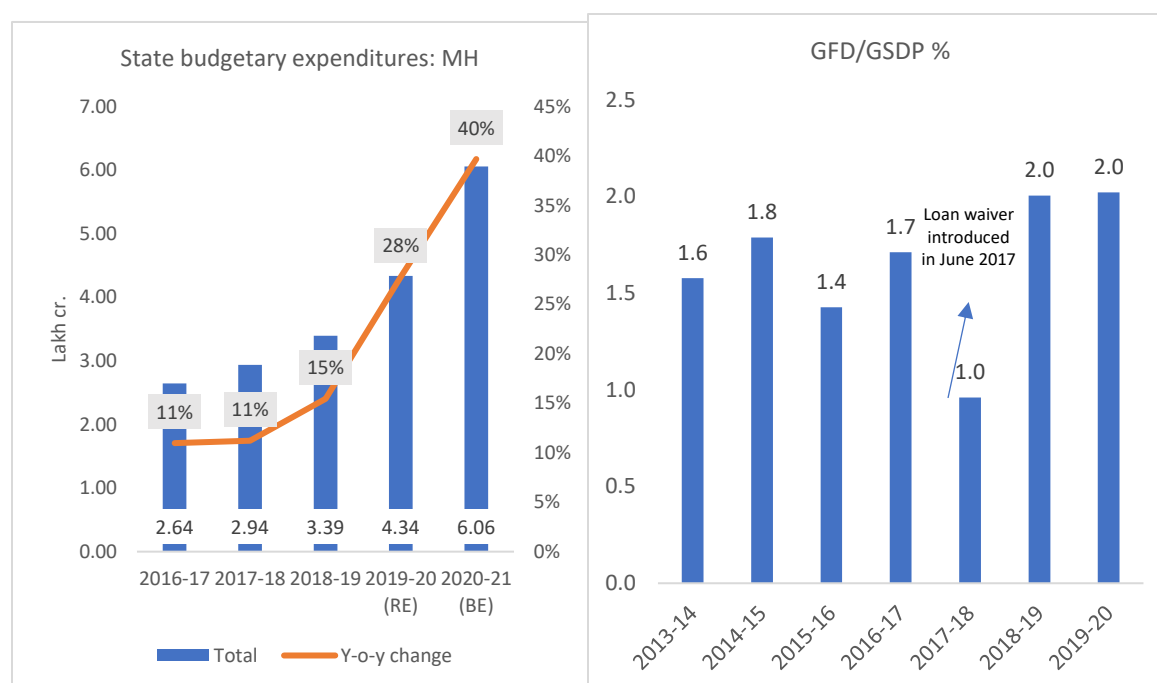


Source: Maharashtra state budget documents (Co-operation, Marketing and Textiles Department). Data accessed in October 2020.

FLW expenditure and State's Fiscal Deficit

Figure 34 shows that Maharashtra's total budgetary expenditure grew sharply in each of the three years since 2017-18. From about Rs. 3 lakh crores in 2017-18, state's expenditure more than doubled to about Rs. 6.1 lakh crores by 2020-21.

Figure 34: Maharashtra: Budgetary Expenditure and Fiscal Deficit (% GSDP)



Source: Maharashtra state budget documents. Data accessed in October 2020.

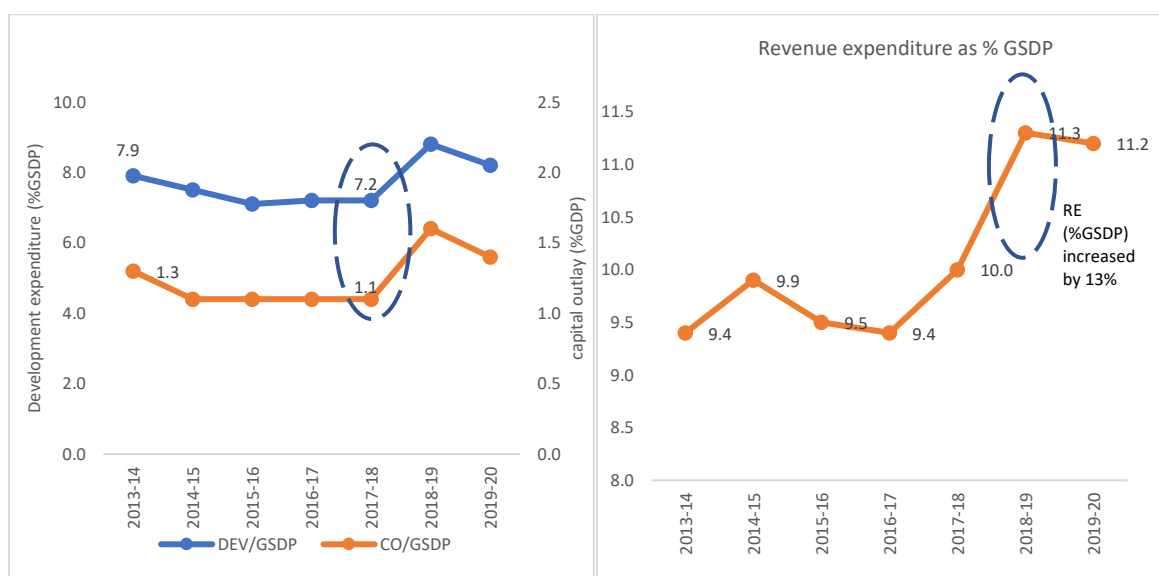
There is no major increase in the state's budgetary expenditure between 2016-17 and 2017-18; however, it increased by about 15 per cent in the next year, 2018-19, and, since then, the rise has been sharp.

The state's fiscal deficit (percentage of GSDP) is strikingly low at 1 per cent in 2017-18; however, this increased to 2 per cent in the next year. Close to Rs. 15,000 crores were disbursed in 2017-18 under the FLW scheme. Compared to the size of the state's total budget, this accounted for a small portion of the budget (less than 5 per cent), and does not appear to have worsened the state's fiscal deficit.

Component-wise analysis of the state's budget is presented next.

1. Development expenditure, revenue expenditure and capital outlay (as a percentage of GSDP): Figure 35 LHS shows that both the ratios (DE and CO as percentage GSDP) were falling (or were near-stagnant) since 2013-14 but rose sharply in 2018-19. Rising DE and capital expenditure is a good sign for a state as it implies that the state is undertaking to invest in creating productive assets. There appears to be no drastic change in either development expenditure (DE) or capital outlay (or actual expenditure) in 2017-18 (YMD) but after 2017-18, both development and capital outlay expenditures increased.

Figure 35: Maharashtra: Development, Revenue Expenditure and Capital Outlay (%GSDP)

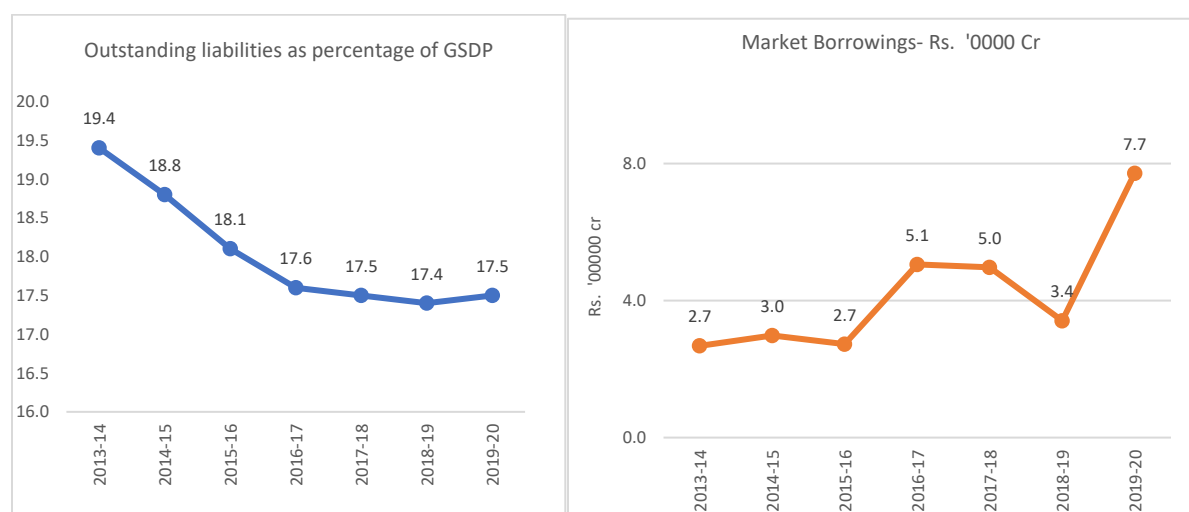


Source: Maharashtra state budget documents. Data accessed in October 2020.

The ratio of revenue expenditure and GSDP (RHS Figure 35) of the state averaged about 9.6 per cent between 2013-14 and 2016-17, but it increased to about 10 per cent in 2017-2018 and then to about 11.3 per cent in 2018-19.

2. Outstanding liabilities (percentage of GSDP) and market borrowings (crores): Maharashtra's outstanding liabilities (as a percentage of GSDP) have been falling, but total market borrowings have been rising (Figure 36).

Figure 36: Maharashtra: Outstanding liabilities (percentage of GSDP) and market borrowings (Rs. '0000 crores)



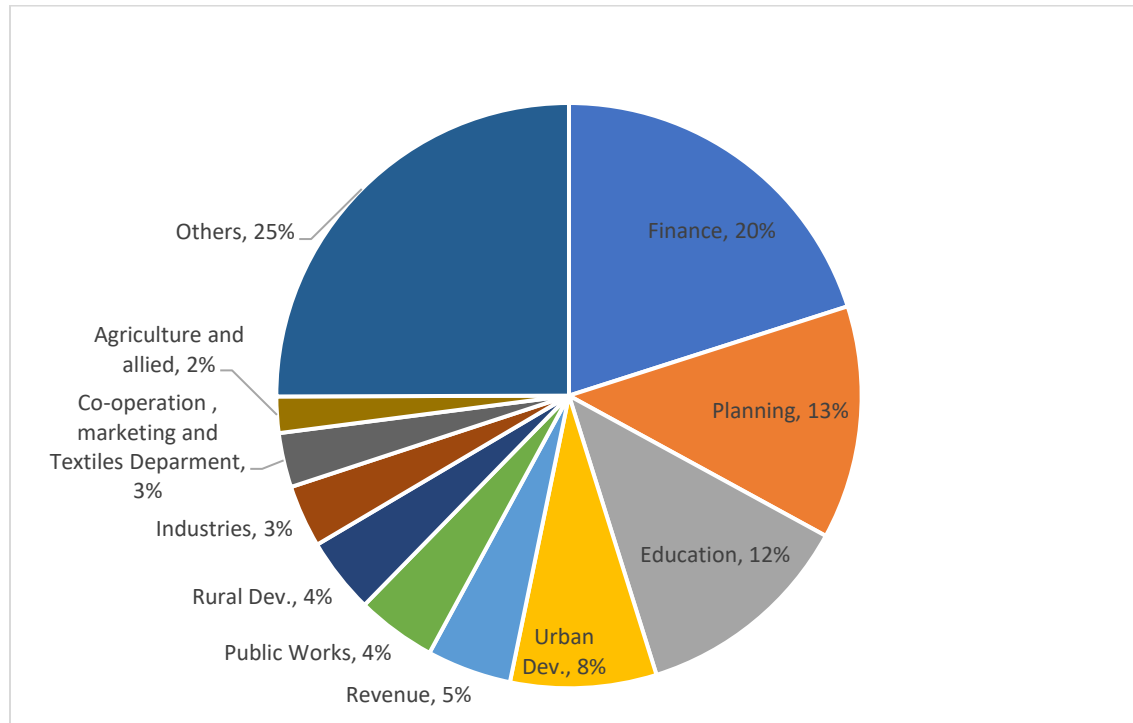
Source: Maharashtra state budget documents. Data accessed in October 2020.

Interestingly, both in 2017-18 and 2018-19 the state's market borrowings fell, although the decrease in 2017-18 was small compared to it 2018-19. It appears that, unlike Punjab, whose outstanding liabilities increased sharply, Maharashtra's outstanding liabilities did not fluctuate much. Perhaps, the fiscal space for FLW may have been created through a reallocation of resources among departments.

An analysis of the changes in the state's departmental budgets is given below.

3. Budgetary Allocations among Departments (Figure 37): As per the state's budget documents, the government of Maharashtra has 32 departments. For the triennium ending 2020-21 (TE20-21), 70 per cent of the budget was distributed among 8 departments. About 20 per cent of the allocation went to the finance department, 13 per cent to the planning department, and about 12 per cent to the education department. The shares of 'agriculture, animal husbandry and fisheries' department were about 2 per cent and that of "co-operation, marketing and textiles (CMT)" was about 3 per cent.

Figure 37: Share of major departments in budget for Maharashtra TE 2020-21



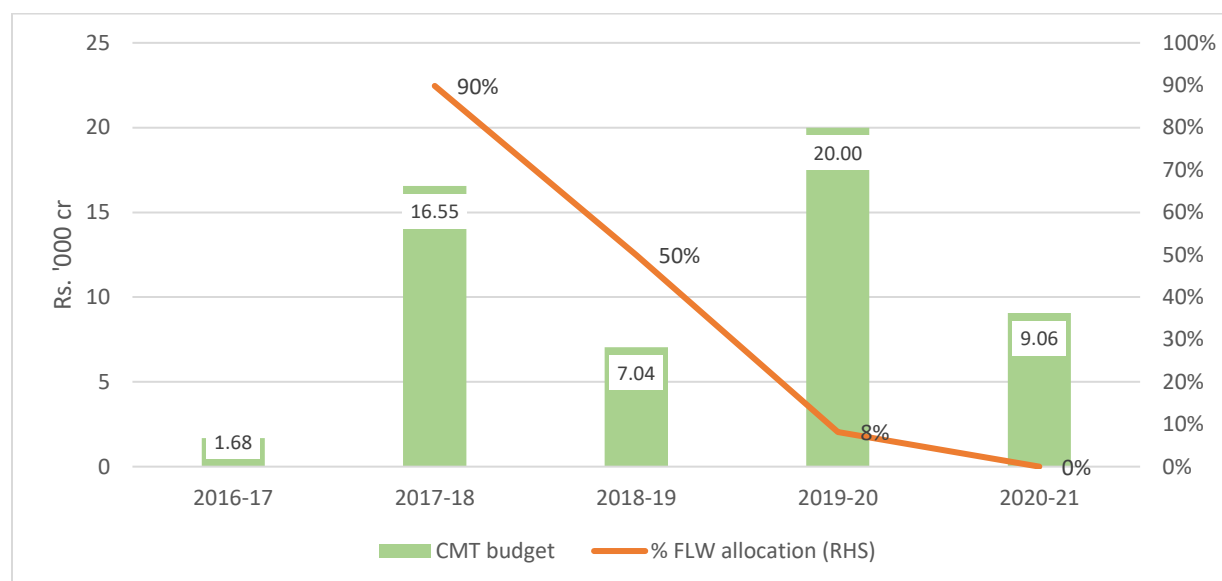
Source: Maharashtra state budget documents. Data accessed in October 2020.

Note: For both 2017 and 2019 farm loan waivers, allocations were made through Co-operation, Marketing and Textiles (CMT) department

The allocation for the FLW scheme was done under the “Co-operation, Marketing and Textiles (CMT)’ department under the sub-heading “other agricultural programmes” under “CSMSSY debt relief”.

In 2016-17, the CMT department had a total budgetary expenditure of about Rs. 1,676 crores, which was about 1 per cent of the state’s budget. But in 2017-18, with the addition of allocation on the FLW scheme, the department’s budget increased almost 10 times to Rs. 16, 552 crores, raising the department’s share in the state budget to about 6 per cent.

Figure 38: Maharashtra: CMT Department Budget



Source: Maharashtra state budget documents. Data accessed in October 2020.

The red line in Figure 38 shows the FLW's expenditure share in the CMT department's total expenditure. In 2017-18, FLW accounted for 90 per cent of the department's budget. After 74 per cent of the FLW disbursements were made, the expenditure under the scheme fell and so did CMT's budget and the share of the FLW in it.

In 2019-20, there was an increase in the CMT department's budget again. This was due to allocations made through the CMT department to the new *Mahatma Jyotirao Phule Shetkari Karzmukti Yojna* (MJPSKY), which is the new FLW scheme announced by the Maha Vikas Aghadi (MVA) government, formed in November 2019.

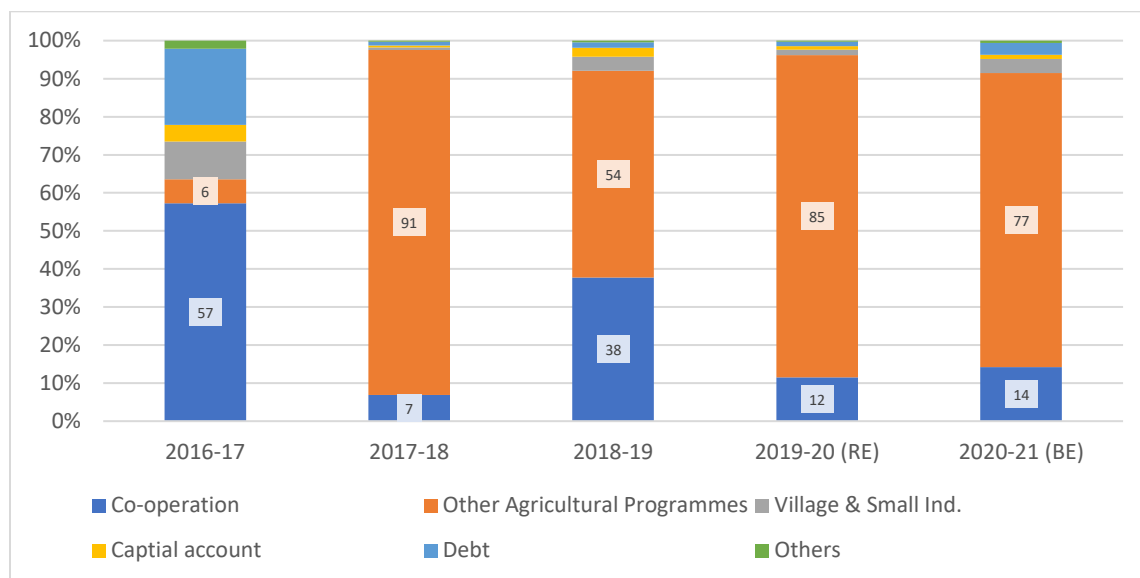
Just as in the case of Punjab, the state's budgetary expenditure on different departments have been looked at particularly around the years in which FLW was announced and disbursed (2017-18 to 2019-20). Particular focus has been on the year 2017-18 when most of the FLW benefits were disbursed.

Using this data, the changes in budgetary allocations between departments have also been estimated. These changes are presented below.

- I. Departments whose budgets were reduced in 2017-18 (compared to 2016-17):
 - a. **Industries and Labour Department** – From Rs. 18,492 crores in 2016-17 to Rs. 12,336 crores in 2017-18, a fall of about one-third (or 33 per cent);
 - b. **Home Department** – From Rs. 15,935 crores in 2016-17 to Rs. 15,021 crores in 2017-18, a reduction of about 6 per cent;
 - c. **Planning Department** – From Rs. 11,487 crores in 2016-17 to Rs. 10,747 crores in 2017-18, a reduction of about 6 per cent;
 - d. **Revenue and Forest Department** – From Rs. 11,703 crores in 2016-17 to Rs. 6,895 crores in 2017-18, a reduction of about 41 per cent;
 - e. **Agriculture, Animal Husbandry Development and Fisheries Department** – From Rs. 9,451 crores in 2016-17 to Rs. 6,815 crores in 2017-18, a reduction of about 28 per cent;
 - f. Other Departments – like **Housing** and **Environment**.
 - II. Departments whose budgets increased in 2017-18 (compared to 2016-17)
 - a. **CMT department** – From Rs. 1,676 crores in 2016-17 to Rs. 16,552 crores in 2017-18, an increase of about 887 per cent; its share in the state budget increased from 1 per cent (2016-17) to 6 per cent (2017-18);
 - b. **Finance Department** – From Rs. 57,631 crores in 2016-17 to Rs. 69,151 crores in 2017-18, an increase of about 20 per cent;
 - c. **Urban Development Department** – From Rs. 16,965 crores in 2016-17 to Rs. 23,577 crores in 2017-18, an increase of 39 per cent;
 - d. Other Departments: like **Marathi language**, **public health**, **Public Works**, **Rural Development and Panchayat** and **Water Supply and Sanitation** etc.
4. **Budget within CMT**: In 2016-17, 57 per cent of the CMT's budget was allocated under the sub-head "co-operation" (Figure 39). The FLW scheme had been budgeted under the sub-heading "other agricultural programmes". This sub-head under the CMT department had a modest share of 6 per cent in 2016-17. However, in 2017-18, after the implementation of the FLW, the share of "other agricultural programmes" skyrocketed to 91 per cent. After falling in 2018-19, this share again increased in 2019-20 to 85 per cent as, along with debt relief disbursements for CSMSSY-2017, debt relief was also being provided to farmers

eligible under the *Mahatma Jyotirao Phule Shetkari Karzmukti Yojna* (MJPSKY) scheme, which was started in 2019.

Figure 39: Change in Intra-department Allocation under Various Sub-heads of CMT Department



Source: Maharashtra state budget documents. Data accessed in October 2020.

The budget allocations under all other sub-heads like co-operation, village and small industries declined significantly since 2017-18.

From the expenditure analysis of Maharashtra, which implemented FLW in 2017-18, we conclude the following:

1. Macro indicators like fiscal deficit (as a percentage of GDP), capital outlay (as a percentage of GDP) and outstanding liabilities (as a percentage of GDP) did not show any sharp change in 2017-18 when the FLW was implemented, possibly indicating a reshuffle of resources among and within departments to make fiscal space for the FLW;
2. In 2017-18, when 74 per cent of the total FLW benefits were disbursed, the expenditure of the **revenue and forest department**, **industries and labour department**, **agriculture department**, **environment department** and **housing department**, among others, was reduced;
3. In 2017-18, due to budgeting of FLW, the budget of the CMT department skyrocketed.

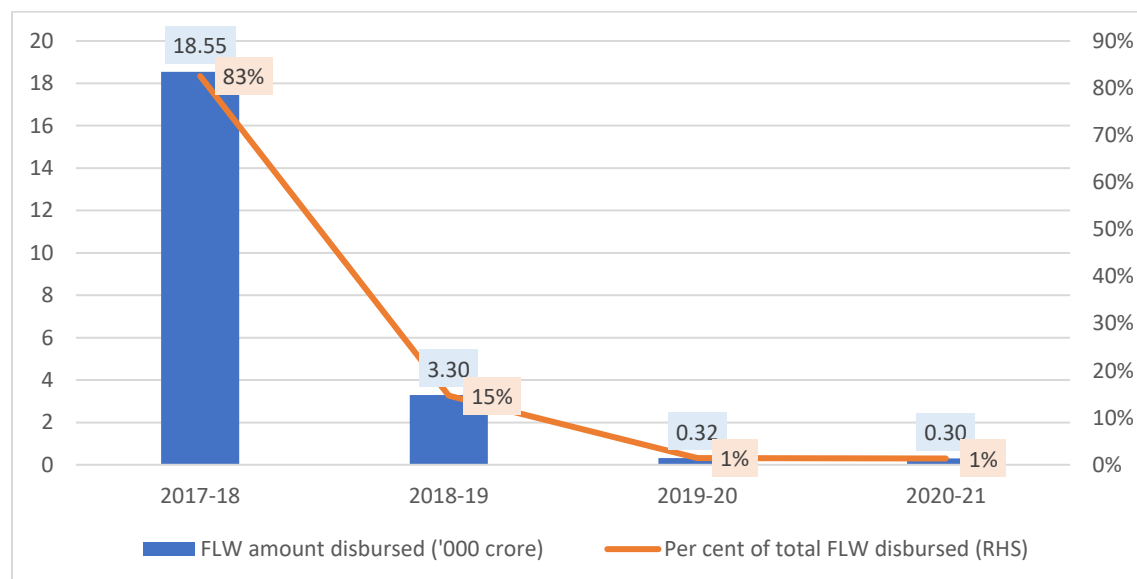
Uttar Pradesh: Did FLW reduce the state's capital expenditure?

After the formation of the new BJP government following the assembly elections, the state government announced the '*Kisan Rin Mochan Yojna*' on April 7, 2017. Outstanding crop loans (non-NPA) up to Rs.1 Lakh as on March 31, 2016, were eligible for debt relief under the scheme and a one-time settlement or OTS was offered for the settlement of NPAs. About 86 lakh beneficiaries were initially identified as beneficiaries under the scheme. The scheme was expected to cost the state exchequer about Rs. 36,000 crores.

Expenditure under FLW

As per UP's budget documents, in the four years beginning 2017-18, the state had spent about Rs. 22,465 crores under the loan waiver scheme (Figure 40). Close to 83 per cent of this amount was disbursed in 2017-18 (making this YMD).

Figure 40: Uttar Pradesh FLW: Yearly Disbursal (Rs. '000 crores) and Share of Total (Per Cent)

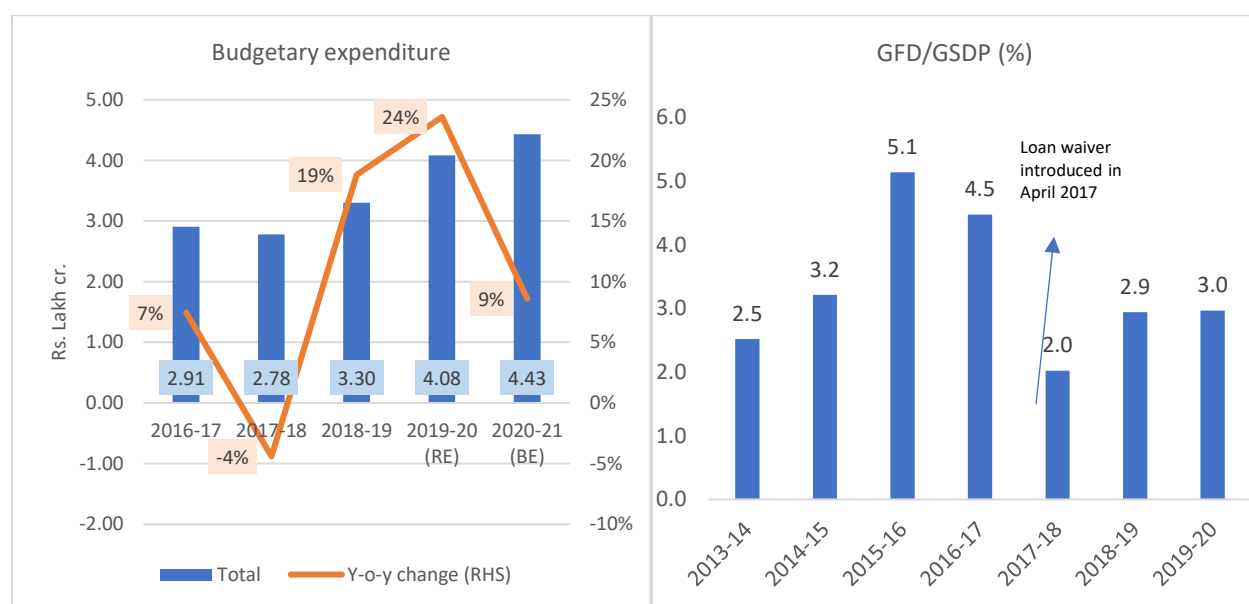


Source: Uttar Pradesh state budget documents. Data accessed in October 2020.

FLW and state's Fiscal Deficit

In 2016-17, the state's overall budget was about Rs. 2.9 lakh crores. In 2017-18, this decreased by nearly 4 per cent to about Rs. 2.8 lakh crores. The fiscal deficit (as a percentage of GSDP) fell from 4.5 per cent in 2016-17 to about 2 per cent in 2017-18. Thereafter, the fiscal deficit has hovered around 3 per cent (Figure 41).

Figure 41: Uttar Pradesh: Budgetary Expenditure and Gross Fiscal Deficit (per cent GSDP)



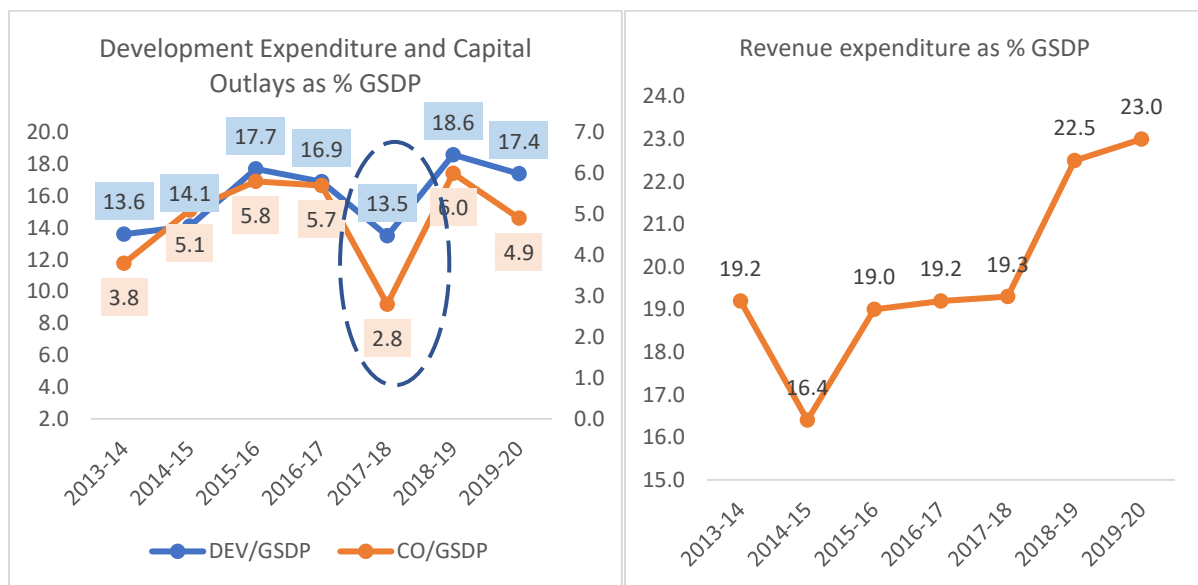
Source: Uttar Pradesh state budget documents. Data accessed in October 2020.

An amount of Rs. 18,546 crores were disbursed under FLW in the year 2017-18. And both the fiscal deficit (as a percentage of GSDP) and total budgetary expenditure went down in 2017-18. This indicates that funds were most likely moved between and within departments to make space for the FLW.

An analysis of departmental budgets revealed the following

1. Development, revenue expenditure and capital outlay (percentage of GSDP): Even though the overall revenue expenditure (as a percentage of GSDP) did not fall in 2017-18 (RHS in Figure 42), its sub-component of development expenditure fell from about 17 per cent in 2016-17 to 13.5 per cent in 2017-18. Even the state's capital outlay (as a percentage of GSDP) fell from 5.7 per cent in 2016-17 to 2.8 per cent in 2017-18. All the three indicators have improved thereafter.

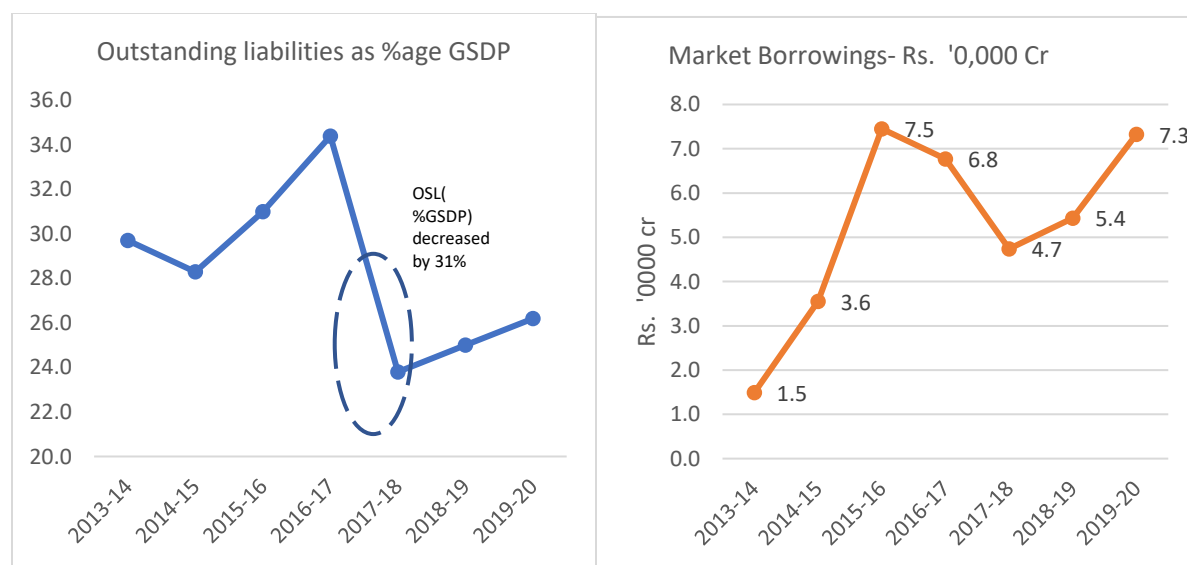
Figure 42: Uttar Pradesh: Development, Revenue Expenditure and Capital Outlay (per cent GSDP)



Source: Uttar Pradesh state budget documents. Data accessed in October 2020.

- 2. Outstanding liabilities (as percentage of GSDP) and Market Borrowings:** Both outstanding liabilities and market borrowings for the state fell in 2017-18 relative to their values in 2016-17 (Figure 43). But both began to rise thereafter.

Figure 43: UP's outstanding liabilities (as percentage of GSDP) and market borrowings (Rs. '0,000 cr)

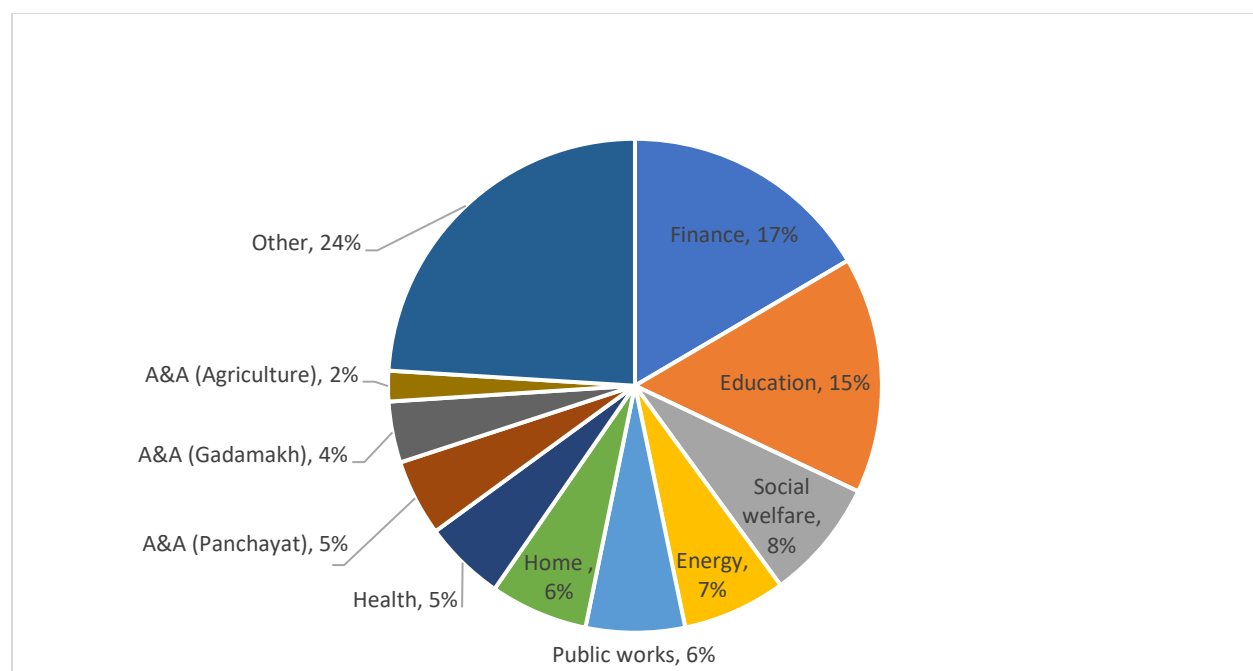


Source: Uttar Pradesh state budget documents. Data accessed in October 2020.

It was found that that the state did not undertake any additional borrowing in the year in which the FLW was disbursed. But did they move funds between departments?

3. **Budgetary Allocations between Departments:** As per the state's budget, Uttar Pradesh has 94 departments. For the triennium ending 2020-21 (TE 2020-21), 70 per cent of the state's overall budget was distributed between eight departments (Figure 44). The finance department accounted for 17 per cent share, followed by the departments of education (15 per cent), social welfare (8 per cent), and energy (7 per cent). The share of the department of agriculture and other allied activities department is about 12 per cent³⁶ of the state's budget.

Figure 44: Uttar Pradesh: Share of Departments in Total Budgetary Expenditure: TE 2020-21



Source: Uttar Pradesh state budget documents. Data accessed in October 2020.

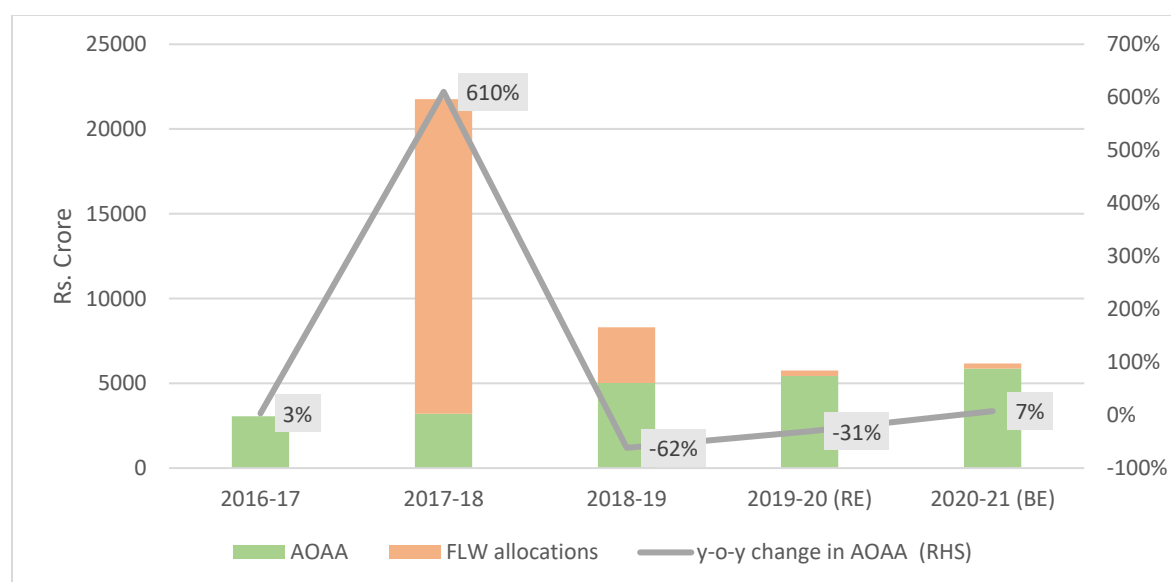
Note: Agriculture budgetary heads presented above does not include expenses on dairy, co-operatives, livestock, land development, fisheries, and land development.

³⁶ This share (TE 20-21) of "Agriculture and other allied activities" department includes budgets of the following: *panchayat* – 5 per cent, *Gadamakh* – 4 per cent, agriculture – 2, per cent livestock – 0.4 per cent, co-operatives – 0.2 per cent, industrial research – 0.2 per cent, land development – 0.1 per cent, dairy – 0.1 per cent, and fisheries – 0.04 per cent.

The allocation for the FLW scheme was done under the department of “Agriculture and Other Allied Activities (Agriculture)” (AOAA) (hereon referred to as the agriculture department) under the sub-heading “debt relief”.

Figure 45 shows the temporal changes in the AOAA department’s budgetary expenditure. With additional allocation for the debt relief programme, the department’s budgetary spend increased by 610 per cent (over 2016-17) and its share in state budgetary expenditure increased to 8 per cent in 2017-18. Since then, however, with falling FLW disbursements, the budgetary expenditure of the department has fallen and its share in state total expenditure declined to 3 per cent in 2018-19 and to about 1 per cent in 2019-20.

Figure 45: Budget of AOAA Department with FLW allocations



Source: Uttar Pradesh state budget documents. Data accessed in October 2020.

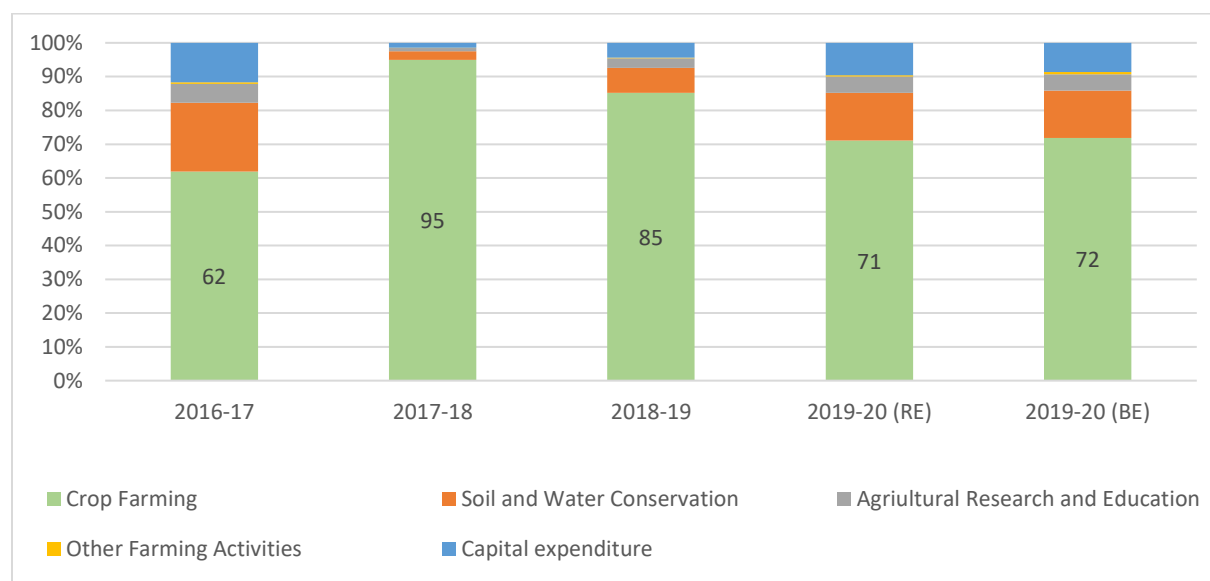
If in 2017-18, total state budgetary expenditure fell (Figure 42), fiscal deficit (as a percentage of GDP) fell (Figure 41), and total outstanding liabilities (as a proportion of GDP) fell (Figure 43), then how did AOAA’s budget increase? Inter-departmental budget data provides the answer.

To analyse the allocation among departments, the same set of variables as in the case of Punjab and Maharashtra have been studied.

The results of the analysis are as under:

- I. Departments whose budgets were reduced in 2017-18 (compared to 2016-17):
 - a. **Education Department** – From Rs. 49,000 crores in 2016-17 to Rs. 43,752 crores in 2017-18, a reduction of about 11 per cent;
 - b. **Social Welfare Department** – From Rs. 26,364 crores in 2016-17 to Rs. 23,839 crores in 2017-18, a reduction of about 10 per cent;
 - c. **Public Works Department** – From Rs. 23,742 crores in 2016-17 to Rs. 14,011 crores in 2017-18, a reduction of about 41 per cent;
 - d. **Energy Department** – From Rs. 30,248 crores in 2016-17 to Rs. 13,736 crores in 2017-18, a reduction of about 55 per cent;
 - e. **Irrigation Department** – From Rs. 10,682 crores in 2016-17 to Rs. 9,754 crores in 2017-18, a reduction of about 9 per cent;
 - f. **Revenue Department** – From Rs. 6,522 crores in 2016-17 to Rs. 4,673 crores in 2017-18, a reduction of about 28 per cent;
 - g. Other Departments like **Housing** and **Environment**.
 - II. Departments whose budgets increased in 2017-18 (compared to 2016-17)
 - a. **Agriculture and Allied Activities Department (Agriculture) AOAA department** – From Rs. 3,063 crores in 2016-17 to Rs. 21,756 crores in 2017-18, an increase of about 610 per cent; the AOAA department's share of the state budget increased from 1.1 per cent (2016-17) to 7.8 per cent (2017-18);
 - b. **Finance Department** – From Rs. 40,818 crores in 2016-17 to Rs. 50,408 crores in 2017-18, an increase of about 23.5 per cent;
 - c. Other Departments: like **Agriculture (fisheries)**, **Agriculture (industrial research)**, **Sugarcane**, **General Administration** and **Civil Aviation**, etc.
4. **Budget within AOAA:** Within the AOAA, 'crop farming' is the biggest sub-head with the maximum share in the department's overall budget (Figure 46). The FLW in 2017-18 was budgeted under this sub-head under "debt relief". In 2017-18, the share of 'crop farming' rose to 95 per cent in 2017-18 from 62 per cent in 2016-17. The share has fallen in line with the change in debt relief disbursements over the year.

Figure 46: Uttar Pradesh: Change in AOAA Intra-department Allocation



Source: Uttar Pradesh state budget documents. Data accessed in October 2020.

As a result of budgeting FLW in 2017-18, the shares of other heads like “soil and water conservation”, “agricultural research and education”, and “capital expenditure” shrank to very low levels in 2017-18.

From this analysis it was found that:

1. The total budgetary expenditure of the state had shrunk in 2017-18 as compared to 2016-17; the fiscal deficit (as a percentage of GSDP) was also low in 2017-18.
2. Both capital outlay and development expenditure fell in 2017-18.
3. The budgets of “education”, “social welfare”, “irrigation” suffered in the year 2017-18;
4. Within the agriculture department (AOAA), while the overall budget increased in 2017-18, the allocations on “soil and water conservation” and “agricultural research and education” among others, went down.

Overall Summary of the Budget Analysis of the three states

Summary #1

Item	Punjab	Maharashtra	Uttar Pradesh
FLW Scheme Name	<i>Karz Maafti Yojna</i>	<i>Chhatrapati Shivaji Maharaj Shetkari Sanman Yojana (CSMSSY)</i>	<i>Kisan Rin (or Karz) Mochan Yojana</i>
FLW Scheme launched	October 2017	June 2017	April 2017
Beneficiaries	SMF	All farmers	SMF
Type of loans	Outstanding crop loans as on March 31, 2017	Overdue crop and medium-term loans after April 1, 2009 and up to March 31, 2016	Outstanding crop loans as on March 31, 2016
Estimated cost to Exchequer	Rs. 10,000 crores	Rs. 34,020 crores	Rs. 36,000 crores
Amount actually spent*	Rs. 6,586 crores (Rs. 4,624 crores~)	Rs. 20,020 crores	Rs. 22,465 crores
Concentration of FLW disbursement in which year (share disbursed in that year as a percentage of total disbursed since 2017-18 to 2020-21) ^	2018-19 (64 per cent)	2017-18 (74 per cent)	2017-18 (83 per cent)

Source: Scheme documents and State Budgets.

Note: * Cumulative amount spent under the scheme till FY 2020-21. ^ As FLW benefits were spread in four (or three) years, this row gives the year in which most of the benefits were released. Value in brackets is the percentage of the total FLW amount released in that year. ~ based on discussions with the Punjab government officials.

Summary # 2

Trends in Studied Budgetary Expenditure Variables			
Total Budgetary expenditure (direction of change in the year of maximum FLW disbursal compared to the previous year)	Increased	Increased	Decreased
Fiscal Deficit (percentage of GSDP)	Increased	Decreased	Decreased
Revenue Expenditure (RE) (percentage of GSDP)	Increased	Increased	Increased a little
Outstanding liabilities (percentage of GSDP)	High	Decreased	Decreased
Market borrowings (Rs.)	Increased	At a high level, though amount decreased a little	Decreased
Development expenditure (DE) (percentage of GSDP)	Increased	Decreased	Decreased
Capital outlay (CO) (percentage of GSDP)	Increased	Decreased	Decreased
FLW was budgeted under which Department	Agriculture; sub-head "Crop Husbandry"	CMT	AOAA

The findings from the above analysis are summarised under:

1. In the year of maximum disbursal (YMD) of FLW benefits, the fiscal deficit fell in Maharashtra and Uttar Pradesh but increased in Punjab;
2. Major reallocation was observed in budgetary expenditure between departments in the YMD;
3. Capital outlays and development expenditure were also low in the YMD year in Maharashtra and Uttar Pradesh. In the case of Punjab, it increased in the YMD;
4. Allocations of departments that suffered in the YMD were power, water resources, public works, and health and family welfare in Punjab, revenue and forest, industries and labour, agriculture department (allocation for FLW was done under CMT department), environment and housing in Maharashtra, and general administration, agriculture (fisheries), agriculture (industrial research), agriculture (dairy), energy, and social welfare in Uttar Pradesh.

Do FLWs Have an Impact on Inflation?

The basic premise of a farm loan waiver scheme is that it helps remove the debt overhang of an indebted and distressed farmer. By paying the lending banks on behalf of the defaulting farmer, the government does not give any fresh money to the farmer under FLW. It of course opens avenues for the farmer to take on fresh credit in subsequent seasons. But can FLW lead to inflation by augmenting demand by the farmers, mainly consumption demand?

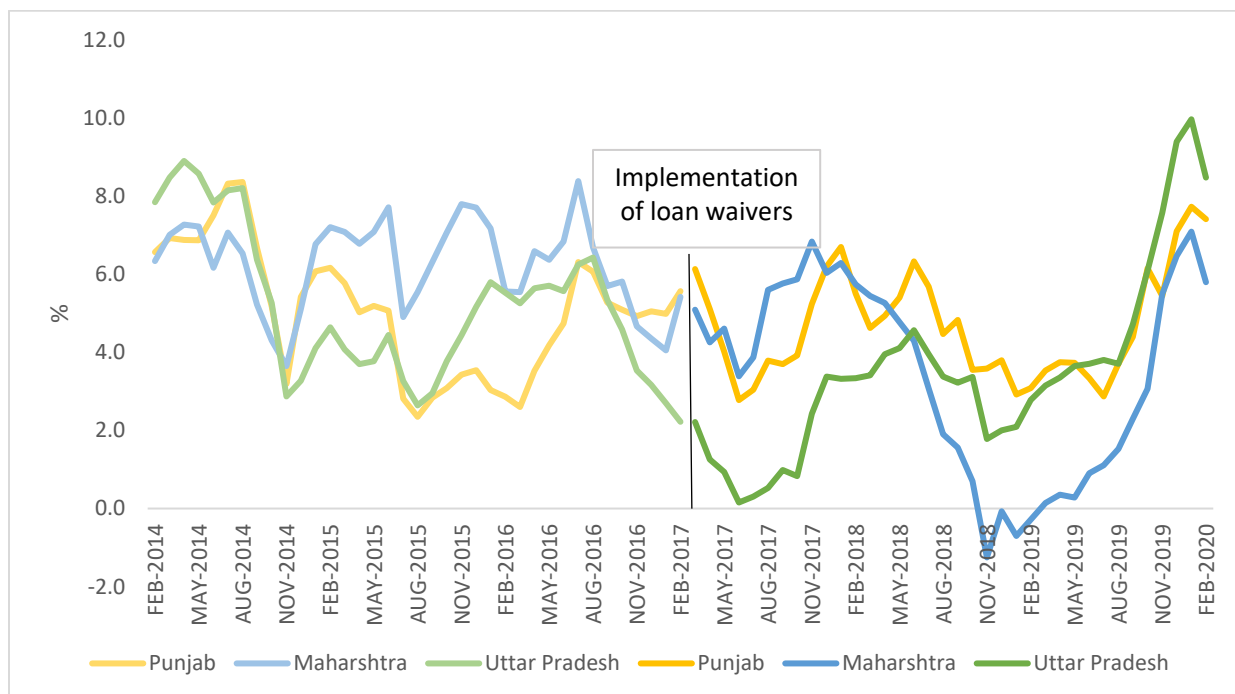
Earlier research suggests that farm loan waiver schemes have little impact on consumption. According to Kanz (2016), FLW schemes do not alter the consumption of either the beneficiaries of FLW schemes or of the non-beneficiaries/partial beneficiaries of the scheme. Similarly, Mishra, Tantri and Thota (2017) also observed no changes in the consumption of beneficiary households.

According to Mitra *et al* (2017), loan waivers trigger inflation whenever they result in higher fiscal deficit. Their research talks about the non-linear impact of fiscal deficits on inflation, meaning that fiscal deficit adds more to inflationary pressures at higher levels of fiscal deficit. Similarly, several researchers (Leeper 1991, Sargent & Wallace 1981, etc.) have found evidence of increased fiscal deficits resulting in higher inflationary pressure in the economy.

RBI (2017) states that loan waivers lead to lowered capital expenditure, which has an input cost increasing impact for sectors that already suffer from capital/infrastructural constraints. This can also have an inflationary impact.

In this section, an analysis to study the movement of prices in the three states around the years of the FLW implementation, more specifically the movement of prices around the year of maximum disbursal (YMD) of FLW benefits, has been made. It is important to note that no attempt is being made here to establish any causation between farm loan waivers increasing/decreasing inflation; the aim is to map the changes in inflation rates in the period when farm loan waivers were implemented in the respective states. The inflation rates are estimated based on the consumer price index (rural) (CPI-R) Figure 47.

Figure 47: Trends in Year-on-Year CPI (Rural) Inflation Rates: Punjab, Maharashtra and Uttar Pradesh



Source: Database on Indian Economy, RBI. Data accessed in March 2020.

To study the movement of inflation rates around March 2017 (FLW announcements in all three states were made in early 2017-18), the single-factor ANOVA technique has been used. There are two sets of inflation rates for each state, where one represents the inflation rates from February 2014 to March 2017 and the other represents inflation rates between April 2017 and February 2020. The null hypothesis being checked is “there is no significant difference in the average rate of inflation in the two sets”. The results are presented below in Table 15.

Table 15: Results of ANOVA Analysis of CPI Indices

S. No	State	No of observations	Average	Variance	P-value
1.	Punjab				
	Pre-2017	38	5.11	2.69	-
	Post-2017	36	4.68	1.90	-
	Between groups	-	-	-	0.22
2.	Maharashtra				
	Pre-2017	38	6.25	1.29	-
	Post-2017	36	3.40	6.31	-
	Between groups	-	-	-	0.00
3.	Uttar Pradesh				
	Pre-2017	38	5.24	3.84	-
	Post-2017	36	3.49	3.49	-
	Between groups	-	-	-	0.00

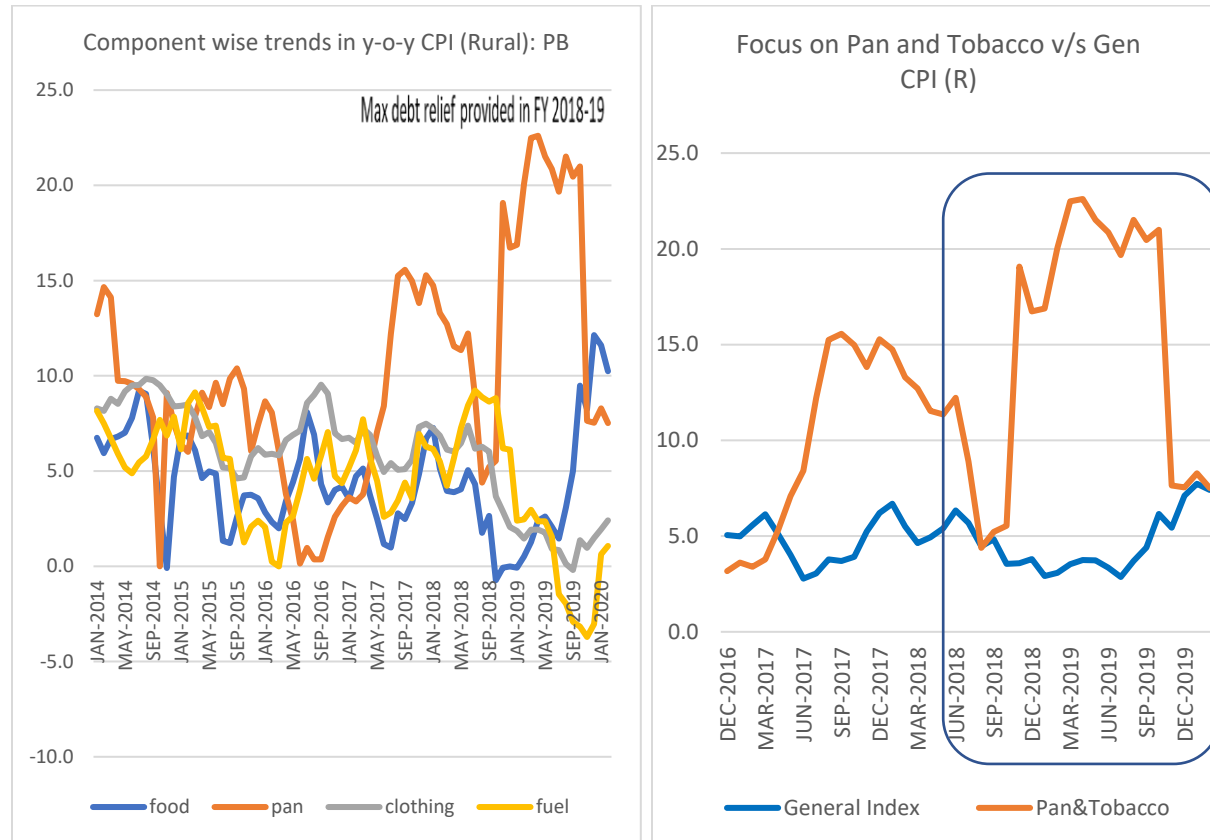
Source: Calculated by authors using data from Data Base on Indian Economy, RBI

The results suggest that the null hypothesis could not be rejected for Punjab but could be rejected for UP and Maharashtra. This implies that there was a significant difference in the two sets of inflation rates in Uttar Pradesh and Maharashtra but in the case of Punjab, the differences were not significant. Incidentally, average rates of inflation in the two sets seem to follow a pattern in all the three states – the average rate of inflation after March 2017 is lower than the pre-March 2017 period. Did prices fall post FLW implementation? Or can this be used to imply that there is no correlation between FLW and inflation?

To answer this, trends in CPI sub-indices in the three states have been looked at. There are five sub-indices that have been studied: (i) food and beverages, (ii) pan, tobacco and intoxicants, (iii) clothing and footwear, (iv) fuel and light, and (v) miscellaneous. The sixth sub-index is that of housing for which there is no data for rural areas.

In the case of Punjab, it was found that inflation spiked after FLW was implemented (Figure 48), particularly in the sub-index of pan and tobacco, which seemed to have spiked after November 2018 (this is the structural break in the series estimated using Bai and Perron (2003)).

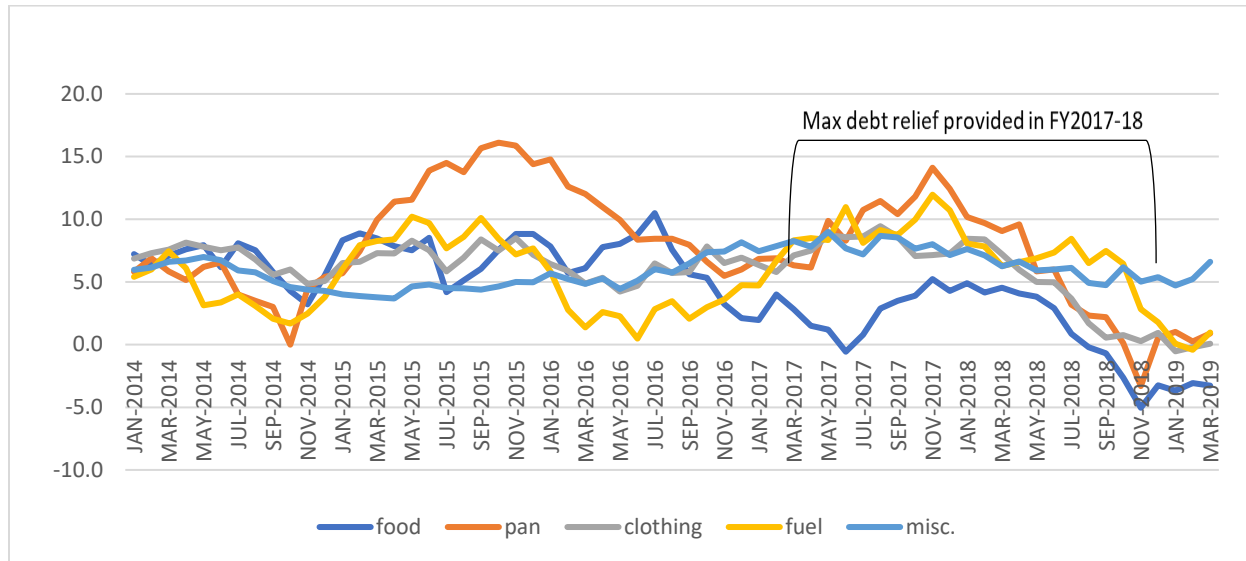
Figure 48: Inflation in CPI Sub-indices and Zoom-in on CPI-Pan, Tobacco and Intoxicants



Source: Database on Indian Economy, RBI

In the case of Maharashtra (Figure 49), most of the FLW benefits were disbursed in 2017-18 and in that year, there too appears to be a rise in CPI (Rural) for “pan, tobacco and intoxicants”, “fuel” and “food” sub-indices.

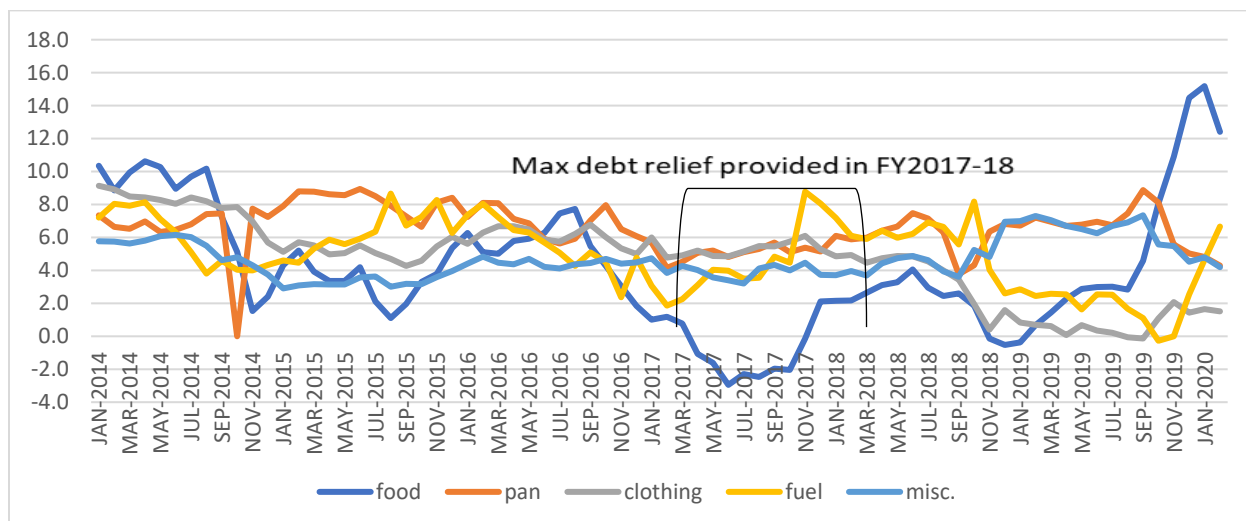
Figure 49: Sub-indices CPI (R) for Maharashtra



Source: Database on Indian Economy, RBI

In the case of UP (Figure 50), apart from “fuel”, no other sub-index showed any exceptional rise in 2017-18, although there is some upward movement visible in the CPI food index that appears to have dipped sharply in the months leading up to June 2017.

Figure 50: CPI (R) sub-indices for Uttar Pradesh



Source: Database on Indian Economy, RBI

The Bai and Perron (2003) test was run to test for a structural break in the CPI sub-indices for all the three states and the results are presented in Table 16.

Table 16: Structural Breaks in CPI Sub-Indices

S. no	State	CPI sub-Index and structural break	Inflation rates	
			Pre-break	Post-break
1.	Punjab	Pan, Tobacco and intoxicants (Nov, 2018)	8.1	17.1
		Fuel & Light (June, 2019)	5.3	-1.4
		Clothing and footwear (Oct, 2018)	7.1	1.6
2.	Maharashtra	Pan, Tobacco and intoxicants (July, 2018)	9	0.4
		Fuel & Light (Nov, 2018)	6.2	0
		Clothing & Footwear (Aug, 2018)	6.8	0.3
		Miscellaneous Group (Aug, 2018)	6.1	4.4
3.	Uttar Pradesh	Fuel & Light (Nov, 2018)	5.7	2.5
		Clothing & Footwear (Sep, 2018)	5.9	1
		Miscellaneous group (Dec, 2018)	4.3	6.2

Source: Estimated by authors using data from Data Base on Indian Economy, RBI

These price series run from January 2014 to February 2020. Two findings, *inter alia*, emerge from the structural-break analysis:

1. Structural breaks in the price series for all sub-indices (Table 16) happen to be in the year in which most of the benefits of FLW were disbursed in that state;
2. Average inflation rates post the structural break have all been lower than their pre-break levels, barring for ‘Pan, tobacco and intoxicant’ category for Punjab and the ‘miscellaneous group’ category for UP;

Overall, it emerges that the inflationary impact is visible, if at all, only in the case of Punjab (in pan and tobacco) and UP (in miscellaneous group) (yellow highlighted cells in Table 16).

However, as there are many more variables that are likely to influence inflation in an economy, these results may present a rather simplified picture of a complex phenomenon. Overall, it can be

concluded that there is not enough evidence to prove that FLW affected inflation in the three states or contributed significantly to higher inflation rates.

Do FLW Affect Banks' Incentives to lend?

According to the former RBI Governor, Dr. Urjit Patel, the first impact of any waiver is on the balance sheet of the financial institution (RBI 2017). He attributed this to the inevitable lags that arise due to the difference in the timing of the impact and actual compensation received by financial institutions from the government. These lags led to deteriorating loan assets and lower liquidity for issuing new loans. Narayan and Mehrotra (2018) observe that after a waiver, formal banking institutions attract new borrowers, especially SMFs, expecting future loan waivers. If there is a low rate of default, this can be viewed as a positive outcome. However, banks can scale down lending operations, fearing negative consequences. There are instances of banks' balance sheets deteriorating due to the anticipation of farm loan waivers (Parmar 2017).

In this section, the effect of FLWs on a financial institution's incentive to extend fresh credit has been examined. This has been done in two steps:

1. **Credit Targets of Banks** – Credit targets are instinctively expected to rise every year for two reasons – adjustment for inflation and attempts to increase rates of financial inclusion in the country. The targets have been examined to look for any peculiarity that has arisen after an FLW has been implemented or when it is in the process of implementation;
2. **Achievements of Credit Targets** – Intuitively, the fear of greater defaults will hold back a risk-averse financial institution from extending credit aggressively and thus, there is a higher chance of the actual credit disbursement performance falling short of targets. This has also been looked at.

State governments and SLBCs (state-level bankers committees) set PSL (priority sector lending) targets as part of the annual credit plan³⁷ every year. Data on financial institutions' agricultural

³⁷ The state annual credit plan target is the sum of district annual credit plan targets, which are projected by the respective lead district managers based on the actual performance of the districts.

credit targets and their achievement in the three states have been studied to see if there was any instance of an unexpected change in the credit target and achievement variables after the implementation of FLW in 2017-18.

Performance of Credit Lending Targets

The YMD (year of maximum disbursement of the FLW benefits) in the three states were: 2018-19 for Punjab and 2017-18 for UP and Maharashtra. This is highlighted in the figure 29 below in dotted boxes. Data on targets have been collated and bifurcated into term and crop loans in the three states. Intuitively, FLWs, via their adverse impact on credit culture, could lead to financial institutions lowering their credit targets for the coming year.

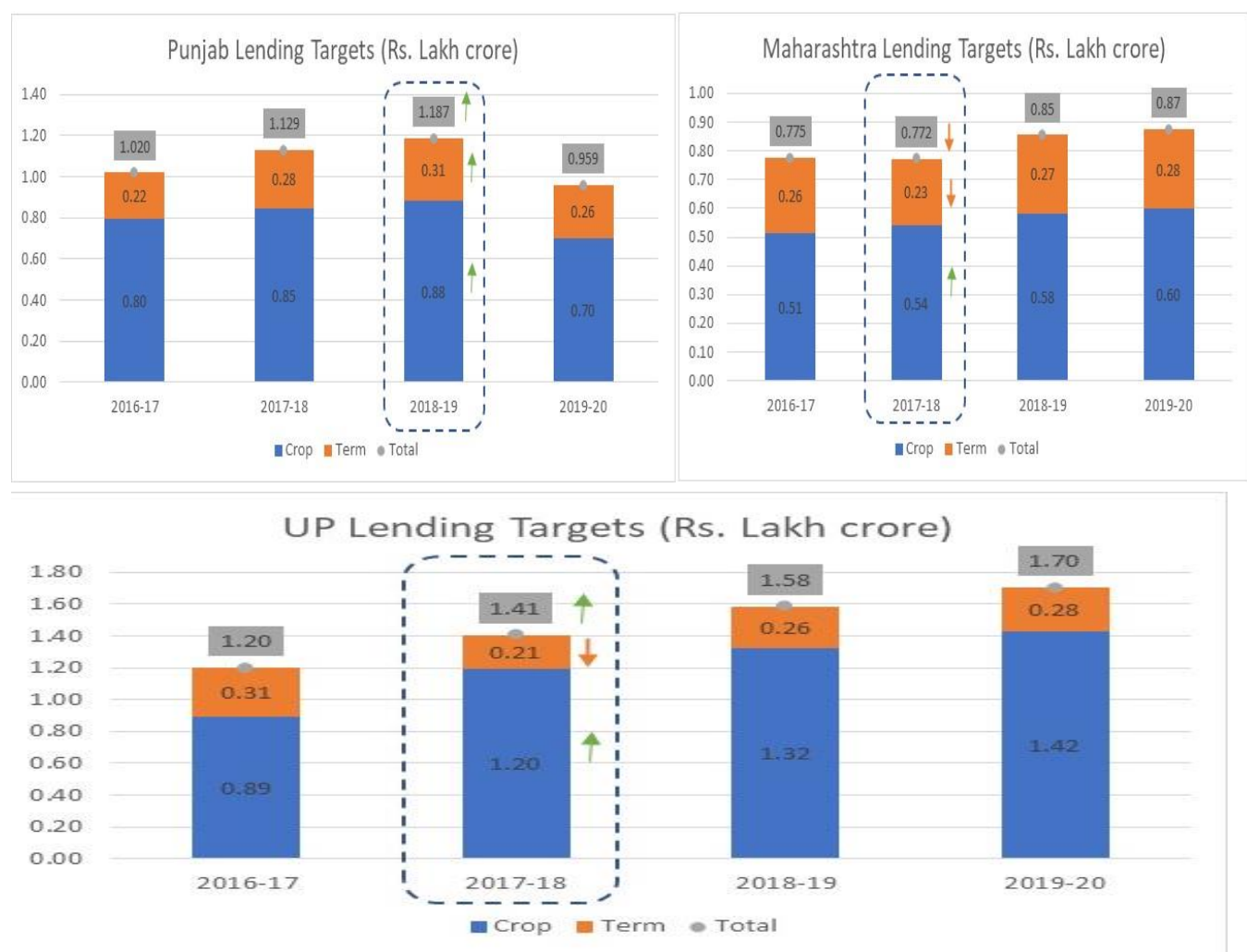
From Figure 51, the following can be observed through a comparison of the data for the YMD and previous years:

1. Overall credit target: In the YMD, Maharashtra's overall credit lending target fell, *albeit* marginally, but it increased in the other two states of UP and Punjab. In Punjab, the credit lending target fell in the subsequent year of 2019-20.
2. Targets for crop loans: These rose in all three states.
3. Targets for term loans: Credit targets fell in UP and Maharashtra. In Punjab, like crop loans, this target too was higher compared to the previous year.

These movements can also be seen in the arrows given in above where the green upward arrow indicates a year-on-year increase and the red downward arrow indicates a year-on-year decrease in credit targets.

In conclusion, this implies that in the year when the maximum share of FLW benefits was disbursed, the target of credit disbursement by financial institutions fell in Maharashtra. However, there was an increase in target of term loans in both Punjab and UP.

Figure 51: Analysing Credit Targets for Three States



Source: State Level Bankers' Committee of Punjab, Maharashtra and Uttar Pradesh Meeting Agenda and Minutes for the financial year 2016-17, 2017-18, 2018-19 and 2019-20.

Note: Data for Punjab corresponds to ground level credit data. Data from SLBC Punjab show credit target and achievement under the ground level credit component.

Performance on Credit Targets

Since 2017-18, when FLWs were announced, the achievement of agricultural credit targets (both short term and long term) decelerated dramatically (Figure 52) in all three states, only to revive the subsequent year onwards.

In Punjab, 82 per cent of the total credit target was achieved in 2016-17, but achievement fell to 74 per cent in 2018-19 and 76 per cent in 2019-20. In Maharashtra, although the credit target for 2017-18 was reduced only marginally, the actual disbursal fell sharply. Maharashtra had overachieved its credit target by 25 per cent in 2016-17, but the performance deteriorated in 2017-18, when only 66 per cent of the target was achieved. Uttar Pradesh had also not fared well as the achievement against the credit target was 75 per cent in 2017-18 and the lowest in 2018-19 (66 per cent) but it improved to 69 per cent in 2019-20.

Decomposing the credit lending targets further into crop and term loans (Figure 53), it shows that since the implementation of the FLW schemes in 2017 the achievement trailed credit targets in case of crop loans in all three states. In case of term loans, achievement lacked behind target in Punjab and Uttar Pradesh.

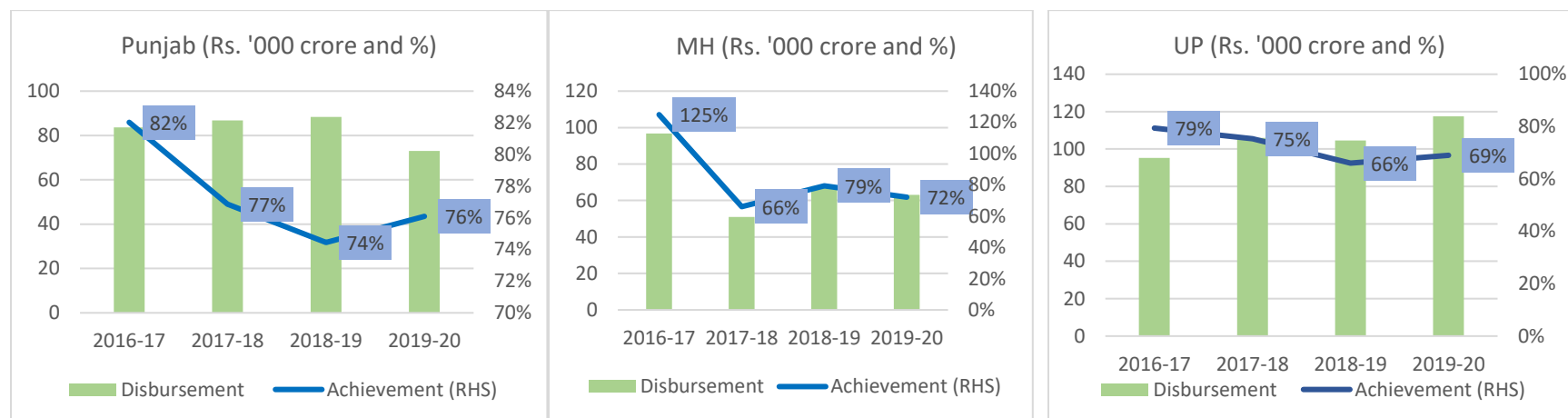
In Punjab, the achievement of crop loan targets, which were set higher than in previous years, fell consistently, particularly since 2018-19 (YMD). For term loans, the achievement fell to 56 per cent of the target in 2017-18 but since then, it had picked up and in 2018-19 stood at 76 per cent, though still below target.

In Maharashtra, targets for crop loans were raised each successive year but achievements remained below target. It fell from 82 per cent in 2016-17 to 47 per cent in 2017-18 and was only 54 per cent in 2018-19. However, term loan lending targets were exceeded consistently.

In Uttar Pradesh, achievement of crop loan targets decreased from 85 per cent in 2016-17 to 76 per cent in 2017-18. Underachievement vis-à-vis the target for both crop and term loan continued in 2018-19 (66 per cent). In conclusion, the achievement of credit targets post-YMD are observed to be lower when compared to pre-YMD achievement of targets.

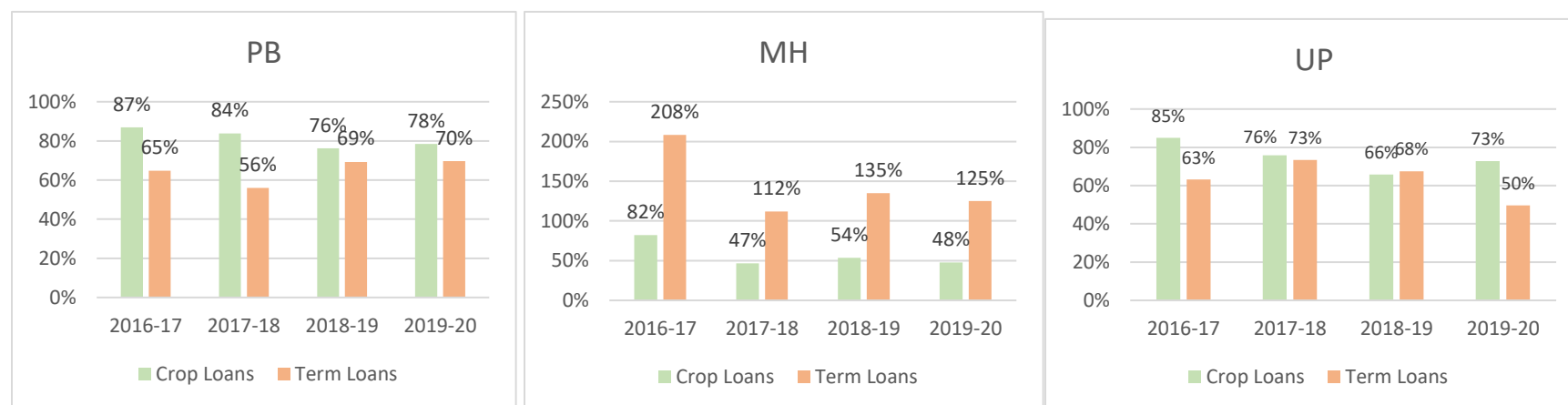
But the fall, nevertheless, appears temporary as the metrics of lending reverts to higher levels in the subsequent years.

Figure 52: Achievement of Credit Targets in the Three States



Source: State Level Bankers' Committee of Punjab, Maharashtra and Uttar Pradesh. **Note:** Data for Punjab corresponds to ground level credit data. SLBC Punjab gives credit lending and achievement under the ground level credit component.

Figure 53: Achievements of Crop and Term Loans Credit Targets in the Three States



Source: State Level Bankers' Committee of Punjab, Maharashtra and Uttar Pradesh.

Note: Data for Punjab corresponds to ground level credit data. SLBC Punjab gives credit lending and achievement under the ground level credit component.

Chapter 6: Primary Survey – Profile and Methodology

This chapter outlines the methodological approach that was followed for the survey. The analysis of the collected data is presented in the following Chapter.

Research Objective of the Survey

The aim of the survey was to assess the attitude and experience of farmers regarding farm loan waiver schemes. It is a cross-sectional study where the experiences of farmers were studied at a point in time across three of the most important agricultural states in India which had implemented a farm loan waiver scheme in 2017-18.

The sub-objectives of the primary survey were the following:

- a. *Outlining the existing loan profile of the farmer* – this included a study of the sources of loan and the pattern of the loan amount utilisation
- b. *Understanding factors causing distress to farmers* –identifying the factors of distress, the level of distress caused by them and the coping strategies that farmers have adopted to address them
- c. *Assessment of the farm loan waiver experience* – this included an assessment of experience of the existing beneficiaries of FLW, and of those eligible farmers who did not receive benefits under FLW and of the non-beneficiary farmers.

Coverage and Scope of Survey

Geographical coverage

The survey collected responses from 3835 farmers spread in 126 villages in the three states- Punjab, Maharashtra and Uttar Pradesh. The aim was to cover 1000 farmers in each of the three states. After scrutiny and quality assessment of the survey responses from the 3,835 farmers, 3000 survey responses were selected for final analysis. Instead of 1000 farmer responses in each state, we did 1001 in Punjab, 1174 in UP and about 825 in Maharashtra.

Period of the Survey

The survey was conducted between January, 2020 and August, 2020. The responses were recorded using the pen and paper method. Due to the Covid-19 related logistical restrictions across states, the training and actual data collection were undertaken in a phased manner.

Impact of Covid-19 Pandemic on the survey

The original plan was to conduct the survey between January and April, 2020. However, due to Covid-19 related restrictions on mobility, the duration of the survey got extended. Restrictions on physical movement created several logistical problems. Nevertheless, the work was completed after July, 2020 when restrictions began to be eased.

Target Population

The unit of evaluation was an individual farmer household. A household was defined as a group of individuals living together sharing a common kitchen (MOSPI 2013). A ‘farmer’ for this study has been defined as any individual who operates land (owned or taken on lease or otherwise possessed) and is engaged in agricultural activities; primarily crop production, during the last 365 days from the date of survey. In addition to landowners, we profiled a small number of landless farmers in all the three states³⁸ who operated on leased-in land. The desired composition of the sample in each state is given in Table 17. This sample composition was guided by India’s landholding pattern (3rd column in Table 17).

Table 17: Desired Composition of Farmer Sample in a Village

Category of farmer	Proportion of sample	India’s landholding patterns (Agricultural Census 2015-16)
Landless	5 per cent	-
Marginal	63 per cent	68.5 per cent
Small	18 per cent	17.6 per cent
Medium	13 per cent	13.4 per cent
Large	1 per cent	0.6 per cent

Source: Agricultural Census 2015-16

³⁸ Since tenancy is prevalent in all states, particularly in Punjab, a section has been added on landless farmers although the sample size of such farmers is small.

Recruitment Criteria

To ‘recruit’ the survey respondents, a conceptual framework was designed to scrutinise each prospective candidate before surveying. These criteria were as follows:

- a. *Criterion 1:* The respondent should be engaged in agricultural activity on owned land, leased-in land, both owned and leased-in land or family land. The condition of ownership of land was dispensed with. This definition is also followed by most GOI surveys (NAFIS 2016-17, SAS 2014) that profile Indian farmers;
- b. *Criterion 2:* None of the members in the farmer household should be working in government (central or state) or receiving any pension from the government in excess of Rs. 2,000 per month. This was done to eliminate respondents who were relatively better-off financially;
- c. *Criterion 3:* The respondent farmer should have taken an agricultural loan in at least one of the 3 years between FY2017-18 and FY2019-20. They could have borrowed from institutional and/or non-institutional sources. Given the mandate of the survey, it was important to eliminate farmers who did not borrow to undertake agricultural activities as FLW was unlikely to impact them;
- d. *Criterion 4:* The share of income from agriculture and allied activities in the total household income had to be more than 25 per cent. A farmer household that earned more than 75 per cent of their household income from non-farming activities were not covered in the study. The NAFIS 2016-17 and SAS 2014 identified respondents based on value of produce. As per NAFIS, “an agricultural household is defined as a household that received some value of produce more than Rs.5,000 from agricultural activities in a year.” This threshold under NSSO’s SAS was Rs.3,000.

In summary, we excluded a farmer whose primary source of income was not from farming activity, or had anyone in the family employed with government or received a monthly pension of more

Rs.2000 or who did not depend on loans (from institutional or non-institutional sources) for undertaking his agricultural activities. We also excluded agricultural labourers³⁹ from the survey.

As this study focused primarily on accessing the impact of farm loan waiver schemes and a farmer's attitude towards it, the sampling strategy focused on identifying potential FLW scheme beneficiaries. As per information given in Chapter 4, in Punjab and Uttar Pradesh, only SMFs were eligible for the 2017-18 loan waiver schemes; therefore, the sampled farmers were bifurcated on basis of size of owned land holdings rather than any other criterion. However, in Maharashtra, even though all farmers were eligible for their 2017-18 loan waiver, due to the high incidence of SMFs in the state, a similar sampling strategy as done for the other two states, was applied.

The definitions of the type of farmers, adopted from the Agricultural Census 2015-16, are:

- A. Marginal farmers owning land less than 2.5 acres (or less than 1 hectares)
- B. Small farmers owning land between 2.5 acres to 5 acres (or between 1 and 2 hectares)
- C. Medium farmers owning land between 5 acres and 25 acres (or between 2 and 10 hectares)
- D. Large farmers owning land above 25 acres (greater than 10 hectares)
- E. Landless farmers with no owned land.

³⁹ As per Saini *et al* 2020, "Workers in agriculture earn a daily wage and do not own or lease land but work on farms owned by others in return for wages paid to them in cash or kind. Labourers do not bear any risk in the cultivation."

Methodology followed for the Survey

Below, in Figure 54, the steps taken to organise, and undertake the survey are given in detail.

Figure 54: Methodology Opted for Primary Survey Implementation

Step-1: Development of research instrument <ul style="list-style-type: none"> •Development of research instruments in Hindi and English.
Step-2: Pilot testing of research instrument and finalisation. <ul style="list-style-type: none"> •Farmer pilot surveys conducted within sub-categories including small, marginal, medium and large farmers to get a holistic perspective in all three states; •The findings of pilot survey used to finalise the questionnaire and survey strategy.
Step-3: Training of field teams <ul style="list-style-type: none"> •Development of survey manual outlining the survey objectives, sample profile, districts and villages to be covered, key concepts and quality norms; the manual was provided to all the members of data collection team as a ready reckoner; •Field teams trained in both classroom as well as on virtual platforms (due to Covid related restrictions); •Dummy interviews conducted with surveyors before the main survey to ensure thoroughness with questionnaires.
Step-4: Quality assessment during field work <ul style="list-style-type: none"> •Scanned copies of 2-3 filled forms of each surveyor were shared on a daily basis by their respective supervisors to field managers and research team for the initial 10 days of the survey to undertake course correction through retraining wherever needed; •The frequency of sharing of scanned forms reduced to once a week since the surveyors were found to be meeting quality norms consistently.
Step-5: Quality assessment post field work <ul style="list-style-type: none"> •Each of the filled forms were scrutinised by the quality control team followed by backcheck calls on lot basis; •Around 25 per cent of the total sample telephonically backchecked and qualified lots sent for data entry.
Step-6: Data entry and cleaning <ul style="list-style-type: none"> •Data entry executives given training on the data entry templates and questionnaires to ensure accuracy of data entry; •Data files received from data entry team subjected to cleaning by identifying logical errors and missing data points; •Telephonic calls made to respondents for listed entries having logical errors and data gaps for corrections and obtaining missing data; •The corrected entries subsequently accepted for further analysis.

Research Instrument

For the survey, a 26-page questionnaire was designed and that can be found in Annexure 10. The questionnaire was divided into different sections. The first section specifies the respondent recruitment criteria for the survey. The second set of questions related to general farmer details. The farmer's credit profile was collected in the third section and questions about farmer distress were asked in the fourth section. Section five had questions related to farm loan waiver schemes. The questionnaires were the same for all three states with some minor adjustments in section five for state specific FLW evaluations.

A separate section had to be added as an annexure to the original questionnaire as the survey was conducted during the Covid-19 related times. There was a chance that responses to questions about farmer distress would be a reflection of distress caused during the pandemic. Because the aim was to profile the problems a farmer faced during normal (non-Covid) times, two sections on distress were created. While the first section sought responses under the 'normal' situation, the second asked the farmer about problems faced particularly during the lockdown.

To check for linguistic differences between surveyed states, the questionnaire, originally written in English, was translated into Hindi so that local surveyors could understand the contents of the questionnaire. The designated local survey teams were well versed in local languages. A centralised agency was appointed to co-ordinate and correct (with immediate effect) any issues or discrepancies arising out of the on-field implementation of the survey. A robust, dynamic backcheck⁴⁰ and dispute resolution framework was put in place. Stringent scrutiny measures were ensured at different phases of the survey process, i.e., training of field teams, actual field surveys, data entry⁴¹, data cleaning and data analysis to ensure the quality, authenticity and consistency of the collected data.

Before beginning the actual farmer surveys, the questionnaires were pilot-tested for feedback on the effectiveness and clarity of questions. The responses from the pilot survey were analysed for assessing gaps in the questionnaire. This helped prep all parties involved in the survey (researchers,

⁴⁰ Backcheck is the survey authentication method in which the interviewed respondents are telephonically contacted or met within the stipulated number of days after the completion of the survey to verify the respondent details and confirm data on select control questions in the questionnaire.

⁴¹ Data entry is the process of manually entering data from filled questionnaires into a software template (e.g., MS Excel) amenable to analysis by researchers.

survey agency and the field-officers). In total, three pilot tests were conducted, one in each of the three states (details of which can be found in Table 18).

Table 18: Details of Questionnaire Pilot Testing

Pilot no.	State	District	Village	No. of interviews		
				Sarpanch	Farmer	Total
1.	Punjab	Rupnagar	Barwa	1	10	11
2.	Uttar Pradesh	Bulandshahr	Bichola	1	6	7
3.	Maharashtra	Parbhani	Nandkheda	1	12	13

To facilitate the interactions with farmers in a village, a meeting with the village Sarpanch was critical not just administratively (as survey teams were allowed to administer surveys in the village after the unofficial nod from the village head) but also strategically as being the village head, the Sarpanch was best placed to give a macro-view of the problems faced by the farmers in the village. Unless restricted by the Covid- 19 related restrictions, the survey teams during the main survey met with the Sarpanch in most of the 126 surveyed villages.

Sample Composition

The sample breakup per village was guided by the Table 1 and was the same for all three states. Within each village sample, about 42 farmers in Punjab, 32 farmers in Maharashtra and 25 farmers in Uttar Pradesh were studied on an average. A typical village sample was split between farmer categories as given below in Table 19.

Table 19: Sample Breakup per Village

S. no	Type of farmer	Sample Breakup	Allocated number of farmers per village		
			Punjab	Maharashtra	Uttar Pradesh
1.	Marginal	63%	26	20	16
2.	Small	18%	8	6	4
3.	Medium	13%	5	4	3
4.	Large	1%	1	1	1
5.	Landless	5%	2	2	1
6.	Total	100%	42	33	25

Within each state sample, about 80 per cent of the total farmers surveyed belonged to the SMF category, in addition, there were about 5 per cent respondents who were landless but cultivated leased-in land. Fourteen per cent of the responses on average were from the medium and large farmer categories.

Selecting Districts and Villages for the Survey

We studied farmer responses from 126 villages (40 villages in Maharashtra, 31 villages in Punjab and 55 villages in UP), which were spread across 28 districts (seven in Maharashtra, 8 in Punjab and 13 districts in UP) in the three states. List of the surveyed villages can be found in Annexure 12.

A systematic method was utilized to identify the districts to be surveyed. Districts in each of the three states were studied using a wide array of variables (Annexure 11). The districts with a relatively higher share on the following set of variables were selected the sample:

- i. Share of the agricultural workforce⁴² in the district (estimated using district-level data from Census 2011);
- ii. Share of cultivators in the district as a proportion of the total number of cultivators in the state⁴³ (Based on data from Census 2011);

⁴² Agricultural workforce is the sum of main and marginal cultivators and agricultural labourers.

⁴³ Total cultivators are the sum of main and marginal cultivators.

- iii. Share of the district in state's GSDP from agriculture and allied activities (latest estimates available were used⁴⁴);
- iv. Share of the district in the total number of SMFs in the state (based on data on the number of land holdings from Agriculture Census 2015-16);
- v. Share of a district in total FLW disbursed amounts in the state for the years FY 2017-18 to FY 2019-20 (based on data from government officials);
- vi. Share of the district in total annual disbursed agricultural credit for the years FY 2016-17 to FY 2018-19 (based on data from NABARD).

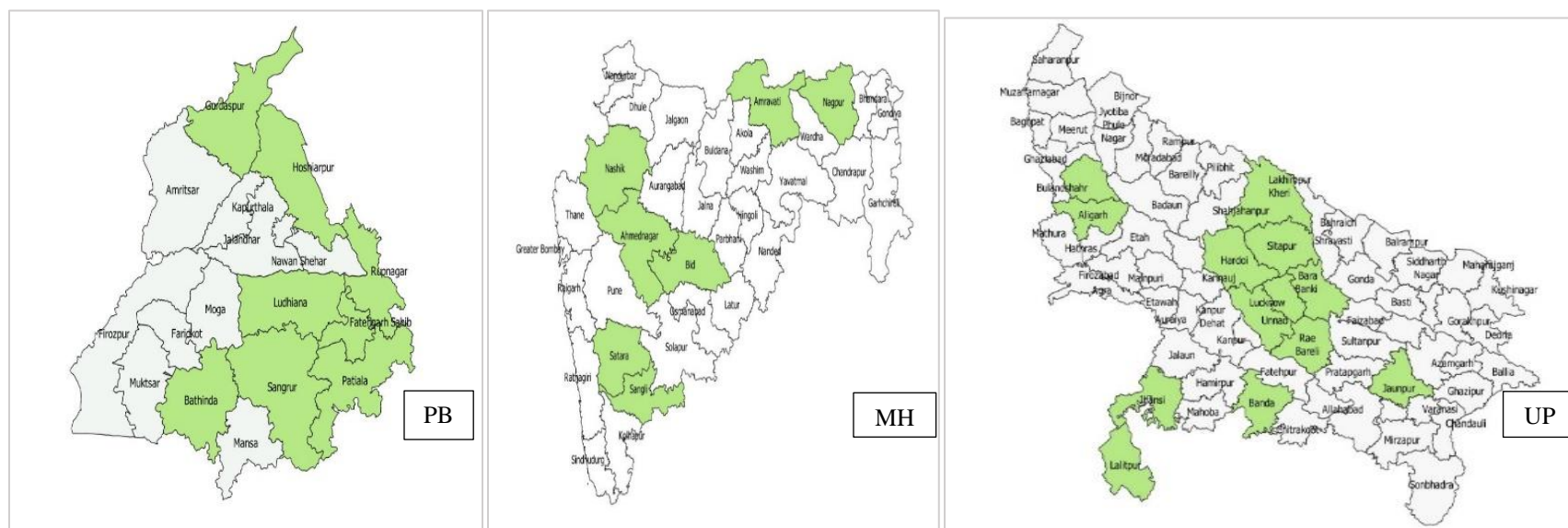
District-wise data was arranged in a descending order for each of the above variable and the districts in the first half (share of districts cumulating to 50 per cent of the total in the state) were considered eligible for the district identification process.

The resultant comprehensive list of eligible districts was mapped with incidence of farmer suicides in the district, vulnerability of the district to climate change (the ranks were taken from Rao et al. (2013)), and geographic representation of the state.

It is again important to note that the Covid-19 pandemic posed significant challenges. Therefore, to complete the study while following state specific guidelines, some identified districts had to be dropped as they were “restricted” zones during Covid. However, the fundamentals of the sampling strategy were kept intact to identify districts in the first place. The geographical coverage of the sample is presented in Figure **55** below.

⁴⁴ FY 2013-14 estimates for Maharashtra. FY 2016-17 estimates for Punjab and Uttar Pradesh

Figure 55: Sampled districts in Punjab, Maharashtra and Uttar Pradesh



The districts in green are the ones studied under the survey.

The villages within the districts were identified based on the number of cultivators. Using the unit-level Census 2011 data, villages which were home to the largest number of cultivators were selected. Here too, necessary adjustments had to be made due to the Covid-19 lockdown, since some of the areas identified for field surveys were containment zones. However, the method for selecting villages did not change. The final list of districts and the number of villages covered in that district (given in parenthesis) are given in Table 20 below. The detailed list of villages can be found in Annexure 12.

Table 20: Identified districts and number of villages surveyed as part of the primary survey

Punjab	Maharashtra	Uttar Pradesh
1. Bhatinda (2)	1. Ahmednagar (4)	1. Aligarh (4)
2. Fatehgarh Sahib (2)	2. Amravati (4)	2. Bara Banki (6)
3. Gurdaspur (3)	3. Beed (4)	3. Banda (3)
4. Hoshiarpur (7)	4. Nagpur (8)	4. Bulandshahr (4)
5. Ludhiana (5)	5. Nashik (4)	5. Hardoi (4)
6. Patiala (4)	6. Sangli (8)	6. Jaunpur (4)
7. Roopnagar (4)	7. Satara (8)	7. Jhansi (4)
8. Sangrur (4)		8. Lakhimpur Kheri (4)
		9. Lalitpur (4)
		10. Lucknow (6)
		11. Raebareli (4)
		12. Sitapur (4)
		13. Unnao (4)

Note: Number in parenthesis reflect the number of villages studied within the district.

We next proceed to the chapter analysing the survey responses.

Chapter 7: What farmers say: Analysing Results from the Primary Survey

The primary survey data is analysed in this Chapter. Following the structure of the questionnaire, this chapter is divided into five sections. The demographic profile of the respondents is presented in Section 1, followed by details of their borrowing patterns in Section 2. Section 3 presents the factors that cause distress to farmers. Experiences of farmers regarding FLW are presented in Section 4. The last section presents Covid-19 related farmer responses.

Before analysing the survey responses, a typical profile of survey respondents is reiterated below for the convenience of the reader.

Characteristics of a typical survey respondent

- i. All respondents are farmers who earn at least 25 per cent of their monthly household incomes from agricultural and allied activities;
- ii. To undertake agricultural activities, all respondents have taken loans either from institutional or non-institutional sources or both;
- iii. Because of the pre-decided selection criteria for studying distressed farmers, most respondents belong to the SMF category (i.e., have land holdings below 2 hectares);
- iv. Exclusions:
 - a. Farmers who received transfer payments like pensions from government that was more than Rs.2,000 per month;
 - b. Families with a member working with government (central or state);
 - c. Agricultural labourers (one who did not own land nor did they have the right to operate on land to undertake agricultural activities);
 - d. Farmers who did not borrow (from institutional or non-institutional sources) in the last three years to undertake agricultural activities.

Generalization of the survey results

The survey sample was not randomly selected but reflects a **selection of specific cases**. Because these SMF farmers are different and have experiences unique to their financial and social situation, there was a reason why they specifically had to be studied. However, studying these farmers allow for replicability of observed patterns that may be extended to SMFs across the country.

Section 1: Demographic Profile of Survey Respondents

- 1. Types of farmers:** An overview of the survey respondents is given in Table 21.

Table 21: Details of Surveyed Farmers

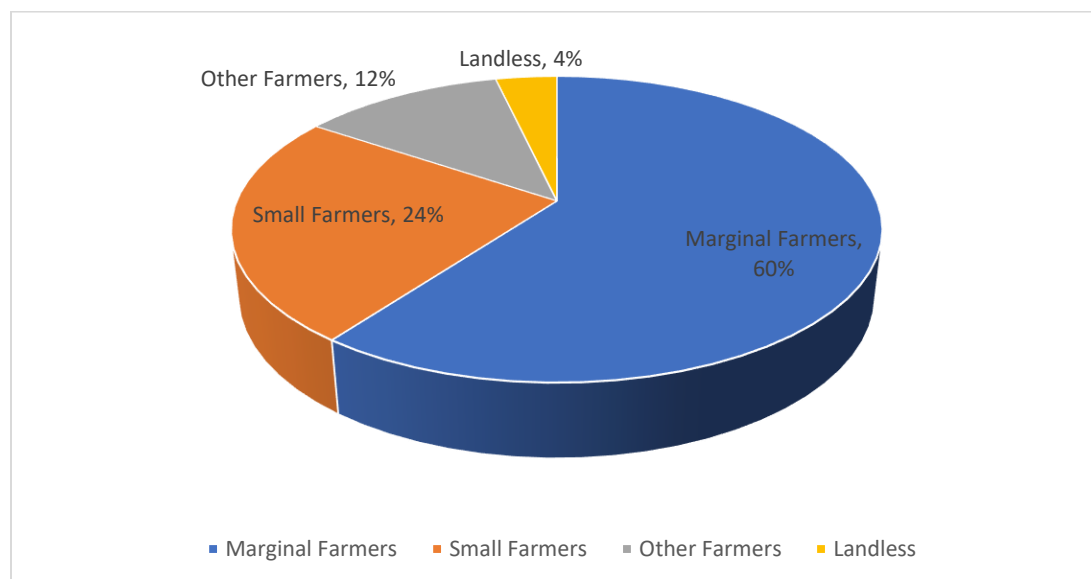
State	Marginal Farmers (< 1 hectares)	Small Farmers (Between 1 and 2 hectares)	Other Farmers (Greater than 2 hectares)	Landless Farmers (Do not own land but have the right to operate on land)	Total Sample
Punjab	588 (59%)	277 (27%)	120 (12%)	16 (2%)	1001 (100%)
Maharashtra	461 (56%)	223 (27%)	108 (13%)	33 (4%)	825 (100%)
Uttar Pradesh	757 (65%)	226 (19%)	131 (11%)	60 (5%)	1174 (100%)
Total	1806 (60%)	726 (24%)	359 (12%)	109 (4%)	3000 (100%)

Source: Survey data.

Note: Farmers are categorised based on their responses on the size of their owned agricultural land holding sizes. The values given in parentheses are share of the category of the farmer in the total state sample.

In terms of state samples, SMFs comprised more than 80 per cent of the total sample. Landless farmers accounted for about 2 per cent, 4 per cent and 5 per cent of the survey respondents in Punjab, Maharashtra and Uttar Pradesh respectively.

Figure 56: Per cent Share of Respondents under Farmer Categories in Total Sample

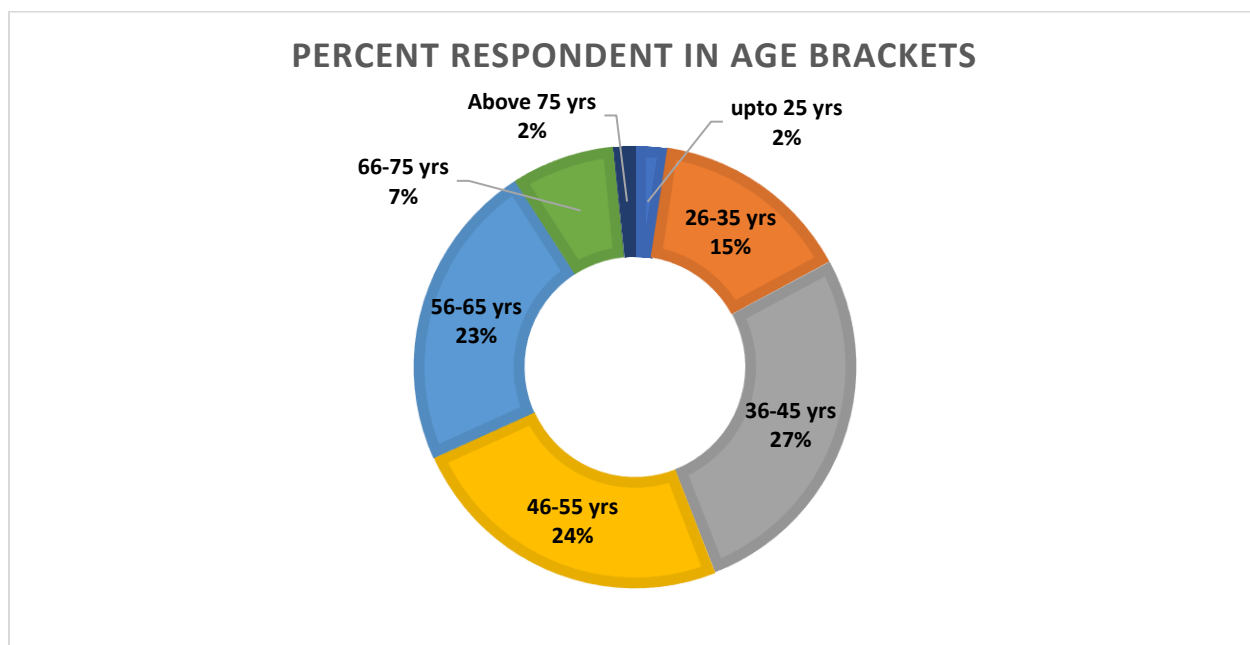


Source: Calculation by authors using primary data

Overall, about 84 per cent of the 3000 farmers surveyed belonged to the SMF category (Figure 56). About 4 per cent were landless farmers.

2. **Age profile of the respondents:** About 17 per cent were young farmers (i.e., less than or equal to 35 years of age); more than half (51 per cent) were in the age group of 36 to 55 years. About 32 per cent of the respondents were more than 56 years of age (Figure 57).

Figure 57: Age Profile of Respondent Farmers



Source: Calculation by authors using primary data

3. **Gender of Respondents:** As a proportion of the total number of respondents in a state, women respondents were about 1 per cent in Punjab, 3 per cent in Maharashtra and about 4 per cent in Uttar Pradesh (Table 22).

Table 22: Gender Profile of Respondents

State	Male	Female
Punjab	994 (99%)	7 (1%)
Maharashtra	797 (97%)	28 (3%)
Uttar Pradesh	1132 (96%)	42 (4%)

Source: Calculation by authors using primary data

Note: Number in parenthesis is the percentage share of the gender in the total state sample.

Average household size of the respondents: The average household sizes in the three states were about 4.8 in Punjab, 4.6 in Maharashtra and 6.5 in Uttar Pradesh. These sizes varied with farmer categories (Table 23).

Table 23: Farmer Category Wise Average Household Sizes in the Three States

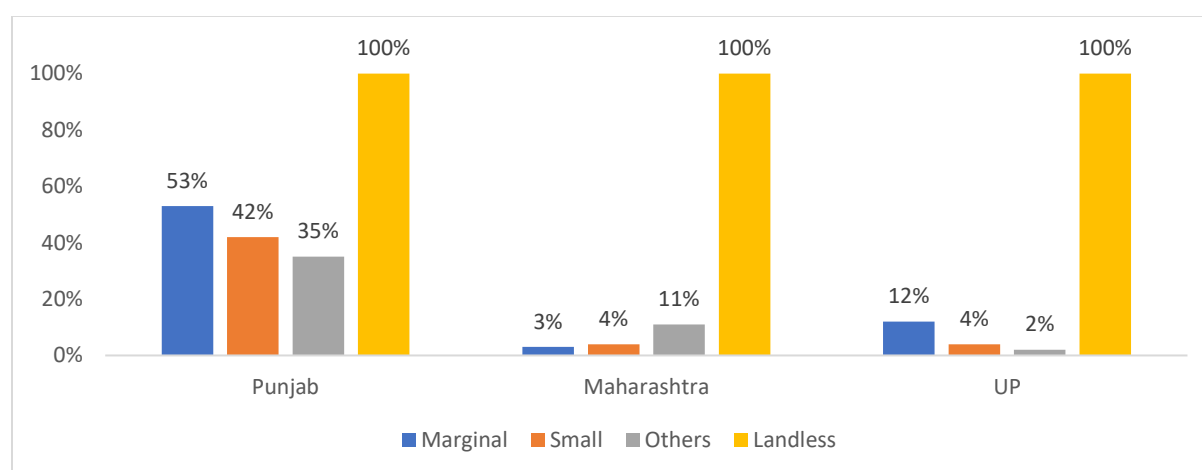
Types of Farmers	Average Household size		
	Punjab	Maharashtra	Uttar Pradesh
Marginal	4.6	4.5	6.3
Small	5.1	4.6	7.0
Others⁴⁵	5.1	5.3	7.1
Landless	4.6	4.7	6.4
All categories	4.8	4.6	6.5

Source: Calculation by authors using primary data

The “small” and “others” farmer categories were found to have the largest family sizes on average in all three states. The average family size of marginal farmers was found to be smaller than the state average.

4. **Pattern of land-leasing:** Between the three states, Punjab farmers leased-in land the most (Figure 58). Within the three states, it was marginal farmer in Punjab (53 per cent), “other” farmer in Maharashtra (11 per cent) and marginal farmer in UP (12 per cent) that leased-in the most land.

Figure 58: Patterns of Leasing in Land (Per Cent Respondents)



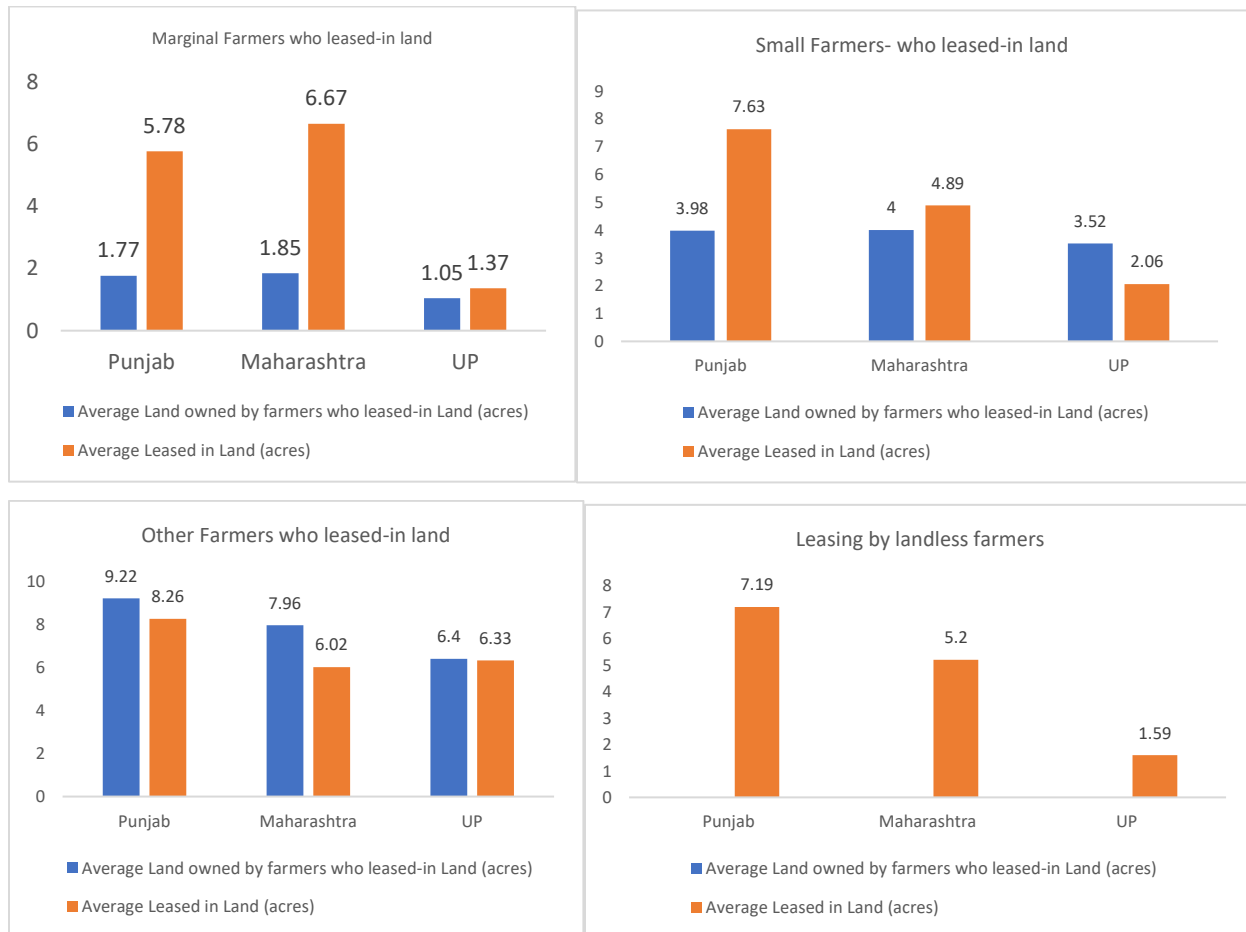
Source: Calculation by authors using primary data

Overall, 48.5 per cent of respondents in Punjab, 7.8 per cent in Maharashtra and 13.7 per cent in Uttar Pradesh leased-in land.

⁴⁵ ‘Other’ farmers include medium and large farmers

5. **Size of owned land v/s leased in land:** On average, SMF in all three states borrowed more land than they owned (
6. Figure 59), with the exception of UP's small farmers.

Figure 59: Average Owned and Leased in Land (acres) by Farmers who Leased in Land



Source: Calculation by authors using primary data

Both in Punjab and Maharashtra, marginal farmers leased in land that was at least three times the size of their owned landholding. Compared to these two states, UP farmers do not appear to be leasing in larger land sizes. In the case of landless farmers, Punjab's landless leased-in the largest average sizes. In UP, the leasing of land by landless was the lowest.

7. **Cropping Patterns:** The respondents were asked about the crops grown by them in the two cropping seasons, *kharif* and *rabi*. Three crops grown in each season by farmers in the

three states were recorded. The results presented below show the most cultivated crop by different farmer types in the three states. It is important to note that these crops are grown simultaneously. Results are presented in Table 24, Table 25 and Table 26.

Table 24: Cropping Pattern in Punjab

Farmer Type	<i>Rabi</i> Crop 1	<i>Rabi</i> Crop 2	<i>Rabi</i> Crop 3	<i>Kharif</i> Crop 1	<i>Kharif</i> Crop 2	<i>Kharif</i> Crop 3
Marginal	Wheat	Grass	Onion	Rice	Maize	Grass
Small	Wheat	Grass	Onion	Rice	Maize	Grass
Medium	Wheat	Grass	Potato	Rice	Maize	Grass
Large	Wheat	Grass	Potato	Rice	Maize	Grass
Landless	Wheat	Grass	Onion	Rice	Maize	Grass

Source: Primary data

In Punjab (Table 24), major cultivated crops were wheat and rice. Interestingly, in the *rabi* season, some marginal, small and landless farmers preferred sowing onions and some, medium and large farmers preferred cultivating potato. In the *kharif* season, the choice was mainly between paddy and maize.

In Maharashtra (Table 25), the dominant *rabi* crops were wheat and *chana*, though some preferred *jowar* and *bajra* too. In the *kharif* season, cotton was grown by most of the surveyed farmers. Sugarcane is a more traditional crop in Maharashtra and was observed to be grown by the smaller farmers (SMF and landless), however, the larger farmers grew the relatively risky but high-priced tur dal in the *kharif* season.

In Uttar Pradesh (Table 26), wheat, sugarcane or mustard were the most cultivated crops in the *rabi* season. Landless and large farmers mostly grew potato and *chana* respectively. In the *kharif* season; majority of the farmers cultivated rice, *urad* or groundnut.

8. **Beneficiary under PM-Kisan:** Between the three states, Maharashtra has the largest proportion of respondents benefitting from the PM-Kisan scheme (Table 27). About 86 per cent in Maharashtra, 75 per cent in Punjab, and 68 per cent of the respondents in UP confirmed benefitting under the PM Kisan scheme.

9. **Access to Crop insurance:** There is very little penetration of crop and livestock insurance in the three states (Table 27). Punjab does not participate in the GOI's PMFBY scheme. In the case of Maharashtra and UP, only 11.6 per cent and 6.4 per cent respondents respectively confirmed having crop insurance for their crops.
10. **Access to banks:** Every respondent was asked about the nearest banking point and the distance they had to travel to access it. A banking point was closest in Maharashtra (about 2.97 km) and farthest in UP (4.73 km). A Punjab farmer had a banking point at about 3.79 km.

Table 25: Cropping pattern in Maharashtra

Farmer Type	Rabi Crop 1	Rabi Crop 2	Rabi Crop 3	Kharif Crop 1	Kharif Crop 2	Kharif Crop 3
Marginal	Wheat	Jowar	Chana	Sugarcane	Cotton	Soyabean
Small	Wheat	Jowar	Chana	Sugarcane	Cotton	Soyabean
Medium	Wheat	Jowar	Chana	Tur	Cotton	Soyabean
Large	Wheat	Jowar	Chana	Tur	Cotton	Soyabean
Landless	Wheat	Bajra	Chana	Sugarcane	Cotton	Rice

Source: Primary data

Table 26 Cropping pattern in Uttar Pradesh

Farmer Type	Rabi Crop 1	Rabi Crop 2	Rabi Crop 3	Kharif Crop 1	Kharif Crop 2	Kharif Crop 3
Marginal	Wheat	Sugarcane	Mustard	Rice	Urad	Groundnut
Small	Wheat	Sugarcane	Mustard	Rice	Urad	Groundnut
Medium	Wheat	Sugarcane	Mustard	Rice	Urad	Groundnut
Large	Wheat	Sugarcane	Chana	Rice	Urad	Groundnut
Landless	Wheat	Potato	Mustard	Rice	Urad	Groundnut

Source: Primary data

Table 27 Respondents with PM-Kisan funds, Crop Insurance and Livestock Insurance

State	PM Kisan beneficiary	Crop Insurance	Livestock insurance
Punjab	75.12%	NA	0.00%
Maharashtra	86.42%	11.64%	0.12%
Uttar Pradesh	68.14%	6.39%	0.00%

Source: Calculation by authors using primary data

Section 2: Access and Usage of Loans: Credit scenario

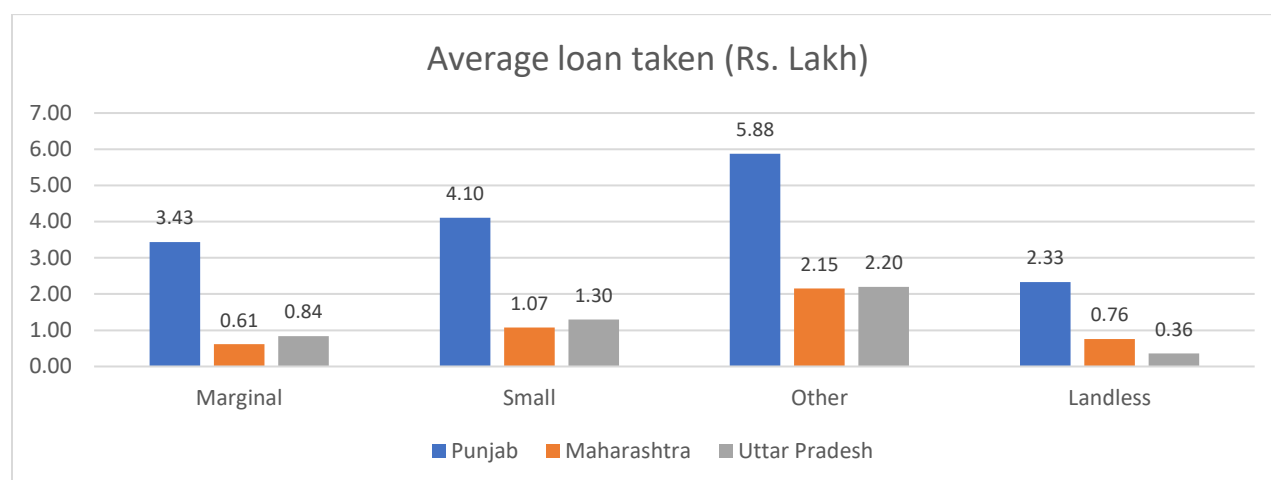
As stated before, only those people who borrowed money to undertake cultivation activities were studied. These respondents could have borrowed from either institutional or non-institutional or from both.

To ensure recency of the loan and farmer's ability to recall details, respondents who had taken any '**agricultural**' loan in the last three years were studied. The reference years were financial years 2017-18, 2018-19 and 2019-20. Loans taken in the most recent year was recorded. For instance, if the farmer had taken any agricultural loan in 2019-20, then details of 2018-19 and 2017-18 were not asked for. If no loan was taken in 2019-20, then details of loans in the year 2018-19 were noted. And if there is no loan in 2018-19, then loan details from the year 2017-18 were recorded. The aim was to profile a farmer's yearly credit needs and repayment schedules. Results from analysis of this data are presented below.

1. **Average loan amount:**⁴⁶ Irrespective of the category of farmer, respondents from Punjab reported taking the largest loans, followed by UP and Maharashtra where the difference in loan amounts was marginal (Figure 60).

⁴⁶ Average loan amount is the aggregate of loans taken from institutional and/or non-institutional sources. Loans included both crop and term loans.

Figure 60: Average Amount of Agricultural Loans Taken by Respondents



Source: Calculation by authors using primary data

A marginal farmer in Punjab took, on average, a loan of about Rs.3.43 lakh a year; in Maharashtra, a marginal farmer borrowed less than 20 per cent of this amount (Rs.61,000) and in UP, less than one-fourth (Rs.84,000). Across farmer categories, Punjab reported the highest average loan amounts taken followed by UP and Maharashtra. The average loan taken by landless farmers in Maharashtra was about Rs.76,000 in a year and in UP, about Rs.36,000.

2. **Sources of loans for the farmers:** Institutions emerged the dominant source of credit for farmers in all three states (Table 28). About 89.3 per cent of respondents in Punjab, 79.2 per cent in Maharashtra and 74.8 per cent in Uttar Pradesh reported taking loans from institutional sources.

Table 28 Loaning Pattern from Institutional and Non-Institutional Sources (Percentage of Respondents)

Source of Loan	Punjab	Maharashtra	Uttar Pradesh
From Institutional sources	89.31%	79.27%	74.87%
From Non-Institutional sources	39.96%	18.06%	24.45%

Source: Calculation by authors using primary data.

Note: The sum of the percentages of each state exceeds 100 because there were respondents who have borrowed from both sources.

The proportion of respondents who borrowed from non-institutional sources was about 40 per cent in Punjab, 18 per cent in Maharashtra and about 25 per cent in Uttar Pradesh.

A large proportion of respondents reported borrowing simultaneously from both non-institutional and institutional sources. We detail that below (Table 29).

Table 29: Source wise Borrowing Pattern: Institutional, Non-Institutional or Both

State	Only Institutional sources (IS)	Only non-institutional sources (NIS)	From both
Punjab	58.6 %	9.3 %	30.67 %
Maharashtra	80.9 %	16.15 %	2.95 %
Uttar Pradesh	74.11 %	23.68 %	0.77 %

Source: Calculation by authors using primary data.

In Punjab, 58.6 per cent of the respondents borrowed exclusively from institutional sources (IS). About 9 per cent respondents borrowed exclusively from non-institutional sources (NIS). Among the three states, most Punjab farmer respondents (about 31 per cent) reported borrowing from both IS and NIS.

In Maharashtra, about 81 per cent of the respondents took loans only from institutions; about 16 per cent took only from NIS and about 3 per cent took loans from both.

Among the three states, NIS emerged the most important in UP as close to a quarter (24 per cent) of the survey respondents in the state reported only accessing loans via them.

3. **Problems with accessing institutional loans:** Among these respondents who did not borrow at all from institutional sources, we probed for reasons for not borrowing from IS. Results are presented below (Table 30):

Table 30: Reasons for Not Taking Institutional Loans (per cent respondents)

State	Ineligibility as past dues on loans are unsettled	Institutional loan not needed	Ineligibility as the respondent is a tenant farmer	Collateral unavailable	Rejection by bank	Documents submitted, but loan amount not credited	Not accessed due to a high rate of interest	Corruption by bank officials during loan process	Long administrative process for accessing loans	No record of farming operation causing ineligibility for loan	Unavailability of required documents leading to loan ineligibility	Other Reasons
Punjab	14%	31%	24%	10%	7%	0%	3%	3%	10%	14%	3%	21%
Maharashtra	1%	0%	3%	13%	49%	0%	8%	0%	61%	0%	11%	0%
Uttar Pradesh	1%	0%	1%	4%	72%	52%	0%	0%	42%	1%	3%	0%

Source: Calculation by authors using primary data

Note: Sum of % greater than 100 as multiple responses were recorded from the same farmer

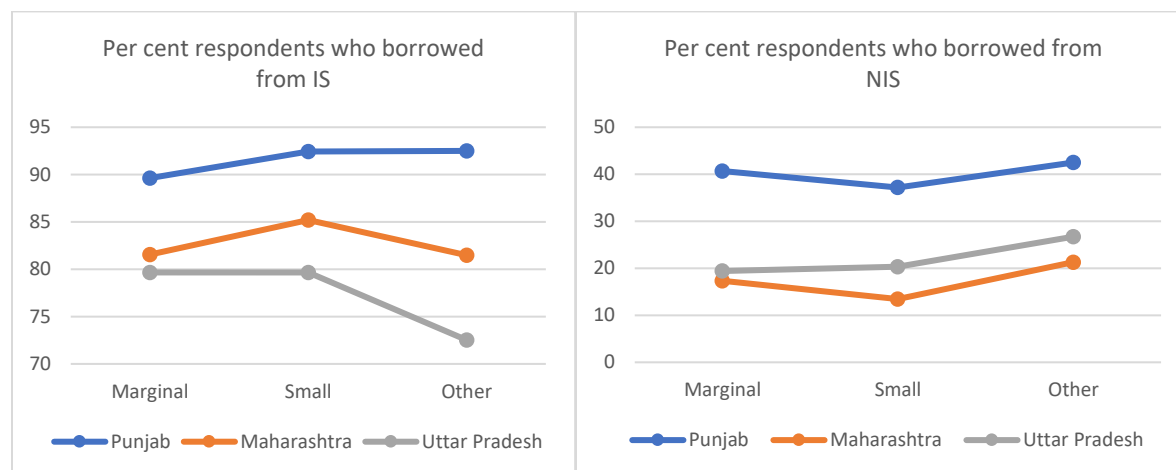
The problem emerged with the applicants in Punjab and with the banking system in UP and Maharashtra.

In Punjab, there appeared to be a demand-side issue where the farmer respondent had issues with his own eligibility due to past unsettled dues or because of dearth of collateral because of which he could not take loans from IS. He/she did not have any issue per say on account of the banking procedures and processes.

On the other hand, in Maharashtra and UP, the problem appeared to be on the supply-side or of the banking system where applicants could not borrow from institutions because of long administrative procedures and lags and possibly due to lack of documentation most applicants were rejected for loans.

4. **Sources of loans by category of farmers:** Between 80 to 90 per cent of respondents belonging to the marginal category in the three states reported taking loans from institutional sources (Figure 61).

Figure 61: Farmer Category-Wise Loaning Pattern (Per Cent Respondents)

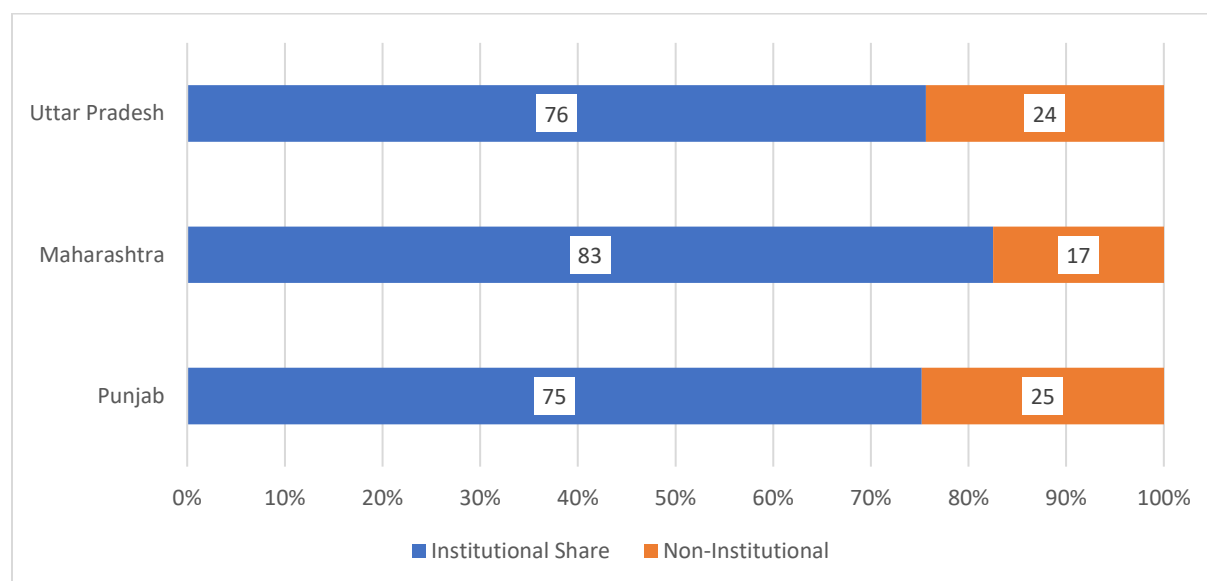


Source: Calculation by authors using primary data.

Note: Aggregate for a farmer category in a state may not equal 100 per cent because respondents borrowed from multiple sources. IS= institutional sources and NIS= non-institutional sources.

5. **Average amount of loan by source:** Figure 62 gives the composition of total loan amounts taken from institutional and non-institutional sources.

Figure 62: Source of Loans Borrowed (Per Cent of Loan Taken)



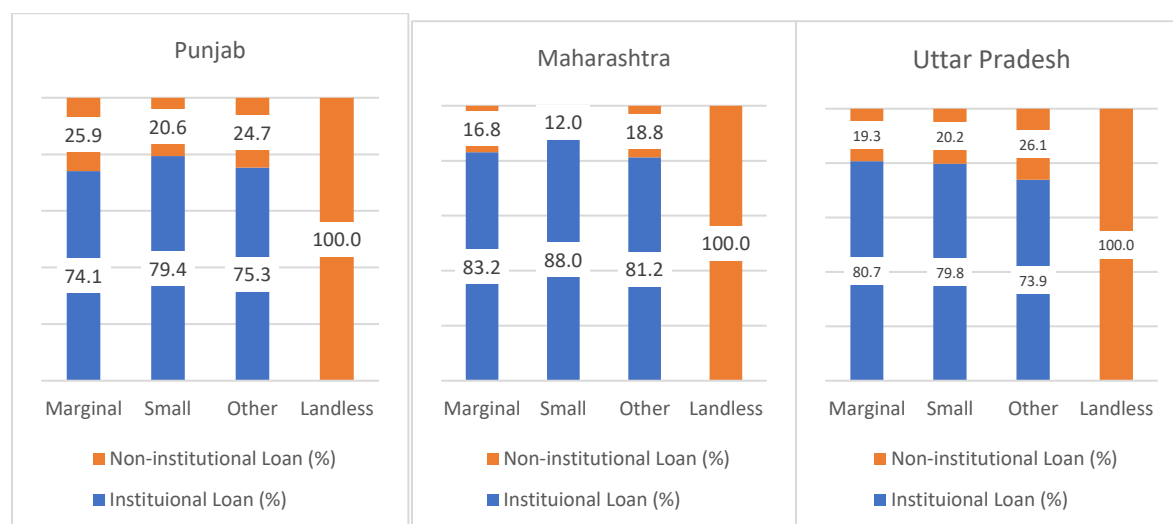
Source: Calculation by authors using primary data

In Punjab, 76 per cent of the total loans taken were from institutional sources and the remaining from non-institutional sources like local money lenders, traders, *arthiyas*, friends, relatives and family. UP had similar shares of 75 per cent and 25 per cent respectively. In Maharashtra, however, the share of loans taken from institutions was higher at 83 per cent and only 17 per cent were from non-institutional sources.

6. **Farmer-type wise, source-wise share of loans:** Figure 8 below looks at whether the borrowing behaviour differed across different farmer categories. Of the loans taken by marginal farmers, a large share of 74 per cent (Punjab), 83 per cent (Maharashtra) and 80 per cent (Uttar Pradesh) was taken from institutional sources. In the absence of any institutional borrowing schemes for the landless, all of them invariably relied on non-institutional sources of credit to meet 100 per cent of their credit needs.

Among the three states, the incidence of non-institutional sources was the lowest in Maharashtra. Comparatively, it is the marginal farmer in Punjab and ‘other’ farmers in Uttar Pradesh who have about 26 per cent of their credit needs met through non-institutional sources

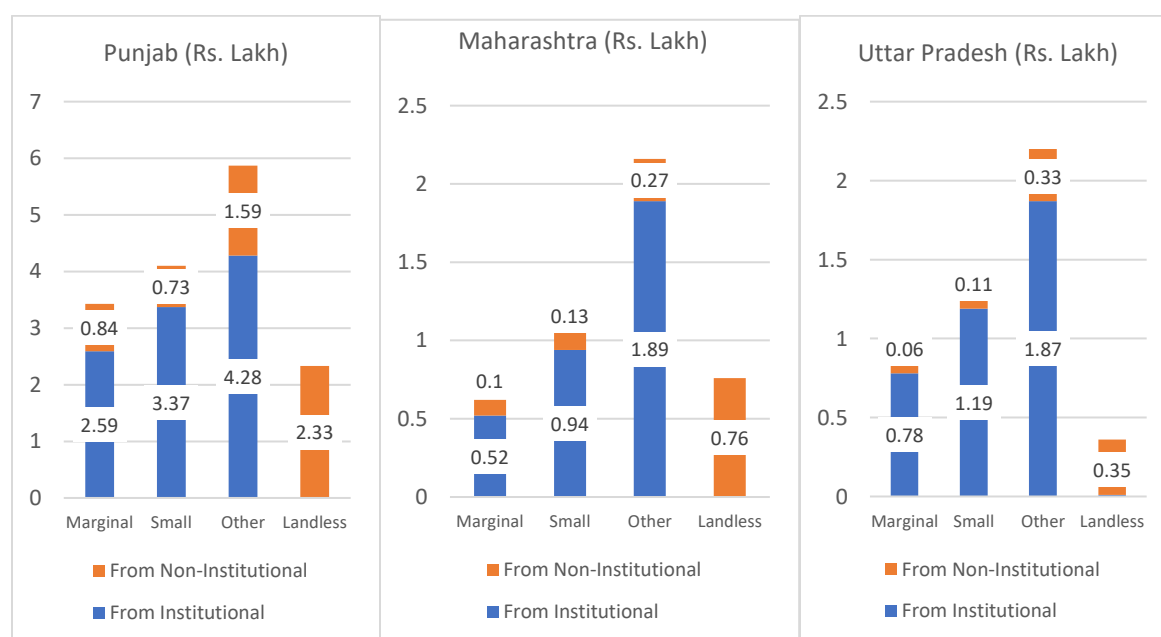
Figure 63: Borrowing Sources by Farmer Category (per cent of loan amount)



Source: Calculation by authors using primary data

7. **Farmer wise, source wise average loans:** The proportion of loans taken by different categories of farmers from institutional and non-institutional sources is presented in Figure 64 below.

Figure 64: Average Loan Amounts Taken in a Year from Institutional and Non-Institutional Sources



Source: Calculation by authors using primary data

The state wise findings are given below.

Punjab

Among the three states, Punjab farmers borrowed the largest amounts per farmer category and their dependence on non-institutional sources was also the highest across all farmer categories (barring for the landless farmer category). For about one-fourth of their credit needs in a year, marginal and *other* category of farmers reached out to NIS in the state. The average amount of borrowing by marginal farmers was about Rs.84,000 (24 per cent of total loan taken), for small farmers about Rs.73,000 (18 per cent of the total) and for other farmers, about Rs.1.6 lakh (27 per cent of the total).

Landless farmers emerge to have the lowest credit requirement in a year and the entire amount of about Rs. 2.3 lakh was taken from non-institutional sources.

The average amount of loan taken from institutions increased with landholding size. This pattern ties in with what was found Chapter 2 where the KCC limit was found to be an increasing function of the landholding size of the applicant.

Maharashtra

The state's farmers relied little on NIS. Compared to Punjab, their credit needs are smaller. Maharashtra farmers depended on NIS for about 12 to 16 per cent of their annual credit needs. The average credit requirement of marginal farmers from non-institutional sources was about Rs.10,000 while small farmer sourced only Rs.13,000 from these sources. Institutional loans increased with landholding size.

Total loans taken by the marginal, small and other category of farmers nearly doubled as between farmer categories – for example, a marginal farmer borrowed about Rs.62,000 and a small farmer borrowed about Rs.1.1 lakhs. 'Other' farmers borrowed about Rs.2.2 lakhs, which was about twice that borrowed by the small farmer. This was not the case in Punjab, where the high base of the marginal farmer affected the difference in loan amounts between categories.

Uttar Pradesh

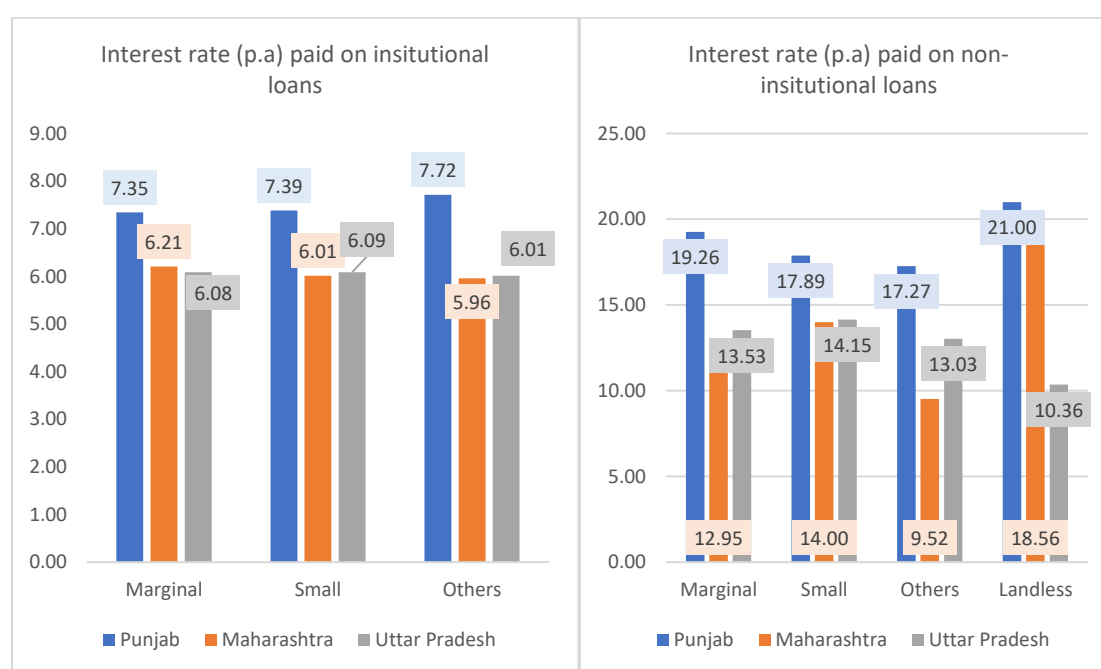
The credit needs of farmers in UP and Maharashtra are similar but the share of loans taken from NIS is lower in UP. The marginal, small and other farmers sourced about Rs.78,000, Rs.1,19,000

and Rs.1,87,000 respectively from institutional sources. The amounts borrowed from non-institutional sources by these categories were Rs.6,000 (7 per cent of total loans), Rs.11,000 (8 per cent of total loans) and Rs.33,000 (15 per cent of total loans) respectively.

Overall, it appears that relative to the other two states, a Punjab farmer borrows a much larger amount per acre. For instance, a marginal farmer in Punjab annually borrowed on average about Rs.3.4 lakh. This amount in UP and Maharashtra was about Rs.84,000 and Rs.62,000 respectively.

8. **Interest rates paid on loans by sources:** In the questionnaire, farmers were asked to provide details of the interest paid by them on their loans. In case the farmer did not know the interest rate, it was estimated using the information on the repayment instalment schedule. In most cases of non-institutional loans, the responses on interest rates were of a monthly interest rate, which were converted into annual terms. The results are presented in Figure 65.

Figure 65: Average interest rates paid for institutional and non-institutional loans by farmer type



Source: Calculation by authors using primary data.

Note: The interest rates on institutional sources reflect average interest paid p.a. on KCC crop loans.

Much in line with expectations, interest rates on loans from institutional sources (IS) were much lower than that on loans from non-institutional sources (NIS). On average, the rates of interest on

institutional loans ranged between 5.96 and 7.72 per cent and that on non-institutional loans ranged between 9.52 and 21 per cent.

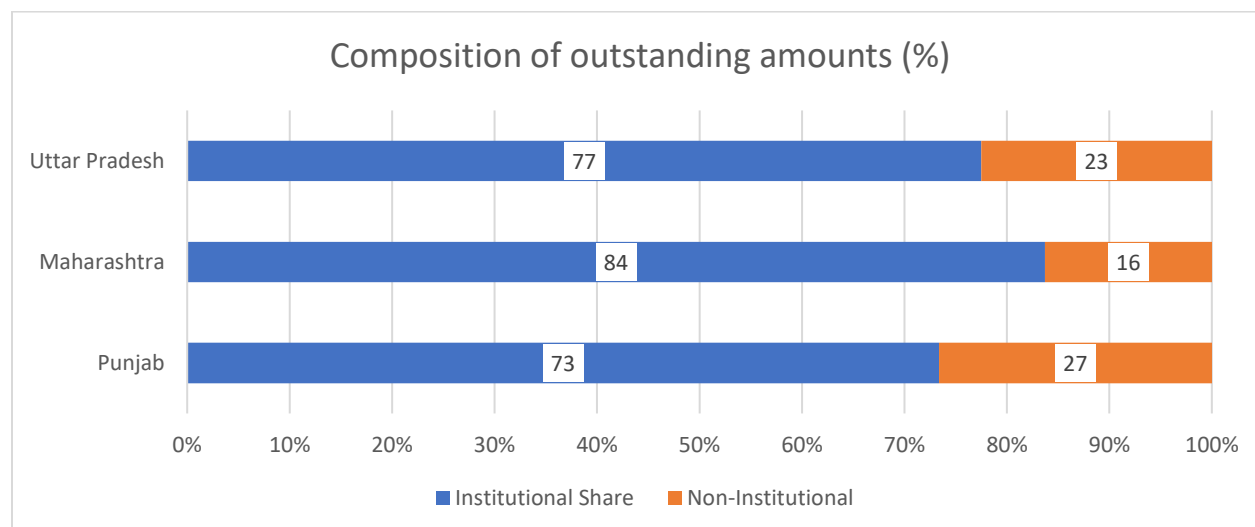
Among institutional loans for all farmer categories, *other* farmers in Maharashtra paid the lowest rate (5.9 per cent), and *other* farmers in Punjab paid the highest (7.7 per cent). Irrespective of farmer type, institutional loans were the most expensive for a Punjab farmer (interest charged was between 7.35 per cent and 7.72 per cent). Besides, the rate of interest increased with landholding size (from 7.35 per cent to 7.39 per cent to 7.72 per cent for marginal, small and *other* categories respectively). In Maharashtra, it fell (from 6.2 per cent to 6.01 per cent to 5.96 per cent for marginal, small and *other* categories respectively). Institutional loans in UP cost about 6 per cent, irrespective of the farmer type.

In Chapter 2, under the section on KCC, it was pointed that due to benefits under GOI schemes like the interest subvention and prompt repayment incentive (PRI) schemes, a marginal farmer could borrow at an effective rate of 4 per cent per year. However, going by the responses from marginal farmers in the three states, the effective rate of borrowing from institutional sources ranged between 6.1 to 7.4 per cent, with the highest rate being in Punjab and the lowest in UP.

In the case of loans from non-institutional sources, an average farmer in all three states paid nearly double-digit interest charge. Even within these, a Punjab farmer, on average, paid the highest across farmer categories (ranging from 17 to 21 per cent).

9. Average farmer-type wise outstanding amounts by source: Figure 66 shows the source of outstanding loans from farmers in the three states. In Punjab, 77 per cent of the outstanding loans are from institutional sources and 23 per cent from non-institutional sources. For Maharashtra, 84 per cent of outstanding loans were from institutional sources and the remaining 16 per cent from non-institutional sources while in Uttar Pradesh, 73 per cent was from institutional sources and 27 per cent from non-institutional sources.

Figure 66: Outstanding loans- Source-Wise

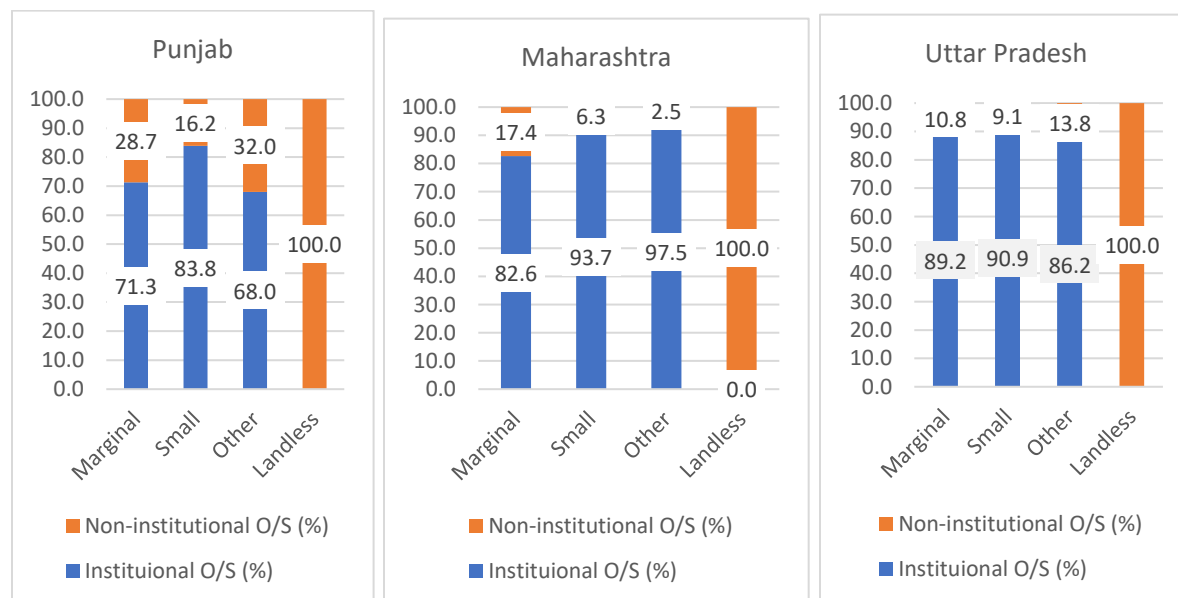


Source: Calculation by authors using primary data

It appears that most farmers defaulted more on their institutional loans than on the loans they took from non-institutional sources like local moneylender, friend, or relatives.

10. Farmer-type wise, source-wise share of outstanding loans: How does the composition of outstanding loans differ for different farmer categories? Figure 67 shows the composition of outstanding loans.

Figure 67: Composition of Outstanding Loans by Source for Farmer Categories



Source: Calculation by authors using primary data

In Punjab, for marginal farmers, 71 per cent of loan outstanding was due to institutional sources of credit. For small and other farmers, this share was 83 per cent and 68 per cent respectively. Since the landless were indebted to non-institutional sources of credit, their entire outstanding loans were from NIS. In terms of absolute outstanding amounts, marginal farmers reported an outstanding amount of Rs.3.2 lakh of which Rs.2.33 lakh was from institutional sources. Small farmers had an average outstanding of Rs.3.84 lakh of which Rs.3.22 lakh was due to institutional sources of credit

In Maharashtra, for marginal farmers, 82 per cent of loan outstanding comprised loans from institutional sources. For small and other farmers, this share was 93 per cent and 97 per cent respectively. In terms of absolute outstanding amounts, marginal farmers reported an outstanding of Rs.60,975 of which Rs.50,375 were due to institutional sources while small farmers had total outstanding of Rs.81,000 of which Rs.75,888 were due to institutional sources of credit

In Uttar Pradesh, for marginal farmers, 82 per cent of loan outstanding was institutional credit. For small and other farmers, this share was 91 per cent and 86 per cent respectively. In term of absolute outstanding amounts, marginal farmers reported an outstanding of Rs.91,381 of which Rs.50,375 were due to institutional sources while small farmers had a total outstanding of Rs.1.51 lakh of which Rs.1.37 lakh were due to institutional sources of credit.

11. **End use of agricultural loans taken by farmers:** Farmers in India take loans from IS and NIS not just to meet their investment needs for undertaking agricultural activities but also to smoothen their consumption between two cropping seasons (Raj and Edwin 2018). The diversion of funds away from use for agricultural purposes leads to misuse of these funds, leading to default by the borrowers (Chakraborty and Gupta 2017). KCC loans have a provision to address the demands of borrowing farmers to smoothen intra-year consumption. As pointed out in Chapter 2, the KCC scale of finance for a crop includes a provision of 10 per cent of loan that can be used to meet personal expenditure and about 20 per cent that can be used for repairs and maintenance of farm assets. But does the farmer use only 10 per cent of loan amount for personal expenditure or is the actual diversion greater?

During the survey, farmers were asked to detail where they spent the loan amounts that they had borrowed for agricultural purposes. The state- wise findings are given in Table 31, 32 and 33. As per most farmer respondents, diversion of agricultural loans away from its original purpose is inevitable. This is because of the nature of agriculture where incomes come every crop cycle (that is on average of 4 to 6 months) but expenditures, both personal and agriculture, continue throughout year.

In Punjab, diversion of funds was found in the case of KCC crop loans and non-institutional loans. On average, about 53 per cent of KCC crop loan amounts were spent on farm inputs and about 41 per cent was spent on family expenses. The term loan amounts are generally conditional payments that are released with the asset (for example, a tractor purchase) and thus, 100 per cent term loans were found to be spent on the intended purpose (i.e., farm machinery purchase). Other agricultural loans were also spent mostly on machinery (80 per cent of the loan amount) and to meet other expenses of the farmer. In the case of non-institutional loans, 60 per cent of the loan amount was found to be spent on inputs (greater than the share of KCC loans spent on inputs), and about 28 per cent was spent on meeting family expenses. About 8 per cent of the non-institutional loans was used to repay other loans.

Compared to Punjab, in Uttar Pradesh a much larger share of the KCC crop loan was spent on input purchase (Table 32). About 67 per cent of the total KCC crop loan was spent on purchase of farm inputs, 9 per cent was spent on machinery, 10 per cent on meeting other expenses, 6 per cent for repayment of other loans, and only 2 per cent for meeting family expenses and about 3 per cent for meeting other personal expenses. Unlike Punjab, however, there was diversion observed in the case of KCC term loans (term loans are longer duration loans). About 40 per cent of the KCC term loan amount was spent on purchase of inputs, and only about 13 per cent was spent on machinery purchase and maintenance, 13 per cent on meeting other expenses, about 11 per cent was used towards repayment of other loans, and about 23 per cent on family, personal and other expenses. Non-institutional loans were mostly spent on purchase of inputs (95 per cent).

For Maharashtra (Table 33), about 26 per cent of the KCC crop loans were estimated on average to have been diverted to meet personal, family and other expenses. About 66 per cent was used to purchase farm inputs, and about 3 per cent was spent on machinery.

For KCC term loans, like UP, there was a diversion of funds observed in Maharashtra. About 55 per cent of the term loan amounts were spent on purchase of machinery, 20 per cent was used for repaying past loans and about 10 per cent was used to meet family expenses.

In the case of non-institutional agricultural loan, about 25.5 per cent was used towards meeting personal and family and other expenses. About 66 per cent was used for purchase of inputs, and about 4 per cent was spent on machinery.

Table 31: End Use of Various Type of Loans by Farmers in Punjab

Type of Loan	1) Buying Agricultural Inputs	2) Buying Farm Machinery	3) Other Farm Expenditure (cattle purchase, tube well expenses, etc.)	Agriculture Expenses (1+2+3)	4) Repayment of other loans	5) Expenditure on Family Related Events (marriage, education, etc.)	6) Personal expenses	7) Other	Non-Agriculture Expenses (4+5+6+7)
KCC + Crop loans from Co-operatives	52.60%	1.29%	0.94%	54.83%	2.99%	41.05%	1.84%	0.12%	46%
KCC Term Loans	0%	100%	0%	100%	0%	0%	0%	0%	0%
Any other agricultural loan (from banks other than co-operatives)	0%	80%	20%	100%	0%	0%	0%	0%	0%
Non-Institutional Agricultural Loans	60.27%	0.63%	0.36%	61.26%	7.90%	28.08%	2.67%	0.19%	38.84%

Source: Calculation by authors using primary data

Table 32: End Use of Various Type of Loans by Farmers in Uttar Pradesh

Type of Loan	1) Buying Agricultural Inputs	2) Buying Farm Machinery	3) Other Farm Expenditure (cattle purchase, tube well expenses, etc.)	Agriculture Expenses (1+2+3)	4) Repayment of other loans	5) Expenditure on Family Related Events (marriage, education, etc.)	6) Personal expenses	7) Other	Non-Agriculture Expenses (4+5+6+7)
KCC + Crop loans from Co-operatives	67.39%	9.32%	10.61%	87.32%	6.13%	2.73%	2.94%	0.90%	12.70%
KCC Term Loans	40%	12.86%	12.86%	65.72%	11.43%	12.86%	8.57%	1.43%	34.29%
Other Agricultural Loans (from banks other than co-operatives)	97.40%	1.81%	0%	99.21%	0%	0.45%	0.33%	0%	0.78%
Non-Institutional Agricultural Loans	95.03%	1.02%	1.56%	97.61%	0.75%	0.95%	0.61%	0.07%	2.38%

Source: Calculation by authors using primary data

Table 33: End use of various types of loans by Farmers in Maharashtra

Type of Loan	1) Buying Agricultural Inputs	2) Buying Farm Machinery	3) Other Farm Expenditure (cattle purchase, tube well expenses, etc.)	Agriculture Expenses (1+2+3)	4) Repayment of other loans	5) Expenditure on Family Related Events (marriage, education, etc.)	6) Personal expenses	7) Other	Non-Agriculture Expenses (4+5+6+7)
KCC + Crop loans from Co-operatives	66.79%	2.72%	4.51%	74.02%	2.65%	11.18%	11.29%	0.88%	26.00%
KCC Term Loans	10%	55%	5%	70.00%	20%	10%	0%	0%	30.00%
Other Agricultural Loans (from banks other than co-operatives)	33.33%	16.67%	0%	50.00%	16.67%	0%	0%	33.33%	50.00%
Non-Institutional Agricultural Loans	66.37%	4%	4.10%	74.47%	4.18%	11.33%	8.27%	1.69%	25.47%

Source: Calculation by authors using primary data

Section 3: Causes of Farmer Distress and Coping Mechanisms

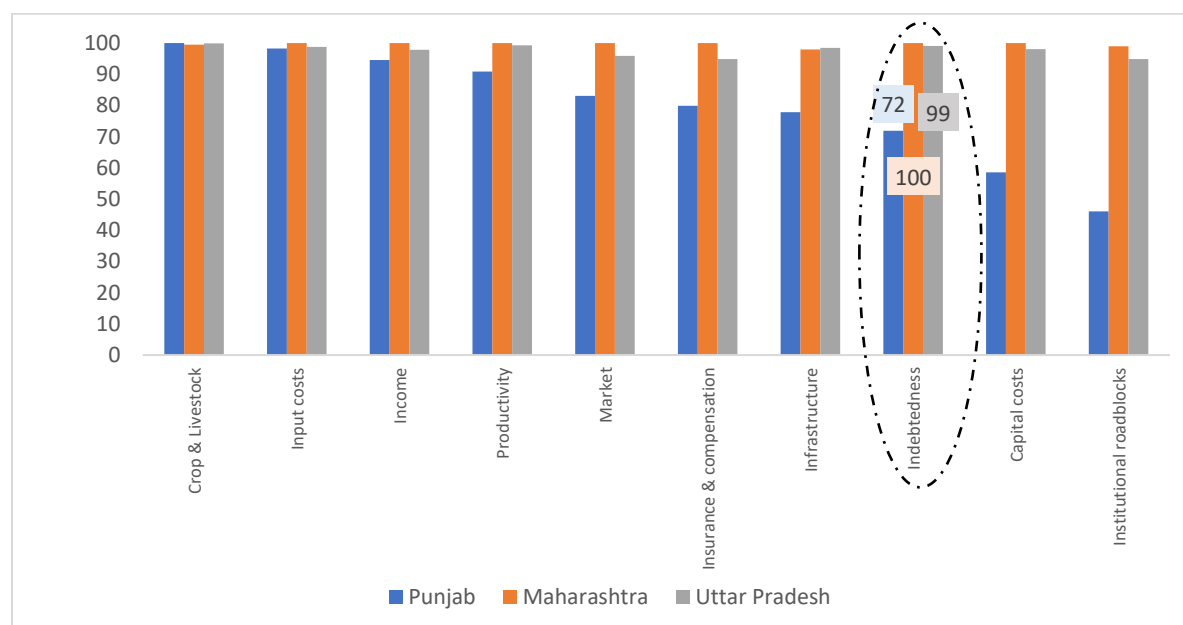
In this section we analyse responses of farmers on questions relating to factors that cause them distress. Putting together the evidence gathered from various empirical studies (Details in Annexure 13), theoretically, we identified 10 broad categories of factors which were likely to cause distress to farmers. These were the following.

- 1) *Damage to crop and livestock*: distress caused due to negative externalities such as climatic conditions, pest attacks, etc.
- 2) *Income fluctuations*: Several factors such as drought, floods, dry spells, and natural disasters cause fluctuations in farm income.
- 3) *Issues with agriculture markets*: Fragmented and inefficient agricultural markets due to the presence of middlemen, non-transparency in transactions, lack of storage facilities in *mandis*, etc., make it difficult for farmers to market their produce.
- 4) *Issues arising out of poor infrastructure*: This category included problems farmers face due to poor road and power infrastructure, unavailability of pasture lands, lack of medical facilities for livestock, etc.
- 5) *Issues due to rising input costs*: including the cost of seeds, transportation, labour, etc.
- 6) *Issues due to rising capital cost of borrowing*: this set included issues faced by farmers in incurring capital expenditure such as the rising cost of deepening wells, fencing costs, etc., on their farms.
- 7) *Decline in farm productivity*: This included declining soil productivity, inefficient agricultural extension systems, poor yield from livestock, etc.
- 8) *Distress due to absence or delay in insurance/compensation*: farmer distress caused by unavailability of proper insurance and compensation mechanisms (in time of droughts, floods, etc.).
- 9) *Distress due to high indebtedness*: Issues included high overdue loan amounts, unavailability of refinance options, unavailability of collateral, etc.
- 10) *Issues in farming business due to institutional roadblocks*: This included, lack of transparency by banks, limited reach of government benefits to farmers, corruption, etc.

These factors are overlapping as one feeds into the other. But this framework allowed for greater control on the quality of responses and were tested for robustness in the pilot stage of the survey.

Farmers were asked about the level of distress caused to them by the 10 factors stated above. Their responses were categorised as 1) high 2) medium 3) low and 4) no problem. These responses were converted into binary “yes” or “no”. If the responses were 1 or 2 or 3, we interpreted it as a yes, meaning that the factor causes them distress. If the response was 4, we interpreted it as a ‘no’. Among the 10 factors, respondents could choose as many factors as were found relevant to their situation. Figure 68 below presents the results.

Figure 68: Causes of Farmer Distress (Per Cent Respondents)



Source: Calculation by authors using primary data.

Note: Percentages represent the number of respondents who said ‘yes’ to the factor as a cause of distress.

In all the three states, distress caused due to indebtedness was not ranked any exceptionally higher than other distress causing factors. In fact, overall indebtedness does not appear to rank as high a distress causing factor, primarily because of Punjab farmers. Even though 100 per cent respondents in Maharashtra and 99 per cent in Uttar Pradesh ranked it as a cause of distress, about 28 per cent in Punjab did not feel the same way on this issue.

As for the other distress-causing factors, “instability of crop and livestock” production, problems with “rising input costs” and distress due to instability of “income” emerged critical.

Market issues, delay or absence of insurance and compensation are other causes of distress to farmers in Punjab and Maharashtra. Institutional roadblocks are also a big distress causing factor in the three states, particularly in UP and Maharashtra.

As the ten factors were broad categories, more nuanced questions were asked to understand the exact problem area within the factor. For example, in the case of crop and livestock (production volatility), farmers were asked whether it was climatic or non-climatic factors that caused them distress. After understanding the narrowed down problem, farmers were also asked about the coping mechanism, if any, that they were currently using to address the issues. (Figure 69 is an excerpt from the questionnaire.)

Figure 69: Excerpt from Questionnaire Concerning Farmer Distress Questions

	(A)Factor किसानों के लिए पीड़ा का कारक	(B)Degree of distress caused कितनी बड़ी/ छोटी पीड़ा है	(C) Sub-factors (MULTIPLE CHOICE) पीड़ा किन किन कारणों से है	(D)Coping Mechanism (MULTIPLE CHOICE) रेसपोंडेंट इन पीड़ाओं से निपटने के लिए क्या कर रहे हैं
4.2.1	Damage to crops and livestock फसलों और पशुधन को नुकसान	1-High 2-Medium 3-Low 4- No problem/ challenge 1- बहुत अधिक 2-मध्यम 3-कम 4-कोई समस्या नहीं/	Climatic Factors जलवायु सम्बन्धी कारक 1-Drought सूखा 2-Hail storms ओला वृष्टि 3-Excessive cold wave अत्यधिक शीत लहर 4-Excessive heat wave अत्यधिक गर्मी की लहर 5-Prolonged Dry spells लंबे समय तक बारिश का ना होना या काफी देर बाद होना 6-Floods बाढ़ 7-Fog कोहरा 8-Excessive rains अत्यधिक बारिश 9-Others अन्य (.....) Non-Climatic Factors गैर-जलवायु सम्बन्धी कारक 11-Pest attack कीड़ों द्वारा फसल बर्बाद करना 12-Wild animals जंगली जानवरों का फसल बर्बाद करना 13-Stray animals (unchecked population) आवारा पशुओं की बड़ी संख्या 14-Lack of vaccination पशुधन के लिए टीके/ दवाई उपलब्ध नहीं होना 15--Others अन्य (.....)	1-Crop insurance फसल बीमा 2- Livestock insurance पशुधन बीमा 3-Self vigil of farms for protection from stray animals आवारा पशुओं से सुरक्षा के लिए खेतों की खुद निगरानी करना 4-Excessive use of pesticides कीटनाशकों का अत्यधिक उपयोग 5-Expecting compensation from the government सरकार से मुआवजे की उम्मीद करना 6- Others अन्य (.....) 99- Not doing anything कुछ नहीं कर रहे

The results are presented below (Table 34).

Table 34: Top Reasons for Distress and Current Coping Mechanism

Cause of Distress	Punjab	Maharashtra	Uttar Pradesh
1. Damage to Crops and Livestock	Reason: Pest Attacks Coping: Excessive Use of pesticide	Reason: Pest Attacks Coping: Excessive use of pesticide	Reason: Stray Animals Coping: Self vigilance of farmlands
2. Distress Due to Income Fluctuations	Reason: Not receiving MSP Coping: Not doing anything	Reason: Not receiving MSP Coping: Reducing personal expenses	Reason: Price Fluctuations Coping: Reducing personal expenses
3. Distress due to Agricultural Marketing	Reason: Problems with middlemen Coping: Not doing anything	Reason: Non-transparent transactions in <i>mandi</i> Coping: Accessing SHG/FPO	Reason: Problems with middlemen Coping: Accessing SHG/FPO
4. Distress Arising out of Poor Infrastructure	Reason: Erratic power supply Coping: Not doing anything	Reason: Erratic power supply Coping: Not doing anything	Reason: Erratic power supply Coping: Not doing anything
5. Distress Due to Rising Input Costs	Reason: Rising cost of farm labour Coping: Not doing anything	Reason: Low quality inputs increasing overall costs Coping: Increasing family labour on farms	Reason: Low quality inputs increasing overall costs Coping: Increasing family labour on farms
6. Distress Due to Rising Capital Costs	Reason: Additional fencing cost Coping: Not doing anything	Reason: Additional fencing cost and price of agricultural equipment Coping: Avoiding capital expenditure and renting agriculture equipment	Reason: Additional fencing cost and price of agricultural equipment Coping: Avoiding capital expenditure and renting agriculture equipment
7. Farmers Facing Decline in Farm Productivity	Reason: Decreasing quality of farm produce Coping: Opting for land treatment	Reason: Decreasing quality of farm produce Coping: Trying to access better inputs	Reason: Decreasing quality of farm produce Coping: Opting for land treatment
8. Distress Due to Absence or Delay in Insurance/Compensation	Reason: Promised relief not reaching farmers Coping: Not doing anything	Reason: Promised relief not reaching farmers Coping: Reducing personal expenses	Reason: Ineligibility for insurance Coping: Accessing more non-institutional credit
9. Distress Due to High Indebtedness	Reason: No collateral to give for repayment/refinancing of overdue loan Coping: Reducing personal expenses	Reason: High family and personal expenditure resulting in inability to repay loans Coping: Opting for loan refinancing	Reason: High family and personal expenditure resulting in inability to repay loans Coping: Accessing more non-institutional credit
10. Distress Due to Institutional Roadblocks	Reason: Benefit of government schemes not reaching farmer Coping: Not doing anything	Reason: Benefit of government schemes not reaching farmer Coping: Not doing anything	Reason: Benefit of government schemes not reaching farmer Coping: accessing help from middlemen

Source: Primary data

Pest attacks (Punjab and Maharashtra) and stray animals (UP) were reported as the most important causes of damage to crop and livestock. To ward off threats from pests, both Punjab and Maharashtra farmers reported increased use of pesticides. To protect crops from stray animals, UP farmers said that they had started guarding their fields themselves. In terms of crop damage, respondents highlighted the role of weather and climate related factors like damage caused due to unseasonal rains, floods, droughts, dry spells, excessive cold waves, etc. Most farmers acknowledged that they were closely observing weather-related changes and many referred to climate change and its impact.

Farmers in all three states faced problems getting remunerative prices for their produce and cited issues with minimum support prices (MSP). Farmers in Punjab sought a steady increase in MSPs and greater coverage of crops under the MSP regime whereas, farmers in Maharashtra complained of not receiving MSP on their major crops.

To cope with unstable and low incomes, farmers reduced personal expenses. Decreasing quality of farm produce was a problem in all three states, and farmers were trying to use better inputs or carry out land treatment to overcome such problems.

In Maharashtra and Uttar Pradesh, where farmers are highly indebted as a result of personal and family expenses, they are unable to repay their loans and were opting either for refinance options or accessing non-institutional sources of credit. Farmers were unable to cope with problems arising because of erratic power supply, delay in insurance/compensation and the unavailability of government benefits.

High indebtedness was surely one of the causes of distress. In Maharashtra and UP, indebtedness was associated with high family and personal expenditure that impaired the farmer's ability to repay. And in both states, the farmers refinanced these loans via fresh loans. It appears that the Punjab farmer did not have collateral left to help refinance past loans and so the only option left to him/her was to reduce personal expenses.

Before proceeding we consolidate some of the learnings from this section on distress below:

1. Uttar Pradesh and Maharashtra farmer respondents did not rank indebtedness any higher than other factors causing distress. In fact, in Punjab, a majority of farmers ranked other

factors like instability of production, income and rising input costs as factors causing them higher distress;

2. The most cited coping mechanisms included increased use of pesticides, higher dependence on family labour and reduced personal expenditure
3. Climate and weather-related issues caused considerable distress to farmers who could identify the changes they observe in the climate in their areas.
4. Issues with infrastructure mainly on account of erratic power supply was cited as one of the many distress factors that no farmer in the three states seem to have a coping mechanism for.
5. Problems of markets included: non-transparency in market transactions, and excessive dependence on middlemen;
6. Apart from the Punjab farmer, who is doing nothing to alleviate the problems caused by middlemen, farmer respondents in the other two states of UP and Maharashtra seem to recognise the role of SHGs and FPOs in helping them access better market opportunities.
7. Rising costs of cultivation mainly on account of labour becoming expensive and lower quality inputs resulting in decreased quality of farm produce pushed up the costs of cultivation seem to haunt farmers in all three states.
8. Even though only UP farmers reported distress due to stray animals, farmer respondents from all three states highlighted the cost-push caused due to the rising cost of fencing of fields which they had to put up to safeguard their fields from stray animals.
9. Absence of crop insurance or delay in receiving compensation is a cause of distress in all three states; while some reduced personal expenditure to overcome the distress, others increased their non-institutional borrowings.
10. In all three states, farmers felt that the complete benefit of the various government schemes and programmes did not reach them. While most did not do anything to resolve the problem, respondents from UP highlighted the role of middlemen in alleviating the problem.

Inter alia, two good things seem to emerge:

1. Farmers want to rent agricultural equipment and machinery rather than own it, particularly in UP and Maharashtra and

2. Farmers are realising the importance of FPOs and are clear about its role as a coping mechanism for their growing distress.

Distress Severity Score of Respondents

Using the responses on the distress factors stated above, we developed a *distress index*. The objective of this exercise was to relatively position survey respondents in terms of the distress they face, helping take an objective look at the general level of farm distress prevailing in the three states.

Methodology for creating the index

To find the relative position of every respondent in each state compared to others within the state in terms of the degree of distress each faced (arising out of the ten factors mentioned above), the following methodology was used.

1. Finding weights of the 10 factors – For each of the 10 factors, the number of times a respondent answered “yes” was counted. This was done separately for the three states. This was then divided by the total number of responses to the question. This provided the weights for every factor in each of the three states (Table 35);

Table 35: Weights Used for Calculating Distress Scores

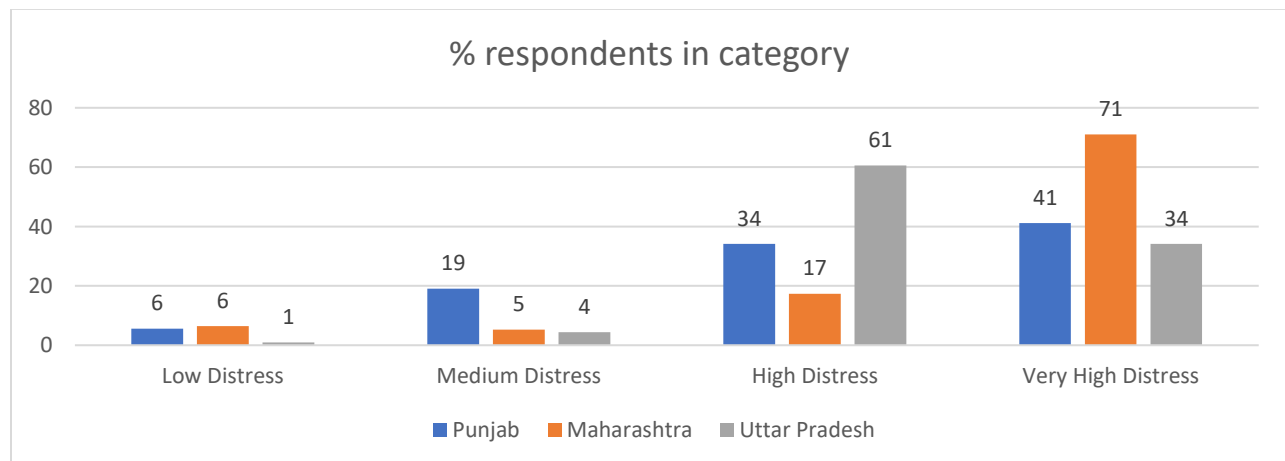
Factor	Punjab	Maharashtra	Uttar Pradesh
Instability in Crop and Livestock	0.12	0.10	0.10
Income Fluctuations	0.12	0.10	0.10
Market problems	0.10	0.10	0.10
Poor Infrastructure	0.10	0.10	0.10
Rising input costs	0.12	0.10	0.10
Rising capital costs	0.07	0.10	0.10
Decline in productivity	0.11	0.10	0.10
Absence/delay of insurance and compensation	0.10	0.10	0.10
High indebtedness	0.09	0.10	0.10
Institutional roadblocks	0.06	0.10	0.10

Source: Primary data

2. Allocating distress scores to the respondent – Every farmer was asked to rank the severity of each of the ten factors on a scale of 1 to 4, where 1 meant “high severity of distress”, 2 “medium severity of distress”, 3 “low severity of distress” and 4, “no distress”.
The weighted sum of these rankings was then calculated for the three states separately. The lower the weighted sum, the higher is the distress severity.
3. Normalisation and direction of the index – Following this, these scores were indexed using the minimum/maximum normalisation technique to calculate the relative positions of respondents based on the distress severity scores. The resulting series was indexed between 0 and 1, where a lower value of the index meant higher distress for the farmer. To check for this direction, the index values were subtracted from 1 for each observation to get a normalised index value. Consequently, a higher normalised index value meant high distress level of the respondent;
4. Categorisation of index values – Finally, the normalised index was categorised into four categories, namely:
 - a. Very highly distressed farmers (index value greater than 0.75);
 - b. Highly distressed farmers (index value greater than 0.5 and less than 0.75);
 - c. Medium distress farmers (index value greater than 0.25 and less than 0.5); and
 - d. Low distress farmers (index value less than 0.25).

The resulting index is presented in Figure 70 below.

Figure 70: Result of Distress Severity Index



Source: Calculation by authors using primary data

The results showed that 71 per cent of Maharashtra farmer-respondents belonged to the “very high distress” category. Relatively, UP farmers emerged to be little lesser distressed as about 61 per cent belonged to “high distress category”. Punjab respondents were similarly distributed between “high distress” and “very high distress” categories, though a larger share belonged to the latter.

Modelling Farmer Distress

In the next step, we modelled distress of the sampled farmer where the factors which are believed to have either increased or decreased farmer distress (using the distress index as a dependent⁴⁷ variable) were tested econometrically through a regression analysis.

Choice of Econometric Model

To measure farmer distress for the purpose of this exercise, the distress index was transformed by coding farmer respondents on the basis of their index scores, where an index of greater than 0.75 index value meant the farmer was coded as ‘1’. These respondent farmers were ‘very high distress’ category farmers. An index value greater than 0.5 or less than equal to 0.75 was coded as ‘2’ (‘high distress’ farmers), index values greater than 0.25 and less than and equal to 0.5 as ‘3’ (‘medium distress’ category) and index value below 0.25 was coded ‘4’ (‘low’ distress category). This categorisation, based on the earlier calculated distress index score, was used as the dependent variable to see the effects of different farmer characteristics and policy interventions on farmer’s distress. Considering the ‘ordinal⁴⁸’ nature of the dependent variable, an ordered logit regression model (OLM) was used to study these effects. It is important to note that only the effect on farm distress of only *SMF farmers* were studied as these farmers accounted for majority of the sample data. The effect on farmer’s distress were studied for the three states separately and subsequently, the consolidated results for the three states have been presented.

Interpretations under the OLM framework

Model Framework

⁴⁷ The outcome variable is the **independent/explanatory** variable and the ‘dependent’ variable is the **response** variable

⁴⁸ There are various situations in which the outcome variable is polychotomous (more than two possible categories), which can be classified into two categories – multinomial and ordinal. When a variable is ordinal, its categories can be ranked from low to high. The ordinal variable in this case is distress levels ranging from low level of distress to very high level of distress.

The ordered or ordinal regression model is commonly presented as a latent variable model. If the ordinal outcome variable is y , then in an ordinal logit model (OLM), it is a function of an unmeasured, continuous latent variable y^* . This latent variable has various thresholds and the value of the observed variable y depends on whether or not they have crossed a particular threshold. The estimates of OLM are based on maximum likelihood estimation (MLE⁴⁹), and the resulting estimates are consistent, asymptotically normal, and asymptotically efficient.

If y^* is defined as the latent variable ranging from $-\infty$ to ∞ , the structural model is –

$$y_i^* = \beta x_i + \varepsilon_i$$

where, i denotes observation and ε denotes random error.

Like binary outcome models, the measurement model here is expanded to divide y^* into J ordinal categories.

$$y_i = m \quad \text{if} \quad \tau_{m-1} \leq y_i^* < \tau_m \quad \text{for } m = [1, J],$$

and cut-points τ_1 through τ_{J-1} are estimated (which act as thresholds) with the assumption,

$$\tau_0 = -\infty \ \& \ \tau_J = \infty.$$

In this study, there is an ordinal outcome variable for distress levels with 4 categories:

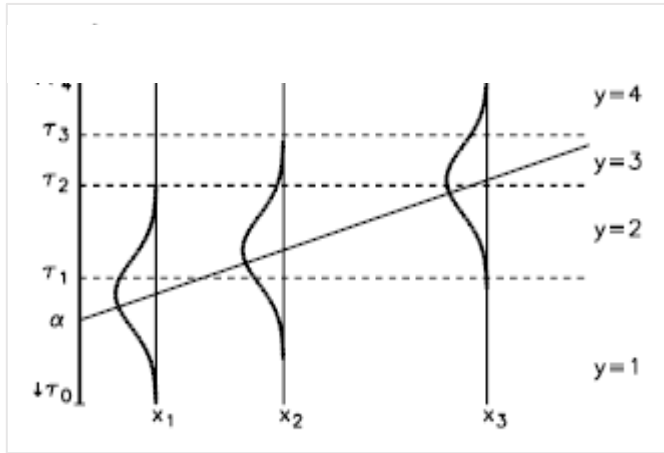
- 1 – Low distress
- 2 – Medium distress
- 3 – High distress
- 4 – Very High distress

The continuous latent variable can be thought of as the propensity of farmers to be distressed. The observed categories are tied to the latent variable by the measured model.

⁴⁹Maximum Likelihood Estimation (MLE) is a method of estimating the parameters of a probability distribution by maximising a likelihood function so that under the assumed model, the observed data is most probable. The point in the parameter space that maximises the likelihood function is called the maximum likelihood estimate.

$$\begin{aligned}
y_i &= 1 & \text{if } & \tau_0 = -\infty \leq y_i^* < \tau_1 \\
&2 & \text{if } & \tau_1 \leq y_i^* < \tau_2 \\
&3 & \text{if } & \tau_2 \leq y_i^* < \tau_3 \\
&4 & \text{if } & \tau_3 \leq y_i^* < \tau_4 = \infty
\end{aligned}$$

Thus, when the latent y^* crosses a cut-point, the observed category changes.



For a single independent variable, the structural model is represented as:

$$y_i^* = \alpha + \beta x_i + \varepsilon_i$$

This adjoining graph is a representation of the last equation.

The probability of observing $y = m$ for given values of 'x' corresponds to the region of the distribution where y^* falls

between τ_{m-1} and τ_m .

$$\Pr(y = m | x) = \Pr(\tau_{m-1} \leq y_i^* < \tau_m | x)$$

Substituting $y^* = x\beta + \varepsilon$, the standard formula for the predicted probability in the ordinal regression model is

$$\Pr(y = m | x) = F(\tau_m - x\beta) - F(\tau_{m-1} - x\beta)$$

where, F is the cumulative distribution function (cdf) for ε .

In ordinal logit, F is the logistic with $\text{Var}(\varepsilon) = \pi^2/3$.

$$\text{For } y = 1, F(\tau_{m-1} - x\beta) = 0$$

$$\text{and for } y = J, F(\tau_m - x\beta) = 1$$

Interpretation

The ordered logit model is often interpreted in terms of odds ratios⁵⁰ for cumulative probabilities. The cumulative probability that the outcome is less than or equal to m is

$$\Pr(y \leq m | x) = \sum \Pr(y = j | x) \quad j = [1, m] \text{ for } m = 1, J-1$$

The odds that an outcome is m or less versus greater than m equals:

$$\Omega_m(x) = \frac{\Pr(y \leq m | x)}{1 - \Pr(y \leq m | x)} = \frac{\Pr(y \leq m | x)}{\Pr(y > m | x)}$$

Taking log results in the logit equation:

$$\ln[\Omega_m(x)] = \tau_m - x\beta$$

If a variable x_k changes by δ , the odds ratio equals:

$$\frac{\Omega_m(x, x_k + \delta)}{\Omega_m(x, x_k)} = \exp(-\delta * \beta_k) = \frac{1}{\exp(\delta * \beta_k)}$$

This can be interpreted as follows: for an increase of x_k by δ , the odds of an outcome being less than or equal to m are changed by the factor $\exp(-\delta * \beta_k)$, holding all other variables constant.

When we are comparing less distressed versus medium or high distressed, the odds change by the factor $\exp(-\beta_k)$, whereas when we compare high or very high distressed versus medium or low distressed, the odds change by the factor $\exp(\beta_k)$.

Variables Studied

Using the survey data, an econometric model was created to understand an SMF's distress profile.

For the model:

1. As stated, the dependent variable is an ordered variable that captures a farmer's distress level, estimated through the distress index.

⁵⁰ In a logistic regression, regression coefficient (b_1) is the estimated increase in the log of odds of the dependent variable per unit increase in the value of the independent variable. This means that the exponential function of b_1 (e^{b_1}) is the odds ratio associated with a one-unit increase in the independent variable.

2. The independent variables studied are:

- a) **State:** A categorical variable representing states where '1' denoted Punjab, '2' Maharashtra and '3' Uttar Pradesh;
- b) **Self-owned area of the farmer (SOA):** that denoted the actual owned landholding of the farmer, measured in acres;
- c) **Irrigated farmland (irgtd land)** representing the proportion of a farmer's operated land that was irrigated;
- d) **Size of farmer household (hhsiz)**: a dummy variable defined as a binary. For farmers whose household size was greater than the state average, the variable value was '1' and for others, i.e., household size less than or equal to the state average, it was '0';
- e) **Whether FLW beneficiary (flw):** A binary variable that represented whether a farmer received benefits under FLW. '1' was assigned to those farmers who received FLW and '0' to those who did not receive FLW benefits;
- f) **Type of loan with the farmer (loan_type):** Another categorical variable where '1' was assigned to farmers who only took loans from institutions; '2' to those who took loans only from non-institutional sources and '3' to those farmers who reported having taken loans from both institutional and non-institutional sources;
- g) **Crop loan amount (crop loan/acre):** crop loan taken per acre of self-owned land taken by the farmer
- h) **Non-institutional loan taken by the famers (non-inst_loan):** the absolute amount of loan taken from non-institutional sources by the farmer.

Apart from these, variables studied included distance to banks, type of bank account, and whether the farmer was a PM-KISAN beneficiary, but the results for these variables were not found to be consistent with model specifications and thus, are not reported here.

Results

The following regression equation has been estimated to quantify the impact of various factors that lead to distress among SMFs.

$$\text{Distress category} = \beta_0 + \beta_1 \cdot \text{state} + \beta_2 \cdot \text{soa} + \beta_3 \cdot \text{irgtdland} + \beta_4 \cdot \text{hhsiz} + \beta_5 \cdot \text{flw} + \beta_6 \cdot \text{loan_type} + \beta_7 \cdot \text{loan/acre} + \beta_8 \cdot \text{noninst_loan} + e$$

Table 36: MLE of factors influencing distress levels of SMFs

No. of Observations	2,375	759	650	966
P > chi2	0.000	0.002	0.000	0.000
Pseudo R-Squared		0.0131	0.1272	0.059
Coefficients	Consolidated	Punjab	Maharashtra	Uttar Pradesh
SOA	0.053 (1.054)	0.009 (1.009)	0.245*** (1.278)	0.079 (1.082)
Irgtd_Land	-0.007*** (1.073)	0.002 (1.020)	-0.026*** (1.297)	0.029** (1.336)
HHsize	-0.188** (1.207)	-0.18 (1.197)	-0.544*** (1.723)	-0.388*** (1.474)
FLW	-0.149 (1.161)	0.212 (1.236)	-0.565*** (1.759)	-0.211 (1.235)
Crop loan _acre	-0.006 (1.006)	-0.021*** (1.021)	0.237*** (1.267)	0.008 (1.008)
Non inst. _loan	0.015** (1.015)	0.012 (1.012)	0.02 (1.02)	0.033 (1.034)
Loan_type (compared to 1 – only institutional loans)				
2- Only Non-Institutional	-0.822*** (2.275)	-0.409 (1.505)	1.972*** (7.185)	-1.709*** (5.523)
3- From Both	-0.629*** (1.876)	-0.475** (1.608)	0.413 (1.511)	-0.133 (1.142)
State (compared to 1-Punjab)				
2. Maharashtra	2.049*** (7.76)	-	-	-
3. Uttar Pradesh	-0.248** (1.281)	-	-	-
Intercepts				
Cut 1	-5.738	-2.979	-4.317	-2.702
Cut 2	-3.361	-1.274	-3.696	-0.737
Cut 3	-0.738	0.111	-2.323	3.173

Source: Calculated by authors using primary data

Note: For the consolidated model, the distress ordinal variable is calculated from all the observations combined, while for each state, the variable is weighted according to state wise responses. Number in parenthesis is the odds-ratio.

*** means significance at 1 per cent.

** means significance at 5 per cent.

The number of observations used to calculate the results are less than the total sample as these observations only include SMF famers and the data, which included some observations that were inconsistent with the requirements of the model, were further cleaned.

Punjab

The results (Table 36) suggest that for **Punjab**, variables such as self-owned land by farmers, proportion of irrigated farmland, size of the farmer household, being a FLW beneficiary, and amount of non-institutional loans were not found to have a statistically significant impact on the level of distress in the state. The odds of low or medium distress (versus higher distress) are exp (.475) or 1.608 times higher for farmers who borrowed from both (institutional and non-institutional) sources compared to those who borrowed only from institutional sources in Punjab, implying **farmers with diversified sources of loans tend to be less distressed**.

The amount of crop loan taken per acre of self-owned farmland has a statistically significant and negative coefficient, implying the odds of less or medium distress (versus higher distress) increases by exp (.021) or 1.021, which implies that **farmers with greater institutional crop loans per acre of self-owned land tend to be less distressed**.

Maharashtra

In **Maharashtra**, there is a positive relationship between self-landholding and a farmer's distress level. The odds of distress being high versus medium or low distress increases by exp (.245) or 1.278 times per acre increase in the landholding of the SMF. This implies that the larger the area owned by a farmer, the higher the difficulties faced during cultivation, thus increasing the farmer's distress. Perhaps rising cost of farm labour may be behind the increasing difficulties faced by farmers with larger landholding sizes. However, it was also found that an increase in the proportion of irrigated land had a statistically significant negative coefficient implying higher odds of lower distress. For increase in the proportion of irrigated land, the odds of low or medium distress (versus higher distress) increases by exp (.26) or 1.297 times, implying that a **higher proportion of irrigated farmland lower farmer's distress in the state**.

Farmer households with a bigger than average household size in Maharashtra tend to be less distressed. The odds of medium or low distress (versus higher distress) are exp (.544) or 1.723 times more for those households whose size is above average. **Larger family may imply more hands to service agricultural land and thus, is likely to be associated with lower distress**.

Being a **farm loan waiver beneficiary was found to be associated with statistically significantly reduced distress among SMFs in Maharashtra**. The odds of medium or low

distress (versus high levels of distress) are $\exp(.565)$ or 1.759 times greater for beneficiaries than for non-beneficiaries.

Considering the loan-type variable, it is observed that the beta coefficient for only non-institutional loan is statistically significant and positive, implying the odds of high distress (versus medium or low distress) is $\exp(1.972)$ or 7.185 times higher for SMFs who accessed only non-institutional loans compared to those who borrowed only from institutional sources. This signals that relative to loans taken only from institutional sources, **farmers who only relied on non-institutional sources were significantly more distressed in Maharashtra.**

Crop loan per acre also has a statistically significant and positive beta coefficient, where the odds of high or very high distress (versus medium or low distress) increases by $\exp(.237)$ or 1.267 times with an increase in crop loan per acre of self-landholding, implying **higher crop loans per acre add to the distress of SMFs in Maharashtra.**

Uttar Pradesh

In the case of **Uttar Pradesh**, variables like (i) self-owned land of the farmer, (ii) being a FLW beneficiary, (iii) crop loan taken per acre and (iv) non-institutional loans taken were estimated to not have a statistically significant effect on farmer distress.

The odds of medium or low distress (versus high distress) are $\exp(1.709)$ or 5.523 times higher for those who have accessed loans from only non-institutional sources compared to those who borrowed only from institutional sources, implying that **farmers who accessed loans only from non-institutional sources are less likely to be distressed relative to those farmers who accessed loans only from institutional sources.**

In Uttar Pradesh, as in Maharashtra, it is observed that an above state average farmer household size lowers distress. The odds of medium or low distress (versus high distress) are $\exp(.388) = 1.474$ times more for households that are above the average household size in UP.

Consolidated model for the three states

To interpret the state coefficients, Punjab has been taken as the base state. The coefficient of Maharashtra is 2.049, which means that compared to Punjab, the chances of a Maharashtra farmer having high distress (versus medium or low distress) are $\exp(-2.049)$ or 0.129 times higher,

holding other variables constant. Or, we can also say that the odds of farmers having high distress is $\exp(2.049)$ or 7.76 times higher in Maharashtra than in Punjab, holding other variables constant. Whereas, in Uttar Pradesh, the coefficient is negative and the odds are 1.28 that farmer in UP, relative to Punjab is less distressed. **In summary, relative to Punjab SMF farmers, Maharashtra SMF farmers are more distressed and Uttar Pradesh's SMF farmers are less distressed.**

The coefficient of proportion of irrigated land is (-) 0.007, which can be interpreted as follows: for an increase in the proportion of irrigated land, the odds of medium or low distress (versus high or very high distressed) increases by $\exp(0.07)$ or 1.073. **This implies that more share of irrigated land reduced the chances of higher distress among SMF farmers in the three states.**

Besides, an above average household size has a statistically significant negative coefficient implying that the odds of low or medium distress (versus high or very high distress) is $\exp(0.188)$ or 1.207 times higher for households with a household size larger than the average household size within the respective state. Only small and marginal farmers have been considered here; so, it could imply that **the bigger the household size, the higher the availability of cheaper or free labour that can be employed in cultivation, which alleviates distress.**

Relative to SMFs that only take loans from institutional sources, the categories for only non-institutional loans and loans from both sources have statistically significant negative coefficients, which implies **that a diversified borrowing pattern results in lower probability of distress.** These can be interpreted as meaning that the odds of low or medium (versus higher distress) is $\exp(0.822)$ or 2.275 times higher for those who accessed only non-institutional loans and $\exp(.629)$ or 1.876 times higher for those who accessed both institutional and non-institutional sources than those who accessed only institutional loans. However, it was observed that **in absolute terms, an increase in non-institutional loan has a positive and significant impact on farmer distress.**

With regards to FLW beneficiary SMFs, it was found that the effect of being an FLW beneficiary did not significantly affect the probability of farmer distress. **Therefore, it can be concluded that being an FLW beneficiary does not have a significant impact on decreasing farmer distress levels.**

Section 4: Reach and Impact of FLW Schemes

One of the main objectives of the survey is to catalogue the experience of farmers regarding various FLW schemes. The findings are presented below.

1. **Number of FLW Beneficiaries (FLWB):** Among the 3000 respondents, about 44 per cent or 1312 were beneficiaries of FLW, out of which one-quarter were from Punjab, one-third from Maharashtra and the remaining about 42 per cent from UP. As a proportion of total respondents in a state, about 33 per cent in Punjab, about 53 per cent in Maharashtra and about 47 per cent in UP were FLW beneficiaries (Table 37).

Table 37: FLW Beneficiaries in the Three States

State	No. of Beneficiaries	Partial beneficiaries	Full beneficiaries	Though eligible but did not receive FLW
Punjab	329 (33 per cent)	23	306	120
Maharashtra	436 (53 per cent)	16	420	40
Uttar Pradesh	547 (47 per cent)	130	417	82

Source: Calculation by authors using primary data.

Note: The percentage figure given in parenthesis is the proportion of FLW beneficiaries to the number of respondents in the state.

As mentioned in Chapter 4, each state followed a threshold below or up to which outstanding/overdue loans of eligible beneficiaries were waived. UP had the lowest threshold (Rs.1 lakh) and Punjab the highest (Rs.2 lakh).

During the study, it was found that the respondents of FLW benefits could be divided under three broad heads: (i) respondents who received full-waiver or ones for whom the entire outstanding/overdue amount was waived, (ii) respondents who received partial-waiver or for whom only a part of the outstanding/overdue amount was waived and (iii) respondents who stated their eligibility (as per their understanding of the respective FLW scheme) for FLW but did not receive any FLW benefit (Table 37).

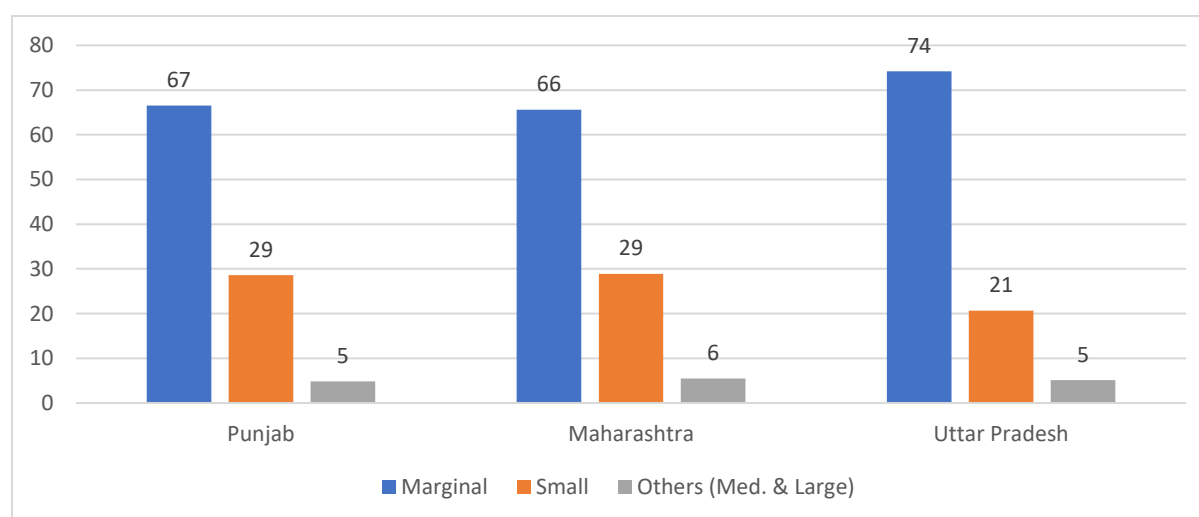
In UP, out of the total 547 FLW beneficiaries, about 76 per cent received full waiver and about a quarter received a partial waiver. Additionally, about 8 per cent of total state respondents reported that despite being eligible they did not receive any FLW benefit.

The proportion of beneficiaries who received full waivers was about 93 per cent in Punjab and 96 per cent in Maharashtra.

In addition, about 242 farmers (120 in Punjab, 40 in Maharashtra and 82 in UP) reported that, despite being eligible, they did not receive the FLW benefits.

2. **Farmer-type wise FLW beneficiary:** As per the FLW scheme, the benefits were to be received only by the state's SMFs; however, there is evidence (though minuscule) in the survey that 'other' farmers (medium and large farmers) too received FLW benefits (Figure 71).

Figure 71: Farmer Category-Wise FLW Beneficiaries (Per Cent FLW Beneficiaries)



Source: Calculation by authors using primary data

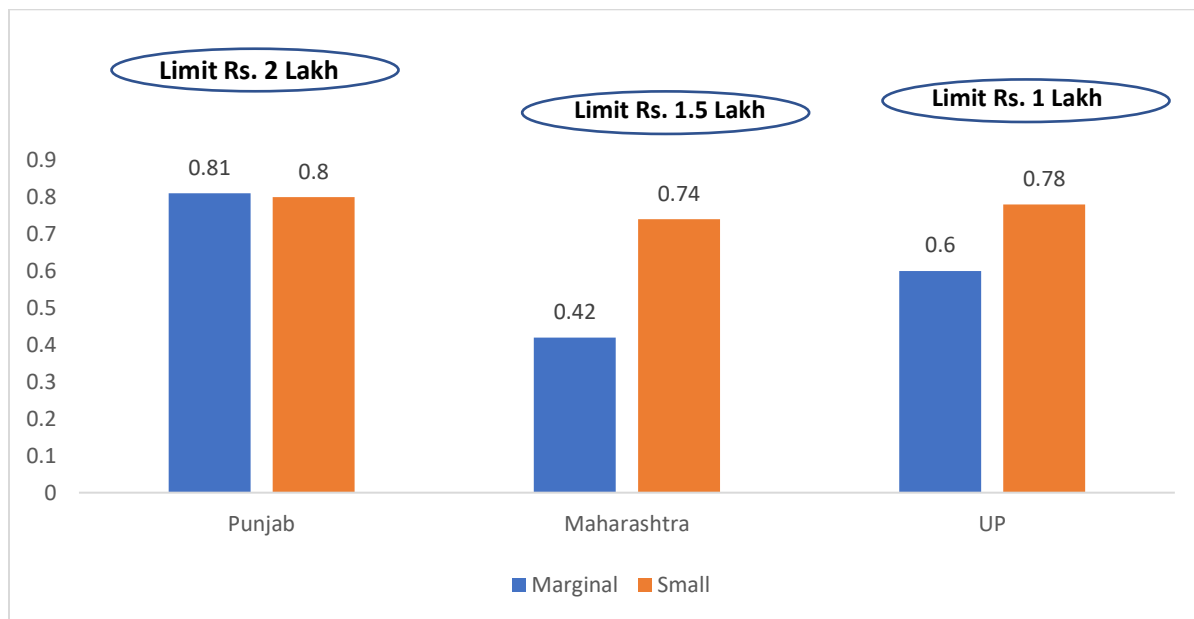
Note: As per the scheme notification in Punjab and Uttar Pradesh, only SMFs were eligible for debt relief, however instances of farmers other than SMFs were found to have received debt relief benefits in both states.

Of the total 1312 FLW beneficiaries studied, 66 to 74 per cent were marginal farmers. Small farmers accounted for about 21 to 29 per cent of the studied FLW beneficiaries. About 5 per cent FLW beneficiaries in Punjab and UP belonged to the ineligible category of other farmers.

3. **Average outstanding loan amounts and amounts waived:** As stated in point 1, there were three types of FLW beneficiaries/respondents- (i) full-waiver beneficiaries, (ii) partial-waiver

beneficiaries, and (iii) respondents who thought were eligible but did not receive any benefit. For the first two categories, the average outstanding loan amounts and the amounts waived are given in Figure 72 and Figure 73.

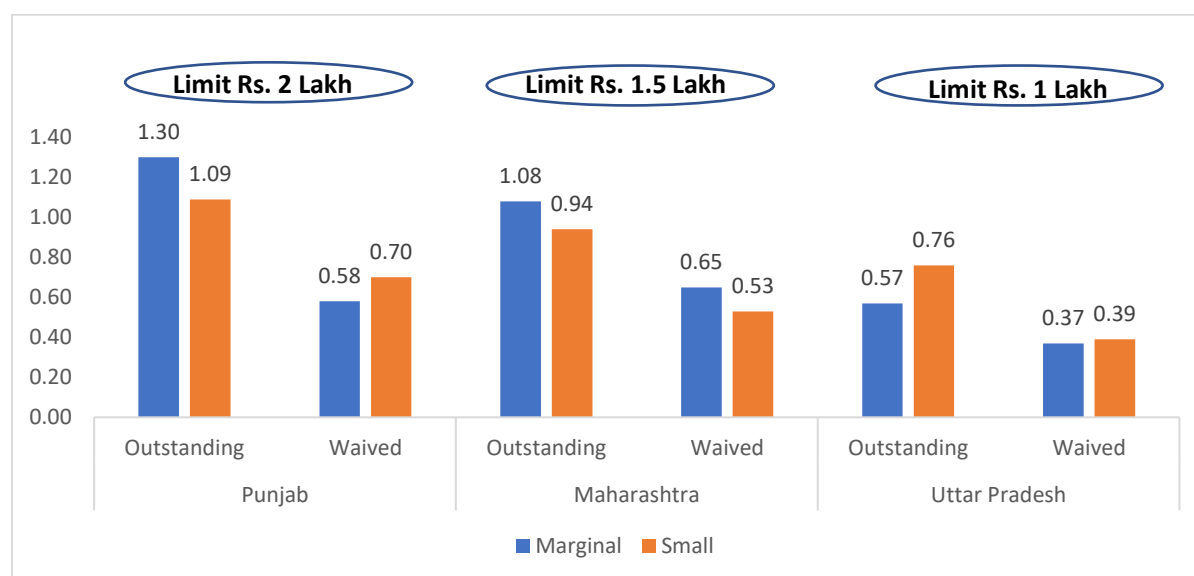
Figure 72: Average Outstanding and Waived FLW amounts (in Rs. lakh) full-waiver beneficiaries



Source: Calculation by authors using primary data

For full-waiver beneficiaries, the average amount of outstanding loans completely waived ranged between Rs.42,000 (Maharashtra) and Rs.81,000 (Punjab) for the marginal farmer category and between Rs.74,000 (Maharashtra) and Rs.80,000 (Punjab) for the small farmer category. In the case of UP, these values were about Rs.60,000 for marginal farmers and Rs.78,000 for small farmers. These average waived amounts were well below the threshold limits defined under the FLW of the three states (given in ovals above bars in Figure 72).

Figure 73: Average Outstanding and Waived FLW amounts (in Rs. lakhs) partial-waiver beneficiaries



Source: Calculation by authors using primary data

For partial-waiver beneficiaries, debt relief amounted to an average of Rs.58,000 in Punjab, Rs.65,000 in Maharashtra and Rs.37,000 in UP for the marginal farmer category. For small farmers, these numbers were: about Rs.70,000 in Punjab, Rs.53,000 in Maharashtra and Rs.39,000 in UP. In all cases, the average outstanding loan amount eligible for debt relief was estimated to be below the state-specific debt relief threshold.

4. **Distress alleviating impact of farm loan waivers:** In this section, the distress index (detailed before) for FLW beneficiaries has been mapped. In the earlier section, based on the estimated distress index value, each respondent was assigned to a distress category. The data was analysed to estimate the proportion of SMFs in each distress category (Figure 74).

Figure 74: Distress Severity and FLW Delivery to SMF



Source: Calculation by authors using primary data.

From these figures, the following observations emerge:

- In Punjab, more than 60 per cent of the ‘very high’ and ‘high’ distress SMFs did not receive FLW benefits; the exclusion rate was also 60 per cent for the medium distress category SMFs.

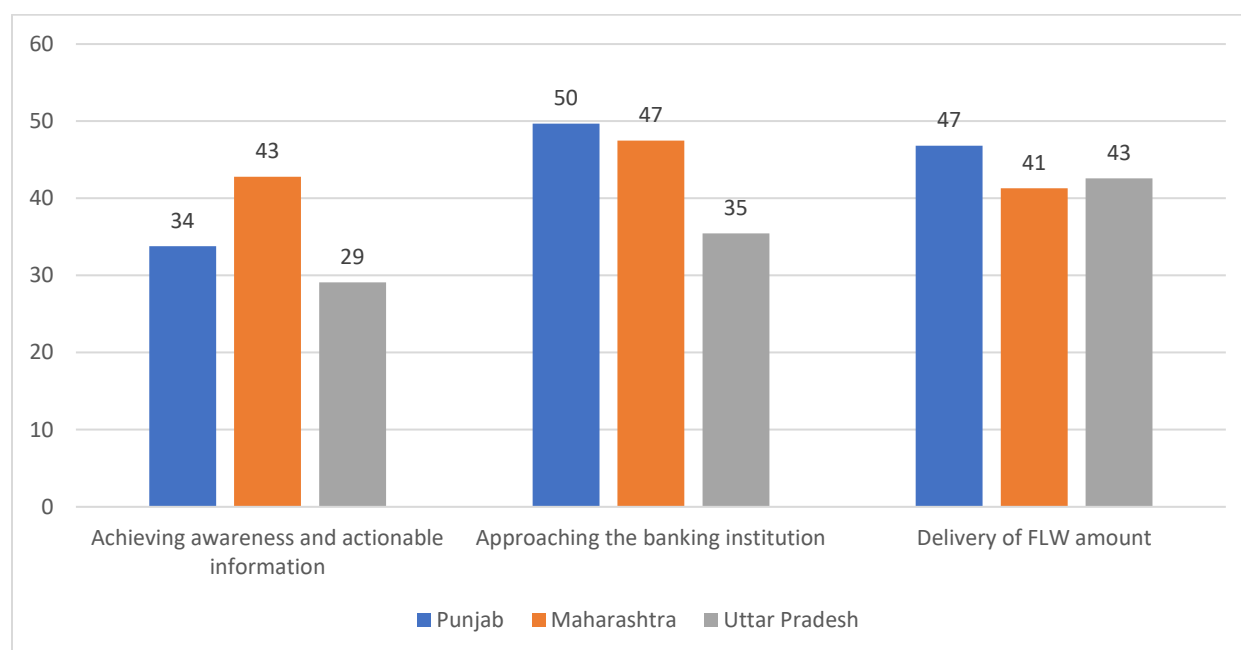
- b) In Maharashtra, SMFs that were relatively better off as they were categorised as ‘low’ distress received the maximum FLW benefits. Close to 42 per cent of the SMF whose distress category was ‘very high’ did not receive FLW benefits.
- c) In UP, 47 per cent of the ‘very high distress’ category, and 45 per cent of the ‘high distress’ category SMF did not receive FLW benefits;
- d) In the three states together, more than 40 per cent of the ‘very high distress’ farmers did not receive any FLW benefits.

5. **FLW experience of farmers:** To understand the experience of farmers of the respective state FLW schemes, they were asked questions on the following.

- a. *Awareness and actionable information* – This set of questions dealt with the general awareness among farmers about the design and eligibility under the FLW scheme. They were asked whether they a) were aware of the scheme and b) whether they had knowledge about the eligibility criteria and the documents needed to access the benefits under the scheme.
- b. *Approaching financial institutions* – This set of questions dealt with issues faced (if any) by eligible beneficiaries under the scheme in the process of waiver delivery. These included question of whether they faced issues of non-cooperation by bank employees, the time consumed on bank formalities, *Aadhaar* linkage of their accounts and/or whether agents (*dalal*) were involved in the waiver delivery process.
- c. *Delivery of loan waiver amounts* – This set of questions dealt with FLW beneficiary’s views on the experience after the waiver has been provided. The questions related to whether the beneficiary a) received less than eligible amount, b) faced delay in debt relief delivery and/or was not notified by the bank about FLW benefit delivery and/or c) faced lack of grievance redressal mechanisms.

The results are given below in Figure 75.

Figure 75: Per Cent Farmers Facing Issues with FLW Experience in the three states (Per Cent Respondents)



Source: Calculation by authors using primary data

Note: Denominator for calculating the percentage for awareness aspect is the total number of survey respondents. Denominator for calculating percentage for approaching the bank aspect is respondents who received debt relief or were eligible for the same. Denominator for calculating percentage for delivery of debt relief amount is the number of respondents that actually received debt relief.

Awareness and actionable information: In all three states, farmers faced issues with awareness and getting information on other actionable points about the FLW scheme being implemented in their state. This proportion was less than half: close to 34 per cent in Punjab, 43 per cent in Maharashtra and 29 per cent in Uttar Pradesh. Respondents also said that there was dearth of information particularly about their eligibility under the scheme, about the documents they needed to provide to banks to receive waiver benefits, the application procedures and about the eligible amounts under the scheme.

Approaching bank: Bankers and banks were another bottleneck reported by farmers in the process of receiving debt relief. About 50 per cent farmers eligible for FLW in Punjab faced issues in approaching the bank. This proportion was about 47 per cent in Maharashtra and 35 per cent in UP. Major problems under this head were lack of co-operation by bankers, complicated administrative formalities in the application processes, time and expense spent on travelling to a

bank, issues with bank accounts not being linked to *Aadhaar* card, and need for middlemen (*dalal*) to approach banks (particularly faced by UP farmers).

Delivery of FLW amounts: In all three states, delivery of debt waiver amounts was a significant cause of concern for farmers. About 47 per cent in Punjab, 41 per cent in Maharashtra and 43 per cent in UP faced this issue. The major problem areas under this head were: delays in waiver disbursement and lack of awareness of the amount of benefit to be received by the beneficiary farmer. Farmers in Maharashtra and UP faced issues with getting timely and regular status updates on their loan waiver applications/status, and found that helpline telephone numbers were not responsive.

6. **Availability of institutional credit to beneficiaries after FLW implementation:** One of the after effects of an FLW is that bankers anticipate higher levels of future defaults which deter them from lending further. Farmers were asked whether they applied for institutional credit after receiving debt relief and did they receive it. The results are presented in Table 38.

Table 38: FLW beneficiaries and Access to Fresh Institutional Credit

Status	Punjab	Maharashtra	Uttar Pradesh
FLW Beneficiaries (number)	329	436	547
Applied for Fresh Credit (number)	298	403	414
Received Fresh Credit (Number) (proportion of those who applied for fresh credit))	289 (97%)	392 (97%)	333 (80%)
Did not Receive Fresh credit	9 (3%)	11 (3%)	81 (20%)

Source: Calculation by authors using primary data

Note: Number in parenthesis is the proportion of respondents

Punjab

In Punjab, of the total 329 farm loan waiver beneficiaries, 298 respondents (about 90 per cent) applied for a fresh round of institutional credit. Of these, 289 (97 per cent) were able to get fresh credit. Only 3 per cent were refused fresh institutional credit.

Maharashtra

As in Punjab, farmers in Maharashtra too were able to access fresh loans after receiving farm loan waiver. Of 436 FLWB in Maharashtra, 403 (about 92 per cent) applied for fresh institutional credit, of whom 392 (about 97 per cent) secured fresh credit while about 3 per cent were refused credit.

Uttar Pradesh

In UP, of 547 FLWB, only 414 (76 per cent) applied for fresh credit and of these, 80 per cent secured fresh institutional credit while 20 per cent were refused credit.

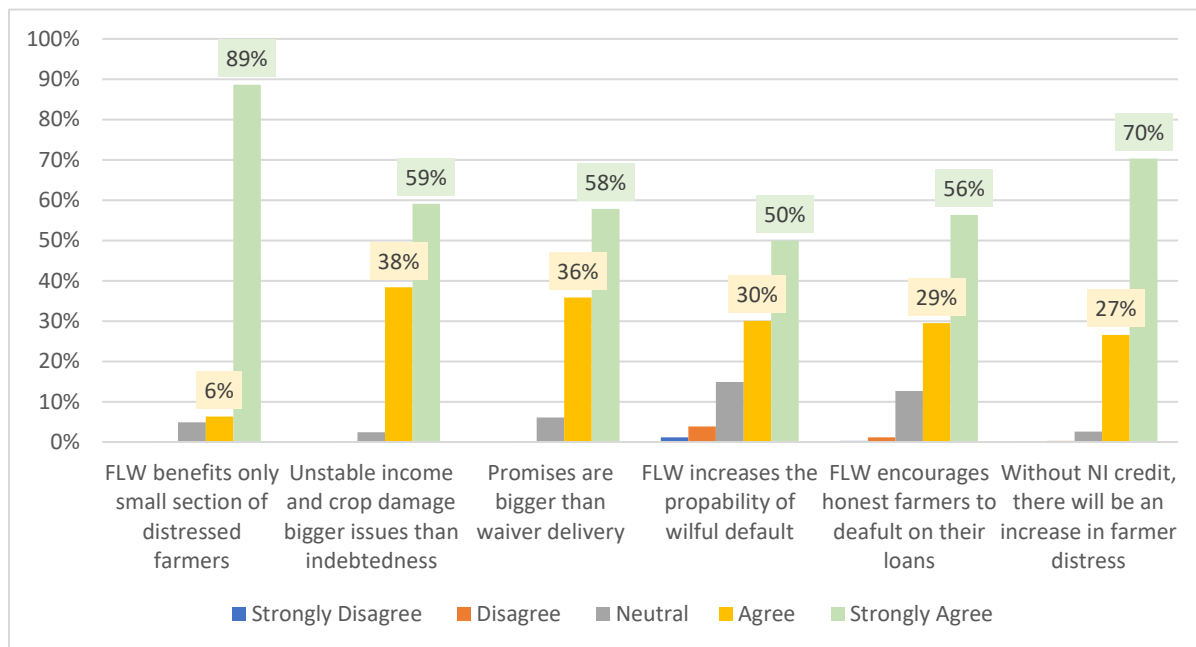
7. **What farmers feel about the FLW schemes:** Irrespective of a farmer being an FLW beneficiary or not, they were asked about their opinion of farm loan waivers schemes. They were given the following six statements:

- a) Farm loan waivers benefit only a small section of distressed farmers.
- b) Unstable incomes and crop damage due to climate change are bigger causes of distress for farmers than indebtedness.
- c) In the context of FLWs, promises made by politicians are generally bigger than what is delivered to farmers.
- d) In anticipation of FLW, farmers wilfully default on paying back institutional loans.
- e) Honest farmers who have never defaulted or never wished to default on loan payments are encouraged by FLW schemes to default on their loan payments.
- f) Without non-institutional sources of credit, there will be an increase in farmer distress.

The respondents had to respond by choosing one of five options: a) strongly agree b) agree c) neutral d) disagree and e) strongly disagree. The Likert scale was used for the purposes. This scale assumes that attitudes can be studied. It also assumes that the strength or intensity of an attitude is linear, which means that attitudes are measured in a continuum from strongly agree to strongly disagree. Answers to these questions were at ordinal level where each item had a rank higher or lower than the other but the difference between say 'strongly disagree' and 'disagree' may not be the same as the difference between 'strongly agree' and 'agree'.

The findings for the three states are presented in the figures below. Figure 76 presents the results for Punjab.

Figure 76: Farmers' Perceptions of Debt Relief Schemes in Punjab (Per Cent Respondents)

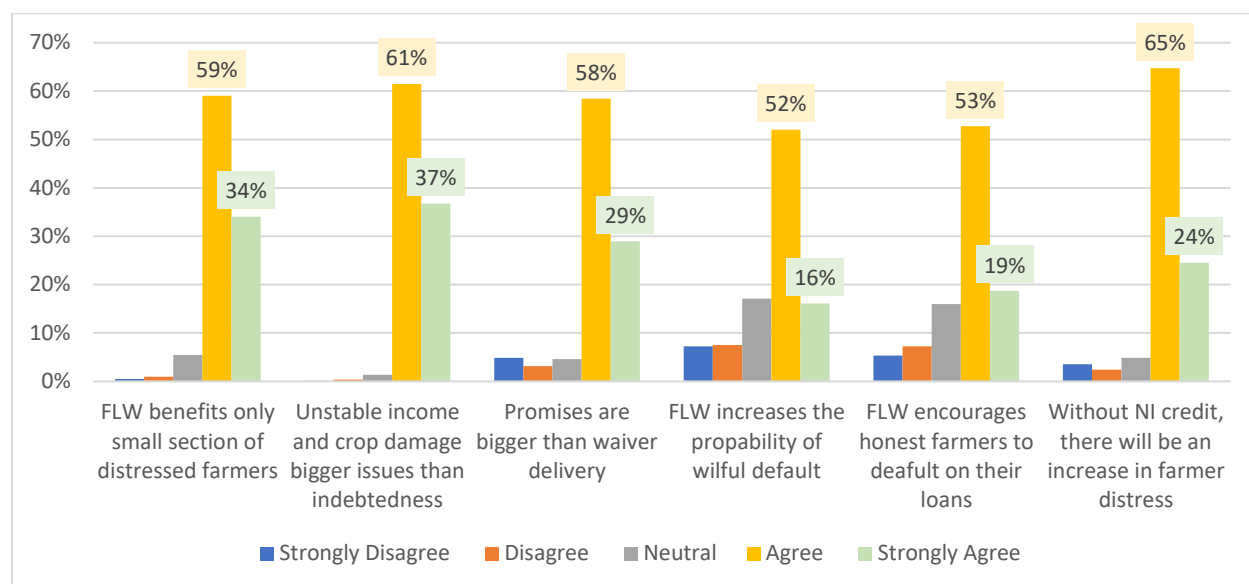


Source: Calculation by authors using primary data

About 95 per cent of Punjab farmers agreed (89 per cent ‘strongly agreed’ and 6 per cent ‘agreed’) that the FLW scheme only benefitted a small section of distressed farmers. About 97 per cent felt (59 per cent strongly agreed and 38 per cent agreed) that unstable incomes and crop damages were bigger issues than indebtedness. With respect to incentive to wilful defaults, 80 per cent farmers said (50 per cent strongly agreed and 30 per cent agreed) that FLW schemes increased the chances that farmers wilfully default on loan repayments. Close to 94 per cent farmers felt (58 per cent strongly agreed and 36 per cent agreed) that promises made under the FLW schemes were bigger than the actual delivery of benefit. Finally, 97 per cent farmers reiterated (70 per cent strongly agreed and 27 per cent agreed) the importance of non-institutional loans and shared how unavailability of non-institutional credit would increase their distress.

The results for Maharashtra are presented in Figure 77.

Figure 77: Farmers' perception of debt relief scheme in Maharashtra (Per Cent Respondents)

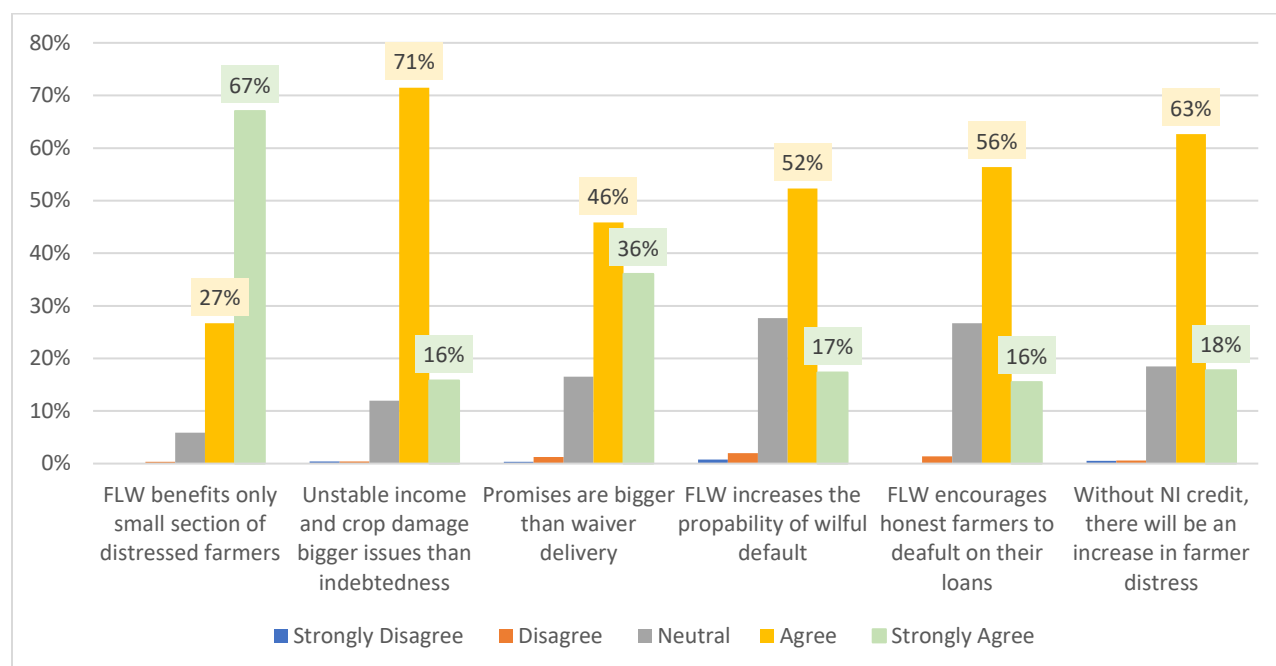


Source: Calculation by authors using primary data

In Maharashtra, 93 per cent farmers felt (34 per cent strongly agreed and 59 per cent agreed) that the FLW scheme only benefitted a small section of distressed farmers. About 98 per cent farmers said (37 per cent strongly agreed and 61 per cent agreed) that unstable incomes and crop damage were bigger issues than indebtedness. With respect to wilful defaults, 68 per cent farmers said (16 per cent strongly agreed and 52 per cent agreed) that FLW schemes increased the chances of farmers wilfully defaulting on loan repayments. Close to 87 per cent farmers felt (29 per cent strongly agreed and 58 per cent agreed) that promises made under the FLW schemes were bigger than the actual delivery of benefit. Finally, 89 per cent farmers felt (24 per cent strongly agreed and 65 per cent agreed) that unavailability of non-institutional credit would increase their distress.

Results for Uttar Pradesh are presented below in Figure 78.

Figure 78: Farmer perception of debt relief scheme in UP (Per Cent Respondents)



Source: Calculation by authors using primary data

In Uttar Pradesh, 94 per cent farmers said (67 per cent strongly agreed and 27 per cent agreed) that the FLW scheme benefitted only a small section of distressed farmers. About 87 per cent said (16 per cent strongly agreed and 71 per cent agreed) that low incomes and crop damages were bigger issues than indebtedness. With respect to wilful defaults, 69 per cent believed (17 per cent strongly agreed and 52 per cent agreed) that FLW schemes encouraged farmers to wilfully default on loan repayments. Close to 82 per cent believed (36 per cent strongly agreed and 46 per cent agreed) that promises made under the FLW schemes were bigger than the actual delivery of benefit. Finally, 81 per cent of farmers believed (18 per cent strongly agreed and 63 per cent agreed) that non-institutional credit was important for them and its unavailability would cause them distress.

Overall, the conclusions from the three states were as follows:

1. Eighty-one to 97 per cent respondents felt access to non-institutional credit was important for them.
2. Sixty-eight to 80 per cent respondents felt that FLWs increase the chances of wilful defaults by farmers.

3. Seventy-two to 85 per cent of respondents felt FLWs also push honest farmers to default on their agricultural loans.
4. Eighty-seven to 98 per cent respondents felt income and production-related issues were bigger problems for them than indebtedness.
5. More than 90 per cent respondents felt FLW only benefitted a small group of the actually distressed farmer population.

8. **Suggestion for improving FLW schemes**

Farmers were also asked about how the FLW scheme could be made better by responding to the following ‘yes’ or ‘no’ questions.

- a) The scheme should only be targeted to distressed farmers who are identified in consultation with local officials.
- b) Special provision should be made in these schemes for tenant farmers.
- c) The distribution of the waiver amount should be done in a timely manner before the next cropping season.
- d) The activities of the banks should be regulated more by the government so that they carry out their work more transparently and fairly.
- e) Government should also find a way to clear/waive loans taken from non-institutional sources

The results of the analysis of responses are present below in Table 39.

Table 39: Improvements Suggested by Respondent Farmers in FLW design and Implementation

Suggestion	Punjab		Maharashtra		Uttar Pradesh	
	Respondents that received FLW	Respondents that did not receive FLW	Respondents that received FLW	Respondents that did not receive FLW	Respondents that received FLW	Respondents that did not receive FLW
Targeted coverage of the scheme	54%	50%	44%	47%	65%	59%
Coverage of tenant farmers under the scheme	32%	35%	16%	14%	17%	23%
Timely distribution of waiver (before cropping seasons) to eligible farmers	59%	57%	25%	34%	21%	21%
More regulation on banks for increased transparency	43%	39%	22%	36%	20%	22%
Coverage of non-institutional loans under the waiver scheme	6%	8%	16%	23%	7%	13%

Source: Calculation by authors using primary data

In Punjab, more than 50 per cent of the respondents suggested that the FLW scheme should have better targeted coverage. More than half the respondents suggested that their FLW delivery should be in line with existing cropping cycles so that farmers can access fresh loans before the sowing season starts. Forty-three per cent of FLW beneficiaries and 39 per cent of the non-beneficiaries suggested that there should be increased oversight on the operation of banks in implementing the FLW scheme. Six to 8 per cent respondents believed that non-institutional loans should also be covered under the FLW scheme.

In Maharashtra, 44 per cent of FLW beneficiaries and 47 per cent of non-FLW beneficiaries suggested that the FLW scheme should have better targeted coverage. More than a quarter of the respondents suggested that their debt relief delivery should be in line with existing cropping cycles so that farmers can access fresh loans before the sowing season starts. Twenty-two per cent of FLW beneficiaries and 36 per cent of the non-beneficiaries suggested that there should be increased oversight on the operation of banks in implementing the FLW scheme. Sixteen to 23 per

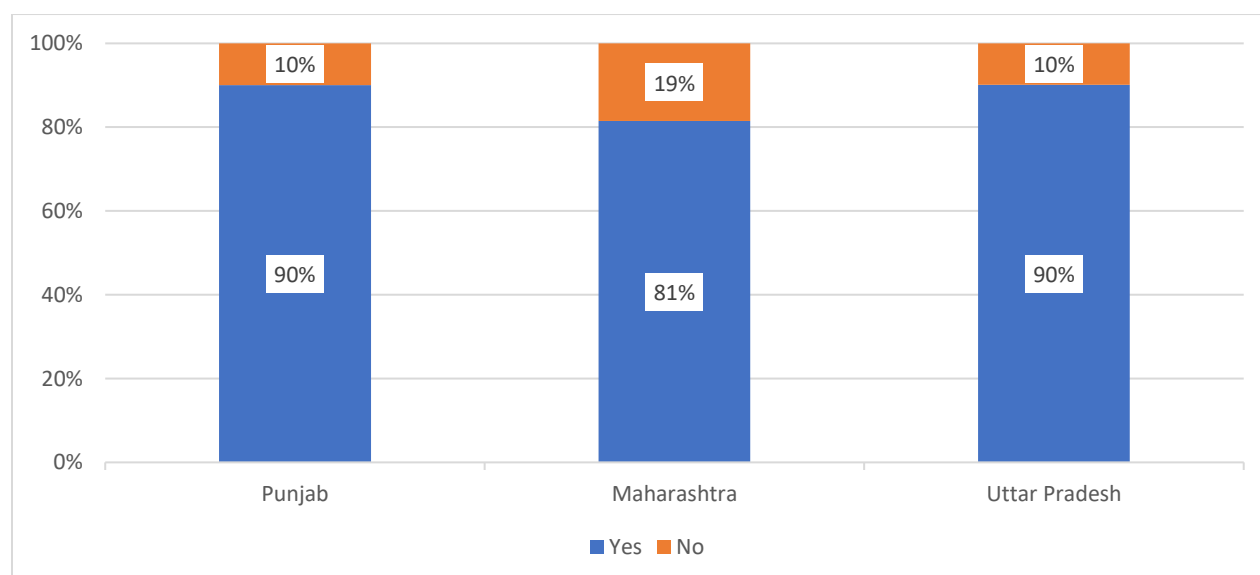
cent of respondents believed that non-institutional loans should also be covered under the FLW scheme.

In Uttar Pradesh, 65 per cent of FLW beneficiaries and 59 per cent of non-FLW beneficiaries suggested that the FLW scheme should have better targeted coverage. More than 20 per cent of the respondents suggested that their debt relief delivery should be in line with existing cropping cycles so that farmers can access fresh loans before the sowing season starts. Twenty per cent of FLW beneficiaries and 22 per cent of the non-beneficiaries suggested that there should be increased oversight on the operation of banks in implementing the FLW scheme. Seven to 13 per cent respondents believed that non-institutional loans should also be covered under the FLW scheme.

9. Direct income transfers vs. FLW

Respondents were asked to rank their preference between an FLW scheme and the unconditional cash transfer scheme of PM-Kisan where farmers received Rs.6,000, in three equal instalments of Rs.2000 each in a year. The responses are recorded in Figure 79.

Figure 79: Whether FLW is Preferred over Increased PM-KISAN Entitlements



Source: Calculation by authors using primary data.

Note: Here 'yes' refers to preference for FLW over increased PM-Kisan entitlements.

The results suggest that farmers in all three states preferred FLWs over PM-KISAN. On average, about 80 to 90 per cent respondents made this choice. But is the small level of current instalment a reason for this choice? In India, an average farmer earned about Rs.8,931 per month (NAFIS 2017) and a yearly instalment of Rs.6,000 was only 6 per cent of the annual income. In comparison, an average FLW benefit for an SMF ranges between Rs.40,000 and Rs.80,000 (Figure 72 and Figure 73).

Section 5: Reasons for Farmer Suicides in Punjab, Maharashtra and Uttar Pradesh

The study also analysed responses from farmer families having experienced suicides. The objective was to understand, first hand, what causes led to incidents of farmer suicides in the three states. In the wake of Covid related restrictions, 15 such families distributed in the three states were studied, five families in Punjab, four in Maharashtra and six in UP. The results are presented below.

Table 40: Reasons for farmer suicides in the three states

State	Reasons
Punjab	Crop loss and indebtedness
Maharashtra	Crop loss and indebtedness
Uttar Pradesh	Crop loss, indebtedness and income dependence solely on agriculture

Source: Compiled by authors using primary data

In all three states, successive crop loss and indebtedness together were the prime causes of farmer suicides. Sole dependence on agriculture for income was another major cause of farmer suicides in UP.

While further analysing the indebtedness issue, the main reasons for high indebtedness were stated to be the following:

- a. Huge loan amounts with interest being greater than the principal
- b. Increased family and personal expenses being paid out of amounts to be used for loan repayments

- c. No collateral/asset available for refinancing/repayment
- d. Income loss due to crop failure, making it difficult to repay outstanding loans

In summary, it appears that it was not indebtedness by itself that drove farmers to commit suicide, but a combination of successive crop loss and high indebtedness.

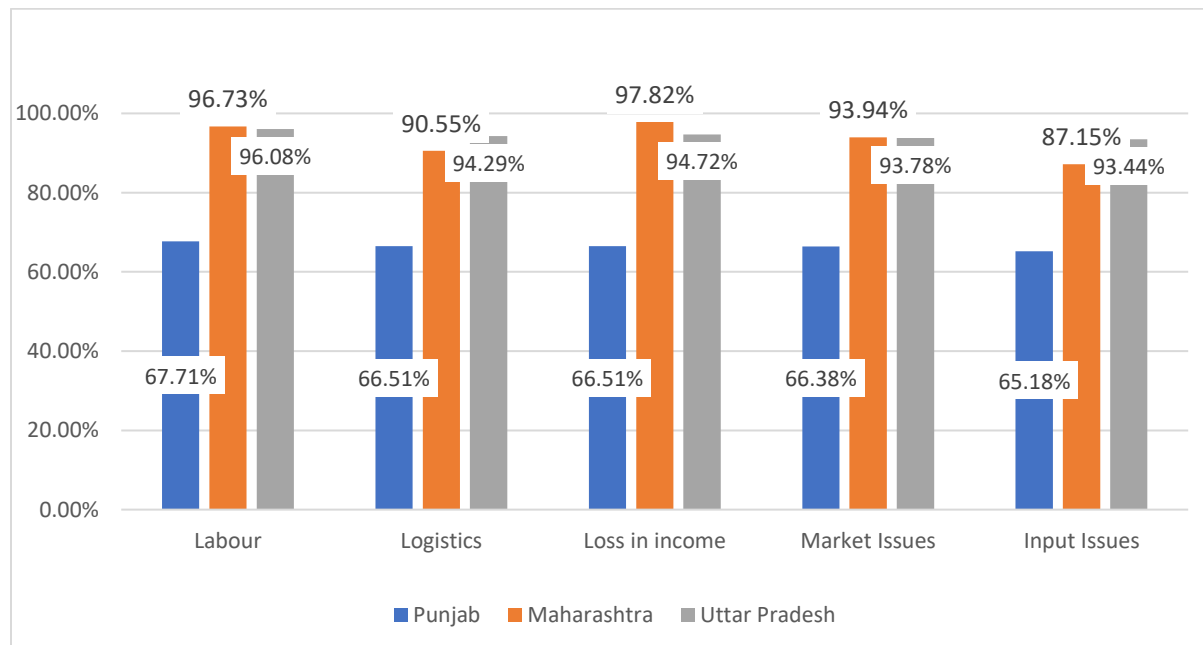
Section 6: Impact of Covid-19 on farmer distress

To differentiate between factors that caused distress to farmers before and during the Covid-19 pandemic, an annexure was added to the main survey where factors that caused distress to farmers due to the pandemic were studied. The results are presented below.

Distress factors specific to Covid-19

Respondents were asked whether they faced issues such as decreased availability of labour, logistical difficulties, loss of income, lack of access to markets and non-availability of agricultural inputs due to Covid-19 induced lockdowns. Almost all farmers in the three states faced distress due to these issues. The results are presented in Figure 80 below.

Figure 80: Distress Causing Factors during Covid-19- Related Lockdowns



Source: Calculation by authors using primary data

Farmers were more distressed in Maharashtra and Uttar Pradesh due to lockdowns. In Maharashtra, 96 per cent of the respondents faced issues with labour and about 90 per cent faced issues with logistics. Punjab farmers emerged the least stressed due to lockdowns. Assured markets under GOI's MSP regime may have acted as a market-hedge for Punjab farmers.

Respondents were asked to share nuances about the factors that caused them distress during Covid-19 related restrictions (Table 41).

Table 41: Reasons for Distress during Lockdowns and Coping Mechanisms adopted

Issues	Punjab		Maharashtra		Uttar Pradesh	
	Reason	Coping-mechanism	Reason	Coping-mechanism	Reason	Coping-mechanism
Labour	Problems in Harvesting	Higher charge for local labour	Problems in basic processing	Self or family labour	Problems in Harvesting	Self or family labour
Logistics	No storage	Storing the produce	No drivers available	Waiting for government procurement programmes	Unavailability of transport	Storing the produce
Loss in Income	Lower price realisation	Not doing anything	Lower price realisation	Sold crops at lower prices	Crops unsold	Sold crops at lower prices
Market issues	Local procurement agents did not come	Delayed harvesting	Mandis were closed	Sold to local buyers	Mandis were closed	Sold to local buyers
Input issues	Sudden cost increase	Purchasing at higher price	Sudden cost increase	Delayed sowing	Unavailability of seeds, etc.	Purchasing at higher prices

Source: Compiled by authors using primary data

When the Government of India imposed the strictest national lockdown on March 24, 2020 (GOI), farmers were readying to harvest their winter or *rabi* crops. Invariably, labour issues in Punjab, Uttar Pradesh and Maharashtra were related to problems in harvesting and basic processing of produce. Logistical issues were felt due to non-availability of storage and transportation of fresh produce. Farmers were unable to access markets as they were shut due to the lockdown, particularly

in Maharashtra and Uttar Pradesh. Even though the markets re-opened in April, farmers suffered from lower demand.

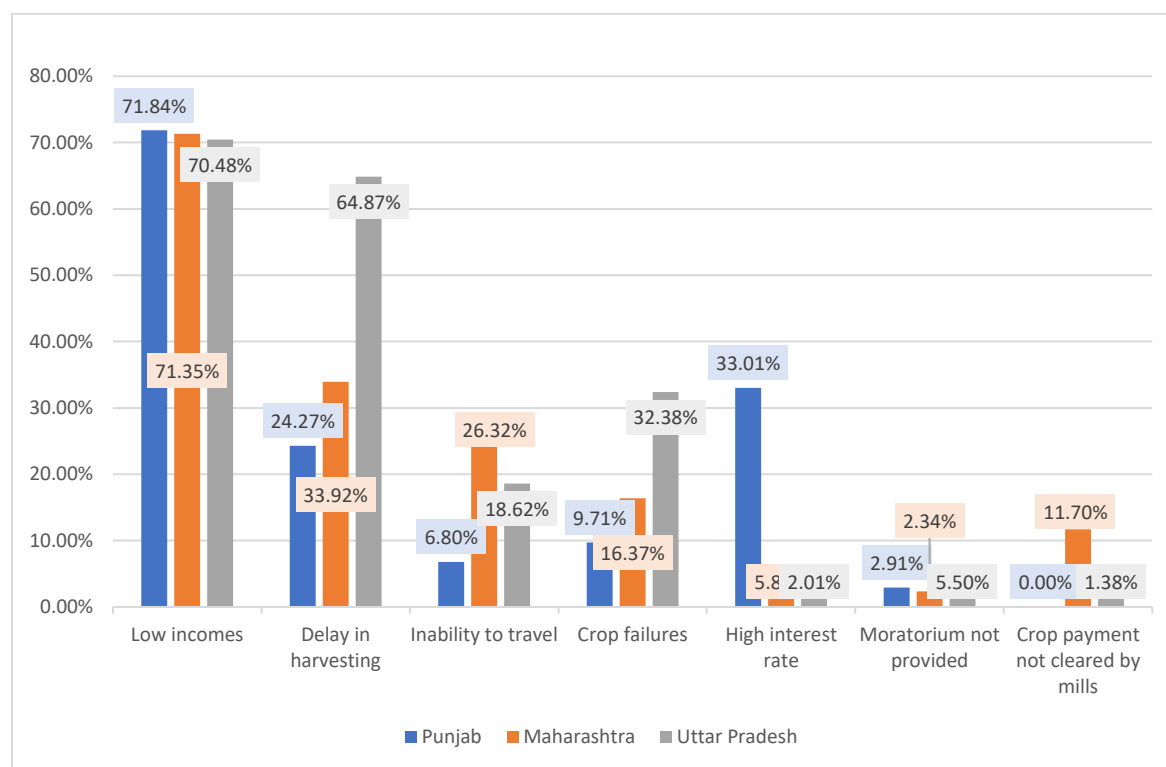
As for coping mechanisms, farmers paid high charges for labour or used family labour instead, waited for governmental procurement programmes, sold crops at lower prices, and delayed harvesting as much they could, pushing further the sowing for the upcoming *kharif* season.

Inability to pay outstanding loans due to Covid-19 Lockdown

The Covid-19 lockdown also made it difficult for farmers to repay their debt, which were due for repayment for most farmers by the month of April and May.

The reasons for their inability to repay loans, both institutional and non-institutional, were also considered in the survey. The analysis shows that loss of income was the most important reason (Figure 81). Delayed harvesting and selling of crops were other significant reasons. In Maharashtra, 11 per cent farmers said that they were unable to repay loans because their payments were not cleared by mills.

Figure 81: Reasons of Distress Due to Non-Repayment of Debt during Lockdowns



Source: Compiled by authors using primary data

Chapter 8: Findings, Conclusions and Interpretations

In this chapter, the key findings and observations from the research presented in all previous chapters are summed up. Findings are presented under two broad heads of secondary and primary data analysis. These findings are used to draw conclusions which are presented towards the end of this chapter.

Key Findings from Secondary Data analysis

The key findings from study of historical literature review and analysis of secondary data are presented below.

1. History of Agricultural Credit in India

- i. In ancient and medieval times, farmer distress was caused by falling agricultural prices, heavy taxation, and a sense of political powerlessness.
- ii. In this period, most lenders to agriculture were 'non-agriculturalists', which caused the expropriation of a portion of agricultural income and depletion of the already scarce stock of agricultural capital.
- iii. Usual interest rates on institutional agricultural loans in ancient times ranged between 15 to 25 per cent per annum.
- iv. The imperial government did not want to remove private and non-institutional sources of credit. Their aim was (i) to penetrate areas where private lending was scarce and (ii) to provide competition to private lenders to moderate interest rates on non-institutional loans.
- v. In the 19th century, the system under which the government gave loans to cultivators or landowners to undertake agricultural activities was referred to as *takavi*, and the loans were referred to as the *takavi loans*.
- vi. Two special laws regulated *takavi* loans – the Land Improvement Loans Act (LILA) (19 of 1883) and the Agriculturists' Loan Act (ALA) (12 of 1884);
- vii. The ALA and LILA loans were operated as under:
 1. LILA loans were much like the current term loans. The ALA was similar, though not entirely, to current crop loans.

2. More loans were given as agricultural loans (ALA) (56 per cent) rather than for land improvement (LILA) (44 per cent).
- viii. The practice of treating arrears on agricultural loans equal to arrears of land revenue continues since *takavi* times till date.

2. Structure and Trends in Agricultural Credit in India

- i. Over time, the structure of agricultural credit has changed as the share of institutional credit has increased from 10 per cent in 1951 to 72 per cent in 2016. On an average, farmers now approach non-institutional sources to cover only about 28 per cent of their annual credit needs.
- ii. In terms of the total number of agricultural households in the country, only about 30.3 per cent borrowed from institutional sources to meet their agricultural credit needs.
- iii. Both the absolute level of annual agricultural credit and credit available per operational land holding has grown over the years.
- iv. On average, total credit outstanding exceeded total credit disbursement amounts. In the last 18 years, this gap on average was about Rs.65,300 crores a year.
- v. Trends in the share of crop loans in total agricultural loans are as under:
 1. Since 2012-13, the share of crop loans in total disbursed credit has been falling and that of term loans has been rising.
 2. Since 2009-10, the share of crop loans in total outstanding loans has been rising and that of term loans has been falling.
- vi. The process of taking institutional loans is cumbersome and involves several steps and a lot of paperwork
- vii. Usually, interest rates on crop loans range from 4 per cent to 15 per cent, depending on the size of landholding, crop sown, access to assured irrigation, risk profile of the borrower, etc.
- viii. There emerges a pattern between ALA and LILA loans during the colonial era and current crop and term loans:

1. The share of crop loans (or ALA) was higher in outstanding loans:
In 1901, 78 per cent of outstanding loans were on account of ALA loans and, in 2018-19, this share was about 75 per cent;
 2. Compared to outstanding loans, the share of crop loans (ALA) is lower in total disbursements: 56 per cent in 1901 and about 60 per cent in 2018-19.
- ix. Credit intensity in the agricultural sector has increased over time – from 22 per cent in 2004-05 to about 42 per cent in 2019-20. This shows that the amount of credit required to produce one unit of GVA (A&A) has been rising. This may also be interpreted to indicate the falling productivity of credit in the country.
 - x. Nationally, some states get a disproportionately higher share of overall agricultural credit than others.
 - xi. Importance of Scheduled Commercial Banks (SCBs):
 1. SCBs are the main source of credit under KCC. Co-operatives are important in Bihar and regional rural banks (RRBs) in Odisha. In most other states, SCBs issued most KCCs;
 2. SCBs supplied more than 4/5th of the annual institutional agricultural credit;
 - xii. Some co-operative societies (PACS) advanced short-term agricultural loans as a combination of cash and kind loans to farmers.
 - xiii. There is a need to make the institutional borrowing process easier. The long administrative process of acquiring institutional loan needs to be shortened;
 - xiv. The definition of non-performing assets (NPAs) for agricultural short-term loans appears to impose burdensome repayment requirements on farmers. In case of default, a farmer is expected to service instalments of three crop cycles out of his earning from a single crop cycle. This is likely to increase indebtedness among already distressed farmers.

3. Ancient and medieval history of Farm Loan Waivers (FLW) in India

- i. The first recorded instance (as per our research) of a loan waiver was in the regime of Firoz Shah Tughlaq (1351-1388) who wrote-off *sondhar* loans;
- ii. There emerges a prominent administrative view on FLWs:
 1. In times of famine or distress, governments (in ancient and medieval times) utilised a combination of free grants and repayable loans instead of waiving loans.
 2. Imperial governments avoided giving remissions and waivers on agricultural loans.

4. Recent history of FLWs in India

1. Haryana's farm loan waiver of September 1987 is the first significant farm loan waiver.
2. The first country-wide FLW announcement in recent years came in 1990 when Prime Minister V.P. Singh announced the Agricultural and Rural Debt Relief Scheme (ARDRS).
3. The second country-wide FLW, the Agricultural Debt Waiver and Debt Relief Scheme (ADWDRS), was implemented in 2009 by the United Progressive Alliance (UPA I) government.
4. After the central government's ADWDRS, there were no major waivers until 2012, after which their frequency increased.
5. Since 2012, 13 Indian states have implemented FLW schemes. Some states like Uttar Pradesh (2012 and 2017), Maharashtra (2017 and 2019), Karnataka (2012 and 2018), and Chhattisgarh (2012, 2016, and 2019) have implemented more than one FLW since then.
6. Only 4 out of the 21 political parties lost the election following the electoral promise and implementation of a farm loan waiver scheme.

5. Global Experiences of Reducing Farmer Distress

1. Canada
 - i. Under the CALA programme, the Canadian government protects the institutional lender who lends to farmers. In case of default by a borrowing

farmer, the government reimburses 95 per cent of the lender's loss. The defaulting farmer remains liable to pay the debt to the government.

- ii. Under Canada's CALA and Advanced Payments Programme (APP), farmers are allowed a longer repayment time. Under CALA, repayment periods go up to 15 years and under the APP, repayment have to be made within 18 months of the produce being sold.
- iii. Under APP, the Canadian Government also assumes the responsibility to pay interest on the first \$100,000 advance to a farmer as its own liability.

2. Australia:

- i. The Regional Investment Corporation (RIC) provides crop loans, investment loans and drought loans. These loans can be repaid in 10 years and carry an annual variable interest cost of 1.77 per cent.
- ii. Most support to distressed farmers is given in the form of direct cash support through the Drought Community Support Initiative.

3. Brazil:

- i. Under the *Proagro Mais* programme, the Government of Brazil helps farmers avoid defaults on agricultural loans. To avail the benefits, farmers pay the minimum premium on loans against which the federal government acts as an insurer against losses due to natural disasters.

Overall, it appears that to mitigate farm distress arising out of indebtedness, countries usually prefer loan refinancing, debt guarantees to the lender, direct cash support and insurance programmes. Additionally, the loan tenure appears to be longer in Canada and Australia.

6. Implementation of FLW in UP, Punjab and Maharashtra

1. All the three states declared FLWs in the financial year 2017-18.
2. The implementing state governments enjoy *discretionary* executive powers on aspects related to the broad guidelines on the design of the farm loan waiver scheme.
3. Since no Act was passed in the three states by their respective legislative assemblies, the orders under FLW scheme were not found to have the force of a *statute*. Therefore, the FLW schemes were not found to be statutory in nature.

4. But once the implementing financial institutions agree to participate in the FLW scheme and the government's order detailing the scheme guidelines is declared, the FLW scheme and its provisions become *mandatory* for all implementing agencies including government departments and financial institutions.
5. Impact of FLW on state budgets:
 - i. In the year of maximum disbursal (YMD) of FLW benefits, the state's fiscal deficit fell in Maharashtra and Uttar Pradesh but increased in Punjab.
 - ii. Major budgetary reallocations were observed among the departments in the YMD.
 - iii. Capital outlays and development expenditure were also low in the YMD year in Maharashtra and Uttar Pradesh. In the case of Punjab, it increased in the YMD;
 - iv. Allocations of departments that suffered in the YMD were "power", "water resources", "public works", and "health and family welfare" in Punjab. In Maharashtra, it was "revenue and forest", "industries and labour", "agriculture department", and "environment and housing". In UP, the "general administration", "agriculture (fisheries)", "agriculture (industrial research)", "agriculture (dairy)", "energy", and "social welfare" departments suffered budgetary cuts in the YMD.
6. The implementation of FLW schemes does not appear to have a statistically significant inflationary effect.
7. Institutional incentives to disburse agricultural credit are negatively affected after FLW implementation. Both the target and/or achievement of annual agricultural credit for financial institutions suffered after an FLW. However, the impact was only for short term as the indicators returned to higher values in the subsequent years.

Key Findings from the Primary Survey of Farmers

1. Demographic statistics of respondents

- i. The banking point was closest in Maharashtra (about 3 km) and farthest in UP (4.7 km). In Punjab, it was about 3.8 km away;
- ii. In Punjab, 48.5 per cent of respondents leased in land. Land-leasing was lower in the other two— in Maharashtra, it was about 7.8 per cent and in Uttar Pradesh, about 13.7 per cent.
- iii. Penetration of crop insurance was low in all three states.

2. Patterns regarding the access to and use of loans

- i. Institutional sources of loans were most important.
 - i. In terms of the proportion of respondents, about 89.3 per cent in Punjab, 79.2 per cent in Maharashtra and 74.8 per cent in Uttar Pradesh borrowed from institutional sources.
 - ii. In terms of the proportion of loan amounts, about 75 per cent in Punjab, 83 per cent in Maharashtra and 76 per cent in Uttar Pradesh were taken from institutional sources.
- ii. Interest rates (per annum) paid by farmers:
 - i. The interest rates on non-institutional loans were found to range between 9.5 and 21 per cent.
 - ii. The interest rates on institutional loans ranged between 5.9 per cent and 7.7 per cent.
- iii. An average Punjab farmer was found to be borrowing a much larger amount. On average, a marginal farmer in Punjab annually borrowed about Rs.3.4 lakh. This amount in UP and Maharashtra was about Rs.84,000 and Rs.62,000 respectively.
- iv. Possibility of default was higher on institutional loans than on non-institutional loans.
- v. There is diversion of agricultural loans towards non-agricultural use. The diversion of KCC funds appears to be the highest in the case of Punjab and lowest in the case of UP. It was also found that for an average farmer diversion of funds is inevitable and critical for survival.

3. Distress among surveyed farmers

- i. Farmers in the three states did not rank indebtedness as any different than how they ranked other factors causing them distress.
- ii. Income instability due to increased cost of cultivation, damage to crop/livestock or fall in market prices received by farmers emerged as primary reasons for farmer distress in the three states.
- iii. Climate and weather-related issues caused much distress to the farmers who were observant of the continuous changes in the climate of their areas.
- iv. Issues with infrastructure mainly on account of erratic power supply were cited as one of the many distress factors for which no farmer in the three states seem to have any coping mechanism.
- v. Problems of marketing included: non-transparency in market transactions, and excessive dependence on middlemen.
- vi. Increased labour costs and lower quality inputs resulting in decreased quality of farm produce pushed up the costs of cultivation.
- vii. The absence of crop insurance or delay in receiving compensation was cited as an important cause of distress in all three states; while some reduced personal expenditure to overcome the distress, others increased their non-institutional borrowings.
- viii. To counter the rising cost of capital, farmers prefer to rent agricultural equipment and machinery rather than own it, particularly in UP and Maharashtra.
- ix. To counter market-related distress, farmers are accessing self-help groups (SHGs) and farmer producer organisations (FPOs) in Maharashtra and UP.

4. Farmer/Farm characteristics correlated to distress

- i. An increase in the proportion of irrigated land is associated with lower farmer distress.
- ii. Larger household size is associated with lower farmer distress.
- iii. Farmers with diversified sources of loans were less distressed.
- iv. Higher amount of loan taken from non-institutional sources were associated with higher distress.

- v. Being an FLW beneficiary did not have a statistically significant impact on decreasing farmers' distress levels.

5. FLW Beneficiary farmers

- i. In all three states together, more than 40 per cent of the “very highly” distressed surveyed farmers did not receive any FLW benefits.

6. FLW Beneficiaries and fresh credit:

- i. There was marginal or no problem in accessing fresh credit for an FLW beneficiary in all the three states.

7. Farmers' attitude towards FLW:

- FLW increased the chances of wilful defaults by farmers (between 68 to 80 per cent respondents in the three states agreed).
- FLW pushed honest farmers to default on agricultural loans (between 72 to 85 per cent of respondents in the three states agreed).
- Income and production-related issues were bigger problems than indebtedness (between 87 to 98 per cent respondents agreed).
- FLW only benefitted a small group of the actual distressed farmer population (more than 90 per cent respondents agreed).

8. Concerns of families affected by farmer suicide

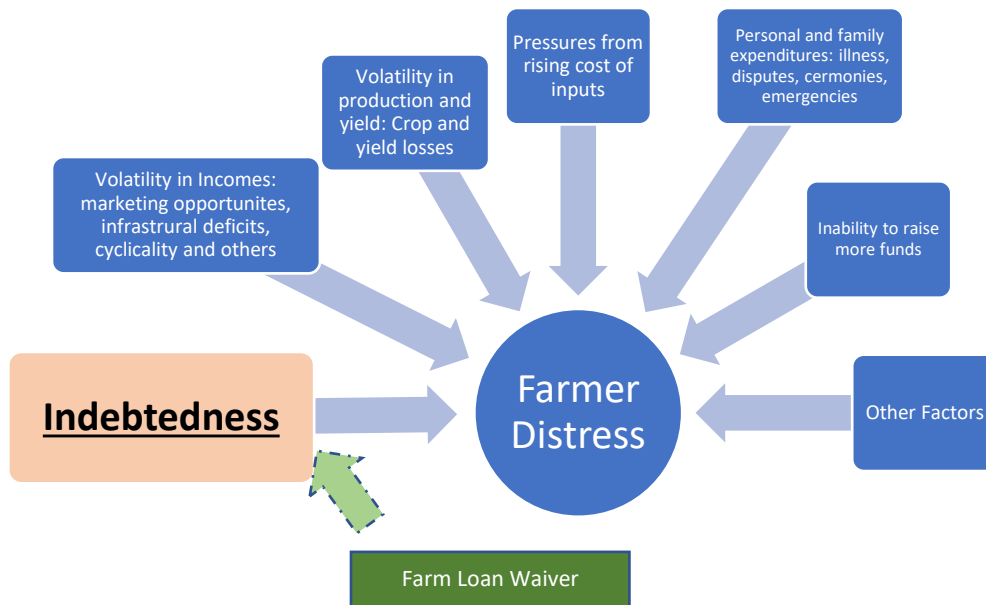
- In all three states, crop loss, indebtedness and sole dependence on agriculture for incomes were the prime causes of farmers committing suicide.
- It was not indebtedness by itself that drove farmers to suicide, but a combination of crop loss **and** indebtedness.

We next present the conclusions we draw from the research work

Conclusion: New Framework for Interpreting Farmer Distress

In the beginning of the research, indebtedness was understood to be the most important factor causing distress to the farmers. By addressing this factor, a farm-loan waiver was understood to alleviate the farmer's distress (Figure 82).

Figure 82 Original Framework of Farmers' Distress

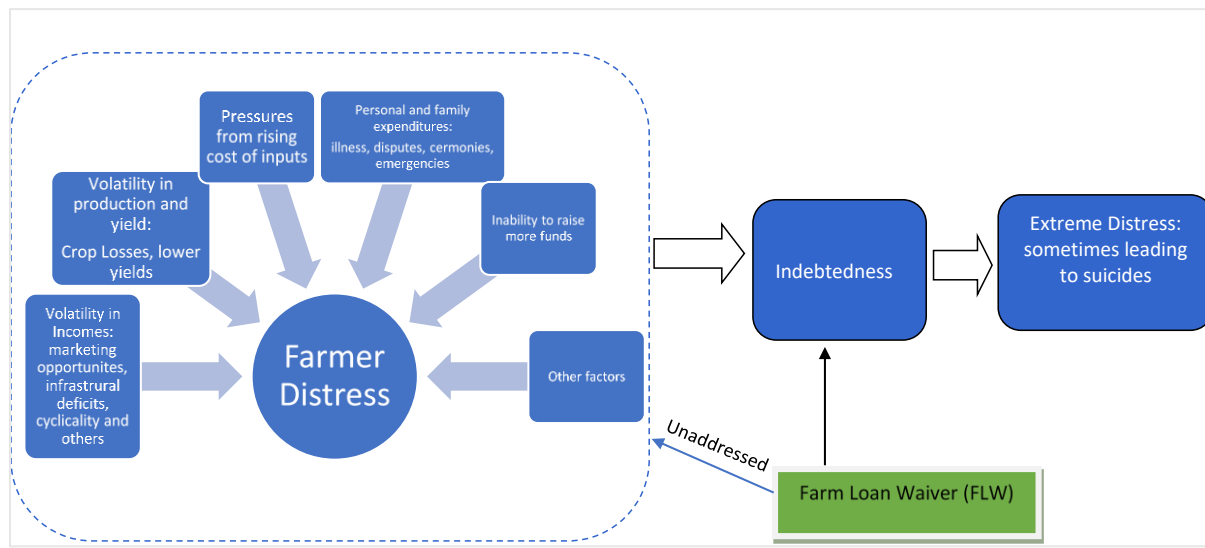


Source: Interpretation of Author

Based on the learning under this Project, we propose modifications to the earlier framework of farmer distress (Figure 83). According to this new framework, 'indebtedness' is shown to be a result of distress and not the immediate cause itself and therefore is taken out of the dotted box that now has the factors that trigger and cause distress to farmers at the first place. These factors include:

1. The losses he suffers on his crops because of factors beyond his control;
2. His inability to realize remunerative prices for his produce;
3. Pressures from the rising costs of production reducing his already thin margins;
4. Emergencies on account of personal and family grounds;
5. Inability to raise more funds.

Figure 83 New Framework of Farmers' Distress



Inability to earn enough income makes a farmer indebted and the recurrent losses and falling margins makes him default. This default deepens his distress sometimes driving him to take an extreme step of committing suicide. This may be referred to as his vicious cycle of poverty where *income losses - debt- distress- further debt - further distress* continues unabated for a farmer. A farm loan waiver only addresses this indebtedness. With the original factors of distress (like ones mentioned in the dotted box) unaddressed, the condition of an FLW-beneficiary farmer only improves for a short period of time and in a matter of time that beneficiary farmer is indebted again and driven to a point of needing another round of waiver soon. Therefore, in such a scenario, a farm loan waiver only proves to be a ‘jury-rigged expedient’ — a quick fix that required recurrent application.

Inherently FLW had an emergency character to it, as it conceptually aimed to provide some immediate relief and ‘hold the line’ until some sort of long-term solution to the structural problems faced by farmers emerged. We need to revert to this thinking. Therefore, policy makers need to (i) acknowledge indebtedness as a symptom of farmer distress and view FLW as a temporary solution to that symptom, and (ii) comprehensively work to empower farmers by finding sustainable ways to resolve the *real* causes of farmer distress.

Other Conclusions

Inter alia, it was found that FLWs lead to the following:

1. In the year an FLW is implemented:
 - a. Reduced capital expenditures by Governments
 - b. Reduced lending by financial institutions
2. Worsened credit discipline among farmers in the medium to long run

Farm loan waivers were designed as a reaction to acute agrarian distress and to ensure the continuity of future credit, but it has tacitly evolved to emerge as a political tool that is strategically used by political parties to influence rural voters.

From the analysis, a few conclusions emerge:

1. **Indebtedness of farmers is inevitable:** A farmer in India is plagued by several distortions that makes the farming business unviable. The production cycle makes it impossible for farmers not to be indebted and the income instability makes it difficult for them to come out of the cycle of debt. Droughts and/or losses in the sale of final produce cause distress to farmers and consecutive losses impede their ability to pay back the loans, increasing the debt overhang. The cyclical nature of weather and climatic vagaries and the inability of farmers to realise remunerative prices for their final produce leads to deepening indebtedness and cause even more distress. To an extent, therefore, it appears as if indebtedness is a result and not a cause of distress.
2. **FLW adversely impacts credit culture of the society:** Rights and duties are closely correlated. If a borrower is relieved of his duty to repay, the moral tone of the whole community suffers. Excessive loan waiver programmes are most harmful as they lower the standard of commercial honesty. Undermining the honest determination to repay a debt and encouraging the shirking of obligations, amount to ruining the credit culture of society.

Chapter 9: What now?

The farm loan waiver schemes were supposed to be a reaction to situations of extreme plight like drought or flood and were originally designed as one-off events to protect both the banks and the farmers from the problems of debt-overhang. However, by increasing the frequency of waivers and by universalizing its distribution that is mostly unconnected to levels of farmer distress, the benevolent purpose the scheme was to achieve appears to have been diluted leading to worsening credit culture in the country.

To support a distressed farmer in a sustainable manner that empowers him/her in both the short and long run, therefore, requires a rethink. A few suggestions are made below.

Increase the Coverage and Availability of Institutional Credit

By expanding the coverage of institutional loans, the country continues to make immense progress. Notwithstanding, there is still a large ground to cover. The existing policy innovations need to be taken to the farmers all throughout the country. The administrative process of getting institutional loan needs to be simplified and the cumbersome paperwork reduced. Often the poor and illiterate farmers have to use services of the middlemen to approach banks. Such middlemen are also preferred by the local-level banking officials because they *guide* the illiterate farmer and help the officials in processing the loan applications. These middlemen often take a percentage of the sanctioned loan or a fixed fee from the farmer. Several farmers in UP, for example, thought that such middlemen were officially appointed and were an unavoidable part of the chain to access loans from institutions. Improving mode of accessing banking services can go a long way in addressing this challenge.

Interestingly, the government also needs to caution the banks and financial institution against **excessive loaning**. A very active policy of credit also has the danger of creating forced or spurious demand for agricultural advances. A focus has to be on the quality of credit too.

Exclusion of tenants is yet another serious objection to the present system of agricultural credit. The condition of security or collateral are strict, and the desire of financial institutions to hedge against the risk of loss is strong. The result is that the loans and the associated relief reach only the

more solvent creditors and bypass the ones in need of it the most particularly in times of distress like droughts or floods. A tenant farmer who is struggling in deep waters cannot hope to benefit from a loan waiver. He is in debt because he is poor, and he borrows from the private moneylenders at exorbitant rates of interest as he does not have a collateral. For the want of a collateral, these farmers cannot access benefits under any government scheme meant for farmers. They are neither able to raise agricultural credit from institutional sources nor can they take crop insurance on the land leased-in by them. They are not eligible for PM Kisan and other schemes of direct income support launched by various states because the land is not held in their name. With uncertain production and income outcomes, his poverty prevents him from accessing the means to escape from the debt so he continues in the poverty cycle. The government's policy of lending via Joint Liability Groups (JLG) benefits only a minuscule section of farmers. Most needy farmers do not know about its provisions and still fewer use it.

A hard push by the central government is therefore required to persuade the state governments to enact tenancy law on the lines suggested by the Niti Ayog (Haque Committee Report 2016). This can enable recording of tenants without any fear of ownership loss among land owners. The committee envisaged that such a law will legalize leasing of land in all the states on a uniform pattern so as to provide 'complete security of land ownership right for land owners and security of tenure for tenants' for the period of lease agreed between them. Formal tenancy documents will give legitimacy to these tenant farmers who will be able to access institutional loans, take crop insurance and also benefit from other government programs and schemes meant for farmers.

An Effective Law to Regulate Non-Institutional Sources of Credit

While the drive to expand institutional credit is more obvious, it is the tacit assumption of *replacing* the private sector lending that needs to be relooked. In our survey, the farmers remarked that non-institutional loans were important to them and that they would be more distressed if they did not have access to them. The ease of access, the timeliness of getting the 'money in hand', and the empathy of local baniya and moneylenders during times of distress were appreciated by the borrowing farmers. Even our research on historical credit patterns revealed that successive administrations up until colonial times did not wish to replace noninstitutional sources of credit. They aimed to penetrate to deeper and secluded areas, and they aimed to provide competition to

private money lending. They did this while ensuring legislative and administrative regulations prevailed over private money lending practices.

Therefore, it is important to acknowledge and appreciate the services provided by the private moneylenders but GOI should find ways to regulate their usurious practices thereby creating an inclusive and protective regime of borrowing and lending in the farming community. A technical group set up by the RBI to review legislations on money lending had submitted its report in 2006-07 in which several important recommendations were made. A model legislation to regulate the private moneylenders was also suggested by the technical group. The model law *inter alia* suggested:

- a simplified process for registration and renewal of money lenders;
- a simple dispute resolution mechanism so as to bring about better enforcement of the provisions of model law;
- Fixation and periodic revision of the maximum amount of interest which can be charged by the money lender.

India already has a “Usurious Loans Act 1918” but not many farmers are aware of it. The GOI has to invest in awareness campaigns to sensitize the vulnerable farmers about their rights in relation to excessive rates of interest charged by money lenders. In addition, we think GOI can learn from Canada’s CALA program and find ways to register and insure private lenders.

Create a farmer distress index

Should the distressed farmers in all areas or all farmers in the distressed areas be supported? The moot question is about the difficulty in identifying the really distressed farmers. In the absence of any identification mechanism, preferred policy choice has been to give support (waivers) to all vulnerable farmers in an entire state. The distress of a farmer is usually measured by the extent of his crop damage. This leaves way too many distressed farmers in other areas out of the beneficiary ambit. To take an example from Maharashtra and UP, the sugarcane farmers who had taken loans, mostly had irrigated land and were assured of a fair price in the form of FRP and SAP. They all received the benefit of FLW. The more distressed small and marginal farmers having un-irrigated lands and growing lower value crops (particularly ones not procured at MSP) may not have taken

crop loans. So, they have not benefited from FLW schemes. How do we address this problem of targeting and exclusion?

Given the technological feat that we have achieved globally, it should not be difficult to visualize an index that tracks welfare or distress of farmers in India on a real-time basis.

This **farmer distress index** can integrate the available high-frequency data on key agricultural variables like deviation of monsoon rains from long-period average (LPA) levels, excessive rainfall, drought and dry spells, variations in temperature and soil moisture, yield of major crops in the district, proportion of area under irrigation, depth of underground water, unusual frost, marketing opportunities available to the farmer that may include the proportion of wheat, paddy, chana, tur, groundnut, soybean etc. produced and procured at MSP. Use of weather data derived from remote sensing technology, automatic weather stations, mobile telephony and artificial intelligence can help in identifying the distressed villages. Use of data of claims received for crop insurance is also likely to help in identification of distressed regions. These can be tracked on a real-time basis and be used to monitor and predict the level of farmer distress. Technology breakthroughs like use of space technology, AI and block chain in agriculture can be harnessed to bring dynamism and credibility to the system. This tracking should ideally be done at a farmer level, however, tracking a district can be a good beginning.

Results from this index can be used by the policy makers to plan and design a timely and targeted method of supporting distressed farmers. Depending on the kind and severity of distress, the support can be given as a combination of unconditional grants, loan restructuring and/or a complete debt waiver. The assistance to individual farmers can be based on a combination of district index and individual farmers' distress captured via irrigation status of his land, income from crops grown by him, average productivity of the district and the average price in APMC markets of this district as compared to the average price of the state. This can help government to track, identify and support the real needy and distressed farmers. Depending on the level of distress, the government and the financial institutions can decide on an appropriate package of support. To better the waivers, the governments may consider to harness the power of rural institutions like the Gram Sabha, the Farmer producer Organizations (FPOs) to improve the design and implementation of future FLWs.

The direct support based on district level agriculture distress index and the situation of specific farmers can be a much better alternative to address distress than the one-size-fits-all schemes like farm loan waivers. This type of data-backed real-time intervention will also provide governments with much needed policy bandwidth to effectively time a targeted, and efficient policy support to the distressed farmer.

Use grant to support distressed and let the credit repayment be prioritized

Rather than waivers, governments during colonial periods, preferred a combination of unconditional transfer of a distress-grant and restructuring of short-term loans to medium or long-term loans to support distressed peasantry. This way, the distressed farmer got an immediate access to a grant and a postponed loan repayment gave the farmer time to pay back the loan with interest. Governments today may also consider the use of grants instead of blanket farm loan waivers. This can give farmer the time and resources to resurrect and respectably payback the loan amounts later.

In addition, GOI can do well by reducing the burden of payment on farmers by correcting the definition and treatment of NPAs. A minor adjustment, as highlighted towards the end of Chapter 2, can facilitate and encourage repayment drive in farmers.

Overall, by prioritizing loan repayment while delivering a targeted distress-alleviating package, the government can bypass a collateral damage to the credit culture of the country that a blanket FLW would have caused. So, a new paradigm is needed for the future to provide direct support to the farmers and producers in distress, while avoiding a general amnesty for all the borrowers.

A credit guarantee fund for agricultural loans

The report of the Internal Working Group to ‘Review Agricultural Credit in India’ (RBI 2019) has observed that banks are not operating any guarantee scheme which can hedge the risk of loan default by the farmers. It has suggested that the central government and the state governments should set up a credit guarantee fund for the agriculture sector which is similar to the credit guarantee scheme which is implemented for the MSME sector.

The guarantee cover available to the MSMEs (DPIIT, GOI) is 50 - 85 percent of the sanctioned amount of the credit facility. The extent of guarantee cover is 85 per cent for micro enterprises for credit up to Rs 5 lakh. The extent of guarantee cover is 50 per cent to 80 per cent (for different

categories of borrowers) of the sanctioned amount of the credit from Rs. 10 lakhs to Rs. 100 lakhs per MSE borrower for retail trade. In case of agricultural loans also, this credit guarantee fund can provide coverage up to Rs 2 lakh of loans. The borrowers identified in the distressed districts on the basis of their score on the distress index can be provided help from this fund in discharging their liability towards payment of loans from institutions.

It is not our case that credit guarantee fund can solve all the problems of the distressed farmers. Shot in one arm would not cure all problems. A farmer operates in an ecosystem where indebtedness is not itself a cause of distress but is a result of financial problems, he faces regularly during farming activities. Unless the ecosystem hedges the farmers from extreme risks and gives him adequate opportunities of making profits, the cycle of *crop losses - debt - distress - further debt - further distress*, would continue unabated. There has to be way to break the cycle, else after receiving FLW in a year, a vulnerable farmer will soon reach a point of indebtedness where he would seek another round of FLW. We need to strengthen the farming eco-system with a 360-degree approach.

Improve farmer's access to markets

One of the perennial problems faced by the farmers is that they do not realise a fair and remunerative price for their produce. The farmers producing wheat and rice in most states are able to sell their produce as procurement by the government agencies is robust. For sugarcane, the farmers are able to get a fair price as the buyers (sugar mills) are well identified and they are bound to pay the FRP or the SAP (fixed by the state governments). Similarly, the cotton farmers are able to sell their produce to Cotton Corporation of India. Since 2015-16, the procurement of pulses has also increased substantially though it is not uniformly effective across all the states. The farmers growing other crops, especially perishables, are however completely dependent on market forces for the price they realise. At the time of peak arrivals, the prices are generally very low and most farmers end up selling their crop at whatever price they can realise in the markets.

In some states, the APMC markets are well developed and the system of auction of farmers' produce works relatively well. In some other states like Bihar, the APMC mandis do not exist. In June 2020, the Centre issued three Ordinances aimed at reforming and liberalising agriculture marketing in the country. In September 2020, the parliament enacted the Farmers' Produce Trade

and Commerce (Promotion and Facilitation) Act, the Essential Commodities (Amendment) Act and the Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act. On January 12, 2021, the Supreme Court stayed the implementation of these laws until further orders.

It is generally agreed that the farmers can realise better prices only if there is more and fair competition in the marketplace. There is a need to expand marketing opportunities available to the farmers. The amendments to Essential Commodities Act (2020) offer to bring predictability to the regulatory regime over stocking of certain agricultural commodities. It has the potential of attracting private investment in agricultural supply chains which have been starved of private investment due to tight and uncertain restrictions on stocking and movement of several agricultural commodities. By letting private sector enter as buyers in a situation of continually strengthened APMC system will offer much needed choices to the farmers. In addition, encouraging the processing industry can also prove to be a shock-absorber in the system that can help stabilize price fluctuations.

Address infrastructure deficit in rural areas

Most farmers in the survey highlighted the problems they suffered on account of quality and availability of electricity in rural areas. Under the ambitious Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), all the Census villages in the country have been electrified by April 2019. The scheme also aims to separate agriculture and non-agriculture feeders so that there could a judicious supply of electricity for agricultural and non-agricultural consumers in rural areas. The sub-transmission and distribution infrastructure in rural area also needs to be strengthened.

Due to free electricity in some states, there is excessive and wasteful use of underground water. The way forward is judicious pricing of electricity and water used in agriculture. Research (Gulati et al 2019) recommends that at least the operation and maintenance (O&M) cost of irrigation projects should be recovered. This can ensure better quality of supply of electricity rather than untimely and erratic supply in many states of India, as at present.

Even now 100 per cent metering of electricity supplied is yet to be achieved for several categories of consumers by many utilities. This is especially so for agricultural connections. About 22 per cent of electricity was sold and 20 per cent of revenue was realised from agriculture (PFC 2018-

19). So, the way forward is to continue the difficult but ongoing reforms in the critical electricity sector. The least which can be done is to persuade the states not to announce free electricity to agriculture, as was done by Telangana in January 2018.

A good network of roads in rural areas is necessary to connect farmers with buyers so that they realise better prices. Roads enable them to take their produce from their farms to the markets where there are multiple buyers. The road network also enables supply of inputs like seeds, fertilisers, pesticides, agricultural machinery etc. It is also necessary for meeting social needs of the rural population like schools, primary health centres, banks and hospitals. A good road network also reduces migration of population from rural to urban areas.

Effectively deploying Crop Insurance

Launched in 2016, Pradhan Mantri Fasal Bima Yojana (PMFBY) and Restructured Weather Based Crop Insurance Scheme (RWBCIS) was a bold initiative to provide insurance coverage to farmers who suffer losses due to natural calamities and unforeseen events. Earlier the scheme was mandatory for all the farmers who availed crop loans with or without Kisan Credit Card. From Kharif 2020 season, the scheme has been made optional and the farmers can now submit a request to bank that they do not want to insure their crops. The farmers have to pay a nominal premium of 2 percent for rabi crops, 2.5 percent for kharif crops and 5 percent for commercial crops. The difference between actuarial premium discovered by the states, through transparent process of tendering and the farmers' share of premium is equally shared by the Union and state government as premium subsidy. In 2021-22, the Union budget provided an amount of Rs 16,000 crores as central share of premium subsidy.

However, there have been several instances of delayed settlement of insurance claims and farmers receiving a very small amount of insurance despite suffering much higher losses. One of the major challenges in operation of the scheme is the cumbersome process of conducting millions of Crop-Cutting Experiments (CCEs). The latest guidelines (GOI 2020) introduce a two-step process based on a deviation matrix which will use specific triggers like weather indicators, satellite indicators, etc. for each area along with normal ranges and deviation ranges. Then the CCEs for assessment of loss of yield will be restricted to only those areas which experience such deviations. In addition,

new technology solutions like Smart Sampling Technique (SST) and optimization of number of CCEs are to be adopted in conducting CCEs.

In the last three years, Bihar, West Bengal, Andhra Pradesh and Telangana have opted out of PMFBY. These states have started their own version of crop insurance schemes but their performance is not known.

A combination of weather-based crop insurance scheme and yield based scheme needs to be developed for various crops. Crop insurance is a difficult scheme and even developed countries have struggled to find a workable model. Therefore, constant evaluation and fine tuning of the scheme is required so that the distressed farmers receive adequate and timely claims. For this it is necessary that integrity of weather and crop cutting data is maintained at all cost. Therefore, use of technology will be an important contributor to bring transparency to this.

Leverage technology to support farmers

A number of states have digitised information relating to the farmers by tapping various databases like procurement, purchase of inputs like seeds and fertilizers, subsidy on mechanisation and electricity and water connection etc. Instead of a blanket loan waiver to all farmers, irrespective of the distress of their particular crops, the way forward is to identify them by using digital tools, remote sensing technology, weather stations and artificial intelligence. If the really distressed farmers can be reached through DBT, whether under PM Kisan or a new scheme of the government, their situation can be alleviated to a large extent.

In addition, endeavour to leverage technology-enabled platforms like the eNAM (or National Agriculture Market) for increasing marketing opportunities for the farmers. Digital technology enables future and forward trading in many agricultural commodities. Training and handholding of farmer groups, FPOs, progressive farmers can go a long way in making the marketing system dynamic and scientific.

Overall, it emerges that a farm loan waiver may be reserved as a tool as it was originally designed to be: a one-off event meant for situations of extreme plight like severe and wide spread drought or flood. It was to provide temporary relief to the distressed farmer until underlying conditions improved. Therefore, rather than relieving all the borrowers, irrespective of their distress levels,

*from their responsibility to repay the loans, the governments should instead nurture a healthy credit culture and invest in farmers and their farming so as to empower the farmer via a robust ecosystem that helps him/her grow in a sustainable and a profitable manner. This will go a long way in making our farmer **aatmanirbhar**.*

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Annexures

Annexure 1: Evolution of Concept of Interest on Loans in various Indian communities

Items	Hindu	Muslim
Concept of charging interest on loans in ancient times	Prohibited	Prohibited
Quotes on position	Charging interest was worse than abortion. As per Baudhayana (Sharma 1965), “if interest and abortion are weighed, the latter rise and the former sinks”	Imposition of interest on loans was prohibited by Quran and regarded as a sin. As per Sura 2 (Gilbar 2012), “Allah prohibits usury and does not bless it.”
Name given to the practice of charging interest	<i>Kusida, vyaja, vardhusa, vrddhi</i>	<i>Riba (also referred to as faida, murabaha, istirbah, muamala, istighlal)</i>
Name given to the legal rate of interest or the permitted rate of interest	<i>Dharmya vriddhi</i>	<i>Ribh</i>
Minimum interest charged	15 per cent (Sharma 1965)	10 per cent (Gilbar 2012)
Ways to bypass prohibition	<i>Brahmanas</i> could lend through an intermediary (Sharma 1965)	Interest was disguised as a double (fictitious) sale. The lender sold (fictitious) an item to a borrower for a sum (equal to loan amount plus interest) and the borrower undertakes to return the amount after a mutually agreed time. After that time, another fictitious sale happens where the borrower sells to the lender the same item but this time at the value of the principal amount alone.
Charging interest got acceptance by	Late ancient and medieval times	Ancient times (there is evidence of interest-bearing loans in Mesopotamia in the 3 rd century BC)

Annexure 2: Catalytic Policies in Evolution of Agriculture Credit in India

S. No	Year	Policy executed
1.	1969	The co-operative sector was the main source of institutional credit to agriculture for almost two decades. The government nationalised banks to increase the supply of credit
2.	1970	RBI set the ratio of 1:3 for opening bank branches in urban and rural centres after the nationalisation of banks
3.	1972	Priority sector lending introduced in the country to supply credit on priority to identified priority sectors
4.	1976	For banking and credit facility for agriculture and other rural sectors, Regional Rural Bank Act, 1976
5.	1982	National Bank for Agriculture and Rural Development Act (NABARD) was formed.
6.	1989	RBI came up with the service area approach (SAA) and the annual credit plan (ACP) system as tools to reach out to rural areas.
7.	1991	In the era of economic liberalisation, the recommendations of the Narasimhan Committee, which was set up to look into all aspects of the financial system, were implemented.
8.	1992	NABARD introduced self-help groups (SHGs) to further financial inclusion.
9.	1995	Rural Infrastructure Development Fund (RIDF) was established with NABARD to finance rural infrastructure projects and reduce regional imbalances. The RIDF was created out of commercial bank's shortfall in lending to the agricultural /priority sector.
10.	1998	To save farmers from the burden of high interest rates, the <i>kisan</i> credit card (KCC) was introduced as a financial product.
11.	2004	Ground-level credit (GLC) policy was introduced by the government. According to the policy, in every union budget, the GOI set GLC targets for the agriculture and allied activities sector to be achieved by the bank in the following financial year. These targets are set region-wise, agency-wise, and loan category-wise (crop and term loan).
12.	2005	Doubling the volume of credit to agriculture for three years
13.	2006	Interest subvention scheme (ISS) introduced for short term crop loans at a reduced interest rate
14.	2008	Agricultural Debt Waiver and Debt Relief Scheme (ADWDRS) was launched by the Indian government to address the financial indebtedness of farmers and up to Rs.52000 crores were released.
15.	2009	GOI introduced the Prompt Repayment Incentive (PRI) where farmers get extended interest subvention of 3 per cent on short-term crop loans of up to Rs.3 lakh for one year.
16.	2018	<i>Kisan</i> credit card scheme extended to Fisheries and Animal Husbandry

Annexure 3: Developments in KCC scheme since 1998

Important Circulars	Particular
14th August, 1998	Introduction of KCC Scheme and circulation of model KCC scheme to banks
14th June, 2001	Personal Accident Insurance Scheme (PAIS) for KCC holders introduced
9th August, 2004	(i) Scheme to cover term loans for agriculture and allied activities under KCC introduced (ii) (ii) Validity of <i>kisan credit card</i> increased from three years to five years
1st June, 2006	In response to Union Finance Minister's budget announcement (2006-07), interest on short-term credit to farmers was fixed at 7 per cent, up to the KCC upper limit of Rs.3.0 lakh on principal amount.
31st October, 2006	KCC scheme for borrowers from long-term co-operative credit structure, i.e., state co-operative and rural development banks introduced
29th March, 2012	<i>Kisan Credit Card</i> – a comprehensively revised KCC scheme incorporating many new components (composite loan, 10 per cent and 20 per cent provisions for consumption and asset maintenance, year-wise drawing power for five years, etc.) was launched
9th November, 2012	Scheme for issue of KCC in the form of interoperable RuPay cards
15th November, 2012	In a meeting of the Union Finance Minister with bankers, it was decided to convert all old KCCs into ATM-cum-debit/RuPay cards
1st August, 2014	Support for ICT solutions through POS/micro-ATMs and RuPay Kisan Cards under KCC scheme
8th July, 2015	Coverage of KCC holders under the <i>Atal Pension Yojna</i> (APY)
4th July, 2018	Coverage of KCC extended to animal husbandry and fisheries

Annexure 4: Gujarat's Scale of Finance for Kharif 2020-21

District wise Crop wise-Scale of Finance for Kharif 2020-2021																	(Rs. /Ha.)
Sr. no.	Name of District	Paddy (irri.)	Paddy (Un.Irri.)	Jowar	Bajra	Maize	Ragi	Mung	Moth	Udid	Tur	G.nut	Castor	Sesamum	Cotton (irri.)	Cotton (Un.Irri.)	Banana
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Ahmedabad	60000	0	41000	23000	30000	0	27000	27000	27000	27000	50000	46000	22000	88000	44000	75000
2	Gandhinagar	60000	0	41000	25000	30000	0	27000	27000	27000	27000	50000	50000	22000	88000	44000	75000
3	Botad	60000	0	41000	25000	30000	0	27000	27000	27000	27000	53000	46000	25000	88000	44000	115000
4	Amreli	0	0	26400	26400	0	0	25000	25000	25000	0	55000	46200	30300	68000	55000	115000
5	Kutch	46500	0	26000	35000	42000	0	30000	30000	32000	43000	68000	57000	32000	89000	30000	99000
6	Kheda	100000	0	22000	22000	30250	0	44000	44000	44000	55000	55000	70000	20000	100000	90750	200000
7	Anand	100000	0	22000	22000	30250	0	44000	44000	44000	55000	55000	70000	20000	100000	90750	200000
8	Mahisagar	100000	30600	22000	22000	43900	9200	44000	44000	44000	55000	55000	70000	20000	100000	90750	200000
9	Jamnagar	0	0	22000	27000	0	0	22000	25000	25000	35000	60000	45000	26000	70000	37000	0
10	Devbhumi	0	0	22000	27000	0	0	22000	25000	25000	35000	60000	45000	26000	70000	37000	0
11	Morbi	50000	0	29000	29000	28000	0	25000	0	25000	35000	52000	45000	30000	67000	35000	0
12	Junagadh	0	0	35000	45000	40000	0	0	0	0	50000	85000	60000	40000	100000	55000	110000
13	Porbandar	0	0	35000	45000	40000	0	0	0	0	50000	85000	60000	40000	100000	55000	110000
14	Gir Somnath	0	0	35000	45000	40000	0	0	0	0	50000	85000	60000	40000	100000	55000	110000
15	Panchmahal	55900	30600	10300	18500	43900	9200	20000	0	20000	26600	31700	39900	10900	90750	27400	68500
16	Dahod	55900	30600	10300	18500	43900	9200	20000	0	20000	26600	31700	39900	10900	90750	27400	68500
17	Banaskantha	0	0	30000	28000	27000	0	20000	20000	20000	25000	42000	56000	25000	60000	28000	0
18	Patan	40000	0	30000	28000	27000	0	20000	20000	25000	25000	50000	56000	25000	80000	35000	0
19	Bharuch	0	33000	17000	23000	15000	0	15000	0	12000	57700	88000	27000	18000	42000	18000	115000
20	Narmada	0	33000	17000	23000	15000	0	15000	0	12000	57700	88000	27000	18000	42000	18000	115000
21	Bhavnagar	0	0	25000	25000	0	0	25000	25000	25000	0	53000	40000	25000	68000	40000	115000
22	Mehsana	40000	0	22000	25000	0	0	20000	20000	25000	0	50000	50000	22000	80000	35000	0
23	Rajkot	50000	0	29000	29000	28000	0	25000	0	25000	35000	52000	45000	30000	67000	35000	0
24	Vadodara	50000	0	25000	30000	33000	0	0	0	0	35000	50000	45000	0	87000	0	135000
25	ChotaUdepur	50000	0	25000	30000	33000	0	0	0	0	35000	50000	45000	0	87000	0	135000
26	Valsad	42500	42500	20000	0	17500	20000	0	0	0	0	30000	0	0	0	0	137500
27	Dang-Ahva	42500	42500	20000	0	17500	20000	0	0	0	0	30000	0	0	0	0	137500
28	Navsari	42500	42500	20000	0	17500	20000	0	0	0	0	30000	0	0	0	0	137500
29	Sabarkantha	40000	10000	20000	25000	34000	0	25000	0	25000	28000	47000	40000	25000	62000	20000	75000
30	Aravalli	40000	10000	20000	25000	34000	0	25000	0	25000	28000	47000	40000	25000	62000	20000	75000
31	Surat	56250	31500	25750	18750	18750	0	27500	27500	0	30000	36750	32500	32500	94500	26250	140000
32	Tapi	56250	31500	25750	18750	18750	0	27500	27500	0	30000	36750	32500	32500	94500	26250	140000
33	Surendranagar	45000	0	35000	32000	35000	0	24000	0	24000	0	75000	75000	35000	85000	70000	0

Source: SLBC Gujarat.

Link: <https://www.slbcgujarat.com/wp-content/uploads/2020/04/State-Level-Scale-of-Finance-2020-21.pdf>

Annexure 5: Assessing KCC limit

Based on authors' calculations, and for the purpose of illustration, the following example is shared.

Assumptions:

1. Landholding of the farmer = 10 acres
2. Cropping pattern
 - a. Paddy – 5 acres (SOF + crop insurance per acre of Rs.11,000)
 - b. Groundnut – 5 acres (SOF + crop insurance per acre Rs.10,000)
 - c. Sugarcane – 5 acres (SOF + crop insurance per acre Rs.22,000)

Assessment of Card Limit

Crop Loan Component	Rs.
Cost of cultivation of 5 acres of paddy, 5 acres of sugarcane and 5 acres of groundnut	215000
Add 10% household expenses/consumption/post-harvest	21500
Add 20% for farm maintenance	43000
Total crop limit for 1st year	279500
Loan limit for second year	
Add: 10% for cost escalation/increase	27950
Total Loan limit	307450
Loan limit for third year	
Add: 10% for cost escalation/increase	30745
Total Loan limit	338195
Loan limit for fourth year	
Add: 10% for cost escalation/increase	33819.5
Total Loan limit	372014.5
Loan limit for fifth year	
Add: 10% for cost escalation/increase	37201.45
Total Loan limit	409216

Annexure 6: Case where KCC Limit is set In-kind and Cash

THE TAMIL NADU STATE APEX CO-OPERATIVE BANK LTD.							
Scale of Finance approved by SLTC for the year 2019-20							
Name of the Crop		PADDY - HYVP					
Crop Code		1					
(Unit per acre) (Amount in Rupees)							
Sl No	Name of the Central Coop Bank	Cash	KIND COMPONENT				Grand Total
			Fertiliser s	Pesticid es	Seeds	Total	
1	2	3	4	5	6	7	8
1	Kanyakumari	22150	4700	1500	1300	7500	29650
2	Tirunelveli	20700	5000	1200	1300	7500	28200
3	Thoothukudi	19400	5200	1100	1200	7500	26900
4	Sivagangai	18500	5000	1300	1200	7500	26000
5	Madurai	21700	5000	1300	1500	7800	29500
6	Dindigul	19800	4700	1200	1300	7200	27000
7	Pudukkottai	21500	5000	1200	1300	7500	29000
8	Tiruchirapalli	25100	5000	1100	1300	7400	32500
9	Thanjavur	23500	4700	1100	1700	7500	31000
10	Kumbakonam	23500	4700	1100	1700	7500	31000
11	Cuddalore	22300	4700	1300	1500	7500	29800
12	Villupuram	19700	5000	1100	1200	7300	27000
	Villupuram - Hills	12550	4700	1200	1400	7300	19850
13	Kancheepuram	21000	4600	1300	1700	7600	28600
14	Tiruvannamalai	20200	4700	1500	1300	7500	27700
15	Vellore	21000	4700	1500	1300	7500	28500
16	Salem	24500	4750	1300	800	6850	31350
	Salem-Hills (Rainfed)	12800	4400	1300	900	6600	19400
17	Dharmapuri	24000	4700	1500	1300	7500	31500
18	Erode	24400	4700	1500	1300	7500	31900
19	Coimbatore	24600	5000	1300	1300	7600	32200
20	Nilgiris	19850	4700	1100	1500	7300	27150
21	Ramanathapuram	16250	4800	1200	1600	7600	23850

..1..

..1..

Source: SLBC, Tamil Nadu (2020)

Annexure 7: Standardizing NPAs in Crop and Non-Crop Loans

In the process of standardizing NPA accounts, there is an inadvertent burden imposed on borrowers of agricultural loans v/s those who borrow non-agricultural loans.

Assume that the non-crop loan (say a housing loan) is of Rs.3 lakh and the instalments are due every month. As per RBI, if the loanee does not repay the loan for three months or 90 days, the account becomes an NPA. Now, if the borrower wants to start repaying on the day the account becomes an NPA, he/she will have to pay the interest burden of three months (in addition to the penalties and the principal amount).

Contrast this with the farmer who has to pay interest for 18 months when he wants to restart paying on the day his account becomes an NPA (Table 42). This clearly overburdens the farmer.

Table 42: Classification of NPAs for Agricultural and Non-agricultural Credit

Loan Type	Declaration of NPA	Converting to standard account
Non-Agricultural Loans	<ul style="list-style-type: none">Interest and/or instalment of principal remain overdue for a period of more than 90 days in respect of a term loanIn case of interest payments, banks should classify an account as NPA only if the interest due and charges during any quarter is not serviced fully within 90 days from the end of the quarter.	Payment of principal, interest and other penal charges due till date
Agricultural Loans	<ul style="list-style-type: none">The instalment of principal or interest thereon remains overdue for two crop seasons (six month each) for short duration cropsThe instalment of principal or interest thereon remains overdue for one crop season for long duration crops	Payment of principal, interest and other penal charges due till date

Source: RBI (2020)

Logically, the repayment schedules for both crop and non-crop loans should be mapped with income patterns. Generally, the farmers receive an income about every six months (the time taken on average for a crop to be harvested and sold) and other individuals, generally, get salaries/incomes every month. So, a farmer is required to pay every six months while the

repayments of non-crop loans are made on a monthly basis. While this is correct, the problem is that because the interest is due on a monthly basis for a non-crop loan, his account becomes an NPA in 3 months. On the other hand, a farmer account availing a crop-loan becomes an NPA after three crop cycles (18 months). In the former case, the individual has to pay three month's payments in one month, but in the case of the latter, payment for 18 months has to be paid in one month. Due to these current accounting practices, inadvertently, chances of this farmer's default are high.

Annexure 8: Case Study - Kerala Debt Relief Commission Act, 2006

Kerala was among the top five states of farmers' suicides. According to NCRB, 905 farmers committed suicides in Kerala between 2005 and 2009. This was due to sharp decline in the price of agricultural produce, crop damages because of natural calamities, and decrease in production (Jeromi 2007). These factors increased the debt burden of the farmers. Indebtedness in Kerala was 64.4 per cent that was higher than the national average of 48.6 per cent (SAS 2003).

Driven from Sir Chhotu Ram Commission (*refer* Box 2 Chapter 2), Kerala Legislature adopted 'Kerala Farmers' Debt Relief Commission Act, 2006' in 2007 (Government of Kerala 2007), which subsequently amended 2012 and 2019 to extend its functioning. Initial budget allotted by state government was Rs. 156 crores and over the year the cumulative budget allotted till 2018 was Rs. 355 crores. The Act provides debt relief by addressing farmers' indebtedness rather than providing one-time loan waiver. Every year, the commission study each case of debt-ridden farmers' case by case and provide suitable relief to distressed farmers and also ensures that banks were not overburdened with bad loans.

The commission consists of 5 members, a chairman and the 4 members elected by the government. The Debt Relief Commission deals with both Institutional loans and non-institutional loans. State government enacted a law that would give powers to the commission for a one-time settlement of exorbitant rates of interest charged by non-institutional sources. And after a detailed examination of distressed farmers, the commission can also suggest measures relating to a one-time waiver, rescheduling of loans, reducing the burden of principal and interest and giving loan moratorium.

The Act also empowers that if any debt relief is granted to farmer by full waiver, waiver on principal, interest or penal interest, it should not exceed 75 per cent of Rs. 50,000 or if the repayment amount exceeds Rs. 50,000, 50 per cent relief would be provided or Rs. 1,00,000 (changed to Rs. 2,00,000 when amended in 2019) which is less. Debt relief Act by Kerala was an effective measure as it reduced the farmer's suicide rate as by February 2016, incidence declined to 20 per cent (Sivagnanam 2017). However, there were few drawbacks of the ACT (i) lack of minimum efforts in amending the problems, and (ii) relief measures were implemented very slowly.

The Table 43 below summarizes the comparison of the above discussed Kerala model with the three FLW schemes implemented in Punjab, Maharashtra and Uttar Pradesh respectively.

Table 43 Comparison of Kerala Debt Relief Model with FLW Schemes of Punjab, Maharashtra and Uttar Pradesh

States	KERALA	PUNJAB	MAHARASHTRA	UTTAR PRADESH
Criteria	Farmers' Debt Relief commission, 2006	Karz Maafi Yojna, 2017	Chhatrapati Shivaji Maharaj Shetkari Sanman Yojana, 2017	Kisan Rin Mochan Yojana, 2017
Settlement Type	Case-by-Case Basis	OTS	OTS	OTS
Notified Cost to exchequer	Rs. 355 Crores (till 2018)	Rs. 10,000 crores	Rs. 34,020 crores	Rs. 36,000 crores
Debt Relief	Max. Debt relief Rs. 2 lakhs.	Max. Debt relief Rs. 2 lakhs	Max. Debt relief Rs. 1.5 lakhs	Max. Debt relief Rs. 1 lakh
Eligible	SMF with income up to Rs. 2 lakh p.a.	SMF	All farmers	SMF
Sources	Both institutional and non-institutional source	Only Institutional source	Only Institutional source	Only Institutional source

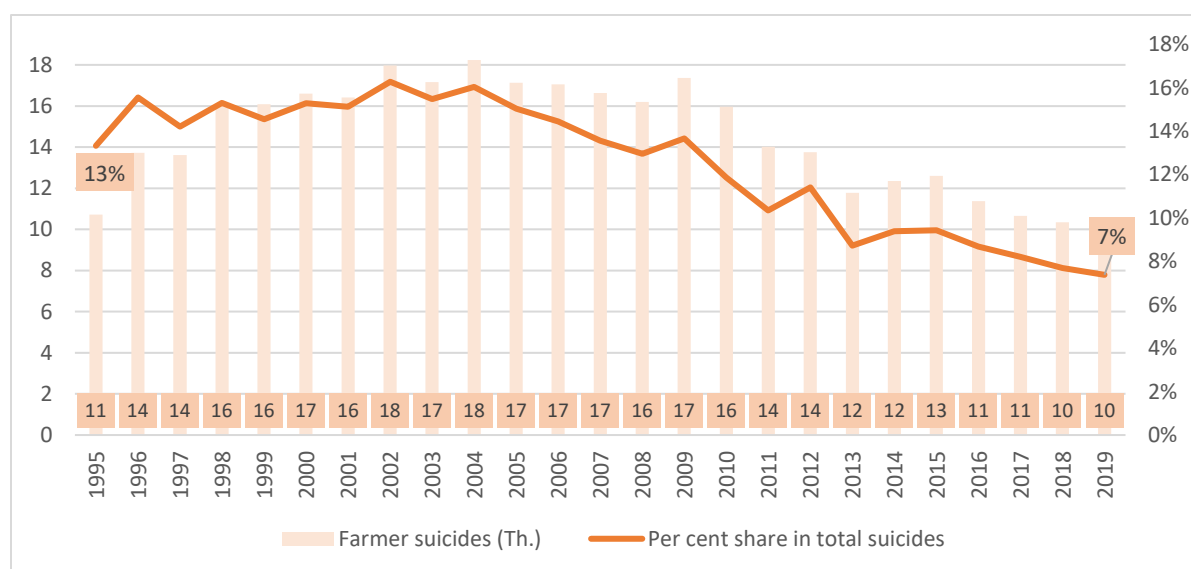
Source: Compiled by authors

Above table distinguishes the Kerala's debt model with FLW scheme of Punjab, Maharashtra and Uttar Pradesh. Kerala's Debt Relief model was based on case-by-case addressing the problems of distressed farmers, whereas the FLW model provided one-time waiver to the farmers. Another important factor of Kerala's model was that it deals with both institutional and non-institutional loans, whereas FLW schemes deals with institutional loans only.

Annexure 9: Analysis of Indian farmer Suicides

In the year 2019, 10,269 farmers committed suicides in India (Figure 84). This was 7.4 per cent of the total suicides registered in the country. These numbers are themselves enough to diagnose presence of acute distress in the farming community. Our objective is to throw some light on some important reasons of this persistent distress in the farming community.

Figure 84: Farmer Suicides in India



Source: NCRB

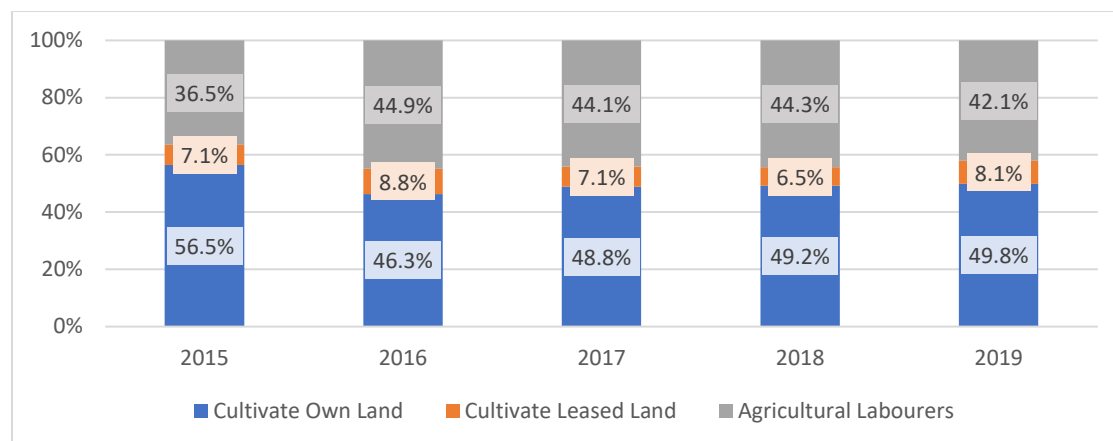
It is heartening to note that in absolute terms we have seen a decline in farmer suicides over time. 2019 reported the least number of farmers' suicides since 1995⁵¹ where farmer suicides peaked in 2004, which reported 18,241 farmer suicides. Total suicides in the country saw a greater share of farmer suicides in 2012. Between 1995 to 2012, the average share of farmer suicides in total suicides was 14.1 per cent. Since then, this share has decreased to 8.5 per cent.

Over time the incidence of suicides has also changed. NCRB provides data on incidence of suicides between a) Cultivators with own land, b) Cultivators with leased in land and c) Agricultural Laborers. NCRB data suggests that since 2015, the share of cultivators in farmer suicides has decreased (Figure 85) whereas that of cultivators with leased in land share has increased marginally

⁵¹ Data reporting on farmer suicides was started in 1995.

between the same time period from 7.1 per cent to 8.1 per cent peaking in 2016 with 8.8 per cent. Agricultural laborers saw their share increase in the suicides from 36.5 per cent to 42.1 per cent.

Figure 85 Composition of farmer suicides in India: 2015 to 2019



Source: NCRB

Change in State-wise Incidence of Farmer Suicides

Using NCRB data, we compare the farmer suicides in states from 1995-1997 to 2015-2017. This exercise helps us in trying to understand whether the farmer suicides in the country are concentrated in some states (Table 44 and Table 45).

Table 44: List of Top Six Farmer Suicide Prone States: 1995 to 1997

1995			1996			1997		
State	Suicides	Share	State	Suicides	Share	State	Suicides	Share
Karnataka	2490	23.2	Karnataka	2011	14.7	Madhya Pradesh	2390	17.6
Kerala	1299	12.1	Maharashtra	1981	14.4	Maharashtra	1917	14.1
West Bengal	1297	12.1	Madhya Pradesh	1809	13.2	Karnataka	1832	13.5
Madhya Pradesh	1239	11.5	West Bengal	1738	12.7	West Bengal	1539	11.3
Andhra Pradesh	1193	11.1	Andhra Pradesh	1706	12.4	Kerala	1204	8.9
Maharashtra	1083	10.1	Kerala	1025	7.4	Andhra Pradesh	1097	8.1

During 1995, 1996 and 1997 the top six states that reported maximum number of farmer suicides were Karnataka, Kerala, West Bengal, Madhya Pradesh, Andhra Pradesh and Maharashtra. The share of these states during 1995, 1996 and 1997 in the total number of farmer suicides stood at 80 per cent, 75 per cent and 73 per cent respectively.

Table 45: List of Top Six Farmer Suicide Prone States: 2017 to 2019

2017			2018			2019		
State	Suicides	Share	State	Suicides	Share	State	Suicides	Share
Maharashtra	3701	34.7	Maharashtra	3594	34.76	Maharashtra	3927	38.24
Karnataka	2160	20.2	Karnataka	2405	23.26	Karnataka	1992	19.4
Madhya Pradesh	955	8.9	Telangana	908	8.78	Andhra Pradesh	1029	10.02
Telangana	851	7.9	Andhra Pradesh	664	6.42	Madhya Pradesh	541	5.27
Andhra Pradesh	816	7.6	Madhya Pradesh	655	6.34	Telangana	499	4.86
Chhattisgarh	502	4.7	Chhattisgarh	467	4.52	Chhattisgarh	499	4.86

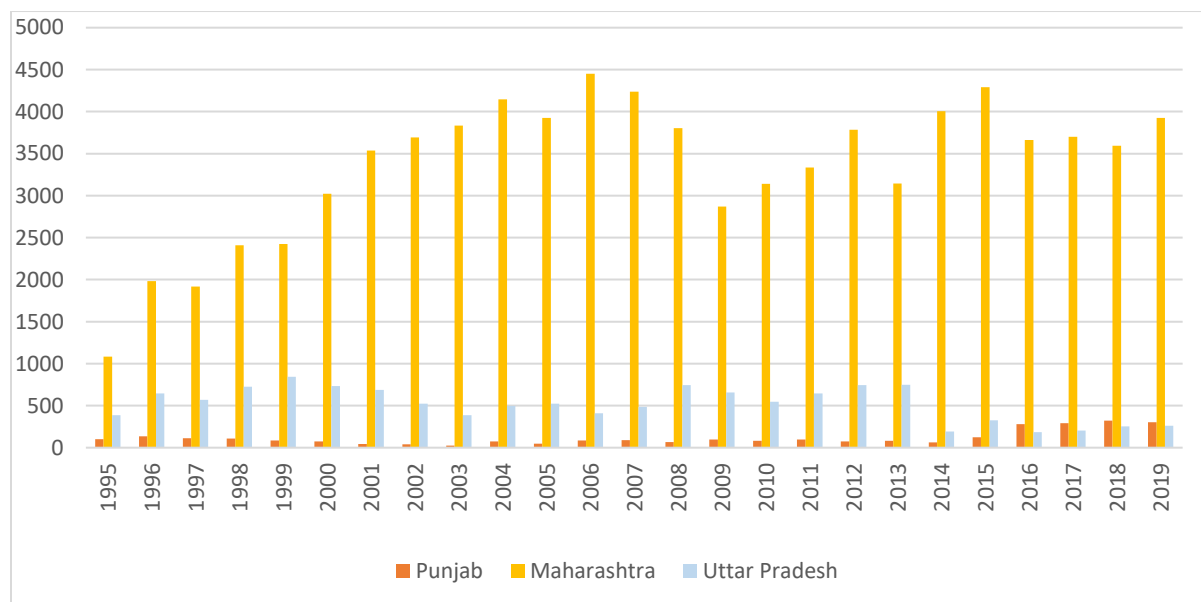
During 2017, 2018 and 2019 the top six states that reported the maximum number of farmer suicides were Maharashtra, Karnataka, Telangana, Madhya Pradesh, Chhattisgarh and Andhra Pradesh. The share of these states during 2015, 2016 and 2017 in the total number of farmer suicides stood at 84 per cent, 83 per cent and 82 per cent respectively. On average, Maharashtra, individually accounted for almost 33 per cent of the total farmer suicides in the country in these years. Also, as compared to 1995-1997, West Bengal reported 0 cases of farmer suicides during 2017-2019. Sadly, Maharashtra, Karnataka, Madhya Pradesh, Andhra Pradesh continue to lose farmers at an alarming rate and account for a big chunk of total farmer suicides cases in India.

Trends in farmer suicides in Punjab, Maharashtra and Uttar Pradesh

Considering the all-India level trends in farmer suicides, we now look at the farmers suicides in Punjab, Maharashtra and Uttar Pradesh. Figure 86 shows the trends in farmer suicides across the

three states. Maharashtra reported the highest number of suicides following by Uttar Pradesh and Punjab.

Figure 86 Number of Farmer Suicides in Punjab, Maharashtra and UP (1995-2019)



Source: NCRB

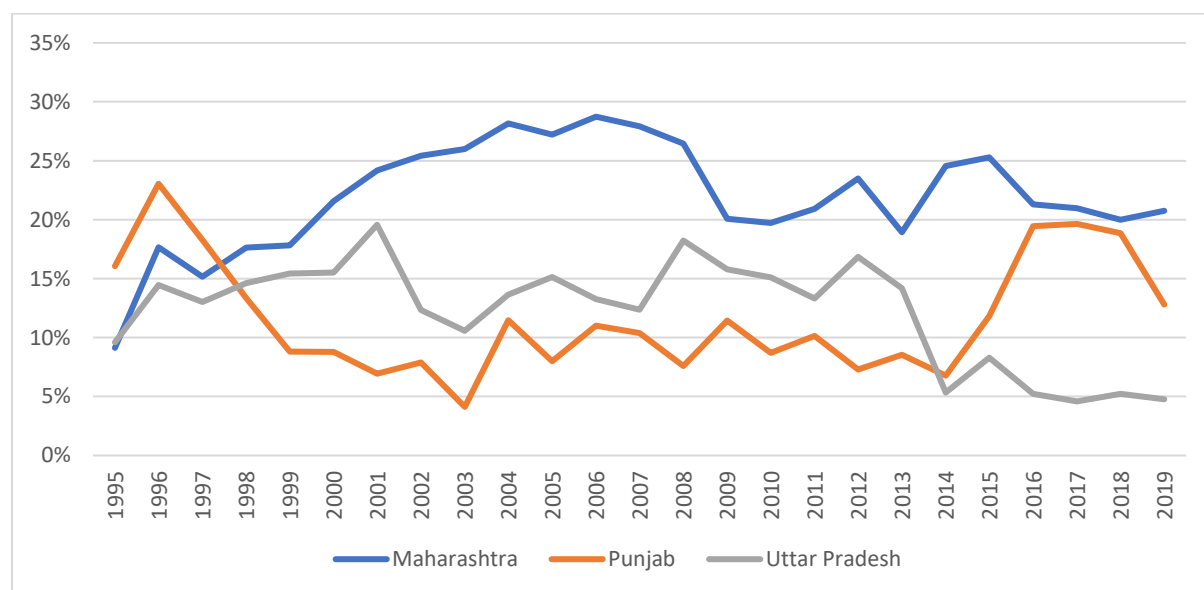
Maharashtra reported the highest number of suicides in 2006 (4453) with 29 per cent of the total suicides in the state were classified as farmer suicides. From 1995 to 2019, 83,928 farmers have committed suicides in the state, amounting on average 22 per cent of the total suicides (378992) being farmer suicides. To this date farmer suicides remain an observable phenomenon in the state. The Tata Institute of Social Sciences (2005) in their report share various causes of farmer suicides in Maharashtra. They stated repeated crop failures, inability to meet the rising costs of cultivation and indebtedness “seems to have created a situation that forces farmers to commit suicide”. In addition, they also state that not all farmers with these conditions commit suicide; rather the ones who felt that they have exhausted all the avenues of securing support opt for such measures. Also, with the landowners, the landless families were also stuck in the “cycles of debt and destitution”. The declining productivity of land, access to government extension services, rising input costs and declining opportunities in the non-farm sector have aggravated the crisis.

Uttar Pradesh reported the highest number of farmer suicide in the year 1999 (845) with 15 per cent of the total suicides in the state being classified as farmer suicides. This rate of suicides has

averaged around 13 per cent, though there has been a decline in the share of farmer suicides in total suicides from 2015 onwards. From 2015, on average only 6 per cent of the suicides were classified as farmer suicides in the state. In addition, the year 2016 recorded the lowest number of farmer suicides in the state (184). Since 2014, there has been a decline in the share of farmer suicides in the state.

Punjab reported the highest number of farmer suicides in 2018 (323) with 19 per cent of the total suicides in the state being classified as farmer suicides. On average, in Punjab 12 per cent of all suicides are farmer suicides (Figure 87).

Figure 87 Farmer Suicides as Per Cent Share of Total Suicides



Source: NCRB

Contrary to Uttar Pradesh, Punjab has witnessed a drastic increase in farmer suicide cases with 124 cases in 2015 to 323 cases in 2018. Increased indebtedness, changing agrarian structure, crop failure, depleting water resources and unsustainable changes in lifestyle were reported to be the causes for these farmer suicides.

Annexure 10: Questionnaire used for Farmer Survey in Punjab

Stateराज्य:	District ज़िला:	Villageगाँव:	Surveyor Name सर्वेयर का नाम
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Survey Code:

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State Code District Code G.P Code Village Code Survey No.

A FARM LOAN WAIVERS STUDY IN INDIA: ASSESSING MOTIVE, CHALLENGES AND IMPACT

(Study States: Punjab, Maharashtra and Uttar Pradesh)

We are conducting a survey for NABARD which aims at profiling and studying the implementation and impact of farm loan waiver scheme in your State. The information we collect will help us create a document to inform the government in improving welfare schemes centred in rural areas, particularly for farmers. Your household was selected for this survey. The discussion would take about 45 minutes. Your responses will be confidential and will not be shared with anyone other than the members of our project team.

In case you need more information about the survey, please don't hesitate to ask me at any point of time

Do you have any questions? May I begin the Interview now?

भारत में कृषि ऋण माफ़ी योजना पर शोध अध्ययन- मकसद, चुनौतियों और योजना के प्रभाव का आंकलन

(शोध अध्ययन के लिए चुने गए राज्य : पंजाब, महाराष्ट्र और उत्तर प्रदेश)

हम नाबार्ड (NABARD) के लिए एक सर्वेक्षण कर रहे हैं जिसका उद्देश्य आपके राज्य में कृषि ऋण माफ़ी योजना के कार्यान्वयन और प्रभाव का अध्ययन करना है। सर्वेक्षण के द्वारा एकत्रित की जाने वाली जानकारी से हमें ग्रामीण क्षेत्रों और विशेष रूप से किसानों के लिए सरकार के द्वारा चलायी जा रही कल्याणकारी योजनाओं को बेहतर बनाने के लिए एक दस्तावेज/ रिपोर्ट बनाने में मदद मिलेगी, जो हम सरकार को प्रस्तुत करेंगे। इस सर्वे/ सर्वेक्षण के लिए आपका चयन किया गया। साक्षात्कार में करीब 45 मिनट का समय लगेगा। आपके द्वारा दिए गए सभी उत्तर गोपनीय रखे जायेंगे और हमारी प्रोजेक्ट टीम के सदस्यों के अलावा किसी और के साथ साझा नहीं किये जायेंगे।

यदि आपको सर्वेक्षण के बारे में अधिक जानकारी चाहये, तो कृपया मुझसे किसी भी समय पूछने में संकोच न करें। क्या मैं अब साक्षात्कार शुरू कर सकता/ सकती हूँ ?

Signature of the Respondent

Date: DD MM YY

Start Time: AM/PM

End time: AM/PM

रेस्पोंडेंट का हस्ताक्षर :

1.0 Recruitment Criteria रेस्पोंडेंट रिक्रूटमेंट के मानदंड

1.1 ★	Do you undertake agricultural activity? क्या आप खुद खेती-बाड़ी करते हैं ?			1-Yes हाँ; 2-No नहीं	
☞ If response to Q1.1 is 'Yes' GoTo Q1.1a and If 'No', reject the respondent यदि Q1.1 का जवाब 'हाँ' है तो Q 1.1a पे जाएँ अथवा रेस्पोंडेंट को रिजेक्ट करें ।					
1.1a	Where do you undertake agricultural activity? आप कृषि कहाँ करते हैं?				
	(A)Self –owned land स्व-स्वामित्व वाली भूमि	(B)Leased-in land (non-family) किराए पर या पट्टे ली हुई ज़मीन (गैर पारिवारिक भूमि)	(C)Leased-in land (family) किराए पर या पट्टे ली हुई ज़मीन (पारिवारिक भूमि)	(D)Joint family-owned land संयुक्त परिवार के स्वामित्व वाली भूमि	
				(D.1) Operated exclusively by self but other family members also have rights on the produce सिर्फ स्वयं द्वारा संचालित, लेकिन परिवार के अन्य सदस्यों का भी उपज पर अधिकार है	(D.2) Operated with other family members परिवार के अन्य सदस्यों के साथ काम करते हैं
	1-Yes हाँ; 2-No नहीं	1-Yes हाँ; 2-No नहीं	1-Yes हाँ; 2-No नहीं	1-Yes हाँ; 2-No नहीं	1-Yes हाँ; 2-No नहीं

	☞ Q1.1 b to be asked to only those who have marked “Yes” in 1.1a(D.2)/ Q1.1 b केवल उनसे पूछें जिन्होंने 1.1.a (D.2) का जवाब "हाँ" दिया है	
1.1 b	If you are working with other family members on family-owned land, do you know your share in the family-owned land area or the crop produce?परिवार के स्वामित्व वाले भूमि क्षेत्र में, आपको आपका भूमि में या फसल उपज में हिस्सा पता है?	1-Yes हाँ; 2-No नहीं
☞(1) Reject the respondent if Response to Q1.1b, 1.1a(A) , 1.1a(B), 1.1a(C) and 1.1a(D.1) is “No” / यदि Q1.1b, 1.1a(A) , 1.1a(B), 1.1a(C) और 1.1a(D.1) का जवाब "नहीं" ' हैं तो रेस्पोंडेंट को रिजेक्ट करें। (2) Directly ask Q1.2 if response to 1.1a(A) OR 1.1a(B) OR 1.1a(C) OR 1.1a(D.1) is “Yes”/ सीधे Q1.2 पूछें अगर 1.1a(A) या 1.1a(B) या 1.1a(C) या 1.1a(D.1) या Q1.1b का जवाब "हाँ" हैं।		
1.2 ★	Do you or any of your family members (who live in the same household and share a common kitchen) work in government (central or state) or receive pensions (household pension greater than Rs.2000 per month) from the government? क्या आप या आपके परिवार का कोई सदस्य** सरकारी नौकरी (केंद्र या राज्य) करते हैं या सरकार से पेंशन(पूरे घर की पेंशन रु.2000 से ज़्यादा) प्राप्त करते हैं? **एक ही घर में रहते हैं और एक आम रसोई घर साझा करते हैं	1-Yes हाँ 2-No नहीं
☞ If response to Q1.2 is ‘Yes’, reject the respondent and If ‘No’, GoTo Q 1.3 यदि Q1.2 का जवाब ‘हाँ’ हैं तो रेस्पोंडेंट को रिजेक्ट करें और यदि, नहीं’ है, तो Q 1.3 पर जाएं		
1.3 ★	Have you taken any agricultural loan in the last 3 years? (FY2017-18 to FY2019-20) क्या आपने पिछले 3 वर्षों में कोई कृषि उधार/ऋण लिया है? (वित्तीय वर्ष 2017-18 से वित्तीय वर्ष 2019/20)	1-Yes हाँ 2-No नहीं
☞ Agricultural loan(s) include: कृषि ऋण में शामिल हैं: refer to manual to understand types of agri-loans कृपया विभिन्न प्रकार के कृषि लोन जानने के लिए मैनुअल रेफर करें		

<ul style="list-style-type: none"> - <i>Agricultural Loan (s/Limit taken from any institution like Co-operative Banks, Co-operative Societies, Regional Rural Banks and Commercial Bank, SHG, JLG, Non-Banking Financial Company (NBFC Micro-finance institution (MFI) etc.</i> - <i>संस्थागत स्रोतों से लिया गया कृषि ऋण जैसे सहकारी बैंक, सहकारी समितियाँ, क्षेत्रीय ग्रामीण बैंक और वाणिज्यिक बैंक, एसएचजी, जेएलजी गैर बैंकिंग वित्तीय कंपनी माइक्रो-फाइनेंस संस्थान आदि</i> - <i>Kisan Credit Card (KCC) किसान क्रेडिट कार्ड (के.सी. सी)</i> - <i>Agricultural loans taken from non-institutional sources like Arthiya, Baniya, relatives, friends etc.</i> - <i>गैर-संस्थागत स्रोतों से लिया गया कृषि ऋण जैसे स्थानीय बनिया, रिश्तेदार, मित्र, अड़तिया आदि</i> 		
<p>F If response to Q1.3 is 'No' reject the respondent and If 'Yes', GoTo Q 1.4</p> <p>यदि Q1.3 का जवाब 'नहीं' है तो रेस्पोंडेंट को रिजेक्ट करें और यदि हाँ है, तो Q 1.4 पे जाएँ ।</p>		
<p>1.4</p> <p>★</p>	<p>On an approximate basis, what proportion of your monthly income** (including all remmitances) comes from agriculture (crop and allied activities like dairy, fishery, goatery, piggery, etc.)?</p> <p>अनुमानित तौर पर, आपकी मासिक घरेलू आय** + बाहर से आने वाले पैसे का क्या अनुपात/प्रतिशत कृषि से आता है? (फसल और सम्बन्धित कार्य जैसे पशुपालन इत्यादि)</p> <p>**Ask about income earned by self, spouse and unmarried children living with you</p> <p>**स्वयं, पति या पत्नी और साथ रहने वाले अविवाहित बच्चे/ बच्चों द्वारा अर्जित आय के बारे में पूछें ।</p>	<p>1-Less than 25%</p> <p>25% से कम</p> <p>2-Above 25%</p> <p>25% से ज़्यादा</p>
<p>☞ If response to Q1.4 is 'Option-1' reject the respondent and If 'Option-2' proceed to Q 1.5 after qualifying the respondent for recruitment as per Q1.1 to Q1.4</p> <p>यदि Q1.4 का जवाब 'विकल्प-1' है तो रेस्पोंडेंट को रिजेक्ट करें और अगर जवाब विकल्प-2 है, तो Q1.1 से Q1.4 तक दिए गए मानदंडों के अनुसार रेस्पोंडेंट को सर्वे के लिए क्वालीफाई(QUALIFY) करने के बाद Q1.5 पूछें।</p>		
<p><i>Qualify the recruitment of the respondent if he/she is not rejected as per Q1.1, Q1.1b, Q1.2, Q1.3 and Q1.4</i></p> <p><i>यदि रेस्पोंडेंट Q1.1, Q1.1b, Q1.2, Q1.3 और Q1.4 में रिजेक्ट नहीं किया गया है, उसको सर्वे के लिए चुनें।</i></p>		
<p>☞ Land area in Q1.5 to be captured only after qualifying the respondent</p> <p>Q1.5 में भूमि क्षेत्र रेस्पोंडेंट के चुनने के बाद ही पुछा जायेगा ।</p>		
<p>1.5</p> <p>★</p>	<p>What is the total land area operated by you for undertaking agricultural activities?</p> <p>खेती-बाड़ी गतिविधियों को करने के लिए आपके द्वारा संचालित कुल भूमि क्षेत्र क्या है? ।</p>	

(A) Self-owned land स्व-स्वामित्व वाली भूमि	(B) Leased-in land from non-family किराए पर या पट्टे पर ली हुई ज़मीन (गैर पारिवारिक भूमि) का क्षेत्रफल	(C) Leased-in land from family किराए पर या पट्टे पर ली हुई ज़मीन (पारिवारिक भूमि) का क्षेत्रफल	(D) Joint family-owned land संयुक्त परिवार के स्वामित्व वाली भूमि का क्षेत्रफल		(E) Area of Self-owned land which is Leased-out स्व-स्वामित्व वाली भूमि के क्षेत्रफल का वह हिस्सा जो किसी और को पट्टे पे दिया गया हो, जिसपर आप खेती नहीं करते	(F) Operated land संचालित कुल भूमि क्षेत्र F= (A+B+C+D.2)-(E)
..... Acres एकड़	.....Acres एकड़	.....Acre s एकड़	D.1 Total Family-owned Area कुल परिवार की ज़मीन	D.2 Area operated by you कुल परिवार की ज़मीन में से आपके द्वारा संचालित क्षेत्र **		
			.....Acres एकड़	.....Acres एकड़	.....Acres एकड़	..... Acres एकड़
			**Please tell us on which family member's name is this land registered: **आपके परिवार के कौन से सदस्य के नाम पे यह ज़मीन है?.....			
<p>**If the respondent gives the land share directly note it and if he is not able to give land share directly, ask him what is his percentage share in the total agricultural produce from the family-owned land (refer Q1.1b). Multiply percentage share with total family-owned land and write the figure under D.2</p> <p>यदि रेस्पोंडेंट अपने द्वारा संचालित भूमि का हिस्सा बता पाता है तो उसे नोट करें और यदि वह नहीं बता पाता, तो उससे पूछें कि परिवार के स्वामित्व वाली भूमि से होने वाली कुल कृषि उपज में उसका कितना प्रतिशत हिस्सा है (संदर्भ Q1.1b)। कुल परिवार के स्वामित्व वाली भूमि से प्रतिशत को गुना करें और D.2 में आंकड़ा लिखें।</p> <p>☞ Local unit of land measuring to be converted into acres by referring to the survey manual. भूमि की स्थानीय इकाई को एकड़ में परिवर्तित करने के लिए सर्वेक्षण मैनुअल का इस्तेमाल करें।</p>						

<p>☞ Operated land cited by respondent needs to be broken-up as per the table above</p> <p>ऊपर दी गई टेबल के अनुसार संचालित कुल भूमि क्षेत्र का ब्रेक-उप लें।</p>		
<p>1.6</p> <p>★</p>	<p>Category of farmer किसान की श्रेणी</p> <p>Use own land to categorize.</p> <p>In case farmer does not own land, use operated area for categorization</p> <p>यदि किसान के अपने नाम पे कृषि भूमि हैं तो उसके हिसाब से वर्गीकरण करें नहीं तो संचालित क्षेत्र के हिसाब से वर्गीकरण करें;</p>	<p>(1) Marginal farmer (≤ 2.5 Acres) सीमांत किसान (≤ 2.5 एकड़)</p> <p>(2) Small farmer (>2.5 and ≤ 5.0 Acres) लघु किसान (>2.5 and ≤ 5.0 एकड़)</p> <p>(3) Medium farmer (>5.0 and ≤ 25.0 Acres) मध्यम किसान (>5.0 and ≤ 25.0 एकड़)</p> <p>(4) Large farmer (>25.0 Acres) बड़ा किसान (>25.0 एकड़)</p>
<p>Check response in Q1.5</p> <p>Q1.5 का जवाब देखें</p> <p>☞ If self-owned area is not nil (more than 0), only owned land area would be considered for farmer categorization</p> <p>यदि स्व-स्वामित्व वाला क्षेत्र शून्य से अधिक हैं, तो केवल स्वामित्व वाले भूमि क्षेत्र को किसान वर्गीकरण के लिए माना जाएगा।</p> <p>If self-owned area is 0 acres, operated land area would be considered for farmer categorization</p> <p>यदि स्व-स्वामित्व वाला क्षेत्र 0 एकड़ हैं, तो संचालित भूमि क्षेत्र को किसान वर्गीकरण के लिए माना जाएगा।</p>		
<p>1.7</p> <p>★</p>	<p>Did you receive farm loan waiver in last 3 years?</p> <p>क्या आपको पिछले 3 वर्षों में किसी सरकारी योजना के तहत अपने द्वारा लिए गए संस्थगत कृषि ऋणों पे माफ़ी मिली है?</p>	<p>1-Yes हाँ</p> <p>2-No नहीं</p>
<p>Check response in Q1.7</p> <p>Q1.7 का जवाब देखें</p> <p>☞ If the respondent reports having received farm loan waiver in last 3 years, he/she shall be treated as Marginal or Small farmer on the basis of land ownership. Use this as control point for validating “self-owned” land area in Q1.5.</p> <p>If the response to Q1.7 is Yes and self-owned area is reported above 5 acres, then (i) treat that farmer as Medium/ Large and (ii) check about his owned area and if the land is split under different khasras and thus entitles him for FLW even though he is a medium/large farmer. Write this clarification in “notes” below</p> <p>यदि रеспोंडेंट को पिछले 3 वर्षों में किसी सरकारी योजना के तहत अपने द्वारा लिए गए संस्थगत कृषि ऋणों पे माफ़ी मिली है, तो वह भूमि स्वामित्व के आधार पर सीमांत या लघु किसान माना जायेगा।</p>		

यदि Q1.7 का जवाब “हाँ” है और रैस्पोंडेंट द्वारा बताया गया स्व-स्वामित्व क्षेत्र 5 एकड़ से ज़्यादा है, तो (i) उस किसान को मध्यम / बड़ा माने और (ii) उसके स्वामित्व वाले क्षेत्र के बारे में जाँच करें क्या भूमि अलग-अलग खसरों में विभाजित तो नहीं है जिसकी वजह से रैस्पोंडेंट मध्यम / बड़ा किसान होने के बावजूद कृषि लोन माफ़ी स्कीम के अंतर्गत आ रहा है।
इसके स्पष्टीकरण को नीचे दिए दी गई जगह में लिखें

2.0 Farmer Details रैस्पोंडेंट किसान विवरण

2.1	Name of the respondent रैस्पोंडेंट का नाम											
2.2	Age आयु (Yrs) वर्ष										
2.3	Gender लिंग	1-Male पुरुष 2-Female महिला 3-Other अन्य										
2.4	Number of members in the households (eating from common kitchen) सदस्यों की संख्या जो घर में एक ही रसोई का इस्तेमाल करते हो											
2.5 ★	Bank account with which bank? आपका अपने नाम पे खाता किस बैंक के साथ है ?	1..... 2..... 3.....										
2.6	How far is the bank branch from your house? आपके घर से बैंक की शाखा कितनी दूर है?	1.....KM/ के.मी 2.....KM/ के.मी 3.....KM/ के.मी										
2.7	Address/ House Number पता / घर का नंबर											
2.8 ★	Contact number (10 digit mobile no.) मोबाइल नंबर (10 अंकों का मोबाइल नं)	<table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>										
2.9	Village गाँव											
2.10	Gram Panchayat ग्राम पंचायत											

2.11	Tehsil/ Block तहसील/ ब्लॉक	
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3.0 Loaning Profile

3.1 ★	Do you currently have a Kisan Credit Card (KCC)? क्या आपके पास वर्तमान में किसान क्रेडिट कार्ड (के.सी.सी.) हैं?	KCC for crops फसलों के लिए के.सी.सी.	KCC for animal husbandry पशुपालन के लिए के.सी.सी.	KCC for Fisheries मछली पालन के लिए के.सी.सी.
		1-Yes हाँ 2-No नहीं	1-Yes हाँ 2-No नहीं	1-Yes हाँ 2-No नहीं
<p>☞ If response to Q3.1- KCC Crops/Animal Husbandry/Fisheries (any or all) is 'Yes' GoTo Q3.2 ELSE GoTo Q3.3 and continue</p> <p>यदि Q3.1- " के.सी.सी फसल/ पशुपालन/ मछली पालन (किसी का या तीनों का) का जवाब हाँ है तो Q3.2 पे जाएं अथवा Q3.3 पे जाएं और आगे कंटिन्यू करें</p>				
3.2	Please provide details of your crop KCC as per below: कृपया अपनी फसल के.सी.सी का विवरण दें:			
3.2.1	KCC Issuing Bank Name के.सी. सी जारी करने वाले बैंक का नाम	KCC for crops फसलों के लिए के.सी.सी.	KCC for animal husbandry पशुपालन के लिए के.सी.सी.	KCC for Fisheries मछली पालन के लिए के.सी.सी.
3.2.2	Year of KCC issuance के.सी. सी जारी करने का वर्ष	KCC for crops फसलों के लिए के.सी.सी.	KCC for animal husbandry पशुपालन के लिए के.सी.सी.	KCC for Fisheries मछली पालन के लिए के.सी.सी.

3.2.3	KCC Limit (Rs.) at the time of issuance जारी करने के समय के.सी. सी उधार सीमा (रु)	KCC for crops फसलों के लिए के.सी.सी.	KCC for animal husbandry पशुपालन के लिए के.सी.सी.	KCC for Fisheries मछली पालन के लिए के.सी.सी.
3.2.4	Current KCC Limit (Rs.) वर्तमान के.सी.सी उधार सीमा (रु)	KCC for crops फसलों के लिए के.सी.सी.	KCC for animal husbandry पशुपालन के लिए के.सी.सी.	KCC for Fisheries मछली पालन के लिए के.सी.सी.
3.2.5	Collateral used (if any) for KCC/ कुछ गिरवी या कुछ बतौर ज़मानत दिया के.सी.सी के लिए Refer to attached code sheet/कृपया उत्तर के लिए कोड शीट रेफर करें *****	KCC for crops फसलों के लिए के.सी.सी.	KCC for animal husbandry पशुपालन के लिए के.सी.सी.	KCC for Fisheries मछली पालन के लिए के.सी.सी.
★ 3.3	Do you have crop insurance? क्या आपके पास फसल बीमा है?	1-Yes हाँ 2-No नहीं		
★ 3.4	Do you have livestock insurance? क्या आपके पास पशुधन बीमा है?	1-Yes हाँ 2-No नहीं		
3.5	Whether associated with any Self-Help Group (SHG)? क्या आप किसी स्व-सहायता समूह (SHG) के सदस्य हैं?	1-Yes हाँ 2-No नहीं		
3.6	Whether associated with any Farmer Producer Organization (FPO) / Farmer Producer Company (FPC)? क्या आप किसी किसान उत्पादक संगठन (FPO) / किसान उत्पादक कंपनी (FPC) के सदस्य हैं?	1-Yes हाँ 2-No नहीं		
3.7	Whether associated with Joint-Liability Group (JLG)? क्या आप किसी संयुक्त-देयता समूह (JLG) के सदस्य हैं?	1-Yes हाँ 2-No नहीं		

☞ Interviewer to refer to description of SHG/FPO/FPC/JLG given in the manual to elicit responses from the respondent
यदि रेस्पोंडेंट को स्वयं सहायता समूह (SHG) / किसान निर्माता संगठन (FPO) / किसान निर्माता कंपनी (FPC) / संयुक्त देयता समूह (JLG) बारे में पता नहीं है, मैनुअल में दी गई स्वयं सहायता समूह (SHG) / किसान निर्माता संगठन (FPO) / किसान निर्माता कंपनी (FPC) / संयुक्त देयता समूह (JLG) के विवरण का उल्लेख करें

***INTERVIEWER TO NOTE DETAILS OF SHGs/FPOs/JLGs/FPCs AS APPLICABLE**

इंटरविएवर स्वयं सहायता समूह (SHG) / किसान निर्माता संगठन (FPO) / किसान निर्माता कंपनी (FPC) / संयुक्त देयता समूह (JLG) का विवरण नोट करें, यदि लागू हैं।

.....

3.8	Are you part of any contract farming agreement? क्या आप कॉन्ट्रैक्ट फार्मिंग करते हैं? (कॉन्ट्रैक्ट फार्मिंग का मतलब है किसी कंपनी या किसी व्यापारी के साथ तय दाम पर फसल बेचने का कॉन्ट्रैक्ट करना)				1-Yes हाँ 2-No नहीं							
If yes in 3.8, please share the details ☞ यदि Q3.8 का जवाब हाँ है तो नीचे विवरण दें अथवा Q3.9 पे जाएँ												
3.8.1	कॉन्ट्रैक्ट की शर्तें				फसल 1/crop1		फसल 2/crop2		फसल 3/crop3			
3.8.1a	Rate per quintal प्रति क्विंटल रेट (₹)				Rs..... /-		Rs..... /-		Rs..... /-			
3.8.1b	Guaranteed sale of crop कॉन्ट्रैक्ट के तहत कितनी उपज की बिक्री निश्चित है? (क्विंटल)											
3.8.1c	Crop(s) grown as per the contract कॉन्ट्रैक्ट के तहत कौन कौन सी फसलें उगाई गई हैं?											
3.8.1d	Payment terms खरीदार/ कंपनी की साथ पेमेंट/ भुगतान की शर्तें (Excluding any advance) If advance is provided, please mention in 3.8.1e below: एडवांस हटाके (अगर कोई एडवांस मिला है तो कृपया उससे नीचे 3.8.1e में लिखिए)											
	फसल 1/crop1				फसल 2/crop2				फसल 3/crop3			
	First instalment पहली	Second instalment	Third instalment तीसरी	Others अन्य (₹)	First instalment पहली	Second instalment	Third instalment तीसरी	Others अन्य (₹)	First instalment पहली	Second instalment	Third instalment तीसरी	Others अन्य (₹)

	इन्स्टाल मेन्ट (किस्त) (रु)	दूसरी इन्स्टाल मेन्ट (किस्त) (रु)	इन्स्टाल मेन्ट (किस्त) (रु)		इन्स्टाल मेन्ट (किस्त) (रु)	दूसरी इन्स्टाल मेन्ट (किस्त) (रु)	इन्स्टाल मेन्ट (किस्त) (रु)		इन्स्टाल मेन्ट (किस्त) (रु)	दूसरी इन्स्टाल मेन्ट (किस्त) (रु)	इन्स्टाल मेन्ट (किस्त) (रु)	
3.8.1e	Any advance received under the contract (Rs.) कॉन्ट्रैक्ट के तहत कितना एडवांस मिला (रु) (अगर मिला तो कृपया बताएँ)											
	एडवांस फसल 1 (रु) Crop1 (Rs.)				एडवांस फसल 2 (रु) Crop2 (Rs.)				एडवांस फसल 3 (रु) Crop3 (Rs.)			
3.9 ★	What crops do you sow in Kharif and Rabi season? आप खरीफ(सौवनी) और रबी (हाडी)में कौन सी फसलें उगाते हैं ?											
	Crop फसल	रबी की फसलें (अक्टूबर से जून)- हाडी			खरीफ की फसलें (जुलाई से अक्टूबर/नवंबर)- (सौवनी)							
		1.....	2..... ...	3.....	1.....	2.....	3.....					
	Area (acres) क्षेत्रफल (एकड़)	..... .....	..... .....	..... .....	..... .....	..... .....	..... .....
☞ Please mention intercropped crops कृपया साथ साथ बोई हुई फसलों का उल्लेख करे												
3.10	On the basis of last 3 years, what is the average annual expenditure incurred by you on cultivation of the crops mentioned by				(A) Average Cultivation Cost (Rs.)	(B) Average Borrowing (Rs.)	(C) Source wise Break-up of borrowed money उधार का ब्रेक-उप: स्त्रोत के हिसाब से					

	you and how much money do you borrow for the purpose of cultivation? पिछले 3 वर्षों के आधार पर आपके द्वारा बताई गई फसलों की खेती पर आपके द्वारा किया गया औसत वार्षिक खर्चा क्या है और आप खेती के उद्देश्य से कितना धन उधार लेते हैं?	खेती पर औसत वार्षिक खर्चा (रु)	खेती पर औसत वार्षिक ली जाने वाली उधार की रकम (रु)	Institutional संस्थागत स्त्रोत(रु)	Non-institutional गैर-संस्थागत स्त्रोत (रु)
3.11 ★	Whom do you approach for agricultural credit? आप कृषि ऋण के लिए किन से संपर्क करते हैं? (<i>Interviewer to tick mark relevant options under 2 broad heads given below</i>) MULTIPLE CHOICE नीचे दिए गए 2 समूह के अंतर्गत विकल्पों पर टिक करें (मल्टीपल चॉइस)				
	(A) Institutional Sources	(B) Non-Institutional Sources			
	1-Private Commercial Bank -निजी वाणिज्यिक बैंक 2-Nationalized Bank राष्ट्रीयकृत बैंक 3-Regional Rural Banks (RRBs) क्षेत्रीय ग्रामीण बैंक (आरआरबी) 4-Primary Agricultural Credit Society (PACs) प्राथमिक कृषि क्रेडिट समिति 5-Co-operative Bank सहकारी बैंक 6-Co-operative Society सहकारी समिति 7-Non-Banking Financial Company (NBFC) गैर बैंकिंग वित्तीय कंपनी (NBFC) 8-Micro-finance institution (MFI) माइक्रो-फाइनेंस संस्थान (MFI) 9-Self Help Group (SHG) स्वयं सहायता समूह 10- Farmer Producer Company (FPC)/ Farmer Producer Organization (FPO) किसान निर्माता कंपनी/ किसान निर्माता संगठन 11-Joint Liability Group (JLG) संयुक्त देयता समूह 12-Other Institutional अन्य संस्थागत (.....)	1-Local money lender स्थानीय साहूकार 2-Relatives/Friends रिश्तेदार / दोस्त 3-Local gold smith/सुनार 4-Agricultural Input dealer/ कृषि सामग्री डीलर 5-Arthtiya/Trader/Baniya/Sahukar/ आढ़ती / व्यापारी / बनिया / साहूकार 6-Landlord/ज़मीन का मालिक 7- Other non-institutional- अन्य गैर-संस्थागत (.....)			
3.12a ★	Are there any intermediaries** involved in obtaining institutional loans? क्या संस्थागत ऋण प्राप्त करने में किसी बिचोलिये/ एजेंट** की सहायता लेनी पड़ती है?	1-Yes हाँ 2-No नहीं			

	<p><i>** who has taken commission or share in the loan amount disbursed, in lieu of his engagement for availing the loan</i></p> <p><i>** जिसने ऋण दिलाने के लिए कोई कमीशन ली हो या मिलने वाले कुल ऋण राशि में से कोई हिस्सा लिया हो</i></p>	
3.12b	<p>If yes in 3.12a, what is the role? Please specify/ यदि हाँ, तो उनकी भूमिका क्या होती है?</p>	

	<p>Q3.13a.1 से लेकर Q3.13a.10 तक के सवाल सिर्फ उन्ही रेस्पोंडेंट्स से पूछें जिन्होंने Q1.5 के बॉक्स A में कृषि के लिए स्व-स्वामित्व वाली भूमि का क्षेत्रफल बताया हो</p> <p>I</p> <p>Ask Q3.13a.1 to Q3.13a.10 to only those respondents who have reported self-owned area in box A of Q1.5</p>				
3.13	<p>Please provide the details of latest agricultural loans taken by you.</p> <p>☞ <i>Take details of institutional and non-institutional loans for the most recent year from among financial years- 2019-20, 2018-19 and 2017-18. Start from 2019-20 and if loan not taken in that year go to previous year</i></p> <p>☞ <i>Only agri-loans taken on respondent's operated area are to be considered. Loans can be taken on: (i) owned area (leased out and not leased/ self-use)) and (ii) operated but not owned area. Loan under (i) will be taken by the farmer and (ii) can be taken both by farmer (as tenant farmer without collateral) and/or the land owner. In case the land owner takes the loan in (ii), we record it only if that loan amount is forwarded to this farmer for agri-purposes</i></p> <p>☞ <i>All other non-agri loans taken by respondent or his family members are not to be considered</i></p> <p>कृपया अपने द्वारा लिए गए नवीनतम/ लेटेस्ट कृषि ऋणों का विवरण दें।</p> <p>☞ वित्तीय वर्ष- 2019-20, 2018-19 और 2017-18 के बीच सबसे हाल के वर्ष के लिए संस्थागत और गैर-संस्थागत कृषि ऋणों का विवरण लें। सबसे हाल के वर्ष से शुरू करें और यदि उस वर्ष में कृषि ऋण नहीं लिया गया है तो उससे पिछले वर्ष के कृषि ऋणों का विवरण लें।</p> <p>☞ सिर्फ रेस्पोंडेंट के संचालित क्षेत्र पर लिए गए कृषि ऋणों के बारे में पूछें।</p> <p>कृषि ऋण इन सूक्तों में लिए जा सकते हैं :</p> <table border="1"> <tr> <td>(i) स्वामित्व वाले क्षेत्र पर (जिसे पट्टे पर दिया हो या स्वयं की खेती के लिए इस्तेमाल हो रहा हो)।</td><td>(ii) संचालित क्षेत्र पर जिसपर किसान का स्वामित्व नहीं है।</td></tr> <tr> <td>कृषि ऋण किसान स्वयं ले सकता है</td><td> <ul style="list-style-type: none"> - किसान (टेनेंट किसान- जो किराये पर ज़मीन लेकर खेती कर रहा हो) बगैर कोई ज़मानत दिए ऋण ले सकता है। - ज़मीन (जिस पर किसान खेती कर रहा है) का मालिक ऋण ले सकता है**। </td></tr> </table> <p>** यदि ज़मीन पर मालिक ने कृषि ऋण लिया है, तो सर्वे के लिए ब्यौरा तभी लें अगर इस ऋण राशि को किसान को खेती करने के लिए दिया गया हो!</p> <p>☞ * रेस्पोंडेंट और उसके परिवार द्वारा लिए गई अन्य गैर-कृषि ऋणों के बारे में नहीं पूछा जायेगा! LOANS TAKEN ON FAMILY OPERATED LOAN BY FAMILY MEMBERS NOT TO BE TAKEN</p>	(i) स्वामित्व वाले क्षेत्र पर (जिसे पट्टे पर दिया हो या स्वयं की खेती के लिए इस्तेमाल हो रहा हो)।	(ii) संचालित क्षेत्र पर जिसपर किसान का स्वामित्व नहीं है।	कृषि ऋण किसान स्वयं ले सकता है	<ul style="list-style-type: none"> - किसान (टेनेंट किसान- जो किराये पर ज़मीन लेकर खेती कर रहा हो) बगैर कोई ज़मानत दिए ऋण ले सकता है। - ज़मीन (जिस पर किसान खेती कर रहा है) का मालिक ऋण ले सकता है**।
(i) स्वामित्व वाले क्षेत्र पर (जिसे पट्टे पर दिया हो या स्वयं की खेती के लिए इस्तेमाल हो रहा हो)।	(ii) संचालित क्षेत्र पर जिसपर किसान का स्वामित्व नहीं है।				
कृषि ऋण किसान स्वयं ले सकता है	<ul style="list-style-type: none"> - किसान (टेनेंट किसान- जो किराये पर ज़मीन लेकर खेती कर रहा हो) बगैर कोई ज़मानत दिए ऋण ले सकता है। - ज़मीन (जिस पर किसान खेती कर रहा है) का मालिक ऋण ले सकता है**। 				
3.13a ★	<p>PLEASE PROVIDE DETAILS OF THE APPLICABLE AGRI-LOANS TAKEN ON THE SELF OWNED AGRICULTURAL LAND.</p> <p>किसान की अपने नाम वाली ज़मीन पर लिए गए कृषि ऋणों का विवरण लें।</p>				
3.13a.1 KCC Limit (CROP)[Month and Year of loan]: के.सी.सी लिमिट लिमिट (कृषि) (ऋण लेने का साल और महीना)					
KCC Limit (CROP)- Details के.सी. सी लिमिट लिमिट (कृषि) का ब्यौरा					

KCC Limit (Crop) Loan parameters के.सी. सी लिमिट (फसल) की जानकारी के बिंदु	1.Limit (Rs.) 1. ऋण ली गई कुल राशि (रु)	2.Limit used (Rs.) इस्तेमाल की हुई लिमिट राशि (रु)	3.Issuing Bank Name के.सी. सी लिमिट जारी करने वाले बैंक का नाम	4.Based on Land Ownership क्या लिमिट अपने नाम की ज़मीन पे मिली है 1-Yes हाँ 2-No नहीं	5. Annual Interest Rate (%) वार्षिक ब्याज दर(%)	6. Interest paid to bank सालाना ब्याज की रकम जो बैंक को दी है (रु)	7. Repayment Status 1-Paid completely 2-interest paid but principal to be paid 3- Paid partially 4-Paid nothing yet but will pay 5-Defaulted on loan payment (पूरा चूका दिया है -1; ब्याज चूका दिया है असल चुकाना बाकी है-2 ऋण का कुछ हिस्सा चुकाया है और बाकी हिस्सा चुकाना रहता है -3; ऋण राशि की पूरी रकम चुकानी बाकी है पर चूका देंगे-4; ऋण समय से चूका नहीं पा रहे हैं-5)	8.Outstanding Amount (If any) (Rs.) आउटस्टैंडिंग राशि (सर्वेक्षण की तिथि तक) कृषि ऋण का हिस्सा जो देना बकाया है (रु)	9.Default Amount (If any) (Rs.) बाकी राशि (सर्वेक्षण की तिथि तक) कृषि ऋण का हिस्सा जो आप निर्धारित समय पर चूका नहीं पाए हो (रु)
★	<p><i>If the above-stated KCC Limit is used parts as per the cropping season, please provide details</i> यदि आप ऊपर बताई गए सालाना के.सी. सी लिमिट राशि को खरीफ और रबी फसलों के लिए एक से ज़्यादा बार इस्तेमाल करते हैं तो कृपया विवरण दें</p>								
	Cropping season फसल	(a) Annual KCC Limit सालाना लिमिट राशि (रु) (Should be same as stated in 3.13a.1) 3.13a.1 में बताई गई लिमिट राशि के बराबर होनी चाहिए)	(b) KCC limit used (cropping seasonwise) इस्तेमाल की हुई लिमिट राशि (रु) (खरीफ और रबी फसलों से सम्बंधित)	(c) Interest amount paid to bank (Rs.) ब्याज की रकम जो बैंक को दी है (रु)	(d) Principal + interest paid to bank (Rs.) ब्याज और असल मिलाकर राशि जो बैंक को अदा की है (रु)				
	Kharif खरीफ								
	Rabi रबी								

3.13a.2 End use of KCC Limit (CROP):- Tick mark the applicable expenditure heads के.सी. सी लिमिट (फसल) के पैसे को कहाँ खर्च किया I के.सी.सी लिमिट के तहत जिन जिन चीज़ों पे लोन का पैसा खर्च हुआ है , उसपे टिक मार्क करें और प्रतिशत में ब्रेक-उप नोट करें! यदि रेस्पोंडेंट प्रतिशत में नहीं बता पा रहा, तो खर्च की रकम नोट करें! <i>(Mention amount in Rupees (Rs.) in case expenditure break-up in % is not given by the respondent)</i>																
End use of KCC Limit:- के.सी. सी लिमिट (फसल) की लोन राशि का इस्तेमाल ★	1- Buying agricultural inputs)Labour, seed, fertilized,land rent,etc.) कृषि इनपुट (बीज, खाद, खरीदना, लेबर, कृषि भूमि का किराया देना इत्यादि)		2- Buying farm machinery फार्म मशीनरी खरीदना		3- Other farming expenditures (cattle purchase, tube well related expenses) अन्य कृषि खर्चा (मवेशियों की खरीद, ट्यूबवेल से संबंधित व्यय)		4- Closing/repaying old loans पुराने ऋणों को चुकाना		5- Family related events (marriage/ other events/ medical emergencies / education) (पारिवारिक खर्च (विवाह / अन्य कार्यक्रम / चिकित्सा आपात स्थिति / शिक्षा)		6-Personal expenses व्यक्तिगत खर्च		7- Others अन्य		Total कुल योग	
	.....%	Rs.	.....%	Rs.	.....%	Rs.	.....%	Rs.	...	Rs	..... %	Rs.	.....%	Rs.	.....%	Rs.

3.13a.3 KCC Term Loan /other term loan [Month and Year of loan] के.सी. सी टर्म लोन/अन्य टर्म लोन (ऋण लेने का साल और महीना) Purpose of the loan**/ कृषि ऋण लेने का उद्देश्य:.....								
KCC term loan/other term loan- Details के.सी. सी टर्म लोन/अन्य टर्म लोन का ब्यो★								
KCC term loan/other term loan - Details के के.सी.सी टर्म लोन/अन्य टर्म लोन की जानकारी के बिंदु	1.Amount Borrowed (Rs.) ऋण ली गई राशि (रु।)	2.Issuing Bank Name ऋण जारी करने वाले बैंक का नाम	3.Duration of loan ऋण की अवधि	4.Collateral Used **** कृषि ऋण लेने की लिए क्या गिरवी या कुछ बतौर ज़मानत दिया	5. Annual Interest Rate (%) वार्षिक ब्याज दर (%)	6. Repayment Status 1-Paid completely 2-interest paid but principal to be paid 3- Paid partially 4-Paid nothing yet but will pay 5- Defaulted on loan payment (पूरा चूका दिया है -1; ब्याज चूका दिया है असल चुकाना बाकी है-	7.Outstanding Amount (If any) (Rs.) आउटस्टैंडिंग राशि (सर्वेक्षण की तिथि तक) कृषि ऋण का हिस्सा जो देना बकाया है (रु)	8.Default Amount (If any) (Rs.) बाकी राशि (सर्वेक्षण की तिथि तक) कृषि ऋण का हिस्सा जो आप निर्धारित समय पर चूका नहीं पाए हो (रु)

					2; ऋण का कुछ हिस्सा चुकाया है और बाकी हिस्सा चुकाना रहता है -3; ऋण राशि की पूरी रकम चुकानी बाकी है पर चूका देंगे-4; ऋण समय से चूका नहीं पा रहे हैं-5)		
☞ यदि ब्याज की दर उपलब्ध नहीं है तो कृपया नीचे 4 बिंदु पूछें							
	कितने की किस्त (रकम) (रु)	कितनी किस्तें आप दे चुके हैं?	कितनी किस्तें देनी बकाया हैं?	किश्तें किस हिसाब से देनी हैं/दे रहे थे? (मासिक=1, त्रिमासिक=2, सालाना=3)			
3.13a.4 End use of KCC term loan/other term loan: Tick mark the applicable expenditure heads के.सी. सी टर्म लोन/अन्य टर्म लोन के पैसे को कहाँ खर्च किया I के.सी.सी टर्म लोन के तहत जिन जिन चीज़ों पे लोन का पैसा खर्च हुआ है , उसपे टिक मार्क करें और प्र तिशत में ब्रेक-उप नोट करें! यदि रेस्पोंडेंट प्रतिशत में नहीं बता पा रहा, तो खर्च की रकम नोट करें! (Mention amount in Rupees (Rs.) in case expenditure break-up in ★ is not given by the respondent)							

End use of KCC term loan/ other term loan के.सी.सी. टर्म लोन/ अन्य टर्म लोन की लोन राशि का इस्तेमाल	1- Buying agricultural inputs (Labour, seed, fertilized,land rent,etc.) कृषि इनपुट (बीज, खाद, खरीदना, लेबर, कृषि भूमि का किराया देना इत्यादि)		2- Buying farm machinery फार्म मशीनरी खरीदना		3- Other farming expenditures (cattle purchase, tube well related expenses) अन्य कृषि खर्चा (मवेशियों की खरीद, ट्यूबवेल से संबंधित व्यय)		4- Closing /repaying old loans पुराने ऋणों को चुकाना		5- Family related events (marriage/ other events/ medical emergencies / education) (पारिवारिक खर्चे (विवाह / अन्य कार्यक्रम / चिकित्सा आपात स्थिति / शिक्षा)		6-Personal expenses व्यक्तिगत खर्चे		7- Others अन्य		8.Total कुल योग	
	.....%	Rs.	.....%	Rs.	.....%	Rs.	... .. %	Rs .	.. . %	Rs.	.... .%	Rs.	.....%	Rs.	.....%	Rs.
3.13a.5 Agriculture loan from Co-operative bank/Societies Month and Year of loan - कोऑपरेटिव बैंक/ समिति से लिया हुआ कृषि लोन (ऋण लेने का साल और महीना)																

Agriculture loan from Co-operative bank/Societies- Details कोआपरेटिव बैंक/ समिति से लिया हुआ कृषि लोन का ब्योरा Purpose of the loan**/ कृषि ऋण लेने का उद्देश्य:.....									
Loan Parameters as below ऋण की जानकारी के बिंदु निम्न दिए गए हैं★									
1.Amount Borrowed (Rs.) ऋण ली गई राशि (रु)	2. Whether received anything in kind in lieu of the loan amount? (1-Yes; 2-No) कृषि ऋण के अंतर्गत कैश के बदले कुछ सामान दिया गया क्या ?(1-हाँ ; 2-नहीं)	3.If Yes, how much would be the value of articles received as kind in lieu of the loan amount (Rs.) यदि हाँ, कितने मूल्य का सामान दिया गया (रु।)	4.Issuing Bank/Society Name ऋण जारी करने वाले बैंक का नाम	5.Duration of loan ऋण की अवधि	6.Collateral Used **** कृषि ऋण लेने की लिए कुछ गिरवी या कुछ ज़मानत दिया	7. Annual Interest Rate (%) वार्षिक ब्याज दर(%)	8.Repayment Status 1-Paid completely 2-interest paid but principal to be paid 3- Paid partially 4-Paid nothing yet but will pay 5-Defaulted on loan payment (पूरा चूका दिया है -1; ब्याज चूका दिया है असल चुकाना बाकी हैं-2; ऋण का कुछ हिस्सा चुकाया है और बाकी हिस्सा चुकाना रहता है -3; ऋण राशि की पूरी रकम चुकानी बाकी हैं पर चूका देंगे-4; ऋण समय से चूका नहीं पा रहे हैं-5)	9.Outstanding Amount (If any) (Rs.) आउटस्टैंडिंग राशि (सर्वेक्षण की तिथि तक) कृषि ऋण का हिस्सा जो देना बकाया है (रु)	10.Default Amount (If any) (Rs.) बाकी राशि (सर्वेक्षण की तिथि तक) कृषि ऋण का हिस्सा जो आप निर्धारित समय पर चूका नहीं पाए हो (रु)
❖ यदि ब्याज की दर उपलब्ध नहीं है, तो कृपया नीचे 4 बिंदु पूछें									
	कितने की किस्त (रकम) (रु)	कितनी किस्तें आप दे चुके हैं?	कितनी किस्तें देनी बकाया हैं?	किस्तें किस हिसाब से देनी हैं/दे रहे थे? (मासिक=1, त्रिमासिक=2, सालाना=3)					
3.13a.6 End use of Agriculture loan from Co-operative bank/Societies: Tick mark the applicable expenditure heads कोआपरेटिव बैंक/ समिति से लिए हुए कृषि ऋण के पैसे को कहाँ खर्च किया I कोआपरेटिव बैंक/ समिति से लिए हुए कृषि ऋण के तहत जिन जिन चीज़ों पे लोन का पैसा खर्च हुआ है , उसपे टिक मार्क करें और प्रतिशत									

में ब्रेक-उप नोट करें! यदि रेस्पोंडेंट प्रतिशत में नहीं बता पा रहा, तो खर्च की रकम नोट करें! (Mention amount in Rupees (Rs.) in case expenditure break-up in % is not given by the respondent)																
End use of Agriculture loan from Co-operative bank/Societies End use को आपरेटिव बैंक/ समिति से लिए हुए लोन राशि का इस्तेमाल	1- Buying agricultural inputs (Labour, seed, fertilized,land rent,etc.) कृषि इनपुट (बीज, खाद, खरीदना, लेबर, कृषि भूमि का किराया देना इत्यादि)		2- Buying farm machinery फार्म मशीनरी खरीदना		3- Other farming expenditures (cattle purchase, tube well related expenses) अन्य कृषि खर्चा (मवेशियों की खरीद, ट्यूबवेल से संबंधित व्यय)		4- Closing /repaying old loans पुराने ऋणों को चुकाना		5- Family related events (marriage/ other events/ medical emergencies / education) (पारिवारिक खर्च (विवाह / अन्य कार्यक्रम / चिकित्सा आपात स्थिति / शिक्षा)		6-Personal expenses व्यक्तिगत खर्च		7- Others अन्य		8.Total कुल योग	
	.....%	रु.	.....%	रु.	.....%	रु.	.....%	रु.	.....%	रु.	.....%	रु.	.....%	रु.	100%	रु.

3.13a.7 Other Institutional Agriculture Loan [Month and Year of loan अन्य संस्थागत कृषि ऋण (ऋण लेने का साल और महीना)]								
3.13a.7 Where did you get the loan ऋण कहाँ से मिला- (1- स्व-सहायता समूह (SHG); 2- संयुक्त-देयता समूह (JLG); 3- किसान उत्पादक संगठन (FPO) / किसान उत्पादक कंपनी (FPC); 4- अन्य(.....))								
Other Agriculture Loan- Details अन्य संस्थागत कृषि ऋण का ब्यौरा					Purpose of the loan**/ कृषि ऋण लेने का उद्देश्य:			
Loan Parameters ऋण की जानकारी के बिंदु ★	1.Amount Borrowed (Rs.) ऋण ली गई राशि /(रु)	2.Issuing Bank Name ऋण जारी करने वाले बैंक का नाम	3.Duration of loan ऋण की अवधि	4.Collateral Used **** कृषि ऋण लेने की लिए कुछ गिरवी या कुछ बतौर ज़मानत दिया	5. Annual Interest Rate (%) वार्षिक ब्याज दर(%)	6. Repayment Status 1-Paid completely 2-interest paid but principal to be paid 3- Paid partially 4-Paid nothing yet but will pay 5-Defaulted on loan payment (पूरा चूका दिया है -1; ब्याज चूका दिया है असल चुकाना बाकी है-2; ऋण का कुछ हिस्सा चुकाया है और बाकी हिस्सा चुकाना रहता है -3; ऋण राशि की पूरी रकम चुकानी बाकी है पर चूका देंगे-4; ऋण समय से चूका नहीं पा रहे हैं-5)	7.Outstanding Amount (If any) (Rs.) आउटस्टैंडिंग राशि (सर्वेक्षण की तिथि तक) कृषि ऋण का हिस्सा जो देना बकाया है (रु)	8.Default Amount (If any) (Rs.) बाकी राशि (सर्वेक्षण की तिथि तक) कृषि ऋण का हिस्सा जो आप निर्धारित समय पर चूका नहीं पाए हो (रु)
❗ यदि ब्याज की दर उपलब्ध नहीं है, तो कृपया नीचे 4 बिंदु पूछें								
	कितने की किस्त (रकम) (रु)	कितनी किस्तें आप दे चुके हैं?	कितनी किस्तें देनी बकाया हैं?	किस्तें किस हिसाब से देनी हैं/दे रहे थे? (मासिक=1, त्रिमासिक=2, सालाना=3)				

3.13a.8 End use of Other institutional agriculture loan: Tick mark the applicable expenditure heads अन्य संस्थागत कृषि ऋण के पैसे को कहाँ खर्च किया I अन्य संस्थागत कृषि ऋण के तहत जिन जिन चीज़ों पे लोन का पैसा खर्च हुआ है , उसपे टिक मार्क करें औरप्र तिशत में ब्रेक-उप नोट करें! यदि रेस्पोंडेंट प्रतिशत में नहीं बता पा रहा, तो खर्च की रकम नोट करें! (Mention amount in Rupees (Rs.) in case expenditure break-up in % is not given by the respondent)																	
End use of Other institutional agriculture loan अन्य संस्थागत कृषि लोन राशि का इस्तेमाल ★	1- Buying agricultural inputs)Labour, seed, fertilized,land rent,etc.) कृषि इनपुट (बीज, खाद, खरीदना, लेबर, कृषि भूमि का किराया देना इत्यादि)	2- Buying farm machinery फार्म मशीनरी खरीदना	3- Other farming expenditures (cattle purchase, tube well related expenses) अन्य कृषि खर्चा (मवेशियों की खरीद, ट्यूबवेल से संबंधित व्यय)	4- Closing/repaying old loans पुराने ऋणों को चुकाना	5-Family related events (marriage/ other events/ medical emergencies / education) (पारिवारिक खर्च (विवाह / अन्य कार्यक्रम / चिकित्सा आपात स्थिति / शिक्षा)	6-Personal expenses व्यक्तिगत खर्च	7- Others अन्य)	8.Total कुल योग									
								%	रु.%	रु.%	रु.%	रु.%
3.13a.9 Non-institutional agricultural loans-Month and Year of loan गैर -संस्थागत कृषि ऋण (ऋण लेने का साल और महीना)																	
★ Non-institutional agricultural loans - Loan Details गैर -संस्थागत कृषि ऋण का ब्यौरा																	
S.No	Loan Parameter / ऋण की जानकारी के बिंदु										Description/ विवरण						
1	Amount borrowed ऋण ली गई राशि (रु)																
2	Whether received anything in kind in lieu of the loan amount? (1-Yes; 2-No) कृषि ऋण के अंतर्गत कैश के बदले कुछ सामान दिया गया था ?(1-हाँ ; 2-नहीं)																
3	If Yes, how much would be the value of articles received as kind in lieu of the loan amount (Rs.) यदि हाँ, कितने मूल्य का सामान दिया गया (रु।)																
4	Purpose of loan** कृषि ऋण लेने का उद्देश्य																

5	Duration of loan कृषि ऋण की अवधि	
6	Source of loan *** कृषि ऋण का स्रोत	
7	Nature of the interest (Annual=1, Monthly=2, Daily=3) ब्याज किस हिसाब से दिया गया था? (वार्षिक=1, मासिक=2, रोज़ाना=3)	
8	Annual Rate of interest ब्याज दर (%) ☞ Convert interest rates reported monthly/ daily/ others into annual interest rate	
	<u>If rate of interest not available, please ask below 2 points (9/10) यदि ब्याज की दर उपलब्ध नहीं है, तो कृपया नीचे 2 बिंदु (9/10) पूछें</u>	
9	Instalment (Rs.) कितने की किश्त (रकम) (रु)	
9.1	How many instalments paid? कितनी किश्तें आप दे चुके हैं?	
9.2	How many instalments left? कितनी किश्तें देनी बकाया हैं?	
10	Payment cycle of instalment (monthly=1, quarterly=2, half yearly, annually=3) किश्तें किस हिसाब से देनी हैं/दे रहे थे मासिक=1, त्रिमासिक=2, सालाना=3)	
11	Collateral **** कृषि ऋण लेने की लिए कुछ गिरवी या कुछ बतौर ज़मानत दिया	
12	Repayment Status 1-Paid completely 2-interest paid but principal to be paid 3- Paid partially 4-Paid nothing yet but will pay 5-Defaulted on loan payment (पूरा चूका दिया है -1; ब्याज चूका दिया है असल चुकाना बाकी है-2; ऋण का कुछ हिस्सा चुकाया है और बाकी हिस्सा चुकाना रहता है -3; ऋण राशि की पूरी रकम चुकानी बाकी है पर चूका देंगे-4; ऋण समय से चूका नहीं पा रहे हैं-5)	
13	Outstanding amount (If any) (as on date of survey) (Rs.) आउटस्टैंडिंग राशि (सर्वेक्षण की तिथि तक) कृषि ऋण का हिस्सा जो देना बकाया है (रु)	
14	Defaulted loan amount (as on date of survey) (Rs.) बाकी राशि (सर्वेक्षण की तिथि तक) कृषि ऋण का हिस्सा जो आप निर्धारित समय पर चूका नहीं पाए हो (रु)	

F Interviewer to mark options for the asterisked items using the response code sheet provided as annexure

कोड शीट में दिए गई रिसपांस विकल्पों का उपयोग करके तारांकित बिंदुओं के जवाब लिखें

3.13a.10 End use of Non-institutional agricultural loan: Tick mark the applicable expenditure heads गैर -संस्थागत कृषि ऋण के पैसे को कहाँ खर्च किया I गैर -संस्थागत कृषि ऋण के तहत जिन जिन चीज़ों पे लोन का पैसा खर्च हुआ है , उसपे टिक मार्क करें और प्रतिशत में ब्रेक-उप नोट करें! यदि रेस्पोंडेंट प्रतिशत में नहीं बता पा रहा, तो खर्च की रकम नोट करें! (Mention amount in Rupees (Rs.) in case expenditure break-up in % is not given by the respondent)

End use of non-institutional agricultural loan: अन्य संस्थागत कृषि लोन राशि का इस्तेमाल	1- Buying agricultural inputs)Labour, seed, fertilized,land rent,etc.) कृषि इनपुट (बीज, खाद, खरीदना, लेबर, कृषि भूमि का किराया देना इत्यादि)	2- Buying farm machinery फार्म मशीनरी खरीदना	3- Other farming expenditures (cattle purchase, tube well related expenses) अन्य कृषि खर्चा (मवेशियों की खरीद, ट्र्यूबवेल से संबंधित व्यय)	4- Closing/repaying old loans पुराने ऋणों को चुकाना	5-Family related events (marriage/ other events/ medical emergencies / education) (पारिवारिक खर्च (विवाह / अन्य कार्यक्रम / चिकित्सा आपात स्थिति / शिक्षा)	6- Personal expenses व्यक्तिगत खर्च	7- Others अन्य	8.Total कुल योग
	.....% रु.	.....% रु.	.....% रु.	.....% रु.	.....% रु.	.....% रु.	.....% रु.	100% रु.

PLEASE PROVIDE DETAILS OF THE APPLICABLE AGRI-LOANS TAKEN ON OPERATED AGRICULTURAL LAND WHICH IS NOT OWNED BY THE FARMER	
3.13b	किसान संचालित क्षेत्र (जिसपर किसान का स्वामित्व नहीं है) पर लिए गए कृषि ऋणों का विवरण दें I
	<div> <p>सिर्फ उन्ही रेस्पोंडेंट्स से पूछें जिन्होंने Q1.5 के बॉक्स B य C में कृषि के लिए किराए पर या पट्टे ली हुई ज़मीन भूमि का क्षेत्रफल बताया हो I Only to be asked from those respondents who have reported Leased-in land area (non-family/family) in box B or C of Q1.5</p> </div> <div> <p>सिर्फ उन्ही रेस्पोंडेंट्स से पूछें जिन्होंने Q1.5 के बॉक्स D में कृषि के लिए संयुक्त परिवार के स्वामित्व वाली भूमि में से अपने द्वारा संचालित हिस्से के क्षेत्रफल बताया हो I Only to be asked from those respondents who have reported the self-operated area in the joint family owned land in box D of Q1.5</p> </div>

3.13b		AGRI LOANS AGAINST OPERATED WHICH IS LEASED IN LAND FROM FAMILY/NON-FAMILY कृषि ऋण जो संचालित क्षेत्र (जिसपर किसान का स्वामित्व नहीं है और पट्टे पे ली हुई हैं) पर लिए गए हो			AGRI LOANS AGAINST OPERATED LAND WHICH IS FAMILY OWNED AND NOT LEASED-IN कृषि ऋण जो परिवार के साझा भूमि के नाम पे हैं पर किसान का उस भूमि पे स्वामित्व नहीं है और पट्टे पे भी नहीं ली हुई हैं		
S. No.	Loan Parameter / ऋण की जानकारी के बिंदु	Institutional Agri loan-1/ संस्थागत कृषि ऋण -1	Non-Institutional Agri loan-1 गैर-संस्थागत कृषि ऋण -1	Non-Institutional Agri loan-2 गैर-संस्थागत कृषि ऋण -2	Institutional Agri loan-1/ संस्थागत कृषि ऋण -1	Non-Institutional Agri loan-1 गैर-संस्थागत कृषि ऋण -1	Non-Institutional Agri loan-2 गैर-संस्थागत कृषि ऋण -2
1	Type of loan* कृषि ऋण का प्रकार						
1a	Loan on whose name किसके नाम पे ऋण हैं						
2	Month and year of loan disbursement कृषि ऋण मिलने का महीना और वर्ष						
3	Amount borrowed/ (Rs.) उधार ली गई राशि (रु)						
4	Purpose of loan** कृषि ऋण लेने का उद्देश्य						
5	Duration of loan कृषि ऋण की अवधि						
6	Source of loan *** कृषि ऋण का स्रोत						
7	Whether received anything in kind in lieu of the loan amount? (1-Yes; 2-No) कृषि ऋण के अंतर्गत कैश के बदले कुछ सामान दिया गया था?(1-हाँ ; 2-नहीं)						

8	If Yes, how much would be the value of articles received as kind in lieu of the loan amount (Rs.) यदि हाँ, कितने मूल्य का सामान दिया गया था (रु)						
9	Nature of the interest (Annual=1, monthly=2, daily=3) ब्याज किस हिसाब से था (वार्षिक=1, मासिक=2, रोज़ाना=3)						
10	Rate of interest ब्याज दर (%)						
	<u>If rate of interest not available, please ask below 2 points (13/14) यदि ब्याज की दर उपलब्ध नहीं है, तो कृपया नीचे 2 बिंदु (13/14) पूछें</u>						
11	Instalment (Rs.) कितने की किश्त (रकम) (रु।)						
11.1	How many instalments paid? कितनी किश्तें आप दे चुके हैं?						
11.2	How many instalments left? कितनी किश्तें देनी बकाया हैं?						
12	Payment cycle of instalment (monthly=1,						

	quarterly=2, half yearly, annually=3) किश्तें किस हिसाब से देनी हैं/दे रहे थे मासिक=1,त्रिमासिक=2, सालाना=3)						
13	Collateral Primary***** कृषि ऋण लेने की लिए कुछ गिरवी या बतौर ज़मानत कुछ दिया? (प्राथमिक)						
14	Collateral secondary***** इसके अलावा कुछ और गिरवी या बतौर ज़मानत दिया? (द्वितीयक)						
15	Repayment Status 1-Paid completely 2-interest paid but principal to be paid 3- Paid partially 4-Paid nothing yet but will pay 5-Defaulted on loan payment (पूरा चूका दिया है -1; ब्याज चूका दिया है असल चुकाना बाकी है-2;ऋण का कुछ हिस्सा चुकाया है और बाकी हिस्सा चुकाना रहता है -3;						

	ऋण राशि की पूरी रकम चुकानी बाकी हैं पर चूका देंगे-4; ऋण समय से चूका नहीं पा रहे हैं-5)						
16	Outstanding amount (If any) as on date of survey (Rs.) आउटस्टैंडिंग राशि (सर्वेक्षण की तिथि तक) कृषि ऋण का हिस्सा जो देना बकाया है (रु)						
17	Defaulted loan amount (as on date of survey) (Rs.) बाकी राशि (सर्वेक्षण की तिथि तक) कृषि ऋण का हिस्सा जो आप निर्धारित समय पर चूका नहीं पाए हो (रु)						
<i>☞ Interviewer to mark options for the asterisked items using the response code sheet provided as annexure</i>							
3.13c	<p>What was the end usage of the agricultural loans taken by you? (AGRI LOANS AGAINST OPERATED BUT NOT OWNED LAND)</p> <p>आपके द्वारा लिए गए कृषि ऋणों का उपयोग आपने कहाँ कहाँ किया ?</p> <p>कृषि ऋण जो संचालित क्षेत्र (जिसपर किसान का स्वामित्व नहीं है) पर लिए गए हो</p> <p>MULTIPLE CHOICE ☞ Interviewer to crosscheck with Q3.9b and take responses for the corresponding loans. Interviewer to tick mark loan expenditure heads in cells under relevant agri-loan columns and take percent share of the loan that was utilized towards that expenditure head</p> <p>★ Q3.9b के साथ क्रॉसचेक करें और संबंधित ऋणों के लिए जवाब लें। सम्बंधित कृषि ऋण कॉलम के तहत जिन जिन चीज़ों पे लोन का पैसा खर्च हुआ है, उसपे टिक मार्क करें और प्रतिशत में ब्रेक-उप नोट करें!</p>						
	सिर्फ उन्ही रेस्पोंडेंट्स से पूछें जिन्होंने Q1.5 के बॉक्स B य C में कृषि के लिए किराए पर या पट्टे ली हुई ज़मीन भूमि का क्षेत्रफल बताया हो I Only to be asked from those respondents who have reported Leased-in land area (non-family/family) in box B or C of Q1.5		सिर्फ उन्ही रेस्पोंडेंट्स से पूछें जिन्होंने Q1.5 के बॉक्स D में कृषि के लिए संयुक्त परिवार के स्वामित्व वाली भूमि में से अपने द्वारा संचालित हिस्से के क्षेत्रफल बताया हो I Only to be asked from those respondents who have reported the self-operated area in the joint family owned land in box D of Q1.5				
	AGRI LOANS AGAINST OPERATED WHICH IS LEASED IN LAND FROM FAMILY/NON-FAMILY		AGRI LOANS AGAINST OPERATED LAND WHICH IS FAMILY OWNED AND NOT LEASED-IN कृषि ऋण जो				



	कृषि ऋण जो संचालित क्षेत्र (जिसपर किसान का स्वामित्व नहीं है और पट्टे पे ली हुई हैं) पर लिए गए हो						परिवार के साझा भूमि के नाम पे हैं पर किसान का उस भूमि पे स्वामित्व नहीं है और पट्टे पे भी नहीं ली हुई हैं)					
Expenditure head लोन के पैसे को कहाँ खर्च किया (Mention amount in Rupees (Rs.) incase expenditure break-up in % is not given by the respondent) <i>यदि रेस्पोंडेंट प्रतिशत में नहीं बता पा रहा, तो खर्च की रकम नोट करें</i>	Institutional Agri loan-1/ संस्थागत कृषि ऋण -1		Non-Institutional Agri loan-1 गैर-संस्थागत कृषि ऋण -1		Non-Institutional Agri loan-2 गैर-संस्थागत कृषि ऋण -2		Institutional Agri loan-1/ संस्थागत कृषि ऋण -1		Non-Institutional Agri loan-1 गैर-संस्थागत कृषि ऋण -1		Non-Institutional Agri loan-2 गैर-संस्थागत कृषि ऋण -2	
1- Buying agricultural inputs)Labour, seed, fertilized,land rent,etc.) कृषि इनपुट (बीज, खाद, खरीदना, लेबर, कृषि भूमि का किराया देना इत्यादि )	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....
2- Buying farm machinery फार्म मशीनरी खरीदना	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....
3- Other farming expenditures (cattle purchase, tube well related expenses) अन्य कृषि खर्चा (मवेशियों की खरीद, ट्यूबवेल से संबंधित व्यय)	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....
4-Closing/repaying old loans पुराने ऋणों को चुकाना	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....
5-Family related events (marriage/ other events/ medical emergencies / education) (पारिवारिक खर्च (विवाह / अन्य कार्यक्रम / चिकित्सा आपात स्थिति / शिक्षा)	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....
6-Personal expenses व्यक्तिगत खर्च	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....
7- Others अन्य .....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....	.....%	Rs.....
TOTAL	100%	Rs.....	100%	Rs.....	100%	Rs.....	.....%	Rs.....	100%	Rs.....	100%	Rs.....
<i>☞ Interviewer to check Q3.13a and Q3.13b. In case all the loans have been taken from non-institutional sources, interviewer to ask Q3.14. For others, skip this question</i>												

<i>Q3.13a और Q3.13b की जांच करें। यदि सभी ऋण गैर-संस्थागत स्रोतों से लिए गए हैं, तो Q3.14 पूछें। यदि सारे ऋण संस्थागत स्रोतों से लिए गए हैं, इस सवाल को छोड़ दें</i>	
3.14 ★	<p>If no loans from bank/co-operatives were taken in last 3 years, what were the reasons for it? MULTIPLE CHOICE</p> <p>यदि पिछले 3 वर्षों में बैंक/सहकारी समितियों से कृषि ऋण नहीं लिया गया था, तो इसके क्या कारण थे?</p>
	<p>1-Past dues unsettled पिछला बकाया ऋण राशि नहीं चुकाया</p> <p>2-Don't need any new loan किसी नए ऋण की जरूरत नहीं</p> <p>3-I am not eligible for any institutional loan/ Don't have any collateral मैं किसी भी संस्थागत ऋण के लिए योग्य नहीं हूँ / बतौर ज़मानत कुछ देने को नहीं हैं</p> <p>4-The bank did not sanction the loan बैंक ने ऋण की मंजूरी नहीं दी</p> <p>5-Bank did not credit the loan amount even after document clearance - बैंक ने दस्तावेज पास करने के बाद भी लोन नहीं दिया</p> <p>6-High rate of interest ज़यादा ब्याज दर</p> <p>7-Bank official demanded money or other benefit बैंक अधिकारी ने पैसे या अन्य लाभ की मांग की</p> <p>8-Long application process लंबी आवेदन प्रक्रिया</p> <p>9-Don't have proof of cultivation खेती करने के सबूत नहीं थे</p> <p>10-Other अन्य</p>

4.1 ★	IN YOUR OPINION, WHAT IS THE MOST IMPORTANT REASON FOR DISTRESS FACED BY FARMERS TODAY? <i>Interviewer to note down the qualitative comments</i> आपकी राय में, आजकल किसान की सबसे बड़ी समस्या क्या है ? कृपया क्वालिटेटिव कमेंट्स नोट करें!			
4.2 ★	Please rate the following distress factors in terms of their contribution to aggravating distress. कृपया निम्नलिखित किसानों को होने वाली पीड़ाओं के कारणों को टेबल के कॉलम B के हिसाब से रेट करें. हम यह जानना चाहते हैं कौन सा कारण कितना ज़्यादा किसानों के लिए पीड़ा का कारण है. साथ ही हम यह जानना चाहते हैं कि किसान इन पीड़ाओं से निपटने के लिए क्या कर रहे हैं <i>Interviewer to ask each factor इंटरविएवर प्रत्येक कारक पूछें</i>			
	(A)Factor किसानों के लिए पीड़ा का कारक	(B)Degree of distress caused कितनी बड़ी/ छोटी पीड़ा है	(C)Sub-factors (MULTIPLE CHOICE) पीड़ा किन किन कारणों से है	(D)Coping Mechanism (MULTIPLE CHOICE) रेसपोंडेंट इन पीड़ाओं से निपटने के लिए क्या कर रहे हैं
4.2.1	Damage to crops and livestock फसलों और पशुधन को नुकसान	1-High 2-Medium 3-Low 4- No problem/ challenge 1- बहुत अधिक 2-मध्यम 3-कम 4-कोई समस्या नहीं/	Climatic Factors जलवायु सम्बन्धी कारक 1-Drought सूखा 2-Hail storms ओला वृष्टि 3-Excessive cold wave अत्यधिक शीत लहर 4-Excessive heat wave अत्यधिक गर्मी की लहर 5-Prolonged Dry spells लंबे समय तक बारिश का ना होना या काफी देर बाद होना 6-Floods बाढ़ 7-Fog कोहरा 8-Excessive rains अत्यधिक बारिश 9-Others अन्य (.....) Non-Climatic Factors गैर-जलवायु सम्बन्धी कारक 11-Pest attack कीड़ों द्वारा फसल बर्बाद करना 12-Wild animals जंगली जानवरों का फसल बर्बाद करना 13-Stray animals (unchecked population) आवारा पशुओं की बड़ी संख्या 14-Lack of vaccination पशुधन के लिए टीके/ दवाई उपलब्ध नहीं होना	1-Crop insurance फसल बीमा 2- Livestock insurance पशुधन बीमा 3-Self vigil of farms for protection from stray animals आवारा पशुओं से सुरक्षा के लिए खेतों की खुद निगरानी करना 4-Excessive use of pesticides कीटनाशकों का अत्यधिक उपयोग 5-Expecting compensation from the government सरकार से मुआवज़े की उम्मीद करना 6- Others अन्य (.....) 99- Not doing anything कुछ नहीं कर रहे

			15--Others अन्य (.....)	
4.2.2	Income fluctuations कमाई में उतार-चढ़ाव/ अस्थिरता	1-High 2-Medium 3-Low 4- No problem/ challenge 1- बहुत अधिक 2-मध्यम 3-कम 4.कोई समस्या नहीं	1- Price fluctuations in the crops leading to income losses फसलों में कीमतों में उतार-चढ़ाव/ अस्थिरता से आय का नुकसान 2- Not getting MSP एमएसपी नहीं मिल रहा 3- Delay in payment by the buyers खरीदारों द्वारा भुगतान/ पेमेंट में देरी 4- Falling seller prices at Mandi मंडी में फसल बेचने के भाव में गिरावट 5- Non-transparent ways of assessing quality by buyers reduces price realization खरीदारों (मंडी वाले) द्वारा फसलों की गुणवत्ता का आंकलन करने के गैर-पारदर्शी तरीके से सही मूल्य नहीं मिलना 6- Non-transparent ways of measuring and weighing by buyers reduces price realization खरीदारों द्वारा फसल मापने और तौलने के गैर-पारदर्शी तरीके के कारण सही मूल्य नहीं मिलना 7- Corruption in the mandis and markets मंडियों और बाजारों में भ्रष्टाचार 8- Corruption and malpractices of middle-men बाज़ार में बिचौलियों के द्वारा किया जाने वाला भ्रष्टाचार और बेईमानी 9- Others अन्य (.....)	1-Contract farming with large agri-processing companies बड़ी एग्री प्रोसेसिंग कंपनियों के साथ कॉन्ट्रैक्ट फार्मिंग 2-Fixed rate contract with Arthiyas आढ़ती के साथ तय मूल्य पर अनुबंध/ कॉन्ट्रैक्ट करना 3. Reduced personal expenditure व्यक्तिगत खर्च कम करना 4-Migration of family members to urban areas परिवार के सदस्यों का शहरी क्षेत्रों में पलायन करना 5-Any अन्य (.....) 99- Not doing anything कुछ नहीं कर रहे
4.2.3	Market problems बाज़ार (जहाँ कृषि उत्पाद/ फसल बेचते हैं) से सम्बंधित समस्याएँ	1-High 2-Medium 3-Low 4- No problem/ challenge 1- बहुत अधिक 2-मध्यम 3-कम 4.कोई समस्या नहीं	1- Problems with middlemen/ Arthiya बिचौलियों/ आढ़ती के साथ समस्याएँ 2- Non-transparent transaction in Mandi मंडी में गैर पारदर्शी लेन-देन का चलन 3- Non-transparent weighing and assaying activities by traders/Mandi व्यापारियों/मंडी द्वारा अपनाई जाने वाली गैर पारदर्शी तौल व परख के तरीके 4- Lack of storage in mandis and therefore distress sale मंडियों में भंडारण/ वेयरहाउसिंग की सुविधा के आभाव के कारण फसलें सस्ते में बेचना	1- Changes in the cropping patterns to produce more MSP Crops अधिक एमएसपी फसलों का उत्पादन करने के लिए फसलों में परिवर्तन करना 2- Forming self-help/ producer groups in the village for agricultural marketing फसलें बेचने के लिए गांव में स्वयं सहायता/उत्पादक समूह का गठन करना 3- Directly working with the agro processing companies सीधे कृषि उत्पाद प्रोसेसिंग कंपनियों के साथ काम करना 4- Undertaking contract farming कॉन्ट्रैक्ट फार्मिंग करना

			5- Lack of standards in grading of produce उपज की ग्रेडिंग में मानकों की कमी 6- The Market is too far मंडी बहुत दूर हैं 7- Theft of agri-produce in Mandi/ market premises मंडी में कृषि उपज की चोरी 8- Online payments go to landowner ऐम इस पी की फसलों का ऑनलाइन भुगतान ज़मीन मालिक के अकाउंट में होना और फसल बेचने वाले किसान को ना मिलना 9- Others अन्य (.....)	5- Any अन्य (.....) 99- Not doing anything कुछ नहीं कर रहे
4.2.4	Poor infrastructure ज़रूरी सुविधाओं की बदहाली (सड़क/ बिजली)	1-High 2-Medium 3-Low 4- No problem/ challenge 1-बहुत अधिक 2-मध्यम 3-कम 4-कोई समस्या नहीं	1-Poor Road infrastructure सड़कों की खराब हालत 2-Erractic power supply बिजली कभी आती है कभी नहीं आती 3- Pastures for livestock पशुधन के लिए चरागाह का अभाव 4-Poor irrigation / water supply खराब सिंचाई/ पानी सप्लाई के व्यवस्था 5-Lack of Medical facilities for farm animals पशुधन के लिए चिकित्सा सुविधाओं का अभाव 6-Others अन्य (.....)	1-Pooling money with other farmers to buy generators for captive power generation अन्य किसानों के साथ पैसे मिलाकर बिजली सप्लाई के लिए जनरेटर खरीदना 2- Improving road quality by pooling funds अन्य किसानों के साथ पैसे मिलाकर सड़कों की मरम्मत कराना 3- Any अन्य (.....) 99- Not doing anything कुछ नहीं कर रहे
4.2.5	Rising agricultural input costs बढ़ती कृषि इनपुट/ सामग्री लागत	1-High 2-Medium 3-Low 4- No problem/ challenge 1- बहुत अधिक 2-मध्यम 3-कम 4-कोई समस्या नहीं	1- Rising raw material cost (seeds/ fertilizers etc.) बीज/उर्वरक आदि की बढ़ती कीमतें 2- Low quality inputs increase overall costs निम्न गुणवत्ता वाले बीज/उर्वरक के इस्तेमाल के दुष्प्रभाव से खेती के खर्चे बढ़ जाना 3- Rising labor costs बढ़ती श्रम/ लेबर लागत 4- Rising transportation cost बढ़ती परिवहन/ ट्रांसपोर्ट की लागत 5- Rising cost of animal fodder and vaccinations पशुचारे और टीकाकरण की बढ़ती लागत 6- Rising cost of electricity बढ़ती बिजली की लागत 7- Others अन्य (.....)	1- Crop diversification फसल विविधीकरण (अलग अलग तरह की बेहतर मूल्य वाली फसलों को उगाना) 2- Engaging self/ family members as replacement of labor लेबर के जगह स्वयं/परिवार के सदस्यों का खेतों में काम करना 3- Increasing usage of farm machines and equipment to replace expensive farm labor महंगी लेबर की जगह मशीनों/ उपकरणों का इस्तेमाल करना 4- Collaborating with farmer groups to bargain input prices with suppliers किसानों का समूह बनाकर कृषि सामग्री बेचने वालों से मोल बाव (बार्गेनिंग) करके कम दामों पर कृषि सामग्री खरीदना

				5- Optimizing the resources/ wastage reduction संसाधनों का बर्बादी कम से कम करना 6- Reducing personal expenses व्यक्तिगत खर्चे कम करने 7- Any अन्य (.....) 99- Not doing anything कुछ नहीं कर रहे
4.2.6	Rising capital costs बढ़ता पूंजीगत व्यय (ढांचा खड़ा करना / ट्रैक्टर खरीदना इत्यादि)	1-High 2-Medium 3-Low 4- No problem/ challenge 1-बहुत अधिक 2-मध्यम 3-कम 4-कोई समस्या नहीं	1-Rising cost of deepening of wells कुओं के गहराई बढ़ाने के लिए खुदाई की बढ़ती कीमतें 2-Rising cost of fencing खेतों में बाड़ा/ तारबंदी की बढ़ती कीमतें 3-Rising prices of agricultural equipment/ pumpsets कृषि उपकरणों/पंपसेट की बढ़ती कीमतें 4- Others अन्य (.....)	1- Delaying or avoiding capital investments बड़े खर्चे (ढांचा खड़ा करना / ट्रैक्टर खरीदना इत्यादि) में पूंजी निवेश में देरी या निवेश नहीं करना 2- Relying more on rental equipment instead of buying them कृषि के उपकरण खरीदने के बजाय किराये पे लेके इस्तेमाल करना 3- Use of self / family members as labor लेबर के रूप में स्वयं / परिवार के सदस्यों का उपयोग 4- Any अन्य (.....) 99- Not doing anything कुछ नहीं कर रहे
4.2.7	Declining productivity उत्पादकता में गिरावट/ ज़मीन से उपज का निरंतर कम होना	1-High 2-Medium 3-Low 4- No problem/ challenge 1- बहुत अधिक 2-मध्यम 3-कम 4-कोई समस्या नहीं	1- Declining land/soil productivity भूमि / मिट्टी की उत्पादकता में गिरावट 2- Lower quality of the produce उपज की निम्न गुणवत्ता 3- Access to new technology seeds, fertilizers, pesticides etc. is low नई तकनीक के बीज, उर्वरक, कीटनाशक आदि की पहुँच काफी कम है 4- Inefficient agricultural extension systems and no one to share agriculture best practices कृषि विस्तार की सेवाओं में कमी है जिसके कारण कृषि की सर्वोत्तम तकनीकें हमें पता नहीं चलती 5- Poor production by livestock पशुधन द्वारा कम उत्पादन (कम दूध इत्यादि) 6- Used Fake fertilizers नकली खाद का इस्तेमाल 7- Less production due to small land size छोटे भूमि के आकार के कारण कम उत्पादन 8- Others अन्य (.....)	1- Land treatment भूमि का उपचार 2- Changes in crops and cropping pattern अलग फसलों उगाना और फसल के पैटर्न में बदलाव/अलग अलग तरह की बेहतर मूल्य वाली फसलों को उगाना 3- Utilization of better-quality seeds/ inputs बेहतर गुणवत्ता वाले बीज / इनपुट का उपयोग 4- Adopting scientific farming/ animal husbandry techniques वैज्ञानिक खेती / पशुपालन तकनीकों को अपनाना 5- Using Local knowledge/ farming techniques स्थानीय ज्ञान / कृषि तकनीकों का उपयोग करना 6- Buying illegal high yielding variety seeds अवैध रूप से उच्च उपज देने वाले बीज खरीदना, 7- Accessing services through FPOs, SHGs etc. - एफपीओ, एसएचजी आदि की सेवाओं का इस्तेमाल 4- Any अन्य (.....) 99- Not doing anything कुछ नहीं कर रहे

4.2.8	Lack of insurance and compensation for crop and/or animal loss/damage फसल और/या पशुधन को हानि/क्षति के लिए बीमा और मुआवजे की कमी	1-High 2-Medium 3-Low 4-no problem 1- बहुत अधिक 2-मध्यम 3-कम 4.कोई समस्या नहीं	1- No scheme for insurance by the government सरकार द्वारा बीमा के लिए कोई योजना नहीं 2- I am not eligible for insurance मैं बीमा के लिए योग्य पात्र नहीं हूँ 3- Government does not provide any compensation सरकार कोई मुआवजा नहीं देती है 4- Government promised compensation but the amount not credited to the account सरकार ने मुआवजे का वादा किया था लेकिन यह राशि खाते में जमा नहीं की गई 5- Insurance is expensive बीमा महंगा है 6- Bad past experience पुराना अनुभव काफी बुरा था 7- Others अन्य (.....)	1- Go to non-institutional lender for money to cover up losses नुकसान को कम करने के लिए गैर-संस्थागत स्त्रोतों को संपर्क करना 2- Reduce personal expenses निजी खर्चों में कमी करना 3- Sold assets like family gold पारिवारिक संपत्ति जैसे सोना बेचना 4- Thinking of leaving farming कृषि करना छोड़ने के बारे में सोचना 5- Adding natural manure प्राकृतिक खाद का इस्तेमाल 6- Any अन्य (.....) 99- Not doing anything कुछ नहीं कर रहे
4.2.9	Outstanding loan payment/ Overdue loan payment/ indebtedness बकाया ऋण भुगतान राशि / ऋण राशि जो निर्धारित समय पर चूका नहीं पा रहे हैं/ भारी ऋण का कर्जदारी	1-High 2-Medium 3-Low 4-no problem 1- बहुत अधिक 2-मध्यम 3-कम 4.कोई समस्या नहीं	1-Huge loan amount with interest being greater than the principal amount भारी ऋण का दबाव, ब्याज ऋण राशि से ज़्यादा 2-No refinance options available किसी और जगह से नया ऋण नहीं मिलता 3-Continuous expenditure on personal and family issues making repayment difficult व्यक्तिगत और पारिवारिक खर्च का बहुत बढ़ जाना जिस वजह से ऋण नहीं चूका पाते 4-No collateral/asset available for repayment कोई बचत नहीं और न ही कुछ गिरवी रखने के लिए होना 5-Income loss due to crop failures फसल खराब होने से आय नहीं हुए 6-Others अन्य (.....)	1- Taking loan from non-institutional sources (family/friends/Arthiya/ परिवार / दोस्तों/ आदितियों से ऋण लेना 2- Selling family assets / collateral forfeiture परिवार की संपत्ति बेचना / ऋण के एवज में जो ज़मानत के तौर पे जमा किया था उसको ऋण देने वाले को दे देते हैं 3- Rotating between loans i.e. taking a new loan to settle the old loan पुराने ऋण को निपटाने के लिए नया ऋण लेना 4- Monetary help from family members परिवार के सदस्यों से आर्थिक मदद लेना 5- Reduced personal expenditure व्यक्तिगत खर्चों को कम करना 6- Any अन्य (.....) 99- Not doing anything कुछ नहीं कर रहे
4.2.10	Institutional Roadblocks	1-High 2-Medium	1-Banks are not transparent in their transactions बैंक अपने लेन-देन में पारदर्शी नहीं हैं	1-Minimising contact with institutions संस्थानों से संपर्क कम करना

	संस्थागत ऋण स्रोतों से सेवाएं लेने में आने वाली दिक्कतें	3-Low 4-no problem 1-बहुत अधिक 2-मध्यम 3-कम 4-कोई समस्या नहीं	2-Government schemes benefit never reaches the farmer सरकारी योजनाओं का लाभ किसान तक कभी नहीं पहुंचता है 3-Corruption in implementation of the scheme by bank and local officials बैंक और स्थानीय अधिकारियों द्वारा योजना के कार्यान्वयन में भ्रष्टाचार 4-Dependence on Dalal/Agent to avail government facilities सरकारी सुविधाओं का लाभ उठाने के लिए दलाल / एजेंट पर निर्भरता 5-The institutions do not respect the farmers संस्थाएं किसानों का सम्मान नहीं करती हैं 6-Others अन्य (.....)	2-Taking help of <i>Dalal</i> /agent दलाल / एजेंट की मदद लेना 3-Favours to officials अधिकारियों को घूस देना 4-Cannot do anything कुछ भी नहीं कर सकता 5-Any other (pl. specify.....) किसी भी अन्य 99-Not doing anything कुछ नहीं करना		
4.3 ★	HAVE YOU COME ACROSS ANY INCIDENCES OF FARMER SUICIDE IN YOUR AREA (within 20 km radius)? क्या आपको अपने क्षेत्र में हो रही किसान आत्महत्याओं के मामलों का संज्ञान है (20 किलोमीटर की दायरे में) ?			1-Yes हाँ 2-No नहीं		
☛ If response to Q4.3 is 'Yes' GoTo Q4.4 ELSE GoTo Q4.5 यदि Q4.3 का जवाब हाँ है, Q4.4 पे जाएँ अथवा Q4.5 पे जाएँ						
4.4	Please provide the details of farmer suicide incidences: आपके संज्ञान में जो किसान आत्महत्या की घटनाएँ हैं, कृपया उनका विवरण दें					
4.4.1 ★	How many farmers have committed suicide in your village and its vicinity in last 5 years? पिछले 5 वर्षों में आपके गांव और आसपास के क्षेत्रों में कितने किसानों ने आत्महत्या की हैं?	2016-17 (Apr-Mar) अप्रैल-मार्च	2017-18 (Apr-Mar) अप्रैल-मार्च	2018-19 (Apr-Mar) अप्रैल-मार्च	2019-20 (Apr-Feb) अप्रैल- फेब्रुअरी	Before Apr 2016 अप्रैल 2016 से पहले Pl specify: :
4.4.2	Was any one among them your family member or close relative?	1-Yes हाँ 2-No नहीं				

	क्या उनमें से कोई आपके परिवार का सदस्य या करीबी रिश्तेदार था?	
4.4.3 ★	In your opinion, what could have been the reasons driving the farmer(s) towards committing suicide(s)? आपकी राय में, किसान आत्महत्या क्यों कर रहे हैं?	1- Cumulative Crop Loss/Crop Failure सालों से खेती में हो रहे नुकसान के वजह से (पूरी फसल को नुकसान / कुछ फसल को नुकसान) 2-Unable to pay back debt ऋण का भुगतान करने में असमर्थ थे 3-Personal Issues/Family issues/Social issues व्यक्तिगत समस्याएं / पारिवारिक समस्याएं / सामाजिक समस्याएं 4- Health Issues स्वास्थ्य समस्याएं 5- Drug Abuse नशे(ड्रग्स)शराब का सेवन 6-Single earning member with dependence on agriculture for sustenance and crop failed/loss अकेले कमाने वाले थे और सिर्फ कृषि पर ही निर्भर थे और सालों से खेती में नुकसान हो रहा था 7-Lack of counseling in times of distress गंभीर परेशानी के समय काउंसलिंग(परामर्श) सेवाओं का नहीं मिलना 8-Falling profitability in agriculture, thus farming became unviable and no other source of livelihood कृषि में मुनाफे का निरंतर रूप से गिरना जिसके कारण खेती करना मुश्किल और इसके अलावा कमाई का कोई और साधन ना होना 9-Ineligible for fresh/new loans from any sources किसी भी स्त्रोत से नए ऋणों के लिए अयोग्य होना 10- Others अन्य (.....)
4.5	For loan taken from non-institutional sources, how do you repay in case of crop failure? गैर-संस्थागत स्रोतों से लिए गए ऋण , आप फसल खराब होने की स्थिति में कैसे चुकाते हैं?	1-Request for extension in due date of payment भुगतान/ ऋण चुकाने की तिथि को बढ़ाने के लिए अनुरोध करना 2-Additional jobs अतिरिक्त स्रोतों से कमाई करना 3-Use land papers as collateral ज़मीन के कागज़ों को बतौर ज़मानत देना 4-Sell farm assets कृषि संपत्ति बेचना 5-Sell personal assets व्यक्तिगत संपत्ति बेचना 6 Take fresh loan to refinance this

		नया ऋण लेकर पुराना ऋण चुकाना 7- Others अन्य (.....)
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5.0 Farm Loan Waiver Scheme- Response to Concept and Impact

5.1 ★	Are you aware of latest Farm Loan Waiver (FLW) schemes by your State Government in 2017-18? क्या आप सीएम कैप्टन अमरिंदर सिंह जी की सरकार के द्वारा घोषित की गई कृषि ऋण माफी योजना(2017-18) के बारे में जानते हैं?	1-Yes हाँ 2-No नहीं		
<p>☞ If the response to Q5.1 is "Yes" GoTo Q5.2 and If the response is "No", explain the scheme to him and still if he reports to be unaware, GoTo Q5.8</p> <p>यदि Q5.1 का जवाब "हाँ" है तो Q5.2 पे जाएँ और यदि जवाब "नहीं" है तो सपोर्ट को योजना समझाएं और यदि रेस्पोंडेंट फिर भी योजना से अवगत नहीं है, तो Q5.8 पे जाएँ</p>				
5.2 ★	As on date, have you received farm loan waiver benefit under the 2017-18 farm loan waiver scheme? आज की तारीक तक क्या आपने 2017-18 की कृषि ऋण माफी योजना के तहत कृषि ऋण माफी का लाभ प्राप्त किया है?	1-Yes हाँ 2-No नहीं		
<p>☞ If the response to Q5.2 is "Yes" GoTo Q5.3 and If the response is "No" GoTo Q5.4</p> <p>यदि Q5.2 का जवाब "हाँ" है तो Q5.3 पे जाएँ और यदि जवाब "नहीं" है तो Q5.4 पे जाएँ</p>				
5.3 ★	Please provide details of the benefit received under the farm loan waiver scheme. कृषि ऋण माफी योजना के तहत प्राप्त हुए लाभ का विवरण दें			
5.3.1	Year in which FLW benefit was received वर्ष जिसमें कृषि ऋण माफी योजना के तहत लाभ प्राप्त हुआ था			
5.3.2	Please provide loan details on which the waiver was provided to you in the applicable year (Ask about agri loans before 31 st march 2016) कृपया उस ऋण का विवरण प्रदान करें जिसपर आपको कृषि ऋण माफी योजना के तहत लाभ प्राप्त हुआ था (31 मार्च 2016 से पहले लिए हुए कृषि ऋण के बारे में पूछें)			
	Type of loan ऋण का प्रकार	Outstanding amount (Rs.) बकाया राशि (रु)	Eligible amount (Rs.) पात्र राशि (रु)	Waived amount (Rs.) माफ राशि (रु)
	KCC के.सी.सी			

	Agricultural Limit एग्रीकल्चरल लिमिट (जैसे एग्रीकल्चरल क्रेडिट सोसाइटी से लिया गया)			
	Term loan टर्म लोन (ट्रैक्टर/ उपकरण आदि के लिए)			
	Other farm loan from institutions संस्थानों से अन्य कृषि ऋण			
5.4 ★	If No, why did you not receive the benefit under the 2017-18 farm loan waiver schemes? यदि नहीं, तो आपको 2017-18 की कृषि ऋण माफी योजना के तहत लाभ क्यों नहीं मिला?		1- I was not eligible मैं ऋण का पात्र नहीं था 2- I was eligible but did not get मैं ऋण का पात्र था लेकिन नहीं मिला। 3. Others अन्य (.....)	
☞ If the response to Q5.4 is "Option-2" GoTo Q5.4a ELSE GoTo Q5.5 यदि Q5.4 का जवाब "विकल्प -2" हैं, तो Q5.4a पे जाएँ अथवा Q5.5 पे जाएँ				
5.4a	Please provide loan details for which you were eligible but did not get the loan waiver scheme benefit (Ask about agri loans before 31 st march 2016) कृपया ऋण विवरण प्रदान करें जिसके आप पात्र थे, लेकिन ऋण माफी योजना का लाभ नहीं मिला (31 मार्च 2016 से पहले लिए हुए कृषि ऋण के बारे में पूछें)			
	Type of loan ऋण का प्रकार	Month-Year महीना/ वर्ष	Outstanding amount (Rs.) बकाया राशि (रु)	Eligible amount (Rs.) पात्र राशि (रु)
	KCC के.सी. सी			
	Agricultural Limit एग्रीकल्चरल लिमिट (जैसे एग्रीकल्चरल क्रेडिट सोसाइटी से लिया गया)			
	Term loan टर्म लोन (ट्रैक्टर/ उपकरण के लिए)			
	Other farm loan from institutions संस्थानों से अन्य कृषि ऋण			
5.5	Did you receive farm loan waiver before 2017-18 schemes? क्या आपको 2017-18 की कृषि ऋण माफी योजना से पहले कृषि ऋण माफी मिली है ?		1-Yes हाँ 2-No नहीं	
☞ Ask Q5.6.1 to those who marked Option 1 in 5.4 Q5.6.1 को उन लोगों से पूछें जिन्होंने 5.4 में विकल्प 1 चुना				

<p>☞ Ask Q5.6.1 and Q5.6.2 to those who marked Option 2 in Q5.4</p> <p>Q5.6.1 और Q5.6.2 से उन लोगों से पूछें जिन्होंने 5.4 में विकल्प-2 को चिह्नित किया है</p> <p>☞ Ask Q5.6.1, Q5.6.2 and Q5.6.3 to those who marked "Yes" to Q5.2</p> <p>Q5.6.1, Q5.6.2 और Q5.6.3 को उन लोगों से पूछें जिन्होंने Q5.2 में "हाँ" चिह्नित किया है</p>			
5.6 ★	<p>HOW WAS YOUR EXPERIENCE IN ACCESSING THE BENEFITS UNDER THE FARM LOAN WAIVER SCHEME? PLEASE SHARE YOUR EXPERIENCE AT DIFFERENT STAGES INVOLVED IN AVAILING THE FARM LOAN WAIVER BENEFIT</p> <p>कृषि ऋण योजना के तहत लाभ पाने में आपका अनुभव कैसा रहा? कृपया ऋण माफ़ी योजना के लाभ लेने के अलग-अलग चरणों/ पड़ावों पे हुए अपने अनुभव साझा करें ।</p> <p>(☞ To be asked to those respondents reporting "Yes" in Q5.1 OR Q5.3) Surveyor to probe the respondents by listing problems mentioned in the right most column</p> <p>सिर्फ़ उन्ही रेस्पोंडेंट्स से पूछें जिन्होंने Q5.1 OR Q5.3 का जवाब "हाँ" दिया है । इंटरव्यूएवर/ सर्वेक्षक कॉलम C में दी गई कृषि ऋण माफ़ी प्राप्त करने में होने वाले कठिनियों पे प्रोबिंग करें ।</p>		
	<p>Stage (A)</p> <p>ऋण माफ़ी योजना के लाभ लेने के चरण/ पड़ाव</p>	<p>Whether faced any problem? (B)</p> <p>इस चरण/ पड़ाव में किसी कठिनाई का सामना किया?</p>	<p>If Yes, please specify type of problem (MULTIPLE CHOICE) (C)</p> <p>यदि हाँ तो किस तरह की कठिनाइयों का सामना किया ?</p>
5.6.1	<p>Achieving awareness and actionable information</p> <p>कृषि ऋण माफ़ी योजना की बारे में जागरूकता होना और योजना के लाभ लेने की प्रक्रिया के बारे में जानकारी प्राप्त करना</p>	<p>1-Yes हाँ 2-No नहीं</p>	<p>1- I was not aware about the scheme and my eligibility मुझे कृषि ऋण माफ़ी योजना और योजना के लिए अपनी पात्रता के बारे में पता नहीं था</p> <p>2- I did not know the documents required to be submitted/produced for availing the benefits मुझे कृषि ऋण माफ़ी योजना का लाभ लेने हेतु ज़रूरी दस्तवेजों की जानकारी नहीं थी</p> <p>3- Application form was difficult to fill आवेदन फॉर्म भरना मुश्किल था</p> <p>4- Lack of clarity about the eligible amount कृषि ऋण माफ़ी योजना की तहत मैं कितनी ऋण राशि की माफ़ी का पात्र हूँ, मुझे यह स्पष्ट नहीं था</p> <p>5- Others अन्य (.....)</p>

			99- No Problem/ कोई कठिनाई नहीं हुई थी
5.6.2	Approaching the institution (co-operative/ bank) संस्था (बैंक / कोआपरेटिव) को संपर्क करना	1-Yes हाँ 2-No नहीं	1- Lack of cooperation by the bank staff and officers in the village गांव में बैंक कर्मचारियों और अधिकारियों द्वारा सहयोग की कमी थी- 2- Banking formalities were time consuming बैंकिंग औपचारिकताओं में काफी समय लगता था 3- Bank was too far बैंक बहुत दूर था 4- Bank account not linked with Aadhar card बैंक खाता आधार कार्ड से जुड़ा नहीं है 5- Aadhaar number did not match आधार नंबर मैच नहीं हुआ था 6- Agents are involved, who take money for bank clearance दलाल शामिल थे जिन्होंने बैंक से ऋण माफ़ी कराने की कागज़ी करवाई करने के लिए पैसे लिए 7- Others अन्य (.....) 99- No Problem/ कोई कठिनाई नहीं हुई थी
5.6.3	Delivery of FLW amount कृषि ऋण माफ़ी मिलना/ वितरण	1-Yes हाँ 2-No नहीं	1- Received lesser than eligible amount पात्रता राशि से कम राशि प्राप्त हुई थी 2- Delay in disbursal of FLW amount कृषि ऋण माफ़ी राशि के वितरण में विलंब हुआ था 3- Lack of status updates from the bank बैंक से कृषि ऋण माफ़ी की माजूदा स्थिति के बारे में जानकारी नहीं मिली थी 4- Did not know that the amount has been credited हमें कृषि ऋण माफ़ी मिली है , इसका हमें पता ही नहीं चला 5- There is no grievance redressal office and so our requests are unheard कोई शिकायत निवारण कार्यालय नहीं है और इसलिए हमारे अनुरोध कोई नहीं सुनता है 6- Others अन्य (.....)

		99- No Problem/ कोई कठिनाई नहीं हुई
5.7 ★	After FLW scheme of 2017-18, did you apply for fresh round of agricultural credit from any institutions? 2017-18 की कृषि ऋण माफ़ी योजना के बाद, क्या आपने किसी संस्था से नए कृषि ऋण के लिए आवेदन किया?	1-Yes हाँ 2-No नहीं
(☞ Q5.8 to be asked to only those respondents who have marked option “No” in Q5.1) Q5.8 केवल उन रैस्पोंडेंट्स से पूछा जाए जिन्होंने Q5.1 में विकल्प "नहीं" को चिह्नित किया है		
5.8 ★	Since 2017-18, did you apply for next fresh round of agricultural credit from the institutions? वर्ष 2017-18 से आज तक क्या आपने किसी संस्था से नए कृषि ऋण के लिए आवेदन किया है ?	1-Yes हाँ 2-No नहीं
☞ If the response to Q5.7 OR Q5.8 is “Yes” GoTo Q5.9 ELSE GoTo Q5.10 यदि Q5.7 या Q5.8 का जवाब "हाँ" है तो Q5.9 पे जाएं अथवा Q5.10 पे जाएं		
5.9 ★	Did you get the fresh credit? क्या आपको आवेदन के बाद नया कृषि ऋण मिला ?	1-Yes हाँ 2-No नहीं
5.9.1 ★	If new agricultural loan is not available, why not? यदि नया कृषि ऋण नहीं मिला, तो क्यों नहीं मिला?	1- The banks were stricter in granting credit after FLW scheme कृषि ऋण माफ़ी योजना के बाद बैंक ऋण देने में आनाकानी कर रहे थे और अधिक सख्त थे 2- The procedure took more resources (money, time, etc.) than before प्रक्रिया में पहले की तुलना में अधिक संसाधन (धन, समय, आदि) लगे 3- I was told that my dues were pending and so I was not eligible for fresh loans मुझे बताया गया था कि मेरा पुराने ऋण चुकता करना बकाया है, इसलिए मैं नए ऋण के लिए पात्र नहीं था 4- Bank officials told me that the government scheme under which I got loans before had been discontinued and so I was not eligible to get any other loan बैंक अधिकारियों ने मुझे बताया कि जिस सरकारी योजना के तहत मुझे ऋण दिया गया था उसे पहले ही बंद कर दिया गया है और इसलिए मैं कोई नए ऋण प्राप्त करने के लिए पात्र नहीं हूँ 5- Others अन्य (.....)
5.10 ★	Why you did not apply for the fresh agricultural credit from the institutions?	1- I was not having the requisite documents for applying for the bank loan मेरे पास बैंक ऋण के लिए आवेदन करने के लिए अपेक्षित दस्तावेज नहीं थे

	आपने नए कृषि ऋण के लिए संस्थानों में आवेदन क्यों नहीं किया ?	<p>2- Prior bad experience with institutions/ do not want to go through that again संस्थानों के साथ पहले हुए खराब अनुभव / फिर से उस दौर से गुजरना नहीं चाहते थे</p> <p>3- Credit from non-institutional sources is easier to avail गैर-संस्थागत स्रोतों से ऋण प्राप्त करना आसान है</p> <p>4- Bank told us that the scheme under which we used to get loans had been discontinued बैंक ने हमें बताया कि जिस स्कीम के तहत हमें लोन मिलता था उसे बंद कर दिया गया है</p> <p>5- Bank branch closer to village closed गाँव के नजदीक बैंक शाखा बंद थी</p> <p>6- Others अन्य (.....)</p>
5.10a	How do you manage without the agricultural credit? आप बिना संस्थागत कृषि ऋण के खेती के खर्चे कैसे पुरे करते हैं?	<p>1- Using past savings बचत राशि का उपयोग करना</p> <p>2-Using earnings from other jobs अन्य नौकरियों/ कामों से होने वाली कमाई का उपयोग करना</p> <p>3- Borrowed from non-institutional sources (rate per annum.....) गैर-संस्थागत स्रोतों से ऋण लेना (प्रति वर्ष दर)</p> <p>4- Sold household jewelry or other assets घर के गहने या अन्य संपत्ति बेचना</p> <p>5-Gave home gold as collateral घर का सोना ज़मानत पे रखकर ऋण उठाना</p> <p>6-Taking credit from SHG's and other institutions I am member of स्वयं सहायता समूहों (SHGs) और अन्य संस्थानों से जिनका मैं सदस्य हूँ, उनसे ऋण लेना</p> <p>7-Others अन्य (.....)</p>
5.11 ★	<p>HOW MUCH DO YOU AGREE OR DISAGREE WITH THE STATEMENTS GIVEN BELOW?</p> <p>आप नीचे दिये गये वाक्यों से कितने सहमत या असहमत हैं?</p> <p>☞ Provide a brief overview of the farm loan waiver scheme of the State Govt. to those respondents who are not aware about the scheme (marked "No" in Q5.1)</p> <p>जिन रеспोंडेंट्स को सरकार की कृषि ऋण माफ़ी के योजना के बारे में जानकारी नहीं है (Q5.1 का उत्तर "नहीं" दिया है), उन्हें योजना के बारे में बताएँ</p>	

	✍ Write Can't Say(C/S) in case respondent has no position on the statements यदि किसी वाक्य पर रеспॉण्डेंट कोई ठोस राय रखने में असमर्थता व्यक्त करता है, तो जवाब के रूप में "कह नहीं सकता" लिखें		
5.11.1	FLW only benefits a small section of distressed small and marginal farmers कृषि ऋण माफ़ी योजना ज़रूरतमंद सीमान्त और लघु किसानों में से भी सिर्फ उनके एक छोटी सी संख्या को ही लाभान्वित करती हैं	1-Strongly agree बिल्कुल सहमत 2-Agree सहमत 3- Neither agree nor disagree ना सहमत ना असहमत 4-Disagree असहमत 5-Strongly disagree बिल्कुल असहमत	
5.11.2	Unstable incomes and crop damage due to climate change are bigger issues for farmers than indebtedness कर्ज़ के बोझ को चुकाने के बनस्पत अस्थिर कमाई और मौसम के वजह से फसलों का खराब होना किसान के लिये ज़्यादा बड़ी समस्या है I	1-Strongly agree बिल्कुल सहमत 2-Agree सहमत 3- Neither agree nor disagree ना सहमत ना असहमत 4-Disagree असहमत 5-Strongly disagree बिल्कुल असहमत	
5.11.3	In context of FLW, promises made by politicians are generally bigger than what is delivered to the farmers. कृषि ऋण माफ़ी योजना के अंतर्गत पार्टी राजनेताओं के द्वारा किये गये वादे और असलियत में किसानों को मिलने वाले लाभों में काफ़ी फर्क होता है	1-Strongly agree बिल्कुल सहमत 2-Agree सहमत 3- Neither agree nor disagree ना सहमत ना असहमत 4-Disagree असहमत 5-Strongly disagree बिल्कुल असहमत	
5.11.4	In anticipation of FLW, farmers willfully default on paying back the institutional loans. कृषि ऋण माफ़ी योजना के लाभ मिलने की आशा में किसान जानबूझ के संस्थागत ऋणों (जैसे बैंक ऋण) का भुगतान नहीं करते	1-Strongly agree बिल्कुल सहमत 2-Agree सहमत 3- Neither agree nor disagree ना सहमत ना असहमत 4-Disagree असहमत 5-Strongly disagree बिल्कुल असहमत	
5.11.5	Honest farmers who have never defaulted or never wish to default on loan payments are encouraged by FLW schemes to default on their loan payments ईमानदार किसान जो हमेशा से अपने संस्थागत ऋणों को समय से चुकाते रहे हैं और हमेशा चुकाना चाहते, वे इस ऋण माफ़ी	1-Strongly agree बिल्कुल सहमत 2-Agree सहमत 3- Neither agree nor disagree ना सहमत ना असहमत 4-Disagree असहमत 5-Strongly disagree बिल्कुल असहमत	

	योजना के चलते अपने ऋणों को ना चुकाने का सहस करने की चेष्टा करते हैं या कर सकते हैं		
5.11.6	Without the non-institutional sources of credit, there will be an increase in the farmer distress. यदि किसानों के पास ऋण लेने के लिए गैर- संस्थागत स्रोतों का विकल्प ना हो, तो उनकी कठनाईयाँ और ज़यादा बढ़ जाएंगी	1-Strongly agree बिल्कुल सहमत 2-Agree सहमत 3- Neither agree nor disagree ना सहमत ना असहमत 4-Disagree असहमत 5-Strongly disagree बिल्कुल असहमत	
5.12 ★	ARE YOU THE BENEFICIARY OF PRADHAN MANTRI KISAN SAMMAN NIDHI (PM-KISAN) SCHEME STARTED IN DECEMBER 2018? क्या आप प्रधान मंत्री किसान सम्मान निधि (पी एम -किसान) योजना के अंतर्गत लाभार्थी हैं? (योजना 2018 में शुरू की गई है) Note: Landless farmers are not eligible for PM Kisan benefits. In case the landless/tenant farmer respondent reports being beneficiary of PM KISAN, interviewer to probe on how is it so? नोट: पी एम -किसान योजना भूमिहीन किसान (टेनेंट फार्मर) के लिए लागु नहीं हैं I यदि भूमिहिन् रेस्पोंडेंट किसान इस सवाल का जवाब "हाँ" बोलता है , सर्वेयर प्रोब करें कि रेस्पोंडेंट किसान योजना का पात्र कैसे हैं I	1-Yes हाँ 2-No नहीं	
☞ <i>If the response to Q5.12 is “Yes” GoTo Q5.13 and If the response is “No” GoTo Q.5.14</i> यदि Q5.12 का जवाब "हाँ" है तो Q5.13 पे जाएँ और यदि जवाब "नहीं" है Q.5.14 पे जाएँ			
5.13	How many installments did you receive under PM-KISAN scheme? पी एम -किसान योजना के तहत आपको कितनी किश्तें मिली हैं?	1-Noneएक भी नहीं; 2-One एक; 3-Two दो; 4-More than two दो से अधिक	
☞ <i>If the response to Q5.13 is “None” GoTo Q5.14</i> यदि Q5.13 का जवाब " एक भी नहीं" है Q5.14 पे जाएँ			
5.14 ★	If you have not received any installment under PM-Kisan scheme or you are not a beneficiary of the scheme, what were the reasons?	1. No bank account मेरे पास कोई बैंक खाता नहीं 2. I am not the owner of land मैं जमीन का मालिक नहीं हूँ 3. No information about scheme modalities योजना के लाभ पाने की प्रक्रिया के बारे में कोई जानकारी नहीं है 4. Inability to operate account बैंक खाता चलाने में असमर्थता 5. I do not have Aadhaar ID मेरे पास आधार कार्ड नहीं है	

	यदि आपको पीएम-किसान योजना के तहत कोई किस्त नहीं मिली है या आप इस योजना के लाभार्थी नहीं हैं, तो इसके क्या कारण थे?	6. I am not a landowner and the landowner is also not receiving the installment - मैं ज़मीन मालिक नहीं हूँ और ज़मीन मालिक को भी किस्त नहीं मिल रही है 7. I am a tenant farmer and the land-owner is receiving the benefit but not passing it on to you मैं एक किरायेदार किसान हूँ और ज़मीन मालिक को लाभ मिल रहा है जो मुझ तक नहीं पहुँचता 8. My land records are not updated मेरे भूमि रिकॉर्ड अपडेटेड नहीं हैं 9. I am following up with the authorities as I am eligible मैं अधिकारियों के साथ निरंतर संपर्क में हूँ क्योंकि मैं योजना के लाभार्थी होने का पात्र/योग्य हूँ 10. Even though I am eligible, I do not have time and/or resources to chase the relevant officers/authority. योग्य होते हुए भी मैं योजना का लाभार्थी नहीं हूँ क्योंकि मेरे पास अधिकारियों से बार बार मिलने / संपर्क स्थापित करने की लिए ना तो इतना समय है और ना ही संसाधन 11- Others अन्य (.....)
5.15 ★	IF THE PM KISAN ENTITLEMENTS INCREASE, WOULD YOU STILL PREFER A FARM LOAN WAIVER? यदि पीएम किसान योजना के तहत मिलने वाले राशि में बढ़ोतरी की जाए ,तो क्या आप कृषि ऋण माफ़ी योजना को किसानों की लिए एक बेहतर विकल्प समझेंगे या नहीं ?	1-Yes; 2-No
5.16 ★	What are your suggestions for the government towards improving the design and implementation of a FLW scheme? कृषि ऋण माफ़ी योजना की संरचना और कार्यान्वयन में सुधार के लिए सरकार के लिए आपके सुझाव क्या हैं?	1- The scheme should have a universal coverage i.e. the waiver should be given to everyone involved in farming as the primary occupation इस योजना में एक सर्वव्यापी कवरेज होना चाहिए अर्थात् उन सब को इस योजना में लिया जाना चाहिए जिनके लिए कृषि आय का प्राथमिक स्रोत है 2- The scheme should only be targeted to distressed farmers who are identified in consultation with local officials इस योजना में केवल उन पीड़ित किसानों को चुना जाना चाहिए जिन्हें स्थानीय अधिकारियों के परामर्श से चिन्हित किया गया हो 3- Special provision should be made in these schemes for tenant farmers किरायेदार (टेनान्ट) किसानों के लिए ऋण माफ़ी योजनाओं में विशेष प्रावधान किया जाना चाहिए 4- The distribution of the waiver amount should be done timely before the next cropping season कृषि ऋण माफ़ी राशि की लाभार्थी को वितरण समय से करना चाहिये खासकर कि अगली फसल से पहले जिससे

		<p>किसानों को बैंकों या अन्य संस्थागत स्रोतों से ऋण लेने में कठिनाई का सामना ना करना पड़े</p> <p>5- The activities of the banks should be regulated more by the government so that they carry out their work more transparently and fairly सरकार द्वारा बैंकों की गतिविधियों को अधिक विनियमित किया जाना चाहिए ताकि वे अपने कार्य को अधिक पारदर्शी और निष्पक्ष रूप से संपन्न करें</p> <p>6- Government should also find a way to clear/waive loans taken from non-institutional sources सरकार को किसानों के गैर-संस्थागत स्रोतों से लिए गए ऋणों को ख़तम करने / माफ़ करने का तरीका भी खोजना चाहिए</p> <p>7- Government should not undertake FLW and instead give larger amounts under schemes like PM-Kisan सरकार को कृषि ऋण माफ़ी योजना को लागू नहीं करना चाहिए और इसके बजाय पीएम-किसान जैसी योजनाओं के तहत ज़्यादा राशि देनी चाहिए</p>
5.17	<p>Did you know that your state has a Money lenders' Act that regulates, among other things, the interest charged and the penalties in case of default and also provides for a grievance redressal mechanism?</p> <p>क्या आप जानते हैं कि आपके राज्य में एक मनी लेंडर्स एक्ट है, जो अन्य बातों के अलावा, ऋण नहीं चुका पाने की सूरत में (डिफ़ॉल्ट) दिए जाने वाले ब्याज और जुर्माने को नियंत्रित करता है और एक शिकायत निवारण तंत्र भी प्रदान करता है?</p>	<p>1- I did not know मुझे नहीं पता था</p> <p>2- I know about it मैं इसके बारे में जानता हूँ</p> <p>3- I know about it but there is no use of a law that is not implemented well मुझे इसके बारे में पता है लेकिन ऐसे कानून का कोई फायदा नहीं है जो अच्छी तरह से लागू नहीं होता है</p>

6.0 Farmer Profile किसान का ब्यौरा

6.1	Please provide details of the agricultural land operated by you. आप जिस जमीन पे खेती कर रहे हैं, उसका ब्यौरा दें।				
★	Land Characteristics कृषि भूमि का ब्यौरा	Land Area (Acres) भूमि क्षेत्र (एकड़)			
		Irrigated सिंचित	Non-Irrigated असिंचित	Fallows पड़त	Total कुल योग
A	Owned Land स्व-स्वामित्व वाली भूमि				
B	Leased-in Land किराए पर या पट्टे ली हुई ज़मीन				
C	Family owned land संयुक्त परिवार के स्वामित्व वाली भूमि				
D	Leased-out Land पट्टे पे दी हुई ज़मीन जिसपर आप खेती नहीं करते।				
	Total operated land संचालित कुल भूमि क्षेत्र (A+B+C)-D (Irrigated सिंचित + Non-Irrigated असिंचित)				
<p>☞ Local unit of land measuring to be converted into acres by utilizing the survey guidelines भूमि की स्थानीय इकाई को एकड़ में परिवर्तित करने के लिए सर्वेक्षण मैनुअल का इस्तेमाल करें।</p>					

6.2 On an approximate basis, how much did you earn from the following activities? एक अनुमानित आधार पर, आप निम्नलिखित स्त्रोतों से एक वर्ष में कितना कमाते हैं ?

☞ Ask for applicable income sources जिन स्त्रोतों से कमाई हो रही है सिर्फ उनका ब्यौरा लें

Kharif Crop खरीफ फसल (2019-20)								
	Income Source आय का स्त्रोत	Total Area sown (Acres) कुल बोया गया क्षेत्र (एकड़)	Production Unit (1-Quintal; 2- KG) उत्पादन यूनिट (1-क़िटल; 2- के.जी)	Total Production कुल उपज	Total production Sold कुल उपज जो बेची गई	Production Selling Unit (1-Quintal; 2- KG) उत्पादन बेचने की यूनिट (1-क़िटल; 2- के.जी)	Selling Price Per Unit (Rs.) प्रति यूनिट बेचने की कीमत (रु।)	Average Expenditure (Rs.) औसत खर्चा (रु)
1	Crop-1* फसल-1:							
2	Crop-2 फसल-2: Rice –basmati चावल- बासमती							
3	Crop-3 फसल-3:							
4	Crop-4 फसल-4:							
5	Crop-5 फसल-5:							

Crop-/ फसल-1-Rice- non basmati चावल- जो बासमती नहीं है; Crop-2/ फसल-2: - Rice –basmati चावल- बासमती; Crop-3,4,5- Other crops (To be written by the surveyor) फसल-3,4,5: बाकी फसलें जो इंटरव्यूएवर द्वारा लिखी जाएंगी

Rabi Crop राबी फसल (2018-19)									Rabi Crop राबी फसल (2019-20)						
Inco me	Total Area sown	Producti on Unit	Total Producti on	Total producti on Sold	Producti on	Selli ng Price	Average Expendit ure (Rs.)		Total Area sown	Producti on Unit	Total Producti on	Total producti on Sold	Producti on	Selli ng Price	Average Expendit ure (Rs.)

	Source आय का स्त्रोत	(Acre s) कुल बोया गया क्षेत्र (एक इ)	(1- Quintal; 2-KG) उत्पादन यूनिट (1- क्विंटल; 2-के.जी)	कुल उपज	कुल उपज जो बेची गई	Selling Unit (1- Quintal; 2-KG) उत्पादन बेचने की यूनिट (1- क्विंटल; 2-केजी)	Per Unit (Rs.) प्रति यूनि ट बेचने की कीम त (रु।)	औसत खर्चा (रू)	(Acre s) कुल बोया गया क्षेत्र (एक इ)	(1- Quintal; 2-KG) उत्पादन यूनिट (1- क्विंटल; 2-केजी)	कुल उपज	कुल उपज जो बेची गई	Selling Unit (1- Quintal; 2-KG) उत्पादन बेचने की यूनिट (1- क्विंटल; 2-केजी)	Per Unit (Rs.) प्रति यूनि ट बेचने की कीम त (रु।)	औसत खर्चा (रू)
6	Crop- 1 फसल -1:														
7	Crop- 2 फसल -2:														
8	Crop- 3 फसल -3:														
9	Crop- 4 फसल -4:														

Note: *if the production is lower in 2019-20 relative to 2018-19, confirm that these production losses are captured in the distress factors in section-4

नोट: यदि 2019 -20 में फसल उत्पादन 2018 -19 के मुकाबले कम हैं, कृपया यह निश्चित करें कि सेक्शन-4 में फसल उत्पादन का कम होना किसानों के लिए कठिनाई का कारक बताया गया हो

		A	B	C	D	E	F	G	H	I	J	K	L
	Income Source आय का स्त्रोत	Whether income source (1-Yes;No-2) आय का स्त्रोत (1-हाँ 2-नहीं)	No. of Animals जानवरों की संख्या (if app.)	Production units (1-Qntl;2-Kg;3-numbers ;4-Litres) उत्पादन यूनिट (1-किटल; 2-के.जी; 3-संख्या; 4-लीटर)	Number of production months in a year एक वर्ष में कितने महीनों में उत्पादन किया	Average Monthly Production (normal scenario) औसत मासिक उत्पादन (सामान्य महीनों में)	Average monthly Production in months of lockdown औसत मासिक उत्पादन (लॉकडाउन के महीनों में)	Rate per unit-normal scenario (Rs.) एक यूनिट की कीमत(सामान्य महीनों में)	Sold to in normal scenario: (Co-operative-1; Local business 2; 3-directly to consumers किससे बेचा (सामान्य महीनों में) (सहकारी समिति -1; स्थानीय व्यापार 2; 3-सीधे उपभोक्ताओं को)	Rate per unit- in months of lockdown (Rs.) एक यूनिट की कीमत (लॉकडाउन के महीनों में)	Sold to in lockdown scenario: (Co-operative-1;Local business 2; 3-directly to consumers किससे बेचा (लॉकडाउन के महीनों में) (सहकारी समिति -1; स्थानीय व्यापार 2; 3-सीधे उपभोक्ताओं को)	Average Monthly Expenditure (Rs.)(normal scenario) औसत खर्चा (रु) (सामान्य महीनों में)	Average Expenditure (Rs.) in 3 months of lockdown औसत खर्चा (रु) (लॉकडाउन के महीनों में)
1	Dairy डेरी												
2	Poultry (eggs) पोल्ट्री (अंडे)												

3	Poultry (meat) पोल्ट्री (माँस)												
4	Sheep (wool) भेड़ (वूल)												
5	Sheep (meat) भेड़ (माँस)												
6	Goat (meat) बकरी (माँस)												
7	Fishing(in- land) मछली पालन (तालाब/ नदी)												
8	Other Agri and allied activities अन्य कृषि सम्बंधित गतिविधियाँ												
9		Average monthly income (normal scenario)			Average monthly income in months of lockdown					☞Income from other sources includes service/ business/ rent/MNREGA etc.)			

	Income from other sources अन्य स्रोतों से आय	औसत मासिक आय (सामान्य महीनों में)	औसत मासिक आय (लॉकडाउन के महीनों में)			अन्य स्रोतों से आय ((नौकरी / व्यवसाय / किराया आदि)
10	Income from all sources सभी स्रोतों से आय	Average monthly income (normal scenario) औसत मासिक आय (सामान्य महीनों में)	Average monthly income in months of lockdown औसत मासिक आय (लॉकडाउन के महीनों में)			☞ To be only asked if respondent does not give information on above points ☞ केवल यह उसी रैस्पॉन्डेंट से पूछा जाए जो ऊपर पूछे गए पॉइंट्स पे जानकारी नहीं देता है
11	Total monthly household income कुल घरेलू आय	Average monthly income (normal scenario) औसत मासिक आय (सामान्य महीनों में)	Average monthly income in months of lockdown औसत मासिक आय (लॉकडाउन के महीनों में)			☞ summation of 10 to 19) Not to be done by the interviewers 10 से 19 का योग सर्वे करने वालों के द्वारा नहीं किया जाना चाहिए

7.0 Assessment of Challenges and Coping mechanism लॉकडाउन की वजह से खेती-बाड़ी में आने वाली चुनौतियाँ और उनसे निपटने के तरीके

7.1	Please tick the distress factors on basis of the impact on your farming occupation caused by the Covid-19 pandemic (Multiple responses can be recorded) कोरोना महामारी के कारण आपको खेती बाड़ी में किन कठिनाइयों का सामना करना पड़ा, कृपया विवरण दें ! (एक से ज़्यादा जवाब दर्ज किये जा सकते हैं) / (मल्टीपल रिस्पांस)		
	(A)Factor	(B)Sub-Factors (Problems Faced) (Multiple Choice) पीड़ा किन किन कारणों से हैं (मल्टीपल रिस्पांस)	(C) Coping Mechanism (Multiple Choice) रिसपोर्टेड इन पीड़ाओं से निपटने के लिए क्या कर रहे हैं
7.1.1	Labour related challenges लेबर संबंधी चुनौतियाँ	<ol style="list-style-type: none"> Problems in harvesting the crop फसल की कटाई में समस्या Problems in basic processing of the crop like putting in gunny bags, cleaning the produce etc. खेती के सामान्य कार्यों में समस्याएँ आना जैसे कि फसल को बोरियों में डालना, फसल की सफाई करना इत्यादि Problems in finding laborers for loading and unloading crops for transfer to markets/mandis. कटी फसल को मंडी/ बाज़ार में बेचने हेतु तैयार (गाड़ी में चढ़ाना / उतारना) करने के लिए लेबर मिलने में दिक्कत आना Unable to prepare land and other inputs for kharif season आने वाली खरीफ फसल के लिए ज़मीन को तैयार करना अथवा अन्य सम्बंधित ज़रूरी काम नहीं कर पा रहे हैं ! The migrant labor is not expected to comeback प्रवासी लेबर के वापस आने की उम्मीद नहीं है Any others (.....) कोई अन्य (.....) 	<ol style="list-style-type: none"> Using machines wherever possible, like direct seeder for paddy जहाँ तक संभव हो मशीनों का उपयोग करना, जैसे धान के लिए बीज बोने वाली मशीन (सीडर) का उपयोग करना Engaging self or family members for farm related labor खेती से संबंधित कार्यों के लिए खुद या परिवार के सदस्यों की मदद लेना Paying higher charges to locally available non-migrant labor लोकल लेबर को ज़्यादा पैसे देकर काम करवाना Waiting for implementation of Government support programs (agri- labor under MNREGA etc.) सरकारी सहायता कार्यक्रमों के लागू होने की प्रतीक्षा करना (जैसे मनरेगा के तहत कृषि-श्रम आदि) Switching to less labor intensive crops in the current kharif season इस खरीफ सीजन में उन फसलों को बोया जिनमें लेबर कम लगती है Any others (.....) कोई अन्य (.....) Not doing anything कुछ नहीं करना
7.1.2	Logistical challenges यातायात/ स्टोरेज/ वेयरहाउस (गोदाम) संबंधी चुनौतियाँ	<ol style="list-style-type: none"> No transport available to the nearest market/mandis/other districts निकटतम बाज़ार / मंडियों / अन्य जिलों तक जाने के लिए कोई परिवहन उपलब्ध नहीं होना No drivers available to drive the trucks/trolleys ट्रकों / ट्रॉलियों को चलाने के लिए कोई ड्राइवर उपलब्ध नहीं होना Blockage on the routes within state and between states राज्य के अंदर और अन्य राज्यों को जाने वाली सड़कों(रूट) पर रुकावट होना No storage was available for the harvested crops 	<ol style="list-style-type: none"> Storing the agri-produce at the fields and waiting for the resumption of logistics services to open up. खेतों में ही कृषि-उपज को रखना और परिवहन/ स्टोरेज/ वेयरहाउस सेवाओं के फिर से शुरू होने की प्रतीक्षा करना। Waiting for implementation of Government procurement programs (FCI) सरकारी खरीद कार्यक्रमों (एफ.सी.आई) के शुरू होने की प्रतीक्षा करना

		<p>कटी हुई फसलों के लिए स्टोरेज/ वेयरहाउस उपलब्ध नहीं होना</p> <p>5. Commercial storages are far away and expensive व्यावसायिक/ प्राइवेट रूप से चलने वाले स्टोरेज/ वेयरहाउस (गोदाम) का दूर और महंगा होना</p> <p>6. Any others (.....) कोई अन्य (.....)</p>	<p>3. Using Kisan Rath mobile application launched by Government to get logistics services मंडी/ बाज़ार तक फसल ले जाने के लिए परिवहन सेवाओं को प्राप्त करने के लिए सरकार द्वारा शुरू की गई किसान रथ मोबाइल एप्लिकेशन का उपयोग करना</p> <p>4. Higher costs paid for logistics/drivers परिवहन सेवाओं / स्टोरेज/ वेयरहाउस (गोदाम) के लिए ज़्यादा पैसे देना</p> <p>5. Delayed crop harvesting to gain time in this period फसल की कटाई देरी से करना</p> <p>6. Any others (.....) कोई अन्य (.....)</p> <p>99- Not doing anything कुछ नहीं करना</p>
7.1.3	Income loss आय में गिरावट	<p>1. Crops are still unsold or partially sold फसलें अभी तक भी नहीं बिकी हैं या सिर्फ कुछ हिस्सा ही बिकी हैं</p> <p>2. Lower price realization फसलों की कम कीमत मिली</p> <p>3. Did not sell the crops and rather destroyed them फसलों को नहीं बेचा बल्कि उन्हें नष्ट करना पड़ा</p> <p>4. Low yields resulting in income loss पैदावार में गिरावट की वजह से आई में कमी</p> <p>5. Due to higher costs for transportation and labour, incomes suffered परिवहन और लेबर की अधिक लागत के कारण आय में कमी</p> <p>6. Fall in demand due to cancellation of contracts for exports/sale मांग(डिमांड) में गिरावट होना, क्योंकि निर्यात (एक्सपोर्ट) / बिक्री के कॉन्ट्रैक्ट्स रद्द कर दिए गए</p> <p>7. Fall in demand due to cancellation of contracts with food processing players मांग(डिमांड) में गिरावट होना, क्योंकि फूड(खाद्य) कम्पनियो ने हमारे साथ किये गए फिक्स्ड (पक्की) सप्लाय वाले कॉन्ट्रैक्ट रद्द कर दिए</p> <p>8. Any others (.....)</p>	<p>1. Sold crop produce at lower prices to recover cost of cultivation/ mitigate losses कम कीमतों पे फसल बेचना</p> <p>2. Using cold storages/warehouses for storing crops to be sold later बाद में बेचने के लिए फसलों को कोल्ड स्टोरेज / गोदामों में रखना</p> <p>3. Stored crops in your own warehouse or house अपने गोदाम या घर में फसलों को रखना</p> <p>4. Using Negotiable Warehouse Receipt (NWR) system गोदाम रसीद (NWR) प्रणाली का उपयोग करना</p> <p>5. Any others (.....) कोई अन्य (.....)</p> <p>99- Not doing anything कुछ नहीं करना</p>

		कोई अन्य (.....)	
7.1.4	Market related problems बाजार संबंधी समस्याएं	<ol style="list-style-type: none"> 1. Mandis/procurement centres were closed or very few were open मंडियां / खरीद केंद्र बंद थे या बहुत कम खुले थे 2. Local procurement agents did not come लोकल सरकारी प्रोक्योरमेंट एजेंट नहीं आए या कम आए 3. Delayed selling due to online token system for entry into the mandi premises for crop selling मंडी परिसर में प्रवेश के लिए ऑनलाइन टोकन प्रणाली के कारण देर से बिक्री होना 4. No aggregator or Arthiya came to buy कोई एग्रीगेटर या अर्थिया फसल खरीदने नहीं आया 5. Mandis were closed and did not find a buyer outside mandi मंडी बंद थी और मंडी के बाहर खरीदार भी नहीं मिला 	<ol style="list-style-type: none"> 1. Reduced the quantity sold in the markets बाजारों में कम फसल बैची 2. Sold produce to local buyers स्थानीय खरीदारों को फसल बैची 3. Delayed harvesting कटाई में देरी 4. Any others (.....) कोई अन्य (.....) <p>99- Not doing anything कुछ नहीं करना</p>
7.1.5	Agri-Input कृषि उत्पादक सामग्री संबंधी समस्याएं	<ol style="list-style-type: none"> 1. Non-availability of seeds, fertilizers, and other agri-inputs बीज, खाद और अन्य कृषि उत्पादक सामग्री का नहीं मिलना 2. Sudden cost escalation of agri-inputs कृषि उत्पादक सामग्री के दामों का अचानक बढ़ना 3. Non-availability of harvesters/equipment on rentals किराये पर फसल काटने वाली मशीन व अन्य उपकरण का नहीं मिलना 4. Sudden increase in rental charges of harvesters/equipment किराये पर फसल काटने वाली मशीन व अन्य उपकरण के किराये का अचानक बढ़ना 5. Could not buy inputs because of no/less income earned in previous harvest पिछली फसल की कटाई में आय नहीं होने या कम होने के कारण खेती का सामान नहीं खरीद सके 6. Any others (.....) कोई अन्य (.....) 	<ol style="list-style-type: none"> 1. Purchasing agri-inputs on higher prices उच्च कीमतों पर कृषि उत्पादक सामग्री को खरीदना 2. Delaying sowing बुवाई में देरी करना 3. Paying higher rentals for equipment/ harvester किराये पर फसल काटने वाली मशीन व अन्य उपकरण का इस्तेमाल करने के लिए ज़्यादा किराया देना 4. Any others (.....) कोई अन्य (.....) <p>99- Not doing anything कुछ नहीं करना</p>
7.2	Have you cleared your outstanding institutional agri loans? (Refer to farmer loan profile) क्या आपने अपने बकाया संस्थागत कृषि ऋणों को चुका दिया है? (किसान ऋण प्रोफाइल देखें)		<p>1-Yes ; 2- No</p> <p>1- हाँ; 2- नहीं <u> </u></p>
7.3	Have you cleared your outstanding non-institutional agri loans? (Refer to farmer loan profile) क्या आपने अपने बकाया गैर-संस्थागत कृषि ऋणों को चुका दिया है? (किसान ऋण प्रोफाइल देखें)		<p>1-Yes ; 2- No</p> <p>1- हाँ; 2- नहीं</p>

<p>If response to any one among Q7.2 & 7.3 is 'No' Go To Q7.4 and continue further यदि Q7.2 और 7.3 में से किसी एक का भी जवाब 'नहीं' है तो Q7.4 पर जाएँ और आगे कंटिन्यू करें</p>		
7.4	<p>If you were not able to clear previous outstanding institutional/ non-institutional loans, what were the reasons? (<i>Multiple response can be recorded</i>) यदि पिछले संस्थागत/गैर-संस्थागत कृषि ऋणों को नहीं चुका पाए, तो क्या कारण थे? (एक से ज़्यादा जवाब दर्ज किये जा सकते हैं)/ (मल्टीपल रिस्पांस)</p>	<p>1-Yes ; 2- No 1- हाँ; 2- नहीं</p>
	<ol style="list-style-type: none"> 1. Low or no incomes and high losses कम या कोई आय नहीं होना और बहुत नुकसान होना 2. Delays in harvesting and selling crops due to lockdown लॉकडाउन के कारण फसलों की कटाई और बिक्री में देरी हुई 3. Could not travel to the bank branch due to lockdown लॉकडाउन के कारण बैंक शाखा नहीं जा सके 4. Crop loss/failure due to reasons other than lockdown leading to income loss लॉकडाउन के अलावा अन्य कारणों की वजह से फसल की बर्बादी/खराबी के कारण आय में कमी होने की वजह से 5. Moratorium (extension in due dates for loan repayment) not provided by banks on my agricultural loan कृषि ऋण पर बैंकों द्वारा मोराटोरियम (ऋण भुगतान के लिए तय तारीखों में रियायत) प्रदान नहीं किया गया 6. Crop payment not cleared by mills मिलों ने फसलों के पैसे नहीं दिए 7. High interest rates ब्याज दर बहुत ज़्यादा होना 8. Any other (.....) कोई अन्य (.....) 	
7.5	<p>If moratorium was provided by banks, did you use it on your outstanding institutional agri loans? यदि बैंकों द्वारा मोरेटोरियम (ऋण भुगतान के लिए तय तारीखों में रियायत) प्रदान किया गया था, तो क्या आपने इसे अपने बकाया संस्थागत कृषि ऋणों के भुगतान लिए इस्तेमाल किया?</p>	<p>1-Yes ; 2- No 1- हाँ; 2- नहीं</p>
7.6	<p>If you could not clear your previous non-institutional loans outstanding, how are you renegotiating the repayment modalities with the non-institutional loan provider? (Ask If No in Q7.3) (<i>Multiple response can be recorded</i>) यदि आप अपने पिछले गैर-संस्थागत कृषि ऋणों को नहीं चुका पाएँ हैं, तो आप गैर-संस्थागत कृषि ऋण देने वाले के साथ इस ऋण/ ऋणों को चुकाने के लिए क्या नया समझौता कर रहे हैं? (अगर Q 7.3 में नहीं हैं तो ही पूछें) (एक से ज़्यादा प्रतिक्रिया दर्ज की जा सकती है) (मल्टीपल रिस्पांस)</p>	

	<ol style="list-style-type: none"> 1. Pledging my Kharif crop against the loan amount to be paid अपनी आने वाले खरीफ फसल को ऋण राशि के भुगतान के लिए गिरवी रखना 2. Paying higher than previously agreed interest rates नहीं चुकाई हुए ऋण/ऋणों पर पहले से तय ब्याज दर से अधिक ब्याज का भुगतान करना 3. Increasing the amount paid in each installment प्रति किश्त में भुगतान की जाने वाली राशि को बढ़ाना 4. Increasing the number of installments किश्तों की संख्या बढ़ाना 5. Requesting extension of due date for repayment पैसे वापस चुकाने के लिए तय की गयी तारीख को बढ़ाने के लिए रियायत अनुरोध करना 6. Others (.....)कोई अन्य (.....)
7.7	<div>Did you apply for fresh credit from institutions for the Kharif season 2020-21? क्या आपने आने वाले खरीफ सीजन 2020-21 के लिए संस्थानों से नए कृषि ऋण के लिए आवेदन किया है?</div> <div>1-Yes ; 2- No 1- हाँ; 2- नहीं</div>
If response to Q7.7 is 'Yes' Go To Q7.8 and If 'No' Go To Q7.10 यदि Q7.7 का जवाब “हाँ” है तो 'Q7.8 पर जाएँ और यदि “नहीं” तो Q7.10 पर जाएँ	
7.8	<div>Did you receive fresh institutional credit? क्या आपको नया संस्थागत कृषि ऋण मिला?</div> <div>1-Yes ; 2- No 1- हाँ; 2- नहीं</div>
If response to Q7.8 is 'No' Go To Q7.9 and If 'Yes', Go To Q7.10 यदि Q7.6 का जवाब नहीं है तो to Q7.8 पर जाएँ और अगर हाँ है, तो Q7.10 पर जाएँ	
7.9	<div>Why you did not receive the fresh credit? <i>(Multiple response can be recorded)</i> <i>(Cross refer to question number 5.10 in the main questionnaire to only record responses relevant to capture effect of lockdowns on the farmers credit requirements)</i></div> <div>आपको नया ऋण क्यों नहीं मिला? (एक से ज़्यादा जवाब दर्ज किये जा सकते हैं)/ (मल्टीपल रिस्पांस) Q5.10 से क्रॉस चेक करें और सिर्फ वही रिस्पांस ऑप्शन टिक करें जो कोविड -19 लॉकडाउन का किसानों की ऋण ज़रूरतों पर पड़ने वाले प्रभाव से सम्बंधित हो</div>
	<ol style="list-style-type: none"> 1- I was told that my dues were pending and so I was not eligible for fresh loans मुझे बताया गया कि मेरा ऋण बकाया था और इसलिए मैं नए ऋण के लिए पात्र नहीं था 2- Bank officials told me that the government scheme under which I got loans before had been discontinued and so I was not eligible to get any other loan बैंक के अधिकारियों ने बताया कि जिस सरकारी योजना के तहत मुझे ऋण दिया गया था उसे बंद कर दिया गया और इसलिए मैं कोई अन्य ऋण लेने के लिए पात्र नहीं था। 3- My documents were found to be incomplete by the bank मेरे दस्तावेज बैंक द्वारा अधूरे पाए गए 4- Defaulted on last lending cycle's interest payment due to COVID-19 lockdowns and therefore not eligible for fresh credit from institutional sources कोविड -19 लॉकडाउन के कारण पिछले कृषि ऋण का ब्याज भुगतान नहीं कर पाया और इसलिए संस्थागत स्रोतों से नए कृषि ऋण के लिए पात्र नहीं माना गया 5- Not eligible for institutional loans

	संस्थागत कृषि ऋण के लिए पात्र नहीं हूँ 6- Any others (.....) कोई अन्य (.....)	
7.10	Did you take any fresh non-institutional loan for the Kharif 2020 cropping season? क्या आपने खरीफ 2020 फसल सीजन के लिए कोई नया गैर-संस्थागत कृषि ऋण लिया?	1-Yes ; 2- No 1- हाँ; 2- नहीं
❗If response to Q7.10 is 'NO' Go To Q7.11, If Yes, Terminate the interview यदि Q7.10 का जवाब नहीं 'हैं' तो Q7.11 पर जाएँ, यदि हाँ जवाब, तो साक्षात्कार समाप्त करें		
7.11	If No, what were the reasons for not taking any non-institutional loan for the Kharif cropping season? यदि नहीं, तो आगामी खरीफ फसल सीजन के लिए कोई गैर-संस्थागत ऋण नहीं लेने के क्या कारण थे?	
	<ol style="list-style-type: none"> Non-institutional sources such as Arthiya, were unable to lend funds अड़तियो जैसे गैर-संस्थागत स्रोत ऋण देने में असमर्थ थे Got institutional loan and therefore no need for non-institutional loan संस्थागत ऋण मिल गया इसलिये गैर-संस्थागत ऋण की कोई आवश्यकता नहीं I had not repaid the earlier loans and there was no extension given on the loan repayments मैंने पहले के ऋण /ऋणों को नहीं चुकाया था और ऋण चुकाने की मियाद (समय रेखा) को बढ़ाया नहीं गया Had nothing else left to offer as collateral to secure the loan amount ऋण राशि पाने के लिए गिरवी रखने के लिए कुछ नहीं बचा था Finances of family and friends were also stressed due to the lockdown and hence could not approach them for loan परिवार और दोस्तों की आर्थिक स्थिति लॉकडाउन के कारण तंग थी इसलिए उनसे ऋण के लिए संपर्क नहीं कर सकते थे Others (.....) कोई अन्य (.....) 	

Annexure 11: Snapshot of District-wise Data used for Sampling in Punjab, Maharashtra and Uttar Pradesh

S. No	Punjab	2015-16	2016-17	2013 index	2015-16	2015-16	2011	2011	TE 2019-20	TE 2019-20	TE 2018-19	TE 2018-19
	District	NDDP-Share of A&A	GDDP share of A&A Current year Prices	Climate vulnerability Rank	state's SMF in district	districts' smf share	Agri worker share (CI+AI/total agri workforce)	Cultivator share in total CL(CI/total CL)	FLW farmer share in state total	FLW amount share state total	district share of institutional agri credit (Disbursements)	% SMF with flw out of total PM Kisan beneficiary)
1	Amritsar	5.4	7.3	445	12.6	35.4	6.76	6.3	4.1	5.0	4.9	16
2	Barnala	3.0	4.0	-	8.3	32.6	2.72	3.0	4.3	3.3	2.9	29
3	Bathinda	4.9	7.0	291	13.8	28.8	7.66	7.3	7.5	6.0	6.2	20
4	Faridkot	2.8	3.5	91	4.6	23.7	3.05	2.7	3.0	2.3	3.5	24
5	Fatehgarh Sahib	2.5	3.3	345	5.3	38.0	1.89	2.3	2.7	2.9	3.0	28
6	Fazilka	4.5	6.3	-	6.2	24.0	-	-	4.4	3.7	3.9	7
7	Firozpur	4.7	5.9	229	5.4	20.1	12.21	10.0	4.4	4.6	5.7	8
8	Gurdaspur	6.2	5.5	506	16.6	42.5	7.15	7.8	4.7	6.2	3.4	11
9	Hoshiarpur	7.6	9.3	425	19.3	50.4	4.75	4.7	4.7	6.6	5.1	20
10	Jalandhar	5.3	6.0	336	6.8	27.0	4.17	4.3	4.0	5.1	5.8	32
11	Kapurthala	3.9	3.9	156	6.3	33.1	2.75	2.9	2.1	2.7	3.8	27
12	Ludhiana	8.2	10.9	458	13.4	34.0	6.49	7.1	8.3	8.3	10.8	39
13	Mansa	3.4	4.9	225	7.1	30.0	5.71	5.6	4.8	3.5	3.3	17
14	Moga	4.4	5.5	121	6.7	24.0	5.04	4.8	6.3	4.7	7.1	32
15	Muktsar	4.9	5.7	280	5.5	21.6	5.69	4.5	0.6	0.7	3.6	27
16	Pathankot	2.5	2.6	-	7.9	59.4	-	-	7.7	8.0	0.6	52
17	Patiala	6.2	8.4	421	8.5	24.4	5.80	5.9	2.8	2.7	8.1	2
18	Rupnagar	3.2	4.1	485	13.5	64.3	1.96	2.4	2.0	2.8	1.7	52
19	Sangrur	6.6	9.3	274	11.5	25.6	6.89	7.9	9.8	8.1	6.6	42
20	SAS Nagar (Mohali)	2.7	3.7	-	4.2	41.9	1.64	2.0	2.5	3.4	1.5	25
21	Shahid Bhagat Singh Nagar (Nawanshahr)	2.8	3.4	414	8.1	48.7	1.86	2.2	4.1	3.9	2.4	14
22	Tarn Taran	4.4	5.2	-	8.6	31.3	5.78	6.2	5.3	5.5	6.1	18

S.no	District	2015-16	2015-16	2011	PM KISAN	2013-14	2013	2016-19
		State's SMF in district	District's SMF share	State's share of cultivator in the district	State's agri workforce share Rur	Agriculture GDDP share per district %	Climate vulnerability R	Average Share of disbursed A&A Credit
1	Ahmednagar	7.1	82.5	8.1	6.4	5.1	31.0	8.4
2	Akola	1.9	75.1	1.0	2.0	1.8	128.0	1.8
3	Amravati	3.2	74.4	1.5	2.9	2.8	113.0	1.9
4	Aurangabad	4.0	81.8	4.4	3.6	3.7	141.0	3.3
5	Beed	5.0	83.0	4.9	4.5	1.2	30.0	2.0
6	Bhandara	1.7	91.6	4.9	1.8	2.7	480.0	0.8
7	Buldana	3.4	80.0	3.0	3.8	2.8	76.0	2.7
8	Chandrapur	2.0	69.5	1.8	1.9	1.6	518.0	1.4
9	Dhule	1.7	71.3	1.9	2.1	2.4	83.0	1.5
10	Gadchiroli	0.9	73.0	1.8	1.4	1.1	478.0	0.3
11	Gondia	1.8	92.4	1.5	2.2	0.9	464.0	0.6
12	Hingoli	1.6	76.4	2.0	2.1	1.0	293.0	0.834951419
13	Jalgaon	3.2	76.7	3.0	4.5	4.3	145.0	4.1
14	Jalna	3.2	79.3	3.4	3.2	3.2	106.0	2.2
15	Kolhapur	4.4	92.3	5.3	5.0	4.8	508.0	4.4
16	Latur	2.9	78.0	2.7	3.4	3.9	48.0	3.1
17	Nagpur	2.0	69.1	1.6	1.8	1.7	367.0	4.5
18	Nanded	4.5	80.6	3.6	4.7	3.3	239.0	12.0
19	Nandurbar	1.1	68.5	1.7	1.2	1.2	63.0	0.8
20	Nashik	4.6	76.8	7.7	4.6	10.4	95.0	4.1
21	Osmanabad	2.6	73.1	2.4	2.7	2.5	42.0	1.4
22	Palghar	0.9	78.8	NA	1.2	2.4	NA	NA
23	Parbhani	2.6	77.2	2.4	3.2	6.9	165.0	1.9
24	Pune	5.3	81.4	7.0	3.8	1.6	283.0	11.3
25	Raigad	2.2	87.5	1.7	1.3	1.4	443.0	1.0
26	Ratnagiri	3.1	82.7	2.4	1.7	4.5	468.0	1.2
27	Sangali	3.5	82.6	3.8	3.8	3.8	72.0	4.5
28	Satara	6.0	91.0	4.7	4.9	1.8	361.0	5.0
29	Sindhudurg	2.0	87.3	1.0	1.0	3.7	493.0	0.8
30	Solapur	4.7	71.0	5.1	5.8	2.5	12.0	5.5
31	Thane	0.9	82.5	2.6	0.9	1.3	453.0	1.9
32	Wardha	1.4	62.8	1.0	1.4	2.1	355.0	1.6
33	Washim	1.6	75.1	1.3	1.9	2.5	182.0	0.8
34	Yavatmal	2.8	59.9	2.7	3.3	3.1	354.0	2.4

Year	2015-16	2015-16	2011	2011	2016-17	2013	TE 2018-19		2015-16
Disrict Name	state's SMF in district	districts' smf share	Share of Total agri workforc e in the district	district's share of cultivators in total cultivators	District Share of A&A GSDP	Climate vulnerability Rank	District share of FLW Farmers in state total	District Share of FLW amt in state total	FLW beneficiaries in total SMF (SMG number given by Agri census)
Jalaun	2.7	78.6	1.1	1.0	1.3	212	1.3	1.3	27.9
Lalitpur	2.7	81.4	1.0	1.4	1.1	120	1.2	1.2	30.1
Banda	2.7	80.9	1.4	1.3	0.7	38	1.4	1.5	27.8
Jhansi	2.5	77.6	1.1	1.2	1.6	98	1.3	1.3	33.2
Kheri	5.7	92.3	2.5	2.8	3.1	353	3.2	3.6	23.6
Unnao	4.3	95.6	2.0	2.4	1.6	299	1.7	1.3	14.8
Hamirpur	1.7	72.4	0.8	0.7	0.8	46	0.9	0.8	32.9
Chitrakoot	1.7	88.0	0.8	0.9	0.4	37	0.6	0.5	17.1
Mahoba	1.5	74.0	0.6	0.6	0.7	36	1.0	1.0	41.5
Ambedkar Nagar	2.5	97.6	1.3	1.1	0.8	335	1.0	0.9	13.3
Auraiya	1.8	92.9	0.8	0.9	0.6	318	0.7	0.6	16.8
Azamgarh	4.6	96.2	2.3	2.3	1.5	276	1.4	1.2	10.6
Ballia	2.9	94.6	1.5	1.1	1.0	49	1.3	1.0	16.7
Balrampur	2.5	93.2	1.6	1.5	0.9	133	1.0	1.1	16.1
Basti	2.7	95.6	1.5	1.6	0.9	191	1.5	1.2	21.0
Behraich	4.1	95.4	2.4	2.3	1.3	65	2.1	2.5	19.7
Deoria	2.8	96.2	1.4	1.3	0.8	93	1.1	0.8	13.6
Ghazipur	3.1	95.8	2.1	2.0	1.2	152	1.3	1.2	14.0
Gonda	4.0	96.5	2.3	2.4	1.7	125	2.2	2.5	20.4
Gorakhpur	3.9	96.8	1.8	1.4	1.4	301	1.3	0.8	11.3
Kannauj	2.2	95.8	0.9	1.3	0.9	319	1.4	1.6	25.2
Kushi Nagar	3.3	97.1	2.1	1.4	1.4	201	2.3	1.9	21.4
Maharajganj	2.9	96.4	2.0	1.2	1.0	228	1.8	1.2	21.0
Mau	1.7	97.0	0.9	0.8	0.5	181	0.7	0.6	12.3
Moradabad	2.3	92.8	1.8	1.9	1.1	392	1.3	1.3	23.5
Pratapgarh	3.7	97.0	1.8	1.6	1.0	249	1.3	1.0	11.5

Annexure 12: List of Villages Surveyed in the Three States

PUNJAB

District	District	Village Name	Tehsil Name
1.	Gurdaspur	Vela Teja	Gurdaspur
		Aulakh (Aulakh Khurd)	Batala
		Ghanieke Bangar	Gurdaspur
2.	Hoshiarpur	Rajwal	Mukerian
		Zahura	Dasua
		Miani	Dasua
		Chak Raju Singh	Hoshiarpur
		Tanoli	Hoshiarpur
		Patti	Hoshiarpur
		Bains Taniwal	Hoshiarpur
3.	Ludhiana	Kaunke	Jagraon
		Rasulpur Malla	Jagraon
		Dhamot	Payal
		Bassia	Raikot
		Begowal	Doraha
4.	Roopnagar	Dab Khera	Nangal
		Bela Ramgarh	Nangal
		Samlah	Anandpur Sahib
		Bela Dhiani	Anandpur Sahib
5.	Sangrur	Kabial	Bhawani Garh
		Sheron	Sunam
		Gharachon	Sangrur
		Shaneri	Bhawani Garh
6.	Bathinda	Kot Shamir	Bhatinda
		Chaoke/Chauke	Rampura
7.	Patiala	Shutrana	Patran
		Kakrala	Samana
		Kularan	Samana
		Lang	Patiala
8.	Fatehgarh Sahib	Hargana	Khumano
		Lohar Majra Kalan	Amloh

Maharashtra

S. No	District	Village Name	Tehsil Name
1.	Nagpur	Kondhali	Katol
		Mandhal	Kuhi
		Kuhi	Kuhi
		Kanholibara	Hingna
		Cacher	Mauda
		Tarsa	Mauda
		Bela	Umred
		Patansavangani	Soaner
2.	Sangli	Kokrud	Shirala
		Mangle	Shirala
		Shirala	Shirala
		Kasegaon	Walva
		Nerle	Walva
		Kameri	Walva
		Kedar Wadi	Walva
		Matekarwadi	Walva
3.	Ahmednagar	Belwandi Bk.	Shrigonda
		Vambori	Rahuri
		Kolgaon	Shrigonda
		Parner	Parner
4.	Beed	Patoda	Patoda
		Pimpla	Ashti
		Khandvi	Georai
		Umapur	Georai
5.	Amravati	Hiwarkhed	Morshi
		Talegaon Dashasar	Dhamangaon Railway
		Pathrot	Achalpur
		Nerpingalai	Morshi
6.	Nashik	Vadner Bhairao	Chandvad
		Chandori	Niphad
		Nagarsul	Yevla/Yeola
		Andarsul	Yevla/Yeola
7.	Satara	Pal	Karad
		Palashi	Man
		Rethare Bk.	Karad
		Nimsod	Khatav
		Kasar Shirmbe	Karad
		Bidal	Man
		Kale	Karad
		Mhasurne	Khatav

Uttar Pradesh

S.No	District	Village Name	Tehsil Name
1.	Banda	Marka	Baberu
		Patvan	Baberu
		Tendura	Attara
2.	Bulandshahr	Saidpur	Siana
		Jargwan	Debai
		Khad Mohan Nagar	Siana
		Aurangabad Chandok	Shikarpur
3.	Jhansi	Eoni	Garautha
		Katera Rural	Mauranipur
		Khajuraha Bujurg	Jhansi
		Bamor	Garautha
4.	Lalitpur	Khandi	Talbehat
		Banpur	Mahroni
		Pura Kalan	Talbehat
		Sonjana	Mahroni
5.	Aligarh	Budhari Buzurg	Atrauli
		Sathini	Iglas
		Dado	Atrauli
		Gharvara	Khair
6.	Hardoi	Lonhra	Sandila
		Babatmau	Bilgram
		Manghgawn	Sandila
		Arwal Paschim	Sawajajpur
7.	Jaunpur	Pillichha	Shahganj
		Usarawn	Mariahu
		Deheya	Shahganj
		Udpur Gelhawa	Badlapur
8.	Kheri	Dulhi	Dhaurahara
		Lodhauri	Nighasan
		Teleyar	Nighasan
		Dhanipur	Mitauli
9.	Sitapur	Golak Gondor	Biswan
		Reusha	Biswan
		Ataura	Mahmudabad
		Sarawan	Laharpur
10.	Unnao	Akohari	Purwa
		Kursath Rural	Safipur
		Mawai	Purwa

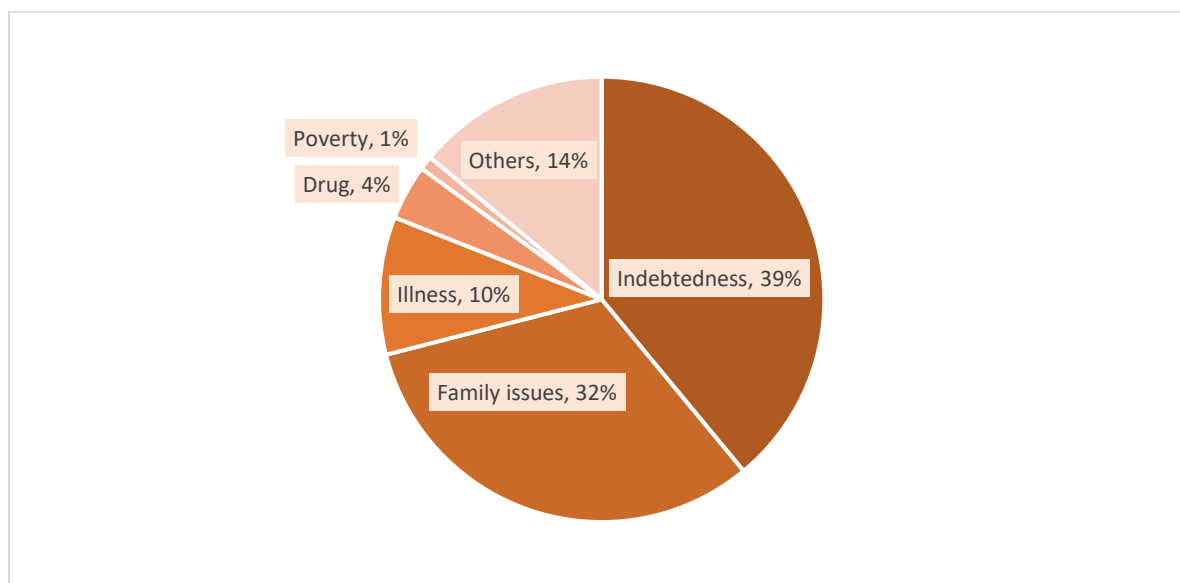
		Targaon	Unnao
10.	Bara Banki	Ibraheembad	Nawabganj
		Sanauli	Ramsanehighat
		Bans Gaon	Ramsanehighat
		Malauli	Ramnagar
		Seth Mau	Nawabganj
		Sainder	Fatehpur
11.	Lucknow	Rahimnagar Padhiyana	Lucknow
		Utrawan	Mohanlalganj
		Saspan	Malihabad
		Samesee	Mohanlalganj
		Jugor	Lucknow
		Kathwara	Bakshi ka talab
12.	Rae Bareilly	Bela Bhela	Rae Bareli
		Johwa Sharki	Rae Bareli
		Itaura Buzurg	Unchahar
		Bedaru	Maharajganj

Annexure 13: Farmer Distress and its causes

While it is difficult to objectively measure the severity of farmer distress, one measure that could be of use is the rate of suicides among the farmer community since farmer suicides could be considered as manifestation of extreme distress. In 2019, as per the National Crime Records Bureau (NCRB), 10,269 farmers committed suicide in India. This was about 7.4 per cent of the total suicides in the country in that year. Over time, the rate of suicides by farmers has declined. In the 2000s, about 17,000 farmers committed suicide on average every year.

The NCRB also documents the main reasons for farmers taking the extreme step. The latest assessment in this regard is presented in the NCRB 2015 report (Figure 88). As per this report, 39 per cent of farmer suicides were due to indebtedness. There were other reasons too, like, family problems (32 per cent), drug abuse/illness/poverty (15 per cent), and issues in marriage (2 per cent). Poverty and property disputes did not appear to be major reasons for farmer suicides.

Figure 88: Cause of Farmer Suicides in India



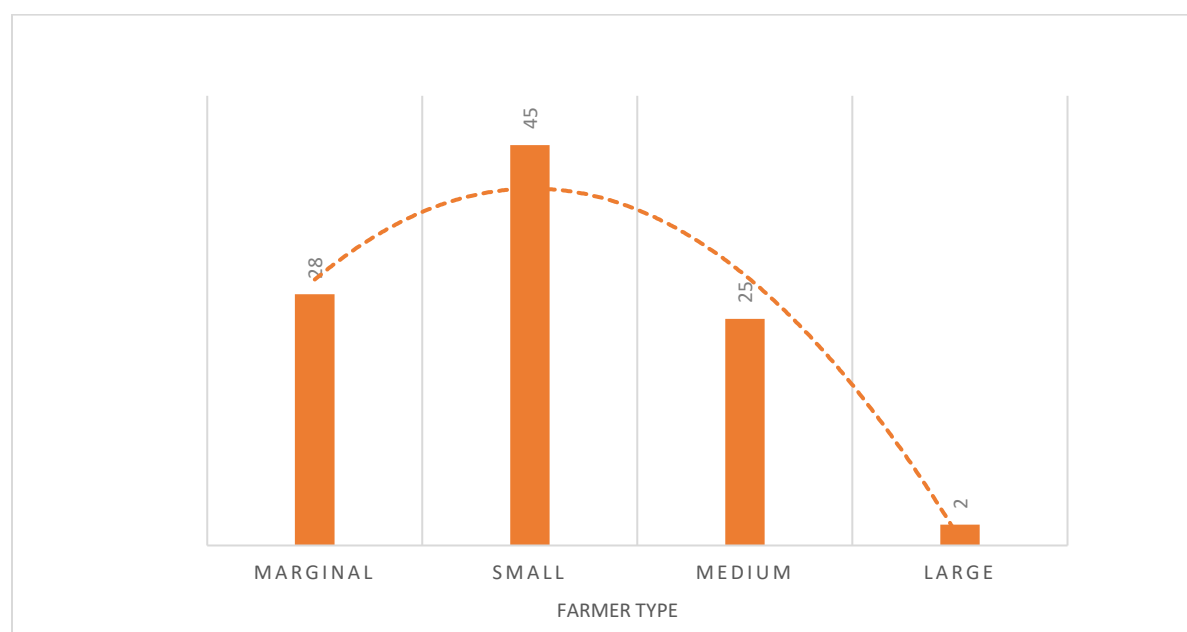
Source: NCRB (2015)

Note: Family issues include 'family related issues' and 'family problems. Other causes include 'marriage related issues', 'poverty', 'property dispute', 'causes not known', and 'other causes.'

An analysis of data from NCRB also revealed that farmer suicides had a pattern, explained, *inter alia*, by their landholding size and the impact of exogenous yet critical factors like monsoon rains.

Instances of farmer suicides were found to increase with smaller land holding sizes. Out of the total 5650 farmer suicides studied in the year 2015 by NCRB (Figure 89), 1579 (about 28 per cent) belonged to the marginal landholding category (that is average landholding less than 1 hectare), 2516 (45 per cent) were from the small category (with average landholding between 1 and 2 hectares), 1424 (25 per cent) in the medium farmer category (with average landholding size between 2 and 10 hectares) and 131 (2 per cent) in the large farmer category (with average landholding greater than 10 hectares). However, according to Deshpande and Arora 2010, it is not the small size of the land itself as much the constraints on the farmer's ability to access inputs, particularly formal credit and insurance, that push small and marginal farmers (SMF) into distress.

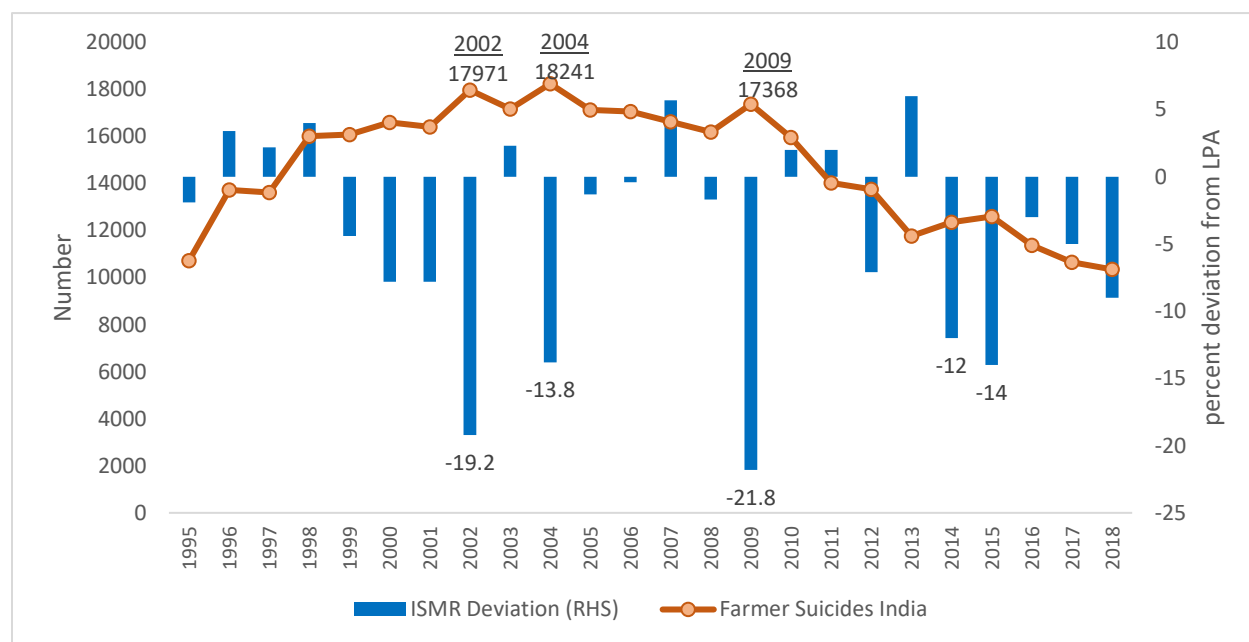
Figure 89: Farmer Suicides in India by Farm Land Size



Source: NCRB 2014

Instances of famer suicides also increased in years of drought. With more than half of India's gross cropped area (GCA) dependent on monsoon rains (rains that fall in the four months June to September), a drought causes severe distress among farmers. The annual data in this regard has been plotted in Figure 90.

Figure 90: Farmer Suicides and Monsoon in India (1995 to 2018)



Source: NCRB and Indian Meteorological Department (IMD).

Note: ISMR is short for Indian summer monsoon rain. ISMR is received during four months: June to September. About 75 per cent of annual rains are received during these monsoon months. ISMR is mentioned as a deviation of actual rains received during monsoon months compared to their long period average (LPA) value. As per IMD, a drought is declared when this deviation is (-)10 per cent or higher.

Instances of farmer suicides were found to be negatively correlated with deviation in actual rainfall indicating that fewer farmers committed suicide in a good monsoon year but more suicides were committed during years of deficient rain or drought. Since 1995, the highest number of suicides occurred in the three worst drought years in Indian history since then: 2002, 2004 and 2009. The consecutive drought years of 2014 and 2015 also saw a rise in the number of suicides but the absolute number of suicides was lower.

Other Factors Causing Distress to Farmers

Mohanty (2005) points out that there was a gap between aspiration and reality in terms of profitability from farming. Indebtedness and declining farm incomes were major reasons for suicides.

Behere and Behere (2008) noted that there were several causes behind farmer suicides. These include: (i) chronic indebtedness and inability to pay interest accumulated over the years, (ii)

economic decline that leads to complications and family disputes, (iii) depression and alcoholism, (iv) rising cost of agricultural inputs and (vi) falling prices of agricultural produce.

Deshpande and Arora (2010) provide a detailed analysis of the genesis of Indian farmer suicides. They list various causes for farmer suicides, such as declining share of institutional credit, increasing number of undernourished children, downward shift in the status of marginal farmers, falling net income from agricultural activities and growing indebtedness. They showed how farmer suicides were the symptoms and expression of deeper structural problems present in the current agricultural system.

Sadanandan (2014) argues that banking reforms introduced since the 1990s was a major reason behind the increase in farmer suicides. He contends that these reforms increased the dependence of farmers on unscrupulous and exploitative private moneylenders and a high level of indebtedness.

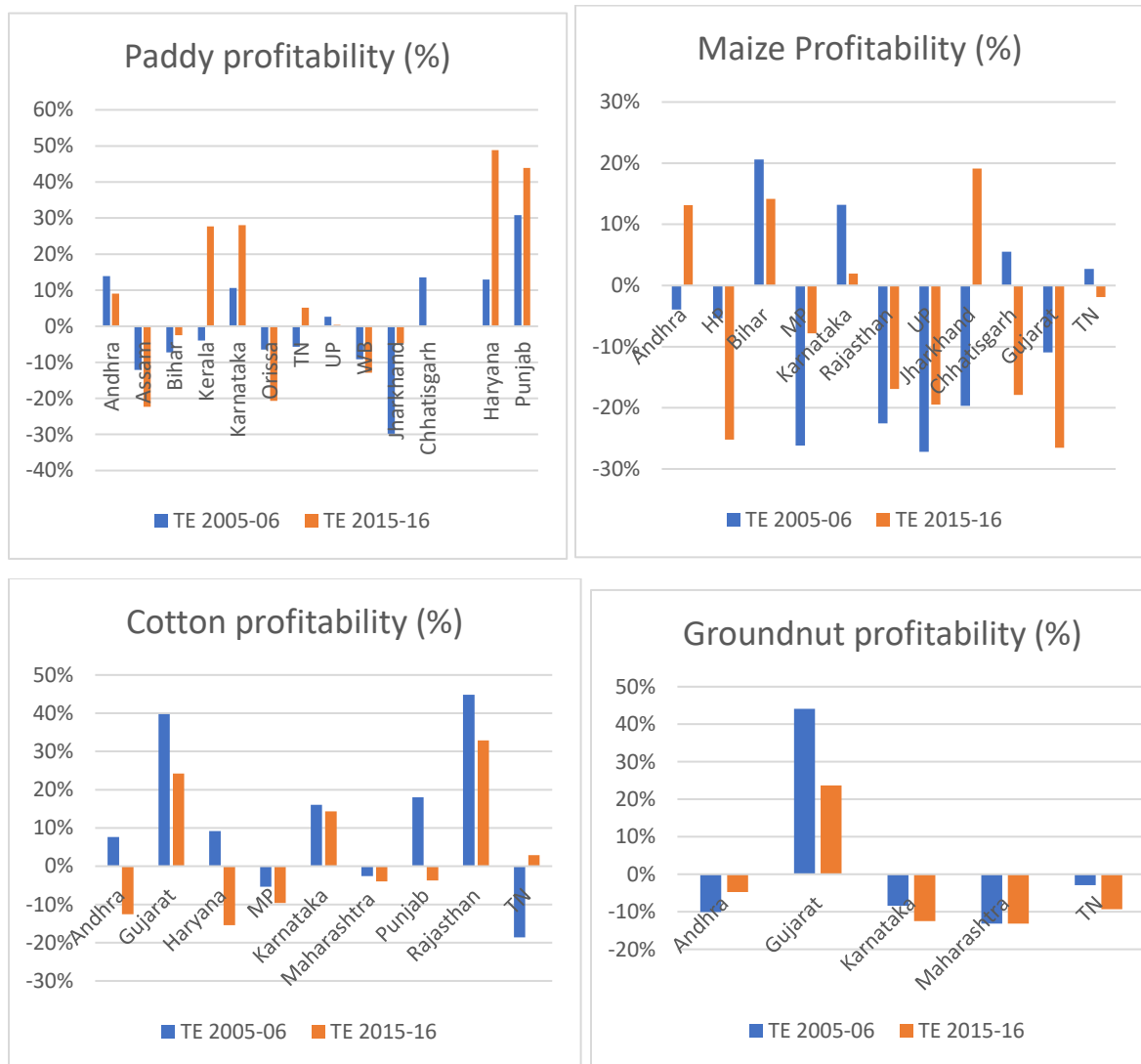
Kennedy and King (2014) highlight the inability of the Indian government to enact land reforms as one of the main causes of farmer suicides. They also suggest that marginal farmers are associated with higher suicide rates in places where farmers were subject to the vulnerabilities of the cash crop cultivation and thus face indebtedness.

Parvathamma (2016) in the paper states that suicide victims were motivated by more than one cause. Reasons cited are droughts, debt, the use of genetically modified seeds, lack of public health and government policies as reasons for farmer suicides. He emphasises the indebtedness and reliance on non-institutional/informal sources of credit as characteristic of farmers who committed suicide.

Falling economic viability of agriculture causing distress

Since the declining viability of farming emerged as a major reason contributing to the incidence of suicide among farmers, profits earned by Indian farmers from the cultivation of major crops has been estimated using data from the Ministry of Agriculture. Figure 91 summarises trends in the profitability of major crops between 1999 and 2016.

Figure 91: Profitability of crops in major states



Source: Calculated by authors using data from MoSPI.

Note: Profitability has been calculated using the per hectare cost of cultivation and the per hectare value of output produced.

The profitability of most crops in TE 2015-16 (orange bars) is either negative or below TE 2005-06 (blue bars).

Annexure 14: Punjab 2017-18 FLW Scheme Order

Government of Punjab
Agriculture Department
(Agriculture-2 Branch)

NOTIFICATION

No. 8/259/17-Agri.2(10) /

The October 17th, 2017

State agriculture is facing a crisis both in terms of its economic and environmental sustainability. The agriculture sector with a small share in GSDP provides subsistence livelihood to a large section of rural population. The increasing cost of inputs coupled with marginal increases in Minimum Support Price has contributed to a squeeze in the margins of the farmers. They are in a severe debt trap today, despite their hard work and well recognized contributions to India's green revolution and food security. To assess the total amount of credit availed by different categories of farmers and to suggest the methodology for remission of debt, the Government of Punjab vide order No.8/69/17-Agri 2(10) /5585 dated 17.4.2017 constituted an Expert Group with Dr. T. Haque as Chairman. On the basis of recommendations made by the Group in its report, the State Govt. has formulated a Crop Loan Waiver Scheme which will cover only institutional crop loans i.e. crop loan advanced by commercial and cooperative banking institutions.

2. Scope of the Scheme

2.1 This scheme will cover crop loan disbursed to farmers in the State by scheduled commercial banks, cooperative credit institutions (including urban cooperative banks) and regional rural banks, collectively called as the "lending institutions".

2.2 The Scheme shall come into force from the date of its Notification in the official gazette.

3. Definitions

3.1. 'Crop Loan' means a *Short Term Production* loan given in connection with the raising of crops which is to be repaid within 6-12 months. It will include working capital loan, extended to 'marginal and small farmers'.

3.2. 'Cooperative Credit Institution' means a cooperative society that

i) provides short-term crop loans to farmers and is eligible for interest subvention from the Central Government;
or

ii) carries on banking activities regulated or supervised by RBI or NABARD; or

iii) is part of the Short-Term Cooperative Credit Structure

3.3. '*Marginal Farmer*' means a farmer cultivating as owner, agricultural land less than one hectare (less than 2.5 acres).

3.4. '*Small Farmer*' means a farmer cultivating as owner, agricultural land equal to or more than one hectare but less than two hectares (from 2.5 acres to less than 5 acres).

Explanation:

a). The classification of eligible farmers as per the above landholding criteria under the Scheme would be based on the total extent of land owned by the farmer either singly or as joint holder at the time of sanction of the loan, irrespective of any subsequent changes in ownership or possession.

b). In the case of borrowing by more than one farmer by pooling their landholdings, the size of the largest landholding in the pool shall be the basis for the purpose of classification of all farmers in that pool as 'marginal farmer' or 'small farmer'

c). Direct agricultural loan taken under a Kisan Credit Card would also be covered under this Scheme.

d). A crop loan and an investment loan taken by a farmer shall be counted as two distinct loans and the Scheme will apply only to crop loan. Likewise, in the case of a farmer who has taken loans from two separate lending institutions, the first priority shall be given to Cooperative institutions and second to Public Sector Banks and third to Commercial Banks in that order.

4. Eligible amount

4.1 The amount eligible for debt relief (hereinafter referred to as the eligible amount') shall comprise of the outstanding liability under crop loan (principal and interest) as on 31.03.2017. The interest outstanding from 1st April 2017 till date of notification shall be additional.

(i) Restructured and rescheduled by banks through the special packages announced by the Government, whether overdue or not; and

(i) restructured and rescheduled in the normal course up to March 31, 2017 as per applicable RBI guidelines on account of natural calamities, whether overdue or not.

4.2. The following loans shall not be included in the eligible amount:

(a) advances against pledge or hypothecation of agricultural produce other than standing crop; and

(b) agricultural finance to corporates', partnership firms, societies other than cooperative credit institutions (referred to in para 3.2), and any similar institution.

5. Debt Waiver

5.1. In the case of a marginal farmers , the entire 'eligible amount' of those farmers who have total outstanding crop loan liability upto Rs 2 Lakh shall be provided as debts relief and in case of eligible amount of more than Rs. 2.00 lakh, only Rs.2.00 Lakh shall be provided as Debt relief.

5.2. In the case of small farmers', the entire 'eligible amount' of those farmers who have total outstanding crop loan liability upto Rs.2.00 lakh, shall be provided as Debt relief.

6. Implementation

6.1. a) Every Branch Manager of a scheduled commercial bank, regional rural bank, cooperative credit institution, and other lending institutions covered under this Scheme shall prepare two Aadhar seeded village wise lists, one consisting of 'marginal farmers' (List-I) and the second consisting of 'small farmers' (List-II), who are eligible for debt relief under this Scheme as per performa given in Annexure-A. These lists shall be displayed on the notice board of the branch of the bank/society. One copy of these lists should be sent by the Bank Branch Manager each to concerned SDM and District Collector.

b) For eliminating the duplication/multiple financing and restricting the benefit of loan waiver of Rs.2.00 lakh per farmer, the District Collector shall collect the Aadhar seeded lists from all the branches. If need be, a Bankers meeting at Sub-divisional level shall be convened by the District Collector for this purpose. At this meeting all the Banks will compare the village-wise lists of farmers in List-I and List-II with lists of other bank branches in the area. The District Collector will get all names in these lists checked and verified to ascertain that all loanees have farm land.

After this verification, any false claims will be deleted. Then farmers who have availed loans from more than one bank branch will be identified and village-wise joint lists will be prepared. The Co-op. Dept. auditors under the supervision of District Co-op. Audit Officer shall cross verify the lists pertaining to PACS and DCCBs. A senior officer not below the rank of SDM, and nominated by the District Collector will be the observer for this meeting. The final lists thus prepared will be shared by all bank branches at the Sub-divisional level.

c) It is to be noted that if a farmer has multiple accounts but overall outstanding for crop loan is less than eligible amount, then their name will not be deleted. In case outstanding crop loan is more than Rs.2.00 lakh, then the name will be retained in the list for the banks as provided in section 3.4(d) and further on the basis of date of availing loan i.e. where the farmer first availed the crop loan being the first priority. Thus, a final list of farmers who will be eligible for loan waiver will be prepared bank branch-wise.

d) The final lists will be exhibited village wise to conduct a social audit by a team constituted by the SDM along with Block Agriculture Officer and Assistant Registrar Co-operative for this purpose. After conduct of social audit and finalization of all objections received, the final list of farmers bank branch-wise will be prepared in Annexure-B. After the social audit and after taking into account the objections of villages, if any, a final village-wise list of eligible farmers along with the amount eligible for waiver shall be prepared (Annexure 'B') and displayed _____ at _____ all bank branches after due authentication. The final list shall be sent to the LDM and the District Collector in Annexure-B.

e) A District Level Bankers' meeting will be convened by the DC and district-wise details of loan waiver bank-wise, farmer-wise will be recorded and sent to Director Agriculture, Punjab in Annexure-B. Director Agriculture who will release the amount to concerned Deputy Commissioner for settlement of accounts of eligible farmers.

6.2. A farmer classified as 'small farmer' or 'marginal farmer' will be eligible for fresh agricultural loans upon the eligible amount being waived.

6.3. In the case of a crop loan, the 'marginal farmer' will be eligible for fresh crop loan upon paying one-third of outstanding amount after a relief of Rs. 2.00 Lakh.

6.4. State Government shall take up the issue of settlement of loan with respective banks as one time settlement and shall take over the entire "eligible amount and the interest outstanding from 01-04-2017 till date of Notification" of the farmers to be defrayed to the banks in a phased manner except for the Cooperative Credit Institutions.

6.5 In the case of small and marginal farmers, upon waiver of the eligible amount, the lending institution shall issue a certificate to the effect that the loan has been waived and specifically mention the eligible amount that has been waived.

6.6. Every lending institution shall be responsible for the correctness and integrity of the lists of farmers eligible under this Scheme and the particulars of the debt waiver or debt relief in respect of each farmer. Every document maintained, every list prepared and every certificate issued by a lending institution for the purposes of this Scheme shall bear the signature and designation of an authorised officer of the lending institution.

6.7. Every lending institution shall appoint one or more Grievance Redressal Officer for each District (having regard to the number of branches in that District). The name and address of the Grievance Redressal Officer concerned shall be displayed in each branch of the lending institution. The Grievance Redressal Officer shall have the authority to receive representations from aggrieved farmers and pass appropriate orders thereon within 30 days.

6.8. Any farmer who is aggrieved on the ground that his name has not been included in either of the two lists referred to in paragraph 6.1 or on the ground that his name has been included in the wrong list or on the ground

that the relief granted to him has been calculated wrongly or not satisfied with the orders passed in Para 6.7, may make a representation directly to the concerned Deputy Commissioner and every such representation shall be disposed of within 30 days of receipt thereof.

7. Audit

The books of account of every lending institution that has granted debt waiver or debt relief under this Scheme (including the books of accounts maintained at the branches) shall be subject to an audit in accordance with the procedure that may be prescribed by RBI/NABARD/ STATE GOVERNMENT. The audit may be conducted by concurrent auditors, statutory auditors or special auditors as may be directed by RBI/NABARD/ STATE GOVERNMENT.

8. Monitoring

There shall be constituted a State Level Monitoring Committee consisting of the following to monitor and give clarifications, if any, for smooth implementation of the scheme.

- (i) Chief Secretary to Government of Punjab - Chairperson
- (ii) Additional Chief Secretary (Cooperation) cum FCC
- (iii) Additional Chief Secretary (Development) – Member Secretary;
- (iv) Principal Secretary, Department of Finance;
- (v) Regional Director, Reserve Bank of India, Chandigarh;
- (vi) Registrar Cooperative Societies, Punjab
- (vii) Chief General Manager, NABARD, Chandigarh;
- (viii) Managing Director of two public sector banks or their representatives;
- (ix) Commissioner Agriculture;
- (x) Managing Director, Punjab State Cooperative Banks
- (xi) Convener State Level Bankers Committee, PNB, Chandigarh.

9. Interpretation and power to remove difficulties

9.1. The Agriculture Department shall resolve the doubts arising out of interpretation of the provisions of the Scheme, in consultation with the Department of Finance.

9.2. The Agriculture Department will be the Nodal Department to implement the Scheme in all respects.

Chandigarh, Dated:

VISWAJEET KHANNA

17.10.2017

Additional Chief Secretary (Development)
Government of Punjab, Department of Agriculture

Endst. No.8/259/17-Agri-2(10)

Chandigarh, Dated :

A Copy is forwarded to the following for information and necessary action:-

1. Chief Secretary to Government of Punjab.
2. Principal Secretary to the Chief Minister, Punjab.
3. Additional Chief Secretary Cooperation, Punjab.
4. Financial Commissioner Revenue, Punjab.
5. Principal Secretary, Finance, Punjab.
6. Special Secretary, Agriculture.
7. Regional Director, Reserve Bank of India, Chandigarh.
8. Registrar Cooperative Societies, Punjab.
9. Chief General Manager, NABARD, Chandigarh.
10. Commissioner Agriculture, Punjab.
11. Director Agriculture, Punjab.
12. Managing Director, Punjab State Cooperative Bank.
13. Convener State Level Bankers Committee, PNB, Chandigarh.
14. Director, Department of Institutional Finance and Banking.
15. P.A/ Additional Chief Secretary Development, Punjab.
16. Tata Consultancy Services (T.C.S), Punjab Civil Secretariat.

Joint Secretary Agriculture

Endst. No.8/259/17-Agri-2(10)

Chandigarh, Dated :

A Copy is forwarded to All Deputy Commissioners in the State of Punjab for information and necessary action.

Joint Secretary Agriculture

Endst. No.8/259/17-Agri-2(10)

Chandigarh, Dated :

A Copy, with a spare copy, is forwarded to Controller, Printing & Stationery, Punjab, Chandigarh, with the request that the notification may be published in the official Gazette of Punjab Government and supply 50 copies of the printed notification to this department.

Joint Secretary Agriculture

About the Authors



Shweta Saini is an agricultural trade and policy researcher with more than 15 years of experience in academics and business. She has authored and co-authored several research studies on various topics of Indian agriculture like agricultural international trade, agricultural policies, agricultural markets and prices and food security. Her research is published in various international and national books and as reports, working papers, and policy briefs. She is an alumnus of Jawaharlal Nehru University, Delhi.



Siraj Hussain is currently a Visiting Senior Fellow with ICRIER. He joined the Indian Administrative Service (IAS) in 1979 and has held several key positions in the state government of Uttar Pradesh and with the union government. He was the Chairman and Managing Director of Food Corporation of India, Secretary, Department of Agriculture, Cooperation and Farmers Welfare and Secretary, Ministry of Food Processing Industries (MOFPI), Government of India.



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ISBN – 978-93-5578-502-2