

A close-up photograph of numerous cumin seeds, showing their characteristic ribbed texture and light brown color. The seeds are scattered across the frame, with some in sharp focus and others blurred in the background.

WRMS

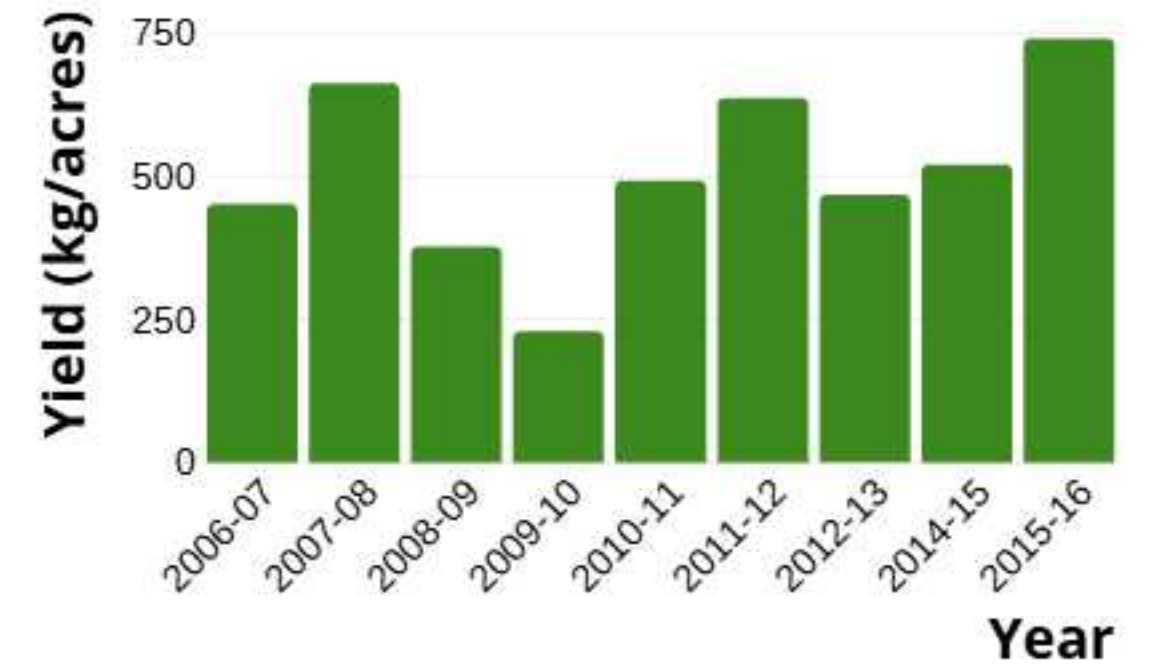
Farm Smart. Secure Tomorrow.

ENHANCING CLIMATE RESILIENCE

**SecuFarm CASE STUDY: Securing Cumin Farmers In Village
Rampara Of The Patan District In Gujarat**

July 2019

CUMIN FARMERS EXPERIENCE WIDE YIELD FLUCTUATIONS



CUMIN IS A MAJOR RABI-SEASON CROP IN THE DISTRICT

On average, the area under Cumin cultivation is about **70% of the total area** under the cultivation of the area during the season

CUMIN SEEDS ARE OBTAINED FROM THE DELICATE FLOWER

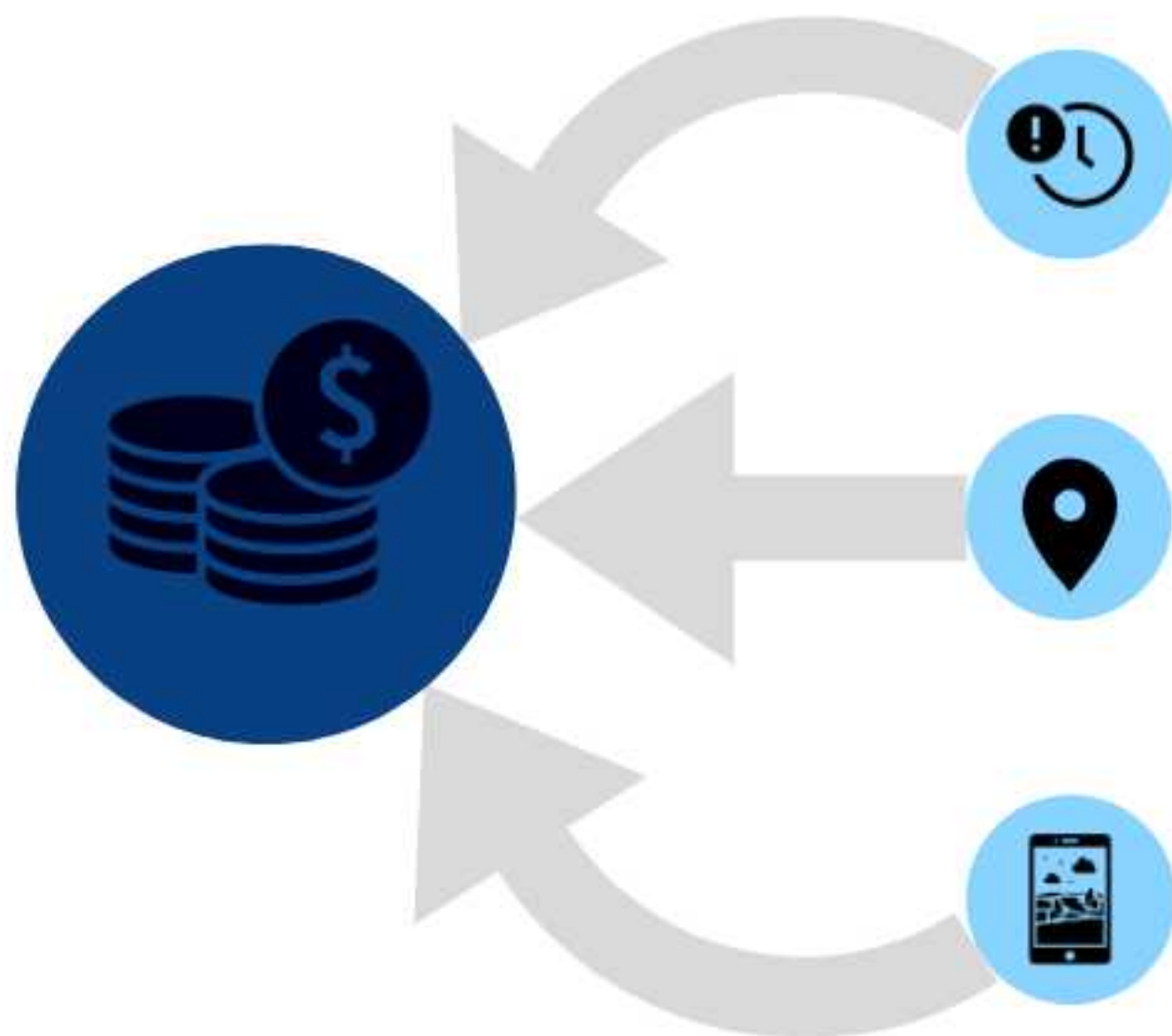
This makes it highly susceptible to damage due to rainfall or high wind speeds

DECADE-LONG YIELD DATA SHOWS A VARIATION OF 225%

This is because of **adverse weather conditions & sub-optimal farming practices**

THIS EXPOSES THE FARMERS TO **INCOME RISK**

Loss Of Income can be due to:



Long Turn Around Time For Compensation Payouts

Despite the existence of multiple crop insurance players, farmers often fall in **debt traps** due to the **long compensation payout time periods**

Absence Of Farm-Level Income Security

Government-run schemes provide **village-level cover**. This does not adequately protect individual farmers as they ideally need **farm-level income security**

Lack Of Smart Farming

Smart farming can enhance agricultural productivity. However, in the **absence of an assured income**, farmers are **not keen in investing in smart farming**.

HOW CAN CUMIN FARMERS **SECURE THEIR INCOME?**

The challenge lies in **designing a viable product** that:

- ▶ Not only **offers farm-level agricultural advisories**
- ▶ But also provides **timely farm-level compensation** against crop loss

TWO-PRONGED SOLUTION:

YIELD ENHANCEMENT + CONTINGENCY PLANNING

YIELD ENHANCEMENT

- **Package of smart & sustainable farming practices** that provide the farmers the insights to better manage their farm
- **Regular Crop Health Monitoring** to help the farmers proactively address threats to the crop health

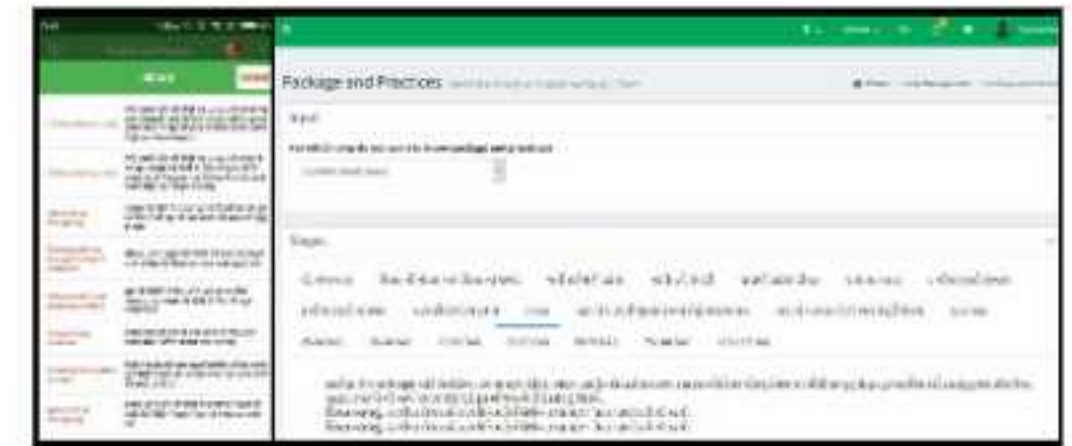
CONTINGENCY PLANNING

- **Yield-based Farm Income Protection Plan** to safeguard the interest of the farmers and **secure their income**

YIELD ENHANCEMENT INVOLVED **FARM-LEVEL INTERVENTIONS**

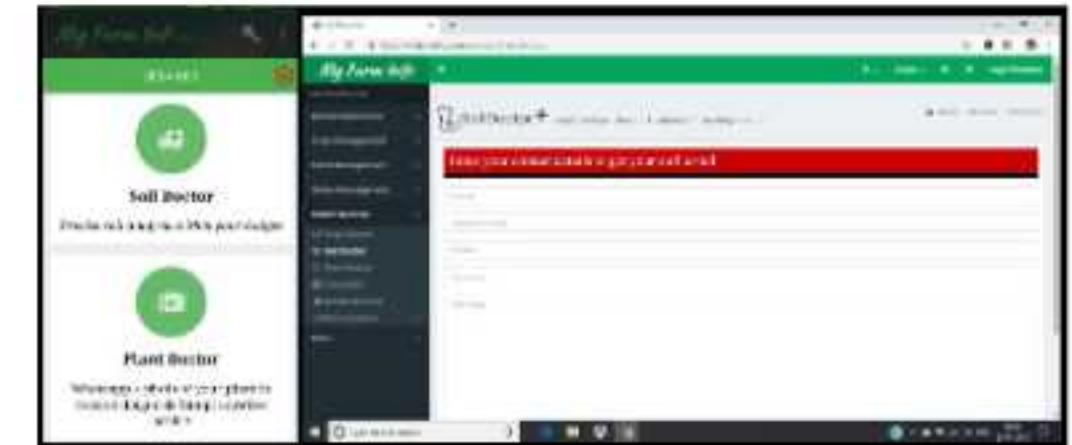
FARM ADVISORY

Advisories from Agronomists for the various stages of farming – irrigation, field preparation, fertilization, harvesting, etc – were provided to the farmers in vernacular languages



SOIL SUMMARY

Using **geotagging** & **GIS** through SENTINEL-II & MODIS satellites, NDVI & soil moisture profiles were created and shared with the farmers. The profiles indicated areas with **conducive conditions for crop diseases**



WEATHER ALERTS

Farmers were provided with **timely, static weather alerts** and **dynamic weather alerts** about **wind speed & rainfall** through **SMS, telephonic calls**, and updates on **MyFarmInfo** mobile app in vernacular languages

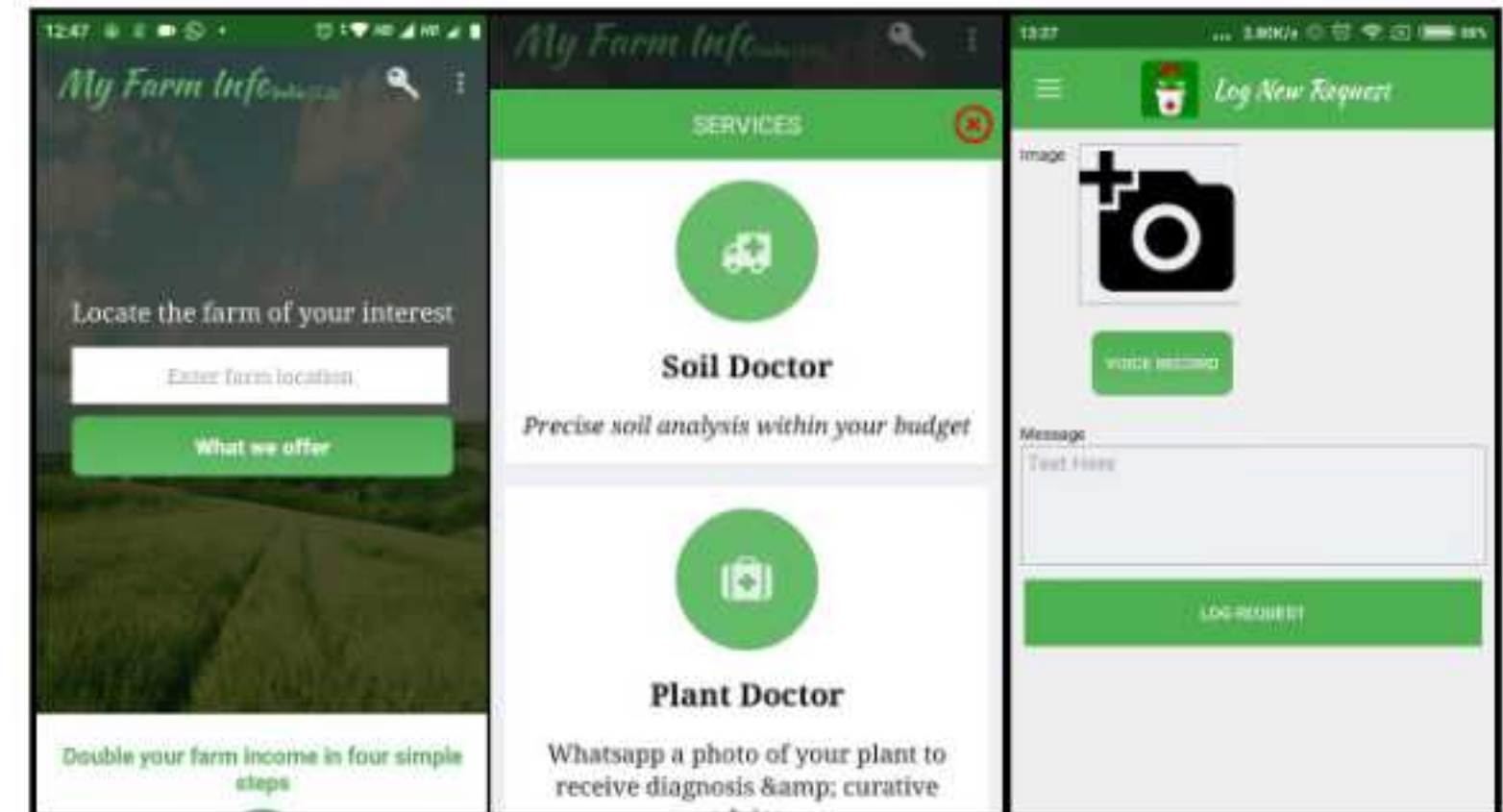


THIS WAS SUPPLEMENTED BY **CROP HEALTH MONITORING**



FIELD VISITS

WRMS Surveyors visited the farms at different stages of the crop growth to check the **health of the plant**



REMOTE PLANT DOCTOR

Plant Doctor feature on the **MyFarmInfo** application allows the farmers to upload the images of their crops and consult the Agronomists in case of any crop disease

HOWEVER, RAINFALL ADVERSELY AFFECTED THE YIELD.
CONTINGENCY PLAN KICKED IN.

26TH FEB, 2019:

Slight rainfall of 2.5 mm;
causing **loss of the yield** for some
farmers

10TH - 13TH MAR, 2019:

Harvesting was done and farm-level
losses were **calculated** using **Crop
Cutting Experiments**



CONTINGENCY PLAN PROVIDED FOR TIMELY PAYOUTS

Farmer's Name	Village	District	Cost of Cultivation (INR / acre)	Premium @9.5% (INR / acre)	Total Land Insured (acres)	Premium Charged (INR)	Maximum Compensation (INR)	Actual Yield (kg / acre)	Threshold Yield (kg / acre)	Loss (INR / acre)	Claim Amount (INR)
Babu Thakor	Rampura	Patan	24000	2280	1.99	4539	47760	221.8	210	0	0
Sundabhai	Rampura	Patan	24000	2280	1.15	2622	27600	220.2	210	0	0
Hamirbhai Thakor	Rampura	Patan	24000	2280	3	6840	72000	80.9	210	14750	44249
Amratbhai Thakor	Rampura	Patan	24000	2280	1.03	2348	24720	204.0	210	689	710
Prahladbhai Thakor	Rampura	Patan	24000	2280	1	2280	24000	194.3	210	1799	1799
Kantibhai Thakor	Rampura	Patan	24000	2280	2	4554	48000	226.6	210	0	0
Total					10.17	23183	244080				
Average								191.3			

26TH APRIL, 2019:

Farmers covered under the **Yield-based Farm Income Protection Plan** with actual yield < threshold yield were **paid compensations; within 45 days**

$$\text{INCOME} = \frac{\text{THRESHOLD YIELD}^* - \text{ACTUAL YIELD}^*}{\text{THRESHOLD YIELD}^*} \times \text{COST OF CULTIVATION}^*$$

**All values on per acre basis*

$$\text{MAXIMUM COMPENSATION PAYOUT (in INR)} = \frac{210 - 80.94}{210} \times 72000 = 44249$$

TIMELY PAYOUTS SECURED FARMERS' INCOME

01 SUM INSURED

For **6 farmers** with a maximum of 3 acres of land, WRMS offered income assurance worth **INR 2,44,080**

02 COMPENSATION PAID

A total of **INR 46,758** was paid to **3 farmers** who failed to achieve the threshold yield, with the maximum compensation as high as **INR 44,249**

03 QUICK PAYOUT CYCLE

Compensation of the losses was given within a time interval of **45 days**



The compensation paid would have been **significantly lower** had it been on **village-level basis**



Farm-level insurance ensured that each farmer received an appropriate amount based on the **actual cost of cultivation of each individual**

THIS LED TO **HAPPY & SATISFIED FARMERS**

“ I will always take the WRMS SecuFarm services because of the income protection that it offers

Hamirbhai Thakor

Compensation Received: INR 44,249



WRMS IS A PIONEER IN **SMART & SUSTAINABLE FARMING** IN INDIA

We leverage **information communication technology** & **financial innovation** to help farmers **enhance productivity**, gain a **secured income**, and practice **sustainable** farming.

FOUNDED

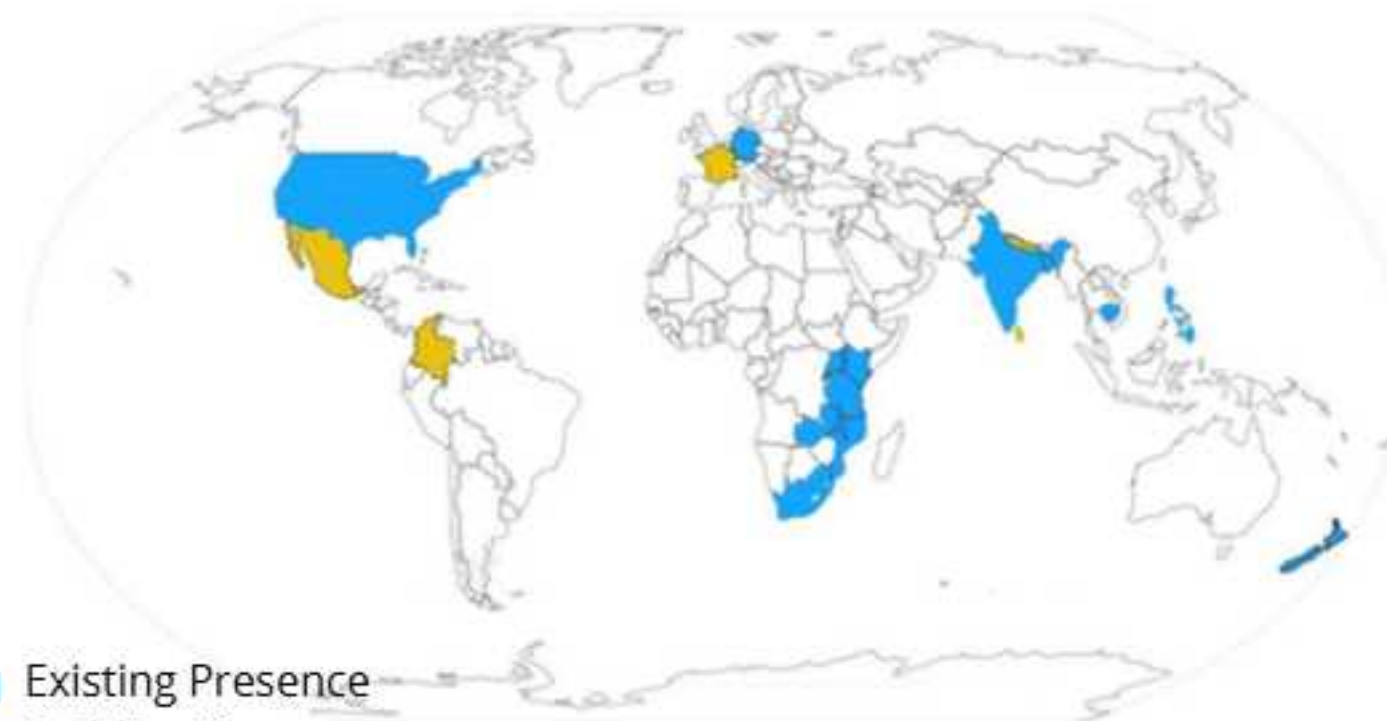
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GLOBAL TEAM

500+ team of multi-disciplinary experts across Agricultural Science, Data Science, Meteorology, Actuarial Science, and Information Technology

INVESTORS

UPL Ltd, ILO, SIDBI, IIT Kanpur, Ford Foundation



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WRMS

Farm Smart. Secure Tomorrow.



WRMS

HELPING FARMERS FACE THE MOST DAUNTING AGRARIAN CHALLENGES

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