

ENHANCING CLIMATE RESILIENCE

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

July 2019

BACKGROUND CH

CHALLENGE SOLUTION

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



$\mathsf{IMPACT} \quad \rightarrow \quad \mathsf{ABOUTUS}$



DECADE-LONG YIELD DATA SHOWS A VARIATION OF 225%

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

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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.



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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



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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

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



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CONTINGENCY PLANNING

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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



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THIS WAS SUPPLEMENTED BY CROP HEALTH MONITORING





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



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our simple	Whatsapp a photo of your plant to receive diagnosis & amp; curative					

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

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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





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MAXIMUM COMPENSATION PAYOUT (in INR)

THRESHOLD YIELD*

ACTUAL

YIELD*

THRESHOLD

YIELD*

210 - 80.94

210

BACKGROUND

INCOME =

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CONTINGENCY PLAN PROVIDED FOR **TIMELY PAYOUTS**

COST OF

CULTIVATION*

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 <i>l</i> 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				

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26TH APRIL, 2019: Farmers covered under the Yield-based Farm Income Protection Plan with actual yield < threshold yield were paid compensations; within 45 days

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*All values on per acre basis



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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**

level basis



each individual



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

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

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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



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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

2004

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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FOOTPRINT - Pan India & Global

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ASIA INDIA BANGLADESH PHILIPINES CAMBODIA SRI LANKA

EUROPE GERMANY

FRANCE

AUSTRALIA NEW ZEALAND

AFRICA SOUTH AFRICA TANZANIA RWANDA ZAMIBIA MOZAMBIQUE

AMERICAS UNITED STATES BRAZIL MEXICO



WRMS **HELPING FARMERS FACE THE MOST DAUNTING AGRARIAN CHALLENGES**

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