Project Work Plan 2023-2025

Lead Organization Name	**Precision Development (PxD)**
Project Name	**Hyper-local medium-range weather forecasts to improve the climate resilience of smallholder coffee farmers in India**
Project Start Date:	**December 1, 2023**
Project End Date	**February 15, 2025**
Project Country (ies)	**India**
Implementing Partners (if applicable):	**Behaviour Change Advisory Services (BCAS), The Coffee Board of India, Climate Forecast Applications Network (CFAN)**

Outcome Description	#	Output Description	#	Activity Description	2024 DEC	IAN	FEB	MAR	APR	MAY	IUN	IUL	AUG	SEP	OCT	NOV	DEC	2025 IAN	FEB	Deliverables
Strong understanding of agronomic and weather-related information most beneficial for farmer consumption.	1.1	Final Coffee Crop Calendar	1.1.1	Analysis of current seasonal cycle																Final Coffee Crop Calendar
			1.1.2	Incorporating findings from the lab-in-the-field (conducted prior to and outside of the scope of this project) to generate advisory calendar																
Development of a reliable and accurate weather alert system	2.1	List of viable message templates and alert triggers	2.1.1	Commencing receipt of forecasts from CFAN																Final message templates
			2.1.2	Finalize set of probability triggers and alert frequencies for non-monsoon and monsoon periods																
			2.1.3	In-depth analysis of skill for each alert template to arrive at accuracy scores																
Development of a technology-set that allows dynamic message creation for forecasts at scale	3.1	Mass recorded and assembled voice-based snippets	3.1.1	Translation of forecast templates to kannada																Voice-message repository
			3.1.2	Recording of audio snippets for testing																
			3.1.3	Final recording of voice snippets & quality checks																
	3.2	Tested and deployed audio-stitching technology for forecast advisory use-case	3.2.1	Audio stitching technology is developed, configured, and integrated with PxD's in-house IVR system																Successful team-delivery of messages
			3.2.2	Audio stitching of recorded voice snippets is conducted for sample participants for a 5-day forecast period																
			3.2.3	Audio-stitched recordings are tested in-house, refined, and adapted																
Real-time insights from visualizable trends in forecasts and associated information delivery	4.1	Clean, readable forecast datasets ready to be fed into data-backend	4.1.1	Finalize set of KPIs and metrics critical for monitoring needs																Functioning Dashboard
			4.1.2	Raw forecast data integrated into a data warehouse that the dashboard can access																
			4.1.3	Collected data cleaned, transformed and processed into a format suitable for visualization.																
	4.2	Dashboard UI & Backend	4.2.1	Finalize UI and UX that is user-friendly, efficient and intuitive																
			4.2.2	Finalize front-end and back-end components that include creating interactive elements, integrating data sources, and implementing user authentication and authorization																
			4.2.3	Implement mechanisms for forecast real-time updates																
			4.2.4	Thorough testing of the dashboard to ensure accurate data representation, responsive design, and functionality.																
			4.2.5	Conduct user testing to gather feedback on the dashboard's usability and functionality and make necessary																
			4.2.6	Deploy the dashboard on a suitable hosting environment ensuring it is accessible and secure																
Pilot of a customized forecast based advisory service for sample farmers	5.1	Pilot design document	5.1.1	Prepare sample for pilot based on stratification parameters																Execution of pilot
			5.1.2	Agronomists and agro-met designs advisory based on upcoming forecasts																
	5.2	Internal-team tests	5.2.1	Relevant advisories are audio recorded																
			5.2.2	Tech team audio stitches advisory snippets																
	5.3	Distribution and delivery of forecast based	5.3.1	Disseminate forecast + advisory with 1000 sample farmers																
Improved service design and direction	6.1	Finalized and ready-to-implement survey instrument	6.1.1	Identify parameters for data collection																Pilot report
			6.1.2	Prepare questionnaire																
			6.1.3	Survey translation to local language, coding on surveyIS and surveyor training																
	6.2	Quantiative and qualitative data from pilot survey	6.2.1	Phone-survey based data collection																
			6.2.2	Testimonial collection on the field																
	6.3	Farmer feedback on the service synthesized in a report	6.3.1	Clean and analyze collected data																
			6.3.2	Summarize findings in a report																
Increased understanding of the operational challenges of and farmer engagement with a service catering to 50,0000 farmers	7.1	Fully scaled service to all 50,000 coffee farmers	7.1.1	Scaling to 25,000 farmers																Fully scaled service to all 50,000 coffee farmers
			7.1.2	Incorporate findings from farmer feedback survey																
			7.1.3	Scaling to 50,000 registered coffee farmers																
			7.1.4	Ongoing Field Testing																
	7.2	Engagement data organization and analysis	7.2.1	Identify and finalize engagement tracking indicators																Engagement reports
			7.2.2	Set up a dedicated weather service engagement table within PxD's inhouse server																
	7.3	Bi-weekly engagement reports	7.3.1	Automate generation of biweekly engagement statistics																
Deriving an understanding of the utility of the intervention and pilot with respect to climate adaptation while providing a verified use-case for weather-forecast services to be further scaled and integrated within state efforts	8.1	Analysis Plan	8.1.1	Prepare monitoring plan highlighting key metrics of interest																Monitoring Analysis Report
			8.1.2	Prepare instruments for data collection; finalize survey samples																
			8.1.3	Finalize analysis plan																
			8.1.4	Field-based qualitative feedback collection																
	8.2	Post-Intervention Analysis	8.2.1	Implement monitoring																
			8.2.2	Analysis and findings																
	8.3	Compilation of knowledge on the entire service	8.3.1	Identify key reporting objectives																Case study
			8.3.2	Collect farmer testimonials (remote & field)																
			8.3.3	Collate all data sources including engagement reports, monitoring analysis, survey data																
	8.4	Final project report	8.4.1	Report draft version including sections on design, execution, metrics and feedback data, achievements, innovations,																
			8.4.2	Review by management																
			8.4.3	Final report																