

# iCARE Innovation Fund

Hyper-local medium-range weather forecasts to improve the climate resilience of smallholder coffee farmers in India

Monthly Progress Report

Reporting period: February 01, 2024, to February 29, 2024

Prepared by Precision Development (PxD)



## 2. Key Achievements

1. PxD has finalized the logic for triggering the forecast templates. This was done after consulting with the weather expert and after having thoroughly analyzed historical weather data for each month. For different rainfall conditions each month, different forecast templates will be triggered.
2. PxD is close to launching the audio-stitching functionality to initiate the pilot exercise in March. Regular internal testing is being conducted to troubleshoot any unexpected errors/bugs. Meanwhile, the CFAN data has been processed and organized into tables for easy readability.
3. PxD has also initiated work on designing the dashboard that will help in real-time monitoring of weather forecast data and keeping track of trends to draw valuable insights.

### 3. Implementation Progress

Activity Title	Last month progress	Current month progress	Activities planned for subsequent months
<p>Analysis of current seasonal cycle</p> <p>Incorporating findings from the lab-in-the-field (conducted prior to and outside of the scope of this project) to generate advisory calendar</p> <p><u><a href="#">Deliverable: Finalized Coffee Crop Calendar</a></u></p>	Completed.	NA	
<p>Commencing receipt of forecasts from CFAN</p> <p><u><a href="#">Sample of the CFAN data</a></u></p>	Completed	NA	
<p>Finalize set of probability triggers and alert frequencies for non-monsoon and monsoon periods</p> <p>In-depth analysis of skill for each alert template to arrive at accuracy scores</p>	<p>Delayed by 2 weeks.</p> <p>Communication with the weather expert initiated. To be completed by Mid-February</p>	<p>Completed.</p> <p>Consulted weather expert and analyzed historical weather to finalize the logic for generating forecast template</p>	
<p>Translation of forecast templates to Kannada</p> <p>Recording of audio snippets for testing</p> <p>Final recording of voice snippets &amp; quality checks</p>	Completed	NA	

<a href="#"><u>Deliverable: Link to the library of audio files</u></a>			
Audio stitching technology is developed, configured, and integrated with PxD's in-house IVR system	Audio-stitching under development, but already integrated into PxD's in-house IVR system.  Currently it is possible to generate stitched audio from the IVR interface	Completed.	
Audio stitching of recorded voice snippets is conducted for sample participants for a 5-day forecast period	In progress	Completed	The engineering team is working on resolving minor errors and preparing for launch this month
Audio-stitched recordings are tested in-house, refined, and adapted	In progress	Delayed by 2 weeks	Identified errors are being resolved, PxD will continue to test the service internally
Finalize a set of KPIs and metrics critical for monitoring needs.	Completed	NA	
Raw forecast data integrated into a data warehouse that the dashboard can access.	Completed	NA	
Collected data cleaned, transformed, and processed into a format suitable for visualization.	Delayed by 2 weeks  While PxD has started receiving forecast data from CFAN, a one-	Completed.	

	month delay in data analysis has impacted subsequent activities. such as data cleaning, transforming, and processing.		
Finalize UI and UX that is user-friendly, efficient and intuitive	Delayed by a month	Delayed by a month	PxD has initiated the conceptualization of the dashboard, and is in the process of preparing both the requirements document and the design document. These documents will serve as guides for the engineering team in the development of the dashboard
Finalize front-end and back-end components that include creating interactive elements, integrating data sources, and implementing user authentication and authorization	Delayed by a month	Delayed by a month	Same as above
Implement mechanisms for forecast real-time updates	Delayed by a month	Delayed by a month	Same as above
Thorough testing of the dashboard to ensure accurate data representation, responsive design, and functionality. Address any bugs, inconsistencies, or performance issues.	NA	Delayed by a month	Same as above

## 4. Results Framework Indicators Progress

PxD is yet to launch the service. Therefore, progress of most of the Results Framework Indicators will be difficult to demonstrate.

Output indicator: Number of users trained on interpreting probabilistic forecasts				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	NA	1212	1212	2060
Date	NA	January 31, 2024	February 29, 2024	
Comments		A total of 1,212 <b>farmers</b> underwent online <b>training to interpret probabilistic forecasts</b> . Among them, <b>309 were women</b> , and <b>903 were men</b> . The training was conducted in <b>August 2023, in Karnataka, India</b> .		The end target will cover 2000 farmers and 60 extension workers from Coffee Board

## 5. Challenges, Lessons Learned and Way Forward

Challenge	Lessons Learned	Way Forward
<p>Alignment with Project Design: ICARE’s suggested indicators, while valuable, may not have fully aligned with PxD’s original project design, including activities and resource allocation. This could lead to implementation difficulties. Further, delayed communication of new indicators create challenges in integrating them seamlessly into the existing monitoring plan.</p>	<p>Proactive collaboration and information sharing between partners from the outset can ensure aligned expectations and avoid challenges in integrating new ideas later. Further developing a flexible monitoring plan will help to address suggestions as they arise.</p>	<p>PxD will communicate transparently on the challenges in incorporating some of the suggestions and in the future foster open communication to ensure timely exchange of information and early discussion of potential changes.</p> <p>As immediate next steps PxD will request ICARE to collaboratively review the suggested indicators to assess their feasibility and impact.</p>
<p>Delay in technology development: PxD experienced delays due to unforeseen technical complexities highlighting the need to account for buffer time in future project timelines.</p>	<p>Building buffer time into technical task timelines can accommodate unforeseen complexities and ensure timely project delivery. Further it will also help in building robust testing to identify potential bugs before deployment.</p>	<p>PxD has reallocated resources internally to prioritise project launch. PxD is also thoroughly documenting the unexpected bugs/errors to be better prepared to mitigate future risks. Additionally PxD will implement more realistic timelines with built in buffer periods for future technical development projects.</p>



## Glossary

Project Title	Exact and full name of the project as defined in the Sub Grant Agreement
Project Code	A five-digit code assigned by ADPC
Partner Organization	The lead agency(ies) responsible for the implementation of the project
Key Achievements	The actual outcome or impact of your work, such as reaching a PDO, or outcome or output defined in the final and agreed Results Framework.
Implementation Progress	Implementation progress means the steps or actions taken to achieve the PDO or outcomes or outputs. In this case it would be the list of activities defined in the final and approved work plan
Challenges	The most significant and persistent areas of risk that affect the project's ability to achieve its objectives. Challenges could be related to managing the Sub Grant, sustaining development gains, coordinating with stakeholders, and implementing core management functions. Please also discuss the solutions to mitigate these risks.
Lessons Learned	Lessons learned are contextual or operational information that may affect planning and future performance. They highlight the insights gained from the activity's implementation practices and progress, such as staff feedback, stakeholder interviews, data analysis, and success stories. They also include any changes required by or support requested from ADPC or partners.



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