

# Annual Progress Report April 2023- March 2024

Supporting Effective Implementation of Agricultural Credit and Insurance Schemes in India





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### **List of Abbreviations**

CPMU:	Central Project Management Unit
CSC:	Common Service Centres
CROPIC:	Collection of Real-time observations and Photographs of Crops
DoAFW:	Department of Agriculture and Farmers Welfare
DFS:	Department of Financial Services
DAH&D:	Department of Animal Husbandry & Dairying
DoF:	Department of Fisheries
KCC:	Kisan Credit Card
KCC-ISS:	Kisan Credit Card – Interest Subvention Scheme
LMS:	Learning Management System
MISS:	Modified Interest Subvention Scheme
MoAFW:	Ministry of Agriculture and Farmers Welfare
MNCFC:	Mahalanobis National Crop Forecast Centre
NCIP:	National Crop Insurance Portal
PMFBY:	Pradhan Mantri Fasal Bima Yojna
PSU:	Public Sector Undertaking
RWBCIS:	Restructured Weather Based Crop Insurance Scheme
SARTHI:	Sandbox for Agricultural and Rural Security, Technology and Insurance
VLEs	Village Level Entrepreneur
WINDS:	Weather Information Network & Data System
YES TECH:	Yield Estimation based on Technology



## **Chapter I Executive Summary**

Indian agriculture is exposed to constant threats from unpredictable weather conditions, pest infestations, and price fluctuations, jeopardising their livelihoods and stability. To address these challenges, the Government of India launched two flagship initiatives in 2016 – the Pradhan Mantri Fasal Bima Yojna (PMFBY) and the Modified Interest Subvention Scheme (MISS)- Kisan Credit Card (KCC) Scheme. PMFBY offers crop insurance to farmers against comprehensive risks due to unforeseen natural calamities while MISS-KCC provides affordable and hassle-free credit to all farmers, enhancing their resilience against climate change.

Since 2018, the United Nations Development Programme (UNDP) in India has been a committed partner of the Ministry of Agriculture and Farmer's Welfare (MoAFW) in implementing PMFBY, focused on strengthening institutional and operational capacity. In 2023, the partnership was renewed for three years with an objective to strengthen institutional and operational capacities at all levels of implementation, from national to field level, improving the coverage of crop insurance and agriculture credit, making it more inclusive and beneficial for all farmers – particularly small, marginal and women farmers.

This year, UNDP implemented several innovative technological interventions and digital solutions to address key scheme challenges like subsidy calculation & management, farmer enrolment, access to reliable weather information, risk management and grievance redressal among others. Launch of integrated centralised platforms like YES-Tech for techbased yield estimation, WINDS for automatic weather data collection, and CROPIC for picture-based crop health monitoring and damage assessment have led to data collection and analysis of crucial aspects like processing hyper-local weather data and creating temporal & spatial records of crop health, leading to significant improvement in risk assessment and decision-making for crop insurance advisories, and disaster mitigation. The launch of DIGI-Claim module has streamlined and expedited online crop insurance claims process, ensuring swift compensation directly to farmers' bank accounts. The project customized the Smart Sampling Technique-based Crop Cutting Experiment (CCE) App for all states, enabling timely and accurate claim settlements, addressing a persistent scheme challenge. Additionally, the establishment of Krishi Rakshak Helpdesk & Portal – 14447, serves as a single contact point for effective



grievance redressal of crop insurance queries and complaints. The AIDE app, a smartphone application was designed and launched to simplify and streamline the enrolment process, thereby increasing farmers' subscription to crop insurance. Integrating land records of Tamil Nadu, Uttar Pradesh, and Himachal Pradesh with the National Crop Insurance Portal (NCIP) has validated over 90% of the insured areas through land records, strengthening the institutional framework of the scheme. NCIP is begin upgraded to into an integrated, centralised, and interactive IT platform, NCIP 2.0 will address the concern of access to coherent, accurate and reliable data from across various databases for strategic and monitoring reporting.

The Kisan Rin Portal was launched to strengthen access to institutional credit and monitor granular data of KCC-ISS farmers. It functions as an Aadhaar-authenticated electronic database of Kisan Credit Card beneficiaries. This portal enables real-time monitoring and progress review of the Kisan Credit Card scheme. To ensure all eligible beneficiaries are included, the Ghar Ghar KCC Abhiyaan campaign was initiated, to extend the benefits of the Kisan Credit Card Scheme to every farmer, specifically targeting PM KISAN beneficiaries without KCC accounts.

In January 2024, SARTHI (Sandbox for Agricultural and Rural Security, Technology and Insurance), was launched as a platform that will harness technology to provide a broad spectrum of agri-financing and risk mitigation insurance products to farmers, offering coverage for health, life, property, agriculture tools, motor assets and disaster risk. The project is collaborating with new generation insure-tech start-up ESCO Global and UNDP's global Insurance and Risk Finance Facility to help improve product development and delivery by applying international learnings.

To ensure seamless implementation of the scheme, capacities of over 12,000+ stakeholders were enhanced, out of which 20% were women, through tailored training programs, workshops and webinars. The stakeholders comprised of government officials from various states and centre, bank officials, insurance and re-insurance companies, farmers, academicians, KVKs (Krishi Vigyan Kendra), agri extension workers etc. A *Learning* Management System (LMS) was developed and launched in collaboration with the National E-Governance Division (NeGD), to equip stakeholders with essential skills and knowledge needed for efficient crop insurance and agricultural credit management. The LMS will facilitate comprehensive training and knowledge sharing through user-friendly interactive modules, personalized training programs, and accessible resources regarding the schemes. To improve the scheme uptake, several proactive awareness generation communication campaigns, like 'Meri Policy Mere Haath', Crop Insurance Week, podcasts and 360-degree media campaigns were undertaken reaching out to over 8.6 million people.



The project has forged numerous successful collaborations with private sector, government entities and academic institutions to advance its overall objective of bolstering the resilience of rural and agrarian communities. These collaborations have yielded effective and innovative insurance solutions leveraging technologies like remote sensing, artificial intelligence, machine learning, satellite-based imagery, mobile technology etc to expand the scheme's outreach. Notable partnerships include collaborations with esteemed technical institutes like ISRO (Indian Space Research Organisation), Indian Council of Agricultural Research (ICAR), Space Application Centre (SAC), Mahalanobis National Crop Forecast Centre (MNCFC), and Indian Agriculture Research Institute (IARI) for developing technology solutions like YES-TECH, WINDS and CROPIC, partnerships with companies like IBISA, ESCO and Absolute, for developing parametric insurance products to be offered to the farmers for comprehensive risk mitigation. Additionally academic and trainings institutes like - MANAGE, IRMA, BIRD etc are engaged to enhance capacities of stakeholders for smooth implementation of the scheme and to create a demand pull.

These combined efforts and technological advancements are aimed at empowering farmers and promoting sustainable development with an aim of leaving no farmer behind. They are addressing critical challenges in the scheme, including yield estimation, crop loss assessment for claim settlement, auto-calculation of risk classification, risk analysis, subsidy calculation & management, while fostering trust among farmers. Consequently, there has been a 53% increase in farmer subscriptions for Kharif 2023 compared to 2021-22, the non-loanee farmer enrolment has increased to 42% of the total farmers, a 14% from 2022-23. Furthermore, the gross cropped area insured by non-loanee farmers surged by 70% compared to the previous year, marking the highest growth in the past five years.

This report covers in detail the progress made by UNDP under this project 'Supporting Effective Implementation of Agricultural Credit and Insurance Schemes in India' and the key results achieved from March 2023 to March 2024.



## Chapter II

## **Supporting Sustainable** and Resilient Agriculture in India: An Introduction

Sustainable agriculture is at the heart of the 2030 Agenda and the first fundamental step to securing zero hunger. The farm sector impacts almost all 17 Sustainable Development Goals with its diverse impact on the economy, environment, and gender. Any action to grow the farm sector will impact Goal 1 End Poverty, Goal 2 End Hunger, Goal 5 Gender Equality, Goal 8 Decent Work and Economic Growth, Goal 10 Reduce Inequality, Goal 12 Sustainable Consumption and Production, and Goal 15 Life on Land.

The Government of India, through its flagship schemes PMFBY/RWBCIS and KCC-MISS, promotes agricultural sustainability by providing financial risk protection to farmers. PMFBY offer affordable crop insurance against unforeseen climate uncertainties and natural calamities like floods, droughts, landslides, pests etc, covering the entire crop cycle from sowing to harvesting and low-cost credit respectively. KCC aims at providing adequate and timely credit support from the banking systems to the farmers for their cultivation and other needs like- Post harvest expense, whereas MISS provides short term Agri-loans availed by farmers through KCC for their working capital requirements at concessional rate of interest. PMFBY, together with KCC-MISS, has become an important tool in strengthening the resilience of Indian farmers against climate change.

Since its inception in 2016, PMFBY completed 16 cropping seasons, insuring over 62 crore farmer applications, with a sum assured exceeding INR 17 lakh crore and setting claims worth over INR 1.60 lakh crore. Over the years the project has leveraged the collective strength of both public and private sectors to achieve its objective, today there are 20 insurance companies (05 PSUs and 15 private companies) are empanelled with the scheme, utilizing the extensive network of 1.7 lakh bank branches and 77,000 Common Service Center VLEs for efficient outreach. The scheme covers over 100 notified crops across 22 states/provinces and spanning 15 agro-climatic zones. Over 80% of India's agricultural land is covered by the scheme, ensuring inclusivity, accessibility and increased participation from the diverse farming communities in India.



In keeping with our commitment to leaving no one behind and contributing to the achievement of SDGs in India, UNDP has partnered with the DoAFW, Government of India since 2018, to support effective implementation of PMFBY by providing technical and knowledge support. In 2023, the partnership was renewed for another three years with the project titled 'Supporting Effective Implementation of Agricultural Credit and Insurance Schemes in India'.

While significant progress has been made with the implementation of PMFBY/RWBCIS and KCC-MISS, certain implementation challenges still persist like delayed claim settlement, lack of expertise in crop insurance, actuarial science, slow pace of technology adoption etc. It is therefore essential to strengthen the institutional and operational capacity at all levels of implementation, from national to field level, for improving the coverage of crop insurance and agriculture credit, making it more inclusive and beneficial for small and marginal farmers and women farmers.

The overall aim of the project in Phase II is to create "A Sustainable and Climate Resilient Agriculture Sector with increased incomes, secured livelihood and better quality of life, particularly for small, marginal and women farmers".

#### Key project strategies for improving coverage and access of farm insurance and credit include:

Strengthening systems and processes for improved services for users and stakeholders across the whole system

Focusing on increasing awareness of the scheme and strengthening collaborations and partnerships creating a demand-pull

**Development of** innovative agri-financing and insurance products for farmers.

Stronger partnership and collaboration paradigm.



## Chapter III Project Progress

The chapter provides details of UNDP's contribution to the effective implementation of Agriculture Insurance and Credit Schemes from March 2023 till March 2024. It comprehensively outlines the strategies used to meet the project objectives alongwith the progress and achievements made under the proposed outcomes of the project:

- A. Efficient and transparent implementation of agri-value chain financing and risk mitigation solutions with a focus on improved service delivery
- B. Improved awareness, capacity, and enhanced convergence between key stakeholders lead to enhanced adoption by states and increased access to farmers
- C. Wide spectrum of innovative and customized products and services based on alternate risk-sharing mechanisms coupled with international best practices are available for need-based Agri financing and climatic/catastrophic risks.

The above outcomes are aligned with the theory of change emphasising on enabling efficient financing and insurance services, institution building, partnerships, use of technology and transparent information systems, to improve risk management options available to farmers, development of a diverse range of innovative products and inclusion of small, marginal & women farmers who are ignored by traditional insurance and credit programs.

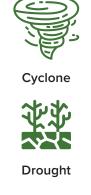
#### **PMFBY Diversification**





100+ Crops notified under PMFBY Scheme











#### **Presence Across Nations - PMFBY & RWBCIS**



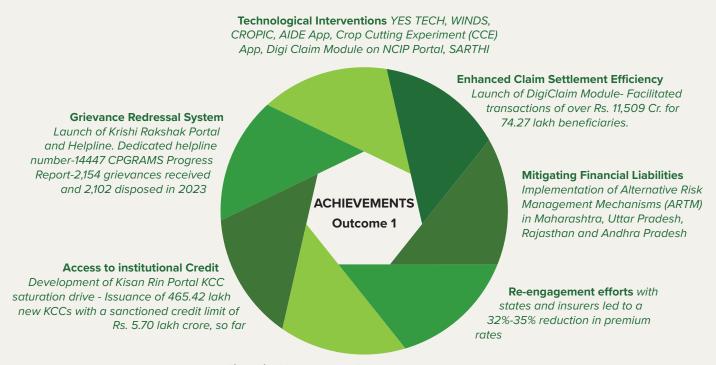


#### **Outcome 1**

#### Efficient and transparent implementation of agrivalue chain financing and risk mitigation solutions with a focus on improved service delivery

Building on the success of the previous phase, it is crucial for the project to focus on strengthening systems and process by promoting technology interventions, strengthening financial management and grievance redressal systems, supporting the development of integrated IT system and access to credit by farmers. UNDP is engaging with technology development agencies from both the government and private sector to develop solutions for the challenges faced by the scheme. The focus has been on improving service delivery, integration of technology solutions and adapting to the crop-zone-specific requirements of States/UTs etc.

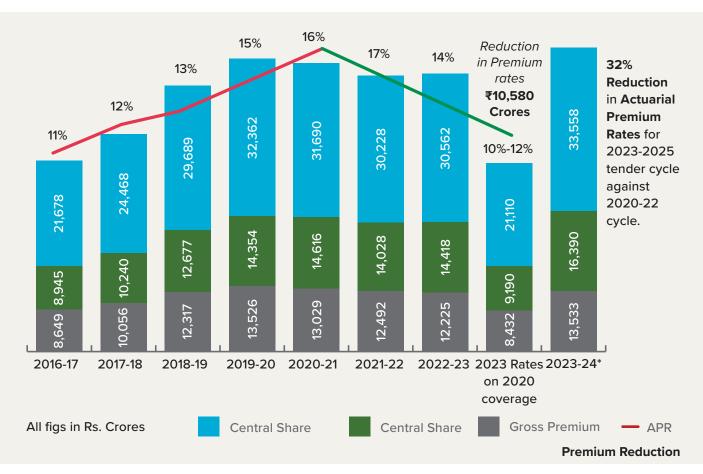
The following progress was made by the project in the first year:



Financial Management Escrow Account Mechanism Establishment of FIAT fund Financial Inclusion Initiatives (90:10 for premium subsidy sharing in hilly states Budgetary Compliance



Recognizing the financial burden on states, the implementation of Alternative Risk Management Mechanisms (ARTM) has been a pivotal achievement, with Maharashtra, Uttar Pradesh, Rajasthan and Andhra Pradesh states adopting these alternative models in Kharif 2023. The above actions have led to a significant reduction of 32%-35% in actuarial premium rates for the 2023-25 tender cycle against the 2020-22 cycle and resulting in combined government savings of Rs. 10,500 Crores. Four insurance companies which had left the scheme, joined back this year, increasing the number of insurers to 15 in 2023.



Phase II of the project is developing NCIP as an integrated repository of data, acting as the single source for Actuarial Yield and Threshold Yield related data (AY-TY) across current and historical years. This consolidation of data has helped in availability of accurate, uniform and reliable datasets which is crucial for actuarial analysis of the scheme, calculation of premium pricing and burn cost analysis through the portal, ensuring timely claim settlement and preventing insurance companies from charging a high premium rate. This will lead to less dependency for data on external, unreliable sources, increased transparency and rationalised liabilities of subsidy for scheme implementation.



#### **Technological Interventions**

New and innovative technology solutions were developed, piloted and launched to address specific scheme challenges and promote improved service delivery, these solutions were based on technologies like Artificial Intelligence, Machine Learning, Satellite-Based Imagery, Remote Sensing Technology, UAV, etc.

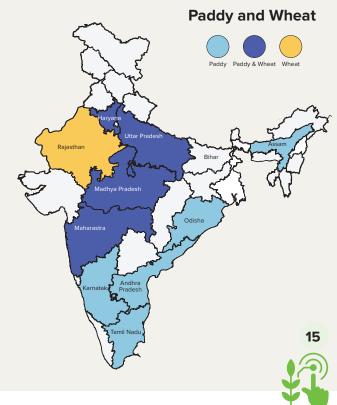
The challenge of unreliable quality of yield estimation and loss assessment data, contested by both insurance companies and farmers, leading to delays in claim settlement, insurer withdrawal from scheme or increased premiums for upcoming seasons, has been addressed by introducing – YES Tech, WINDS, CROPIC and CCE App. The issue of delay in claim settlement to farmers, leading to low uptake of the scheme due to lack of trust by the farmers, has been mitigated by implementing digiclaim payment module on NCIP. Furthermore, simplifying and streamlining the enrolment process, particularly for non-loanee farmers, has been achieved through the AIDE app. The Krishi Rakshak Portal & Helpline number 14447 has expedited resolution of the farmer grievances/concerns/queries.

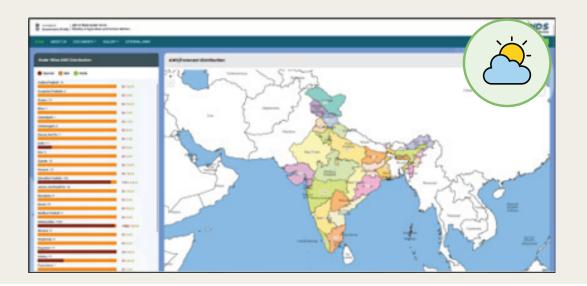
 Yield Estimation System based on Technology (YES-Tech), a pivotal technological initiative was integrated into PMFBY after two years of rigorous testing and pilot runs across 100 districts. Launched nationwide from the Kharif season



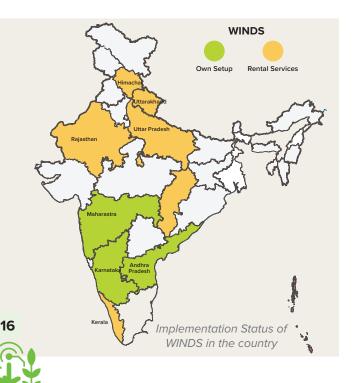
of 2023, YES-TECH enhances the precision of crop yield estimation by incorporating datadriven solutions and advanced technologies such as remote sensing. YES-TECH aims to reduce reliance on manual systems, ensuring accurate, precise and timely yield and crop loss assessment data and insurance claim disbursements.

Ten states namely, Assam, Haryana, Rajasthan, Uttar Pradesh, Madhya Pradesh, Maharashtra, Andhra Pradesh, Tamil Nadu & Karnataka & Odisha are implementing YES-TECH from Kharif 2023 with atleast 30% weightage given to it.





ii. Weather Information and Network Data System (WINDS), UNDP supported the development of WINDS, a centralized platform, for gathering real-time hyper-local weather data from a network of Automatic Weather Stations (AWS) and Automatic Rain Gauges (ARG) set up at taluk/block and gram panchayat (GP) level. WINDS aim to empower stakeholders with precise and reliable weather data, essential for accurate risk assessments, targeted agricultural advisories, and to prepare effective disaster risk resilience and mitigation strategies. More than 1.60 lakh AWSs & ARGs are planned to be set up in the coming years, increasing the current infrastructure to five times from 33 thousand stations. WINDS Portal: Winds (pmfby.gov.in).



Nine states namely, Himachal Pradesh, Uttarakhand, Rajasthan, Chhattisgarh, Uttar Pradesh, Maharashtra, Andhra Pradesh, Kerala & Karnataka shall be implementing WINDS from the current fiscal year.

UNDP India also facilitated the development of technical manuals for the Yield Estimation System based on Technology (YES-Tech) and the Weather Information Network Data System (WINDS), which serve as comprehensive guide with step-bystep instructions, for their seamless implementation. YES TECH Manual 2023 and WINDS Manual 2023.

- iii. CROPIC (Collection of Real-time observations Photographs of Crops) - a successful pilot was launched for computer vision technology-based crop-damage assessment using photo-analytics. CROPIC leverages real-time observations and photographs for crop monitoring and assessment, validating sowing and insured crops, assessing crop damage during calamities and provides input for technology-based yield estimation models. To ensure its effectiveness and applicability across various crops and states, a large-scale testing initiative is scheduled for this year. This comprehensive testing phase aims to validate the technology's reliability and, upon successful confirmation, integrate it seamlessly into the PMFBY framework.
- iv. To further streamline and improve the gaps in yield estimation, the project has customized the **Smart sampling technique** based Crop Cutting Experiment (CCE) App for all states. This will reduce the dependency of the government on insurance companies for CCE data which leads to delayed and inadequate claim settlements. Five states have started implementing it 100% Haryana, Rajasthan, Uttarakhand, Odisha and Karnataka. The land records of 03 states have been integrated with NCIP Tamil Nadu, Uttar Pradesh and Himachal Pradesh, to strengthen the institutional framework of the scheme.
- v. **Digi-Claim-Payment Module** has been launched as a centralized robust digital platform for all claim calculation and timely disbursement directly into farmers accounts, addressing the challenge of delayed claim settlements. All claim calculations and settlements will now be done through the Digi claim module of NCIP (National Crop Insurance Portal) using PFMS (Public Finance Management System) Platform. Since its launch in March 2023, claims worth over Rs. 11,509 crores for 74.27 lakh beneficiaries have been made.
- vi. **AIDE App,** launched during Kharif 2023, is a smartphone application designed to increase voluntary participation of farmers and streamline their enrollment process through a vast network of insurance intermediaries. It provides a completely paper-less and cash-less experience for farmer enrolment leveraging digital technology for registration, documentation, and premium payment. Approximately 2.76 Lakhs applications covering about 1.26 lakh Ha area were successfully enrolled during Kharif 2023 using AIDE app in 06 states.



vii. The Krishi Rakshak Portal and Helpline (KRPH) -Launched on July 21, 2022, in Chhattisgarh, KRPH started as a Beta version providing farmers with a dedicated helpline number 4447, to register their grievances under PMFBY/RWBCIS. After intensive monitoring and refinement, KRPH now operates nationwide. Equipped with a digital



portal and call centre, integrated with NCIP, KRPH enables farmers to lodge and track their grievances effectively, offering real-time tracking and monitoring of grievances and queries.

viii. The **Kisan Rin Portal** - serves as an integrated hub, the portal offers a comprehensive view of farmer data, loan disbursement specifics, interest subvention claims, and scheme utilization progress. It monitors granular data of KCC farmers and facilitates digital calculation and reimbursement of claims. By seamless integration with banks, this portal enables flexible data exchange, proactive policy interventions, strategic guidance, and adaptive enhancements



All the above-mentioned technology interventions are in the process of being integrated with the National Crop Insurance Portal 2.0 (NCIP).

for focused and efficient agriculture credit and optimum utilization of

#### **Strengthening Financial Management and Grievance Redressal Systems**

interest subvention.

UNDP supports the in employing adaptive financial planning to ensure the scheme remains responsive to changing agricultural dynamics and resource requirements, optimizing the utilization of allocated resources. Proactively revised estimates were prepared, increasing the initial budget estimate from Rs. 13,500 crore to Rs. 16,625 crore to meet the expected needs of the scheme.

- A strategic policy decision delinked the release of Gol share in premium subsidy from that of the State/UT, expediting flow of central support. Insurance companies can now disburse claims on a pro-rata basis, encouraging timely subsidies release by State/UT. Additionally, development of a standardized proforma for raising demands of Gol's share, has promoted effective monitoring of the subsidy release.
- A mechanism was created to handle farmers' claim disbursements with incorrect banking details or unsuccessful AEPS (Aadhaar Enabled Payment System) transactions. An extensive exercise reconciling insurance companies' past seasons' business is ongoing, it'll serve as a foundational document for continuous monitoring and reconciliation.



- ▶ Establishment of a state-level Escrow Account Mechanism ensures timely premium subsidy payments. From Kharif 2024, NCIP enrolment will open only after the states commit premium liability deposits into the Escrow Account.
- ► Financial transactions have been centralized through the Fund for Innovation and Technology (FIAT) fund for payments to weather data providers and government agencies. UNDP facilitated formulation of guidelines for management of the proposed Escrow Account Mechanism and FIAT, to seamlessly integrate technological interventions into the scheme.

#### **Effective Grievance Resolution**

In addition to the KRHP 14447, UNDP also supports stipulated grievance redressal mechanisms through different channels like, emails, post, social media, and the CPGRAMS Portal, Gol (Centralised Public Grievance Redress and Monitoring System). The grievances received are examined, addressed or escalated to competent authorities accordingly. Out of 2187 grievance received, 96% were disposed through the CPGRAMS Portal during 2023. The grievance redressal systems play a vital role in ensuring transparency, accountability and building farmers trust into the scheme.

Addressing the challenge of stakeholder exit from PMFBY implementation, extensive engagement efforts have yielded positive results. In the current tender cycle for 2023-2025, the re-engagement of four old insurers and the empanelment of two new insurers has increased the number of active insurers to 19.

#### **Access to Institutional Credit**

In addition to the KCC Rin portal, UNDP supports DA&FW in organsing special drives to simplify access to credit by farmers and saturate farmers with KCC for meeting their working capital needs for agriculture, fisheries and animal husbandry. By addressing needs of diverse sectors, the initiative empowers farmers to enhance overall agriculture productivity. The Ghar Ghar KCC Abhiyaan, an ambitious door to door campaign for KCC saturation was launched on 19th September 2023. This campaign adopts a fully digitalized process of identifying PM Kisan beneficiary farmers without KCC, facilitating issuance of KCC to them and prevent duplication within the KCC holder database, aiming to streamline the process and authenticate the eligibility of beneficiaries. Due to ongoing KCC saturation drives, 465.42 lakh new KCCs have been issued with a sanctioned credit limit of Rs. 5.70 lakh crore.



#### Outcome 2

Improved awareness, capacity, and enhanced convergence between key stakeholders leads to enhanced adoption by states and increased access to farmers.

The project is actively addressing one of the key scheme challenges to improve awareness of the schemes and strengthen collaborations and capacities of key stakeholders for creating a demand-pull. The lack of financial and digital literacy, limited awareness about the scheme, suboptimum level of training and knowledge amongst the stakeholders and inadequate information about climate and agriculture risk, are some of the few reasons for the low uptake of the schemes.

The following progress was made by the project in the first year.:

**ACHIEVEMENTS** 

**OUTCOME 2** 

#### 360-DEGREE MEDIA CAMPAIGN

Comprehensive media campaign reached over 6 crore farmers and stakeholders through TV, radio, newspapers, outdoor branding, and digital advertising

#### **SOCIAL MEDIA RESPONSE AND** STRENGTHENING MECHANISMS

Responded proactively to over 25,000 social media comments on Twitter and Facebook.

#### **CAPACITY BUILDING – TRAININGS AND WORKSHOP**

Capacity of over 12,000+ stakeholders (20% women) have been built through trainings and workshops.LMS,an online learning platform for comprehensive training and to provide educational resources for PMFBY and KCC-MISS was launched. There are 79676 users registered on it, 20+ courses have been launched and 93+ certificates have been issued.

#### **MERI POLICY MERE HAATH**

3 crore policies were distributed for Rabi 2022-23 as part of 4th MPMH.

5th MPMH distributed over 1 crore loanee farmer policies for Kharif 2023, with a promising next target of nearly 3 crore policies for Rabi 2023-24

#### **PODCASTS**

Created 16 podcasts featuring state governments, insurers, reinsurers, and industry experts. The insights gathered will be utilized to develop knowledge products in 2024,.

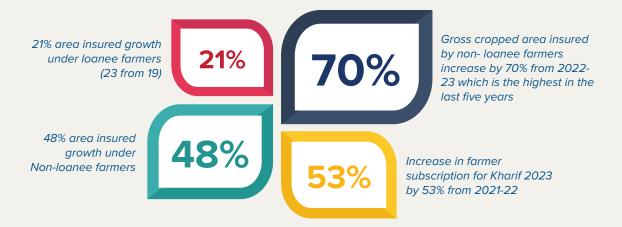
#### **CROP INSURANCE WEEK**

In July 2023, event engaged almost 3.74 lakh farmers, featuring around 10 lakh publicity materials and approximately 98,000 e-Kisan samvads for enhanced awareness and enrollment.

While Dec 2023 witnessed participation of more than 8 lakh farmers, with approximately 2 lakh e-samvad sessions and distribution of more than 15 lakh publicity materials







During Kharif 2023, 2.69 cr. farmers, out of which 15% were women, insured their crops against weather risks, marking a 53% increase from the previous year. The overall insured area is expected to increase by 38% compared to 2021-22, covering over 500 lakh ha in 2022-23 and over 600 ha in the current year. 22 lakh farmers accessed the kisan credit card in 2022-23 which is a 3% increase from the previous year.

#### **Capacity Building and Training Programmes**

**UNDP** supported development of the Learning Management System in collaboration with Ministry of Electronics and Information Technology (National e-governance division), an online learning platform for comprehensive training to State government officials, Insurance Agents, Institutes, and other stakeholders of PMFBY and KCC-MISS. Launched on 8 Feb 2024 by Shri Narendra Tomar, Honourable Agriculture Minister, the platform has 79,676 registered users registered with 20+ courses and 93+ certificates already issued.

The LMS can be accessed on https://elearn-pmfbykcc.lms.gov.in.

During the year, prioritized training and capacity-building programmes were conducted for more than 12,000 stakeholders, of which 20% were women, which included state and central government officials, insurers, bankers, academics, extension

workers, farmers and students, highlighting the dynamic nature of agricultural insurance and need for building capacities. These initiatives collectively aimed at enhancing awareness, knowledge levels, and informed decision-making among stakeholders, contributing to the ongoing success and effective implementation of the PMFBY. Collaborative efforts with institutions like MANAGE, Hyderabad, BIRD, Lucknow, and Anand Agriculture University was done through strategic engagements like – residential workshops, training the trainers, residential trainings, webinars etc.





#### 1. TECHNOLOGY INITIATIVES



**Objective:** To leverage available technology solutions for efficient scheme implementation including data management and subsidy disbursement.

**Key Focus:** Introduction & implementation of YES Tech, WINDS, CROPIC initiative, real-time data capturing through the CCE Agri App, skills required for implementing Digi Claim Module of the NCIP and orientation to KRPH including development of soft skills

**Target Audience:** State government officials (Chhattisgarh, Rajasthan, Andhra Pradesh, Maharashtra, Puducherry, Uttar Pradesh, Odisha, Tripura, Assam, Meghalaya, Haryana etc), SAMETIs, KVKs, ATMA, insurance companies, re-insurers, technology institutions, extension functionaries, KRPH Tele-executives etc.

#### 2. TRAININGS OF TRAINERS AND MASTER TRAINERS



**Objective:** To empower resource people and master trainers at the state level.



**Key Focus:** Impart knowledge and skills to inform valuable insights on agriculture credit and crop insurance to a broader audience and conduct smooth real time enrolment activities.

**Target Audience:** State government officials (Kerala, Karnataka, Tamil Nadu, Odisha, Maharashtra, Andhra Pradesh and Puducherry), BIRD, officials from the Department of post, bank officials and banking training institutes.

### 3. CAPACITY BUILDING - BANK OFFICIALS & INSURANCE COMPANIES



**Objective:** To enhance understanding of PMFBY among officials of Commercial banks, co-operative banks, RRBs and insurance companies.

600+ officials

**Key Focus:** Sessions aimed at ensuring that banking and insurance officials are well-versed in the intricacies of the PMFBY and effectively implement its various components.

**Target Audience:** Officials of Commercial banks, co-operative banks, RRBs and twenty-five newly joined insurance companies.



#### 4. CAPACITY BUILDING - FARMERS



1600+ farmers **Objective:** To provide valuable information and insights to farmers across the country through series of regional webinars during Kharif 23 seasons specially on PMFBY and KCC in Hindi, Kannada, Marathi, Odiya and Assamese languages.

**Key Focus:** This regional approach aimed at catering to the diverse linguistic and cultural landscape of Indian agriculture. Assistance was extended to insurance companies for conducting stakeholder trainings at the field level and organizing Fasal Bima Pathshalas for farmers at the village/GP level.

**Target Audience:** Farmers

#### 5. TECHNICAL SESSIONS ON AGRICULTURAL INSURANCE



2100+ stakeholders **Objective:** To train & prepare the next generation of professionals with a comprehensive understanding of agricultural insurance.

**Key Focus:** A tailormade session on agricultural insurance was conducted for students of the Post Graduate Programme in Agribusiness Management students and students (PG, ABM, PhD students) and faculty members of Agriculture Universities to deepen the understanding of agricultural insurance among academia.

**Target Audience:** Students (PG, ABM, PhD students) and faculty members of Agriculture university in Gujrat.

#### **IEC and Awareness Activities**

UNDP implemented strategic awareness campaigns to boost the awareness and understanding of PMFBY among farmers and other stakeholders. Targeted activities enhanced the visibility and understanding of the scheme, while coordination with State/UT Govt, Insurance Companies, and local bodies ensured a seamless flow of information, significantly contributing to the adoption of scheme.

#### Meri Policy Mere Haath Campaign (Feb 2023 - Dec 2023)

- Distribution of 1 crore+ loanee farmer policies for Kharif 2023 during 5th MPMH Campaign, with a promising next target of nearly 3 crore policies for Rabi 2023-24.
- Distribution of 3 crore policies for Rabi 2022-23 as part of 4th MPMH

#### 5th and 6th Crop Insurance Week (July 2023 and Dec 2023)

- July 2023 event engaged almost 3.74 lakh farmers, featuring around 10 lakh publicity materials and approximately 98,000 e-Kisan samvads for enhanced awareness and enrolment
- December 2023 event witnessed the participation of more than 8 lakh farmers, with approximately 2 lakh e-samvad sessions and the distribution of more than 15 lakh publicity materials

#### Major Launch Events (Mar 2023, Jul 2023, Sep 2023)

- 3 major launch events by Union Agri Minister, Union Finance Minister and Minister of Earth Sciences, featuring esteemed ministers were undertaken
- They introduced technology led interventions like DIGI-Claim, YES-Tech, WINDS Portal, and the AIDE app, furthering mission to integrate cutting-edge technology with agricultural insurance.

#### **Social Media Response and Strengthening Mechanisms**

■ IEC team responded proactively to over 25,000 social media comments on Twitter and Facebook, including repeated farmer requests. In 2024, the team aims to strengthen response mechanisms on YouTube and Instagram, ensuring robust engagement across diverse platforms.



#### Digital Marketing Initiative (Sep 2023 - Dec 2023

- A pioneering digital marketing initiative unfolded, featuring animated films in Hindi language starring our brand ambassador Krishi Rakshak distributed via YouTube and WhatsApp.
- Google search ads, GDN ads, digital PR, and influencer marketing, were first of their kind initiatives for PMFBY as part of PMFBY digital campaign, which reached over 1 crore audiences nationwide, simplifying PMFBY processes for farmers.

#### 360-Degree Media Campaign (Feb 2023 - Dec 2023)

- UNDP supported in media campaign which reached over 6 crore farmers and stakeholders through TV, radio, newspapers, outdoor branding, and digital advertising.
- To maximize awareness about the PMFBY, key farmer-centric locations were targeted such as markets, chaupals, seed shops, and 6000+ petrol pumps pan India.

#### Stakeholder Engagement through NRCs (9th and 10th NRC)

■ UNDP supported in organizing the 9th and 10th National Review Conferences (NRC) in Chhattisgarh and Rishikesh brought together more than 250 stakeholders from state governments and insurance companies, which served as vital platforms for collaboration, exchange, and strategic planning.

#### **Stakeholder Engagement through Podcasts**

- UNDP through its Central *Program Management Unit* facilitated meaningful engagement by creating 16 podc asts featuring state governments, insurers, reinsurers, and industry experts.
- The insights gathered will be utilized to develop knowledge products in 2024, aligning with PMFBY vision for continuous improvement and collaboration. Target is to create 36 of these by 2024.



#### **Outcome 3**

Wide spectrum of innovative and customized products& services based on alternate risk sharing mechanisms coupled with international best practices are available for need based agrifinancing and climatic/catastrophic risks

#### **Catastrophic Risks**

UNDP is undertaking development of the Sandbox Framework for piloting and adopting good practices under the schemes for creating effective, need-based and sustainable agri-financing and risk mitigation products for farmers. Aligning itself with UNDP's global Insurance and Risk Finance Facility, the project is brining in global best practices to help improve product development and delivery in the country.

An open-source App-based ecosystem has been established, enabling seamless integration of various insurance products offered by companies on a comprehensive and secured digital platform. This digital platform called SARTHI (Sandbox for Agricultural and Rural Security, technology and Insurance) will be an extension to current National Crop Insurance Portal (NCIP), ensuring easy access by farmers, to a comprehensive set of tailored insurance products designed to meet regional farming risks and needs, extending to beyond traditional crop insurance. Launched on 8th February 2024 by Honourable Minister of Agriculture, SARTHI's primary goal is to augment the financial resilience of farming community against multifaceted Environmental, Social, and Governance (ESG) risks.





Rigorous pilot testing has been conducted on a large scale to validate the effectiveness and feasibility of innovative Agri-insurance products which will be offered on SARTHI. The insights gained from these pilot programmes have been instrumental in refining the products and preparing them for widespread implementation.

SARTHI Platform aims to bolster the resilience of farming communities against diverse risks related to crop failure, natural disasters, and other unforeseen events that could threaten their livelihoods. By diversifying the coverage options, farmers gain access to a broader range of tailored protections, thereby improving their risk management ability. Aligned with the Sustainable Development Goals (SDGs), the platform not only addresses immediate insurance needs of the farmers but also contributes to long-term environmental and social objectives, ultimately promoting the well-being of farming community and ensuring we leave no one behind.

#### Sarthi Platform on NCIP Portal Aims to Offer:

01	Digitization of the insurance journey, including KYC automation and verification.
02	A single-window platform for viewing, purchasing, and availing insurance products
03	Digital payment options and streamlined premium collection
04	Effortless claim initiation, tracking, and resolution
05	Multi Language Support for stakeholders and farmers.
06	Reports and analytics for better understanding of product performance
07	User-friendly interfaces for stakeholders, allowing customization and product development.

# Chapter IV Media Coverage and Outreach

In our ongoing commitment to transparent communication and impactful outreach, the project has undertaken media monitoring and engagement initiatives that have emerged as pivotal tools in shaping public perception to foster a nuanced understanding of the scheme

Comprehensive Media Monitoring (Feb - Aug 2023): During the period from February to August 2023, team diligently monitored a vast array of media, meticulously reviewing over 5000 articles published in national and regional newspapers across 8 different languages. This proactive approach enabled us to swiftly identify and address any potentially negative articles through our dedicated media monitoring tool. Articles of concern were promptly flagged and assigned to the respective state governments or insurance companies for immediate action. This approach not only allowed us to mitigate potential reputational risks but also contributed significantly to our proactive reputation management strategy.

**Strategic Media Collaborations (Feb - Aug 2023):** Strategic partnerships with leading publications yielded three impactful media stories. Published in Business Standard, Hindu Business Line, and Hindustan Times in both print and electronic formats, these stories collectively reached an estimated readership of over 1 crore. These collaborations have proven instrumental in disseminating accurate information and fostering a positive narrative surrounding the Pradhan Mantri Fasal Bima Yojana (PMFBY).

Farmer Testimonials and Human-Interest Stories (Feb - Aug 2023): During the same period, team embarked on a compelling journey to capture the voices and experiences of farmers through more than 20 heartfelt testimonials, including those from women farmers. These testimonials were thoughtfully recorded in regional languages, reflecting the diverse cultural landscape of states implementing PMFBY. The collection is now available on PMFBY's YouTube channel, providing a powerful platform for a deeper connection with farmers in their local languages.

Building upon this success, PMFY vision for 2024 is both ambitious and purposeful. The team aspire to curate over 20 human interest stories, drawing inspiration from the rich tapestry of farmer testimonials. These stories, covering 12 diverse topics related to PMFBY, will be meticulously crafted for publication on platforms such as UNDP and other external



channels. By amplifying the voices of those directly impacted by PMFBY, aim is to foster a profound understanding of the scheme's positive impact on farmers and their communities. This initiative aligns with PMFBY commitment to transparency, engagement, and the continued success of the scheme.

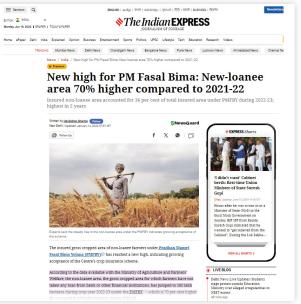
#### **Social Media and New Clippings**



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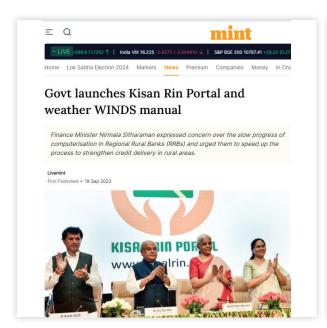


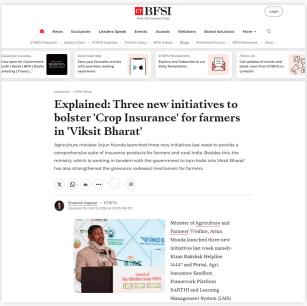
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#### **SOCIAL MEDIA**



pmfasalbimayojana भारतीय कृषि अब परिवर्तन के दौर से गुजर रही है। डिजिटल तकनीक ने किसानों के हाथों में शक्ति दे दी है। पीएमएफबीवाई इस क्रांति का नेतृत्व कर रही है। 2021 से, पीएमएफबीवाई ने डिजिटल सशक्तिकरण के माध्यम से किसानों को आर्थिक सुरक्षा और समृद्धि प्रदान करने का काम शुरू किया है। पीएमएफबीवाई की डिजिटल यात्रा प्रौद्योगिकी की शक्ति का प्रमाण है। यह विकास और बेहतर भविष्य की ओर एक छलांग है।

#CropInsurance #MeripolicyMereHaath #PMFBY4Farmers Ministry of Agriculture & Farmer's Welfare, Government of India Arjun Munda Kailash Choudhary Shobha Karandlaje 22 March · See Translation

भरपाई पायें.



Liked by apkokoinibachasakta and others pmfasalbimayojana कृषि एवं किसान कल्याण मंत्रालय भारत सरकार ने CSC ई-गवर्नेंस के संयुक्त प्रयास से शुरू किया हेल्पलाइन पोर्टल एवं 14447 हेल्पलाइन नंबर. किसान भाइयों को यहां मिलेगा हर समस्या का समाधान 24 घंटे

नित बेहतर हो रही किसानों को मिलने वाली सुविधाएं. तो फोन उठाएं और हेल्पलाइन नंबर १४४४७ मिलाएं और हर समस्या का समाधान पाएं. अधिक जानकारी के लिए देखें पूरा वीडियो.

#CropInsurance #PMFBY4Farmers

Ministry of Agriculture & Farmer's Welfare, Government of India Arjun Munda Kailash Choudhary Shobha Karandlaje

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**#PMFBY4Farmers** 

Ministry of Agriculture & Farmer's Welfare, Government of India Kailash Choudhary Shobha Karandlaje

11 December 2023 · See Translation



जोखिम से बचाव के लिए फसलों का बीमा करायें....अपने नुकसान की पूरी

#CropInsurance #MeripolicyMereHaath #PMFBY4Farmers



India Kailash Choudhary Shobha Karandlaje

## Chapter V **Empowering and Supporting Women**

In alignment with the UN's mandate of Leaving No One Behind, the project is focused to empowering women farmers, who face disproportionate risks from climate change and often have limited access to credit, insurance, landownership, and training. The aim is to equip women farmers with the necessary tools, knowledge and resources through the PMFBY and MISS providing them with easy access to agriculture insurance and credit, which provides a financial safety net for farmers preventing them from falling into the poverty trap when due to climate change vagaries like floods and droughts causes damage to the crop. Women will be empowered to lead and drive sustainable development in their communities through this project.

The project is focused on empowering women farmers through the PMFBY and MISS schemes, ensuring they can access and fully benefit from these initiatives without encountering the traditional barriers of gender inequality. Recognizing that women face disproportionate risks from climate change and often have limited access to credit, insurance, landownership, and training, the project is providing targeted support to bridge these gaps. In alignment with the UN's mandate of Leaving No One Behind, the project is ensuring that women farmers, who are often the most vulnerable, are not only equipped with the tools and resources needed to secure their livelihoods but are also empowered to lead and drive sustainable development in their communities

#### 1. Technology Initiatives

The project's focus is to encourage use of digital services to support women farmers, including credit profiling of women farmers as a new category without land ownership.

The Kisan Rin Portal, launched in 2023, plays a crucial role in monitoring the Kisan Credit Card (KCC) scheme, ensuring that PM KISAN beneficiaries, including a notable number of women farmers, receive timely and accessible credit assistance for their farming needs.

Similarly, tools like YES-Tech and CROPIC, which rely on advanced technologies for scientific yield estimation and crop monitoring, are vital tools to support women farmers in accurate and timely decision making,



enabling them to mitigate potential losses and better manage their agricultural activities.

#### 2. Capacity Building, Training and Outreach

#### **Women Stakeholders**

UNDP is focusing on building the skills and capacities of women involved in agricultural activities by developing customized curriculum and carrying out targeted outreach activities, capacity-building initiatives wand training programs:

- As part of the Learning Management System (LMS), more than 20% of the 12,000 stakeholders trained were women. These tailored training programs not only empower them with essential knowledge on crop insurance but also provide them with technical skills to better manage risks associated with agriculture.
- Through residential workshops, webinars, and training programs, women are provided with tools to understand agricultural insurance intricacies, including crop health monitoring, insurance claim processes, and yield assessments. This increased understanding fosters their active participation in decision-making processes related to agricultural insurance and financing.
- Women are provided with financial and digital literacy awareness. By equipping women farmers with the necessary knowledge and skills, the project aims to empower women to access the benefits of the agri insurance and credit schemes.
- Policy Mere Haath, the project is able to reach out to and increase the awareness of women farmers regarding the scheme and facilitate easier access to insurance policies. This can significantly enhance the visibility of agricultural insurance among rural women, empowering them with the information needed to protect and scale up their livelihoods.

#### For other Project Stakeholders

UNDP will focus on institutional strengthening and capacity building of partners to ensure women are prioritized in accessing scheme benefits. The project is enhancing the capacities of stakeholders, including government officials, district and block-level functionaries, and insurance company staff, to effectively deliver agri-financing and risk mitigation schemes, with a particular emphasis on small, marginal, and women farmers.



#### 3. Reporting, Monitoring and Evaluation

Focus will be on collecting gender-disaggregated data for all aspects of reporting in the scheme and create a monitoring and reporting mechanism for impact assessment which should assess the impact on women farmers by this scheme.

By continuing to focus on designing and implementation inclusive agricultural insurance schemes, focused on empowering women the project aims to build a more equitable and resilient agricultural sector, where marginal and women farmers play a role in driving sustainable growth.

## Chapter VI **Partnerships and Collaborations**

As an important and crucial aspect of the project, UNDP focused on collaborations with tech companies, apex institutions, global crop insurance and agri-financing programmes and experts to draw on their expertise and best practices for strengthening the scheme.

Collaborations with prestigious institutions like ISRO, ICAR, SAC, MNCFC and IARI have been instrumental in developing the YES Tech, WINDS and CROPIC system. These partnerships leverage advanced satellite technology, remote sensing, hyper local weather data, and agricultural research for technology-based yield estimation and crop damage assessment.

UNDP has partnered with new age technology start ups like Absolute, ESCO global and IBISA to design digital platforms for enabling service delivery to farmers and develop index-based insurance solutions which shall be offered on the AIDE app or SARTHI platform. These solutions aim to improve the risk resilience of farmers against climate and weather-related risks.

To strengthen the capacity building and training initiatives, UNDP has collaborated with apex institutes like MANAGE, National Insurance Academy, BIRD (Bankers Institute of Rural Development), NABARD (National Bank for Agriculture and Rural Development), and Krishi Jagran to conduct residential trainings, train-the-trainers sessions, webinars, workshops, and certificate courses, to ensure effective implementation and improve the overall out-reach of the scheme with farmers.

Inter ministerial and interactions were conducted with Ministry of Earth Sciences, Ministry of Electronics and Information Technology, Department of Financial Services, Department of Animal Husbandry & Dairying, Department of Fisheries and Departments, IMD (Indian Meteorological Department), for technology initiatives like Kisan Rin Portal and LMS.

# Chapter VII Way Forward

#### Innovative Insurance Product Development and Customization:

Design and develop innovative, need-based credit and insurance products tailored to the unique risks faced by farmers, particularly smallholders and women farmers. Using the Sandbox Framework, pilot and scale need based innovative products to offer them to farmers on SARTHI (Sandbox for Agricultural and Rural Security, Technology and Insurance). It will provide farmers easy access to a comprehensive set of tailored insurance products designed to meet regional farming risks and needs, extending to beyond traditional crop insurance.

#### **▶** Strengthen Remote Sensing and Technology capabilities

Leverage international best practices and national expertise to integrate advance remote sensing technologies, such as satellite imagery and Al-based tools, into agricultural insurance. The project will establish a remote sensing laboratory to support accurate yield estimation and risk assessment, enhancing the decision-making process for insurance claims and improving crop health monitoring across regions.

Additionally, The CROPIC and YES TECH portals, currently under development, will provide precise, data-driven information on crop loss, yield estimation, and climate-related risks. This will help stakeholders—especially the government, insurance companies and farmers, to streamline the claims process, enhance transparency, reduce inaccuracies and ensure timely claim settlements, thereby improving the overall scheme efficiency

#### Social Inclusion and Participation of Women Farmers

Strengthen efforts to boost the participation of small, marginal and women farmers in accessing agriculture insurance and credit and ensuring that the scheme is inclusive and accessible to all farmers small, medium and women. Focus on developing gender-sensitive communication strategies and implementing tailored capacity-building programs to achieve this. In addition, awareness campaigns will focus on effective information dissemination, ensuring that all farmers are well-informed about the scheme's benefits and enrolment process, enabling them to maximize their participation and access to support.



#### Dynamic and Interactive NCIP and Universal Coverage

Facilitate universal coverage for PMFBY by assisting states in enrolling all eligible farmers, especially the most vulnerable. Ensure seamless integration of States, Common Service Centers (CSCs), banks and insurance companies with the National Crop Insurance Portal (NCIP) through API-based integration.

Strengthen the subsidy module in National Crop Insurance Portal (NCIP) through a meticulous review of historical records and identified the transactions missing in the module. This will improve the accuracy and completeness of subsidy disbursement records.

The NCIP is a dynamic and interactive IT platform and is being developed as a single source of data for all Actual & Transactional Yield values for both current and historical years, providing accurate and reliable information for tendering and claim settlement. As a centralized platform it will address the concern of access to coherent data from across various databases and access to reports for strategic and monitoring purposes.

#### ► Strengthen Environment & social safeguards

Carry out a comprehensive 360-degree appraisal of the PMFBY & RWBCIS Schemes to evaluate the economic, environmental & social impact. Collaborate with research institutions/academic institutes or leading consulting firms to conduct this evaluation and understand the schemes contribution toward sustainable agriculture and risk resilience of farmers.

Conduct regular Social & Environmental Audit and Climate Resilient Assessment of the Scheme across all States and UTs.

## Chapter VIII **Risk Management**

Inadequate infrastructure or lack of awareness among stakeholders regarding developed technologies may affect adoption or use of developed technologies

Mitigation plan: Conduct thorough need assessments and stakeholders' consultations to understand the specific requirements and identify challenges of target users. Design need based training and capacity building workshops with identified stakeholders to improve adoption of technologies

Utilizing data intensive technologies like remote sensing and smartphone-based data collection raise concerns regarding data Security and Privacy, leading to issues in claim calculations and disbursements

Mitigation plan: Implement robust data security measures, including access controls to safeguard sensitive information collected through these technologies.

Exclusion of women and excluded/vulnerable groups in the scheme

Mitigation plan: Develop robust communication, training and capacity building plans and strategy to focus on women and excluded/ vulnerable groups, enhancing their participation in the scheme.

#### **Human Interest Stories**

## Harvesting Hope: Farmer Sachin Agarwal's tale of survival amidst change of climate in Vidarbha region, Maharashtra

In the heart of Sangrampur, Buldana district, Maharashtra, Sachin Agarwal, a dedicated cultivator, nurtures his fields of orange, pigeon pea, soybean, and cotton. His recent visit to Kartavya Path in New Delhi for the 75th Republic Day celebrations was a moment of joy and pride, a first-time experience that left him elated, "I want to thank Government of India for this once in a lifetime opportunity," he said.

However, Sachin's journey as a farmer is interwoven with the challenges posed by climate change. Over the last decade, his region in Vidarbha has witnessed erratic weather patterns. From 2014 to 2018, the area grappled with a severe rainfall deficit, affecting



the growth of soybean and pigeon pea and causing a drastic drop in water levels. He says, "My region requires 750-800 mm of rainfall to grow any type of crop, but we barely received 300 mm during those years, crippling the agricultural yields."

The extremes of weather have been a constant battle, with summer temperatures soaring to a scorching 46 degrees Celsius, wilting the crops, and winters seeing an unusual dip to 8 degree Celsius, atypical for Maharashtra's climate. Amidst these adversities, the Pradhan Mantri Fasal Bima Yojana (PMFBY) and the Restructured Weather Based Crop Insurance Scheme (RWBCIS) have been nothing short of lifelines for Sachin and his community. These government initiatives have provided critical support in weathering the unpredictability of nature, assisting them in managing expenses when the weather turns hostile.

Over a decade leading up to 2024, these schemes have empowered Sachin to attain self-reliance. He is now able to envision a broader safety net, advocating insurance coverage for essential raw materials like bamboo, crucial for orange cultivation, and for irrigation infrastructure such as borewells and electronic pumps, highlighting the importance and need for agricultural insurance which encompasses all aspects of farming.

Interestingly, Maharashtra Government has taken proactive measures to protect farmers like Sachin, by making crop insurance accessible to

all farmers, whether big or small, at a nominal fee of INR 1.00, ensuring widespread benefit and security for the agricultural community. Sachin's journey, marked by resilience and adaptability, is a testament to the significant impact of supportive Central and State Government policies on the lives of farmers.

UNDP India has been providing vital support to Ministry of Agriculture & Farmers Welfare, Government of India, in enhancing the effectiveness of crop insurance schemes like PMFBY in India. The strategic guidance and expertise are instrumental in strengthening the resilience of agricultural communities against climate risks, ensuring sustainable development and inclusive growth in the agricultural sector.



## From Soldier to Orchard Keeper: The Journey of Mohan Singh Rana Amidst Climate Change

In the remote heights of Uttarkashi, a retired soldier turns to apple farming, battling climate change and wild animals, but persevering with the support of PMFBY

Mohan Singh Rana, who retired from the Indian Army two decades ago, has witnessed firsthand the transformation of his homeland. Nestled in the lofty heights of Uttarakhand, where snow blankets the earth for half the year, farming is not just an occupation—it's a race against time, "we only have six months to farm," he said, "and every moment counts." For Mohan Singh Rana, life has been a



delicate balance between the disciplines of a soldier and the patience of a farmer.

In the early days, the village of Sukhi primarily cultivated buckwheat, amaranth, potatoes, and kidney beans—crops well-suited to the harsh mountain environment. But soon Mohan and his fellow farmers shifted to growing 'apples' – a lucrative crop which can help them in improving their income and be able to afford basic needs like education for their children. "Our district was the first in Uttarakhand to plant an apple tree," he proudly shared, "though interest in apple farming was low initially, over the last 40 years, it has become our primary source of income."

However, the climate, once a reliable partner in farming, has become increasingly unpredictable. "Climate change has really affected our apple orchards," Mohan lamented. "If snowfall is less, our apple growth suffers. And the pests are becoming a bigger problem every year." The Government has provided support for pest control, but new challenges, like the rising man-animal conflict, threaten their livelihoods. "Langoors (monkey) and Bears have become a serious issue. We have to keep a guard on our farms year-round, especially when they're outside the village. This has driven up our costs significantly." In 2021, a freak snowfall during the apple flowering season dealt a heavy blow to Mohan's orchards. "It was supposed to stop snowing by March," he recalled, "but it snowed in April while our apples were flowering. The branches, heavy with snow, broke, and the flowers fell. We lost so much that year."

Despite these hardships, Mohan credits crop insurance with helping him stay afloat. "People think farmers are very rich, but that's not true. We live

on the edge," he said. "Earlier, when our crops were damaged, we had to leave the village to find work, just to survive. But now, with the insurance claims, at least we don't have to leave. We can stay and rebuild."

The slow ripening of crops in the high Himalayas adds another layer of risk to farming in the region. "Climate change is not just affecting the quantity of our apples, but also the quality," he explained. "And when the quality drops, so does our income." Mohan has received Rs 6 lakhs in claims in 2022-23 under PMFBY.

As the sun sets behind the towering peaks of Uttarakhand, Mohan Singh Rana continues his watch over the apple orchards, a soldier's resolve in his heart, and the hopes of a farmer on

his shoulders. Mohan Singh Rana's story is a testament to the changing climate's real and immediate impacts on agriculture. It's a reminder that schemes like PMFBY are not just financial tools but lifelines that sustain families and communities.

