

Krishikatha

Mobile based advisory service of WBADMIP

“Krishikatha”

Mobile-based audio service on agriculture, horticulture and fishery

Missed call service  033 6811 6666

Brief overview

Project description - Mobile based advisory services “Krishikatha” is being pilot tested under the WBADMI Project to serve the **1,00,801** small & marginal farmers including tribal & women of the underdeveloped areas in West Bengal. It is an IVR based audio message service provided on agriculture, horticulture and fishery etc. by empowering the farming communities in & around the project area to improve their agricultural income.

Krishikatha provides agro-climatic zone specific weekly customized voice

messages to the registered farmers in Bengali/Hindi/Nepali languages. It includes IVR option (1) advisory messages for their individual questions within 48 hours (2) regular time based advisory on preferred crops, (3) listening frequently asked questions by other fellow farmers (4) listening his own question & answer of the recent past. Need based weather alert advisory, market related information are also shared with the relevant farmer's. All the registered farmers can avail this free service by giving a missed call to the Krishikatha number **033-6811 6666**. He/she will receive a call immediately and he/she can be benefited by using the preferred IVR option as mentioned above using any phone (android phones not necessary).

A robust system is created to serve the farming community which also includes whatsapp groups (for approval, discussion, information sharing etc.), google meet, necessary trainings, field demonstrations, video messages, direct calling and hand holding support etc. Farmers are encouraged to share the information with their fellow farmers & in the WUA meetings. Krishikatha is currently serving almost **1, 00,801** farmers of about **3166** villages. Highlights of the project



BRIDGING THE LAST MILE

KRISHI KATHA
MOBILE BASED FREE ADVISORY SERVICES
on Agriculture, Horticulture, Fishery and institutional aspects

TO THE WUA FARMERS WITHIN 48 HOURS
Give a missed call to 033 68 11 66 66

- IVR based audio message service for preferred crops
- Agro climatic zone specific
- Question based audio advisory service on all the crops
- WhatsApp group message service-text audio and video
- WUA level information service
- Value added services for smart phone users
- Practices ,weather ,disaster ,market ,news etc.

Since 2019

WB ADMI Project Supported by World Bank

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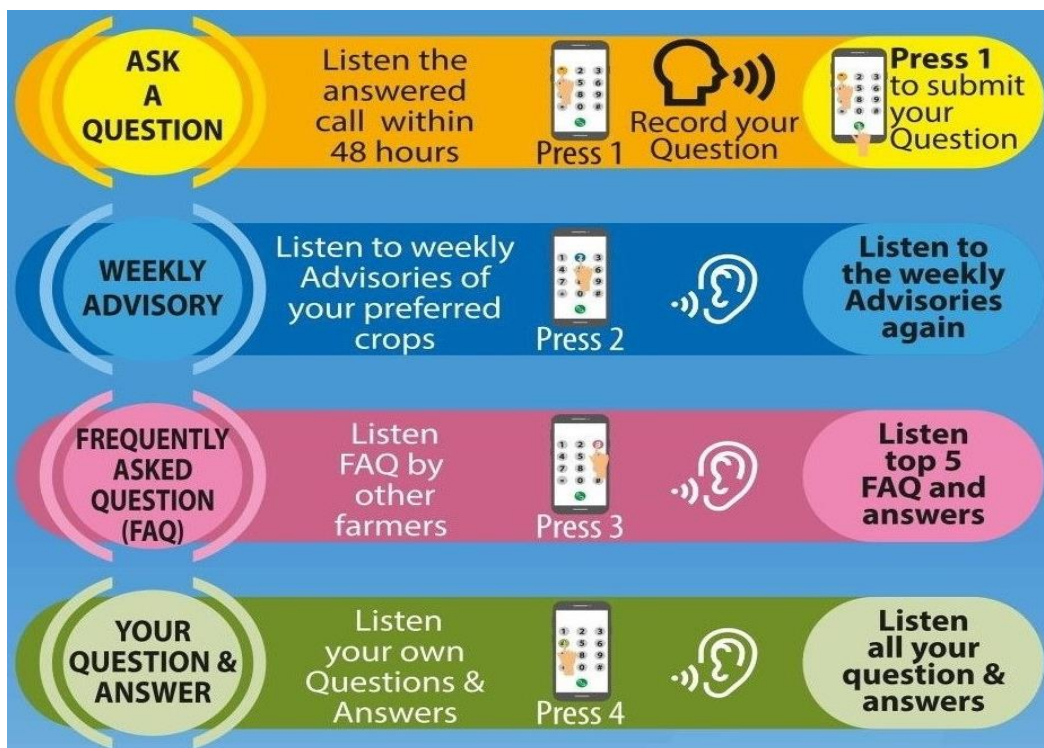
include: >**101 lakh advisory messages** sent having 52% call pickup rate; >**29,091** questions asked by the farmer's including >**11077** unique questions. Mostly the farmers are satisfied with the Krishikatha services. Majority of their questions are related to Insect-Pest management, cultivation practices, fisheries and Irrigation schemes. During COVID-19 this mobile services was the only doorstep service received by the farmers. Many experience sharing webinars of Water Users Associations (WUAs) were conducted by the Project using Google meet.

Agriculture related support services are made available through the IT platform to the underdeveloped poor farming communities including tribal & women residing in the remotest places in West Bengal.

Content

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IVR System

Krishikatha

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Figure 1. Overview of the Krishi Katha service

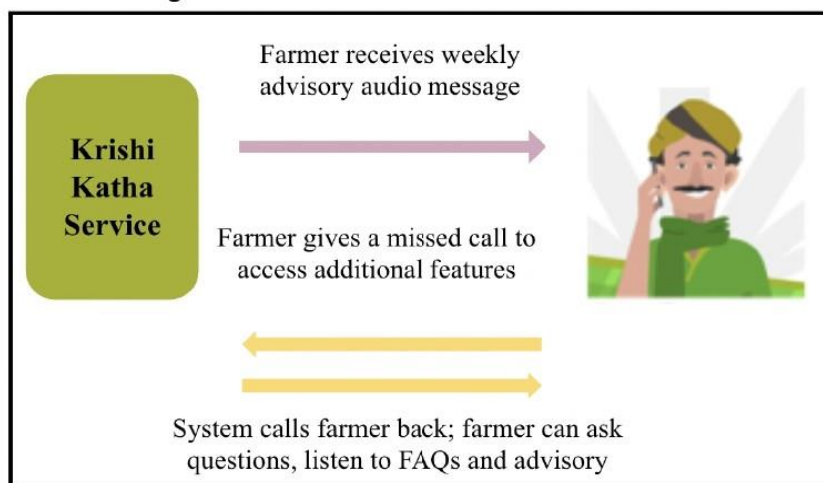


Figure 2. Benefits of the Advisory Service



West Bengal IVR

- ☐ "2022-11-13 08:00 20221102_Agriculture_Rabi_Potato_Seeds_Variety_Seeds_rate_Seeds_Treatment" (21916 recipients)
- ☐ "2022-11-14 10:00 20221102_Horticulture_Rabi_Cabbage_Seeds_Variety_Seeds_Rate_Sowing_Time_Fert_Dose" (9717 recipients)
- ☐ "2022-11-16 16:13 fishery_winter_season_fish_caring_advisory" (1 recipients)

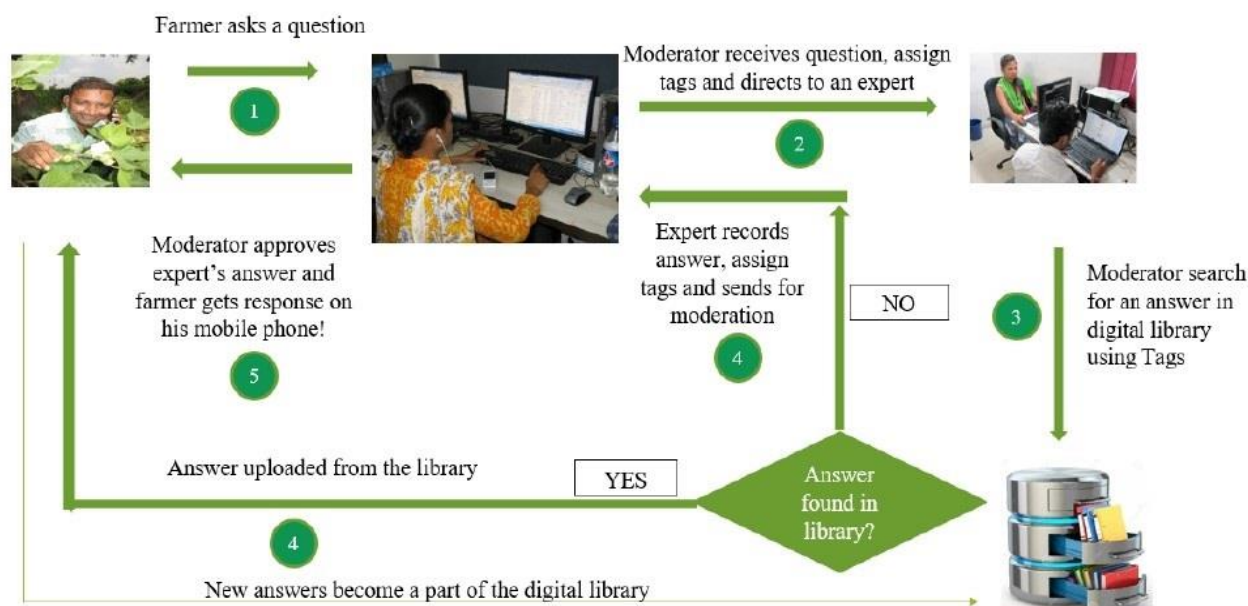
Submit

Home
Sign Out

Krishikatha

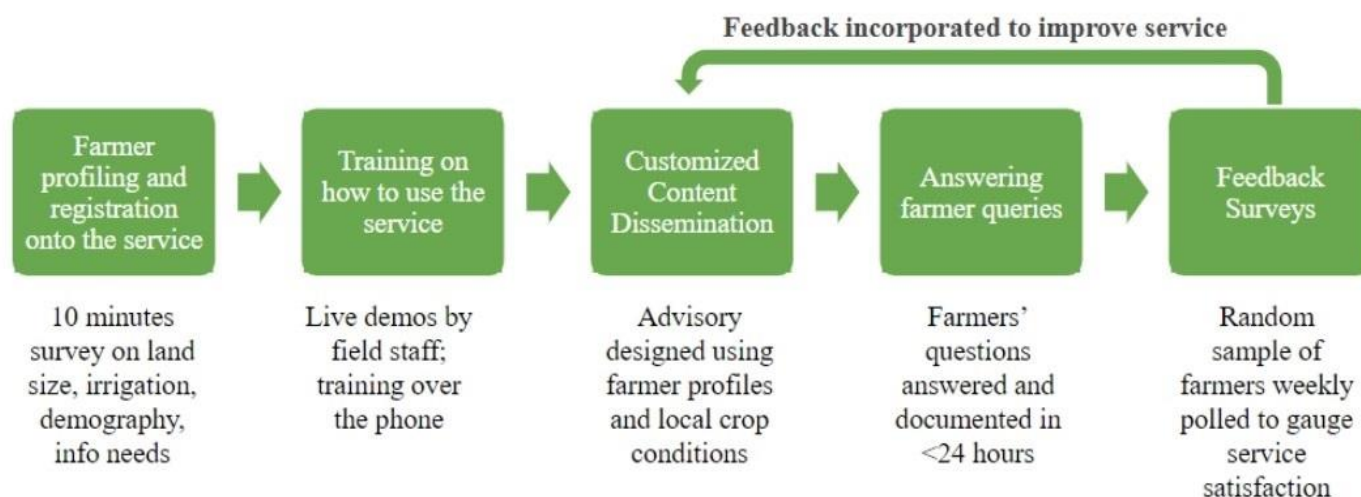
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Figure 3. The Q&A Service in Action



In order to provide customized advice, follows a comprehensive process from profiling to training to feedback to ensure farmers received targeted and actionable information.

Figure 4. Implementation Model



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Farmer's engagement

Descriptive details of farmers on the KrishiKatha service: The average land size cultivated by KrishiKatha farmers is 2.5 acres. Most farmers (~99%) grow paddy as their main Kharif crop. For the secondary crop, 90% of the farmers grow vegetables mainly brinjal (45%) and okra (37%). Their average age is 40 years with a household size of 6. Only 12% of primary users are women while 43% of farmers own smartphones - a potential pathway for diversifying how information is shared.

District	Total Farmer
ALIPURDUAR	1027
BANKURA	6411
PASCHIM BARDDHAMAN	77
PURBA BARDDHAMAN	7147
BIRBHUM	6419
DAKSHIN DINAJPUR	5031
DARJEELING	2602
HOOGHLY	3138
HOWRAH	2548
JALPAIGURI	5841
JHARGRAM	5094
KALIMPONG	1984
KOCH BEHAR	6551
MALDA	5856
MURSHIDABAD	3063
NADIA	2675
NORTH 24 PARGANAS	3417
PASCHIM MIDNAPORE	5784
PURBA MEDINIPUR	5565
PURULIA	8233
SOUTH 24 PARGANAS	7757
UTTAR DINAJPUR	4581
Grand Total	100801



More than **3,054** WUA farmers are connected with KrishiKatha service comes from **22** Districts covering **3,166** villages. More than **10970** farmers registered with KrishiKatha service are non WUA farmers comes from **1,787** villages. Out of total **100801** farmers more than **33,852** farmers registered for fishery activities.

Partnership- Project is supported by the World Bank. Behaviour Change Advisory Services LLP (BCAS) earlier known as Precession Agriculture Development India Foundation (PADIF) is providing support of IT software for running KrishiKatha program. About 15 other NGOs as support organizations are working for grounding of this initiative with registered/potential farmers through meetings & training programs at village level since April 2019.

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MONITORING AND EVALUATION

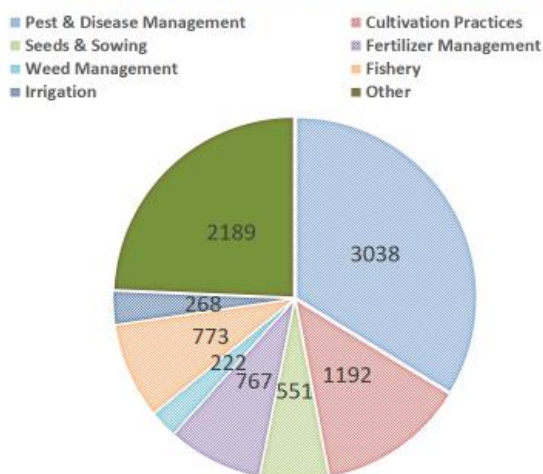
Farmer Feedback Surveys: Weekly feedback surveys with users selected from across districts. Feedback reveals high levels of satisfaction among farmers: On average, surveyed farmers rate the usefulness of advice 4.6 out of 5. 83% state that they would recommend the service to their friends and family. 78% of farmers report adopting advice while 30% of farmers report sharing advisory with others, indicating a potentially larger indirect reach.

A/B Testing: Evaluating the impact of the service on farmer behavior and knowledge: As part of our commitment to the evidence-led approach, we conducted an A/B test with 433 WUAs (2,772 farmers) across 10 districts to test (i) whether access to the KrishiKatha service affects agricultural knowledge and adoption of recommended practices and (ii) whether reminder and instructional messages on how to use the service could increase usage. WUAs in the study were randomly assigned to one of these groups:

- Control - Access to the helpline only (95 WUAs and 609 farmers).
- Treatment 1 - Access to the helpline and weekly advisory messages (172 WUAs and 1,085 farmers).
- Treatment 2 - Access to the helpline and weekly advisory messages, plus intensive training and motivational messages (166 WUAs and 1,078 farmers). Treatment 2 farmers received the following interventions: 1) training on how to use the service, 2) broadcasting questions asked by farmers along with the answers to other farmers in the region to illustrate how the Q&A feature can be used 3) sharing encouragement messages from WUA secretaries, and 4) reminder messages to encourage farmers to call in to the service.

Preliminary analysis suggests that the two treatments were effective in increasing successful usage of the helpline. Weekly advisory messages (Treatment 1) doubled the likelihood of a farmer calling into the system and successfully accessing agricultural information or recording a question. Additional reminder and instructional voice messages on how to use the system (Treatment 2) increased the magnitude of these effects significantly. Next, we will conduct a phone survey to assess whether increased usage of KrishiKatha leads to improved agricultural knowledge and practices.

KEY QUESTIONS BY THE FARMERS



Progress update - Since April-2019 | Registered farmers-100,801 | Weekly advisory message sent-10,133,385 | Question asked-29,091 | Unique question asked-11,077 | Call pickup rate-52.28%

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Krishikatha Dashboard <https://www.wbadmip.org/krishikatha>

Krishi Katha

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Advisories

Farmer's Profiles

Farmer Engagement

Live Progress

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Farmer's Feedback

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Toll free number- 033-68116666

कृषि कथा | KRISHI KATHA | কৃষি কথা

Mobile based free advisory services on
agriculture, horticulture, fishery and institutional aspects



Summary

100,290

Registered Farmers

9,547,882

Total weekly advisories

27,252

Total questions

102,960

Number of recipients for Weekly Advisories

8,791

Number of Farmers who asked atleast one question

51.95

Pickup Rate (%)

10499

Number of Valid questions

89,255

Farmers in Water User Association

10,908

Farmers not in Water User Association

86,422

Male Farmers

13,868

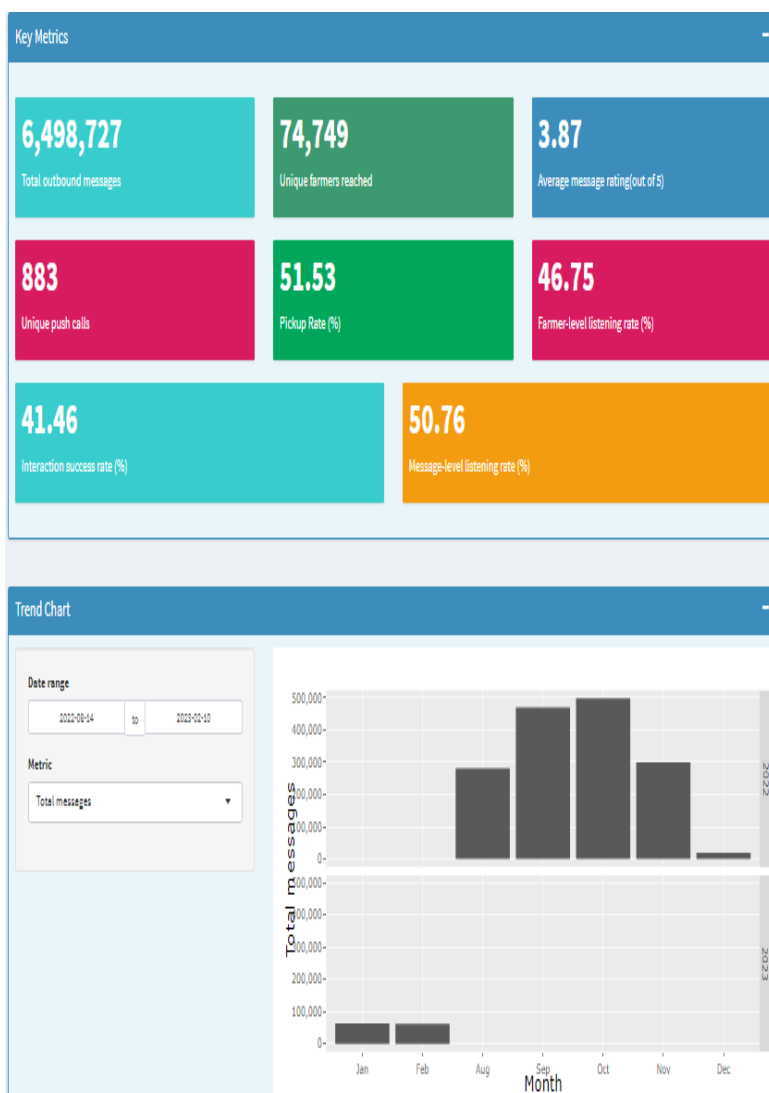
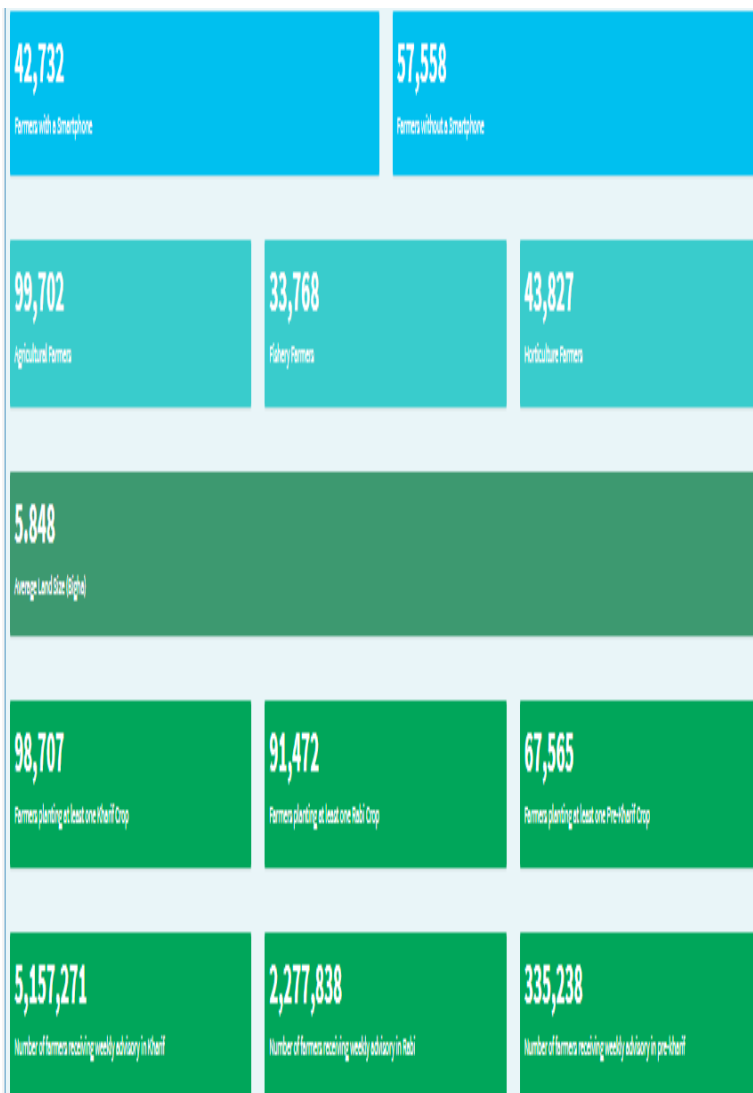
Female Farmers

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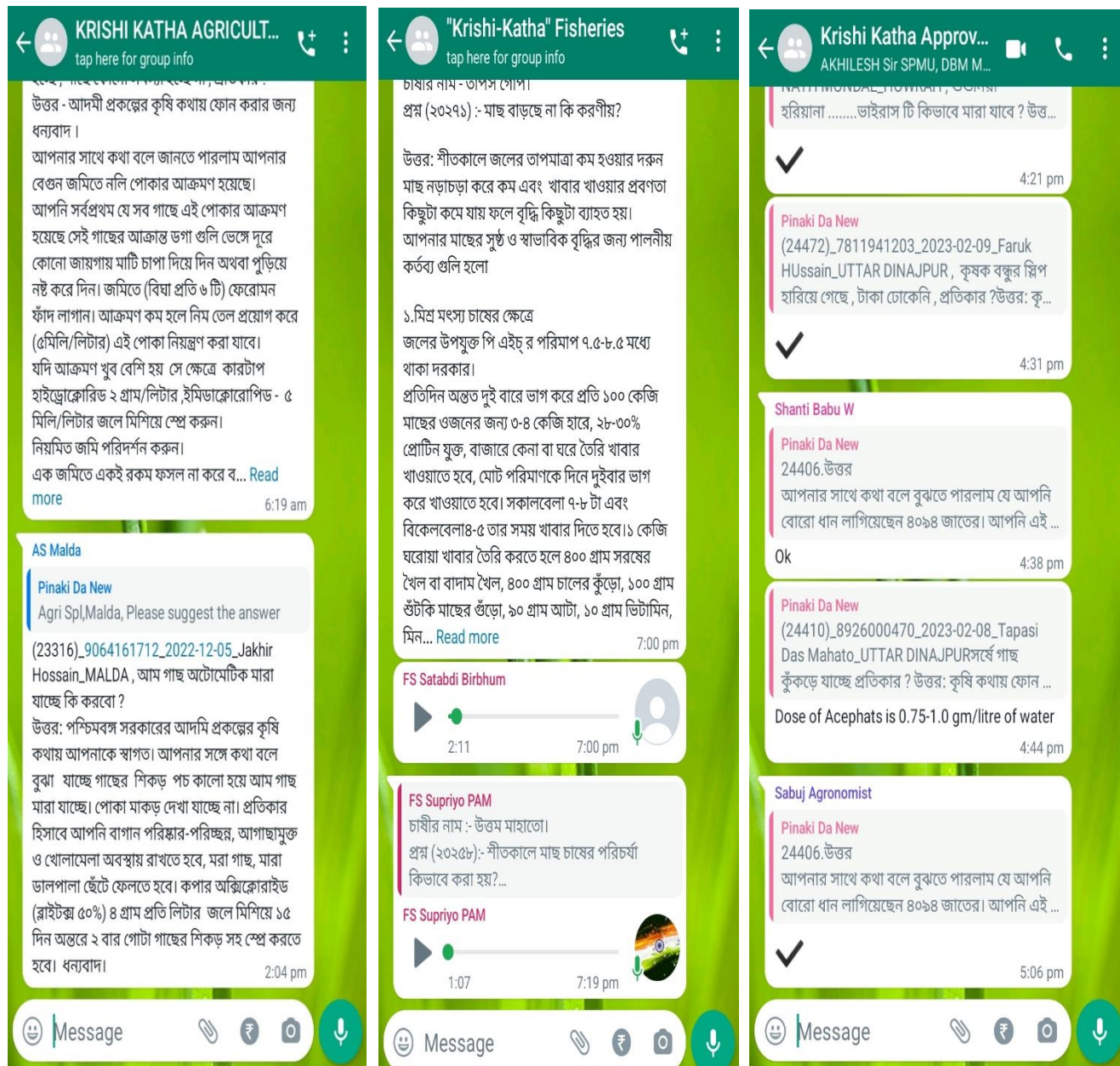


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WhatsApp groups

Agriculture & Horticulture, Fishery discussion groups and Krishikatha Approval group are created at the state level to facilitate the timely response of farmers question within 48 Hours. Farmers are also contacted for necessary clarifications if required. District level WhatsApp groups are also exists for multiple purpose.



West Bengal IVR

Welcome Suman!

Choose reason ▼

Reject

Split

Default answer ▼ or Choose File No file chosen

Answer

Agriculture Horticulture Fisheries Common_tags

1.Season ▼ 2.Crop ▼

3.Main-Topic ▼

4.Sub-Topic ▼

Tag

Choose user ▼

Reassign

	Id	Phone	Time (+0530)	Name	District	Block	Audio	Owner	Source
<input type="checkbox"/>	24581	7679974203	2023-02-10 17:41	Sadhan Sarkar	DAKSHIN DINAJPUR	BALURGHAT	▶ 0:00 / 0:04	9830873307	NA (Other)
<input type="checkbox"/>	24580	7679974203	2023-02-10 17:40	Sadhan Sarkar	DAKSHIN DINAJPUR	BALURGHAT	▶ 0:00 / 1:00	9830873307	NA (Other)
<input type="checkbox"/>	24579	7679974203	2023-02-10 17:38	Sadhan Sarkar	DAKSHIN DINAJPUR	BALURGHAT	▶ 0:00 / 0:02	9830873307	NA (Other)
<input type="checkbox"/>	24578	9547707907	2023-02-10 16:58	Bidhan Sarkar	DAKSHIN DINAJPUR	BALURGHAT	▶ 0:00 / 0:23	8101099963	NA (Other)
<input type="checkbox"/>	24576	9932435036	2023-02-10 14:58	Tapan Dalui	HOWRAH	AMTA I	▶ 0:00 / 0:59	8101099963	NA (Other)
<input type="checkbox"/>	24572	7585885837	2023-02-10 13:31	Rohani Mahato	PURULIA	PURULIA II	▶ 0:00 / 0:29	8101099963	NA (Other)
<input type="checkbox"/>	24571	9775035975	2023-02-10 13:12	Saktipada pandit	PASCHIM MIDNAPORE	SABANG	▶ 0:00 / 1:00	8101099963	NA (Other)
<input type="checkbox"/>	24568	9647712416	2023-02-10 13:05	Doctor Tudu	BIRBHUM	MDBAZAR	▶ 0:00 / 0:08	8101099963	NA (Other)
<input type="checkbox"/>	24564	9735862073	2023-02-10 11:45	Bhabashankar Mudi	BANKURA	SIMLAPAL	▶ 0:00 / 0:20	8101099963	NA (Other)
<input type="checkbox"/>	24558	8116395178	2023-02-10 09:15	Rajib Karan	JHARGRAM	JAMBANI	▶ 0:00 / 0:11	8101099963	NA (Other)
<input type="checkbox"/>	24557	7602698037	2023-02-10 08:56	Ramapada Barh	HOOGHLY	SINGUR	▶ 0:00 / 0:09	8101099963	NA (Other)

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Farmer's testimonials



District: Howrah
Name: Panab Bera
Mobile: 8001240662
WUA: Boral South West Mini RLI WUA

"Sunflower were affected by Collar rot disease by using krishikatha advisory he saved his sunflower plants"



District: Jalpaiguri
Name: Md Sahidul Islam
Mobile: 9749943379
WUA: UTTAR MATIALI UDAYAN WUA

"He was very pleased by Weekly advisories. Seed treatment, organic fertilizer learned by krishikatha and soil fertility was increased".



District: Purulia
Name: Bikash Ch. Mahato
Mobile: 9002697565
WUA: RANGAMATIA WUA

"Production increased after knowing the fertilizer name from krishikatha. Radish plant were saved by adopting the suggestions. Seed bed preparation"



District: MALDA
Name: Suren Sarkar
Mobile: 8116175086
WUA: ADHNA SINDURBONA WUA

"His production is increased after using the organic fertilizer"



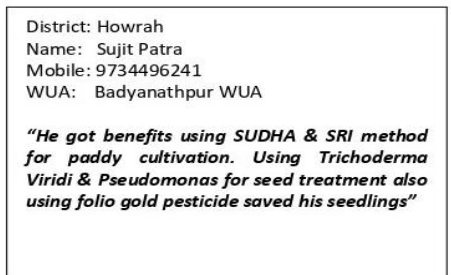
District: DARJEELING
Name: Nimas beshra
Mobile: 7602022693
WUA: KAMARGACHH ST WUA

"Bottle guard advisory helps in production and also early precaution saved from insects attack".



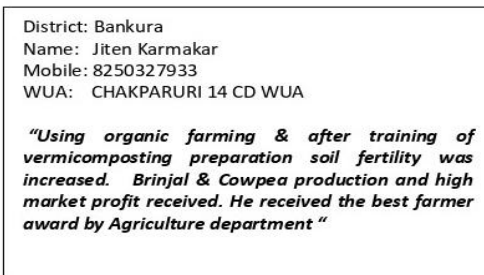
District: KochBehar
Name: Bishnu Biswas
Mobile: 8509193233
WUA: Chhat Singimari WUA

"I asked question in brinjal ,why my brinjal plants are dying ?And the advisory worked very well and saved my rest brinjal plants"



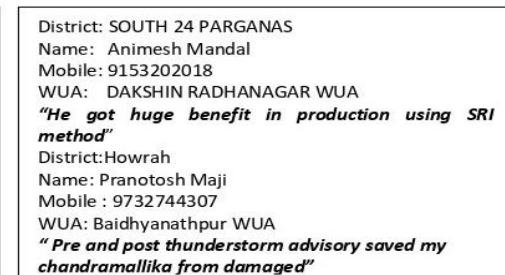
District: Howrah
Name: Sujit Patra
Mobile: 9734496241
WUA: Badyanathpur WUA

"He got benefits using SUDHA & SRI method for paddy cultivation. Using Trichoderma Viridi & Pseudomonas for seed treatment also using folio gold pesticide saved his seedlings"



District: Bankura
Name: Jiten Karmakar
Mobile: 8250327933
WUA: CHAKPARURI 14 CD WUA

"Using organic farming & after training of vermicomposting preparation soil fertility was increased. Brinjal & Cowpea production and high market profit received. He received the best farmer award by Agriculture department "



District: SOUTH 24 PARGANAS
Name: Animesh Mandal
Mobile: 9153202018
WUA: DAKSHIN RADHANAGAR WUA
"He got huge benefit in production using SRI method"
District: Howrah
Name: Pranotosh Maji
Mobile: 9732744307
WUA: Baidhyanthpur WUA
"Pre and post thunderstorm advisory saved my chandramallika from damaged"

The project makes use of the state-of-the-art, hardware & software platform to bridge the last mile connectivity. The objective is to resolve the knowledge gap amongst the farmers to help them make judicious investment and incorporate best practices. This is going to ensure sustainable agriculture, horticulture and pisciculture practices.

WB ADMI Project Supported by World Bank



Challenges

Main challenge of the project has been to formulate technically correct answers for the questions in a timely manner. Under the project various agriculture, horticulture and pisciculture experts have been deployed over the geographical area of West Bengal (more than 5 million hectare) which comprises 6 agro climatic zones. Challenges in agriculture & pisciculture is different in different areas which requires careful analysis. To address this challenge “Whatsapp group” are formed at different levels. As and when farmers speaks in to the system as audio message through his/her mobile the voice is converted into text message and is shared in the whatsapp group among the field functionaries who will frame the draft answers. These answers are edited and validated by higher level of experts sitting at the state headquarters and then the answers are sent to the respective farmer in audio mode. If there is some ambiguity in the question, the field experts directly talk to the concerned farmers. In the beginning the registration of the farmer was at slow pace. Now more than 100801 farmers are already part of the system, acting as the change agents and are being helpful in popularizing the system among new farmers. If a particular type of problem is reported by large number of farmers in a particular area then the field experts visit that area and explore if a large scale intervention is needed to help the farmers. Special advisory are also circulated for that particular zone.

As the number of smart phone has increased over time and as bandwidth increases overtime, it will be possible for the farmers to send photographs to supplement their questions which will help in diagnosing and resolving their problems in much better way. In addition, short video clips can also be sent in broadcast mode. Pilot testing of these approaches have already been completed and is going to be scaled up in near future.

Impacts

So far approximately **1, 00,801** small & marginal farmers including **13944** women farmers have been registered under the Krishikatha program. It has helped them address the challenges of agriculture, horticulture and pisciculture in a sustainable manner. Since the project was launched in April 2019 more than **10** million advisories messages sent to the farmers across different agro climatic zones. Call receiving rates of farmers is more than 52%. During the same time farmers have asked **>11077** questions which have been answered within 48 hours. Questions related to the areas like insect & pest control, cultivation practices, pisciculture etc related best practices has been a big support to farmers. They have been able to optimize the use of fertilizer, pesticides and calibrate their investments in a scientific manner.

Krishikatha service is bridging the gaps in the effective implementation of the project activities. Although the trainings are given to the WUA farmers but the implementation problems/issues raised by the farmers are addressed by Krishikatha. In this way it is becoming a handholding mechanism of the project. It is very inspiring to mention that the farmers are keeping the experts number saved with them as emergency arrangement. It is proved when the server is done/ nonfunctional due to any reason, farmer's starts calling on these numbers and showing their concerns to have this system doing well.