

# Krishikatha

Mobile based agricultural advisory service of WBADMIP  033 6811 6666

## “Krishikatha”

Mobile-based audio agricultural service of WBADMIP  
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 1,00,000 small & marginal farmers including tribal & women of the underdeveloped areas in West Bengal. It is a 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 farmers. 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 1,00,000 farmers of about 4000 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



Since April-2019 | Registered farmers-96,013 | Weekly advisory message sent-9,504,733 | Question asked-25,799 | Unique question asked-12,368 | Call pickup rate-52.28%

# Krishikatha

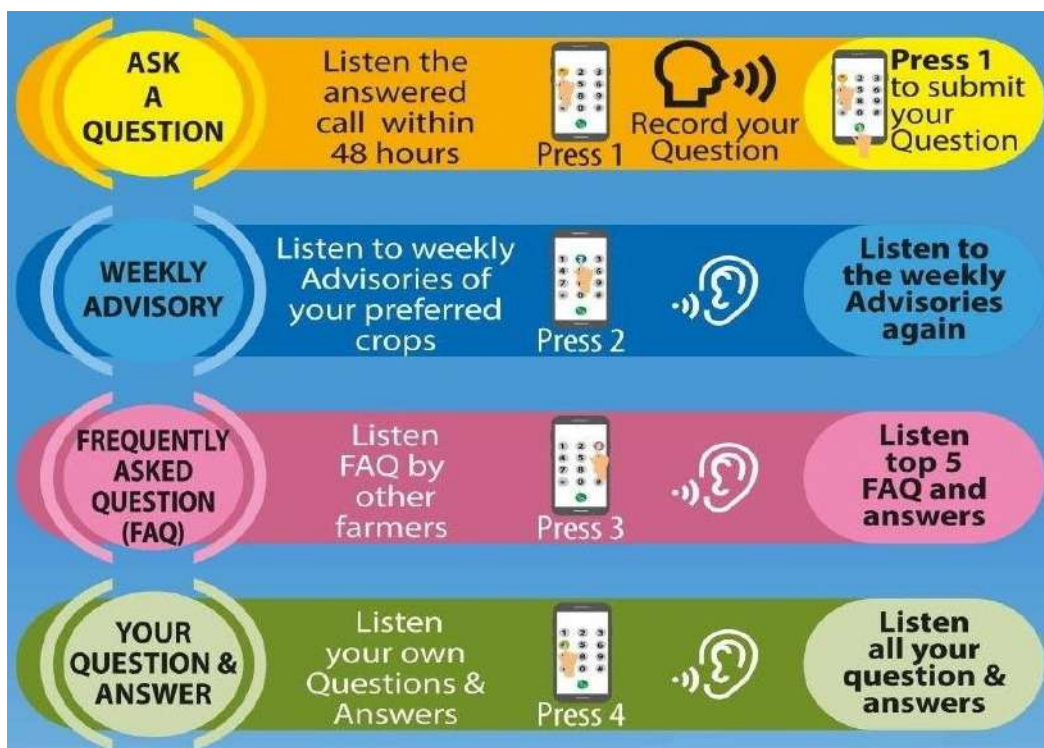
Mobile based agricultural advisory service of WBADMIP ☎ 033 6811 6666

include: >91 lakh advisory messages sent having 52% call pickup rate; >25000 questions asked by the farmers including >12000 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

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Figure 1. Overview of the Krishi Katha service

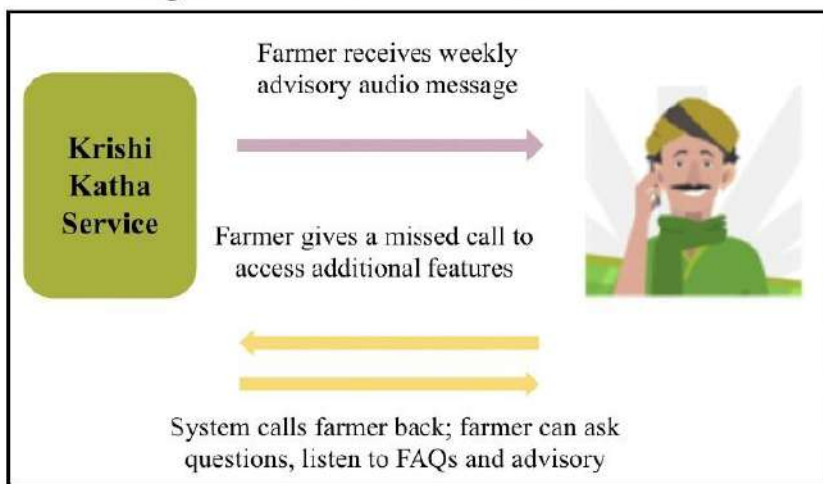


Figure 2. Benefits of the Advisory Service

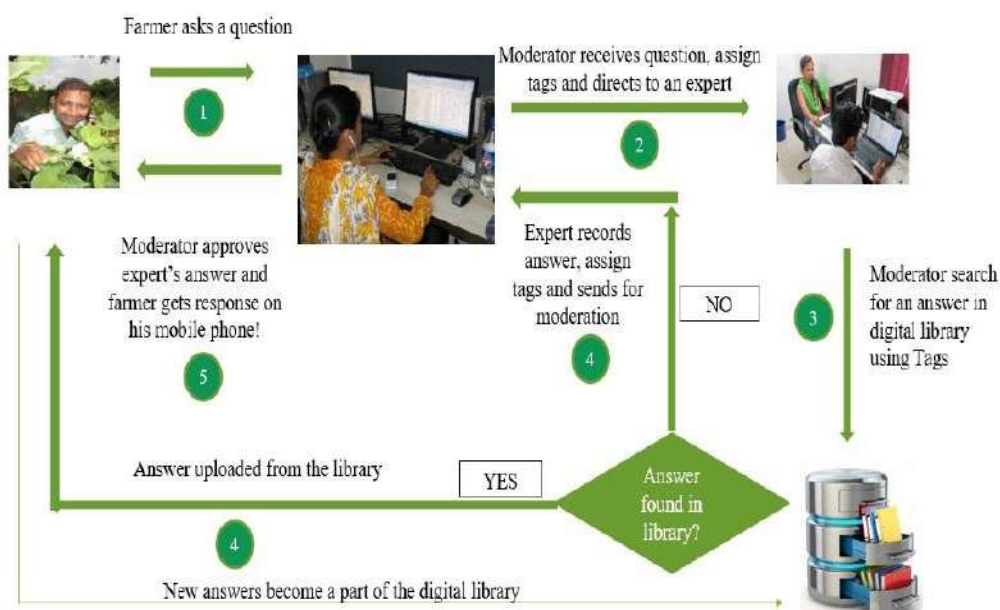


### West Bengal IVR

- \*2022-11-13 08:00 20221102\_Agriculture\_Rabi\_Potato\_Seed\_Variety\_Seed\_rate\_Seed\_Treatment\* (21916 recipients)
- \*2022-11-14 10:00 20221102\_Horticulture\_Rabi\_Cabbage\_Seed\_Variety\_Seed\_Rate\_Sowing\_Time\_Fert\_Dose\* (9717 recipients)
- \*2022-11-16 16:13 fishery\_winter\_season\_fish\_caring\_advisory\* (1 recipients)

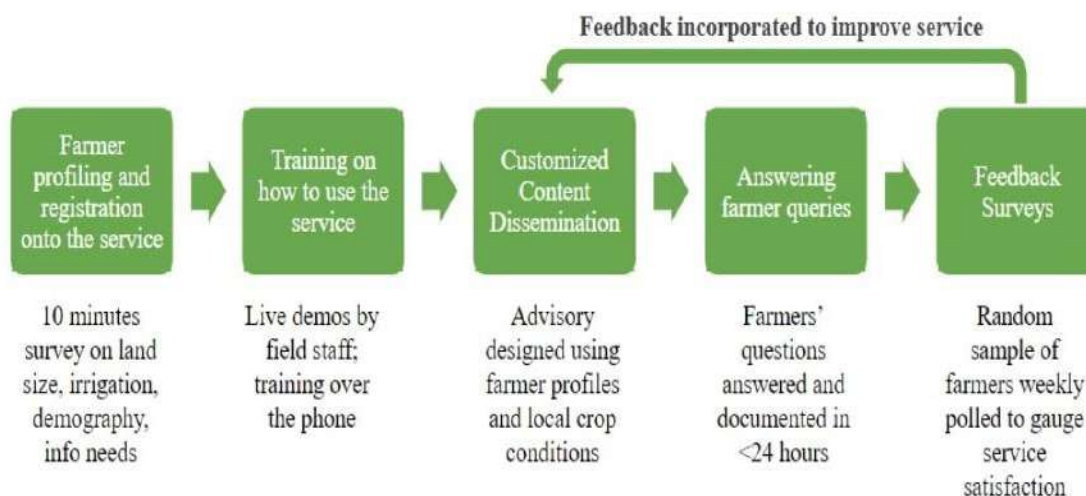
[Home](#)  
[Sign Out](#)

**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	892
BANKURA	5877
PASCHIM BARDDHAMAN	3501
PURBA BARDDHAMAN	3084
BIRBHUM	6819
DAKSHIN DINAJPUR	4767
DARJEELING	2550
HOOGLY	2964
HOWRAH	2493
JALPAIGURI	5395
JHARGRAM	4804
KALIMPONG	1791
KOCH BEHAR	6301
MALDA	5341
MURSHIDABAD	2826
NADIA	2622
NORTH 24 PARGANAS	3181
PASCHIM MIDNAPORE	5793
PURBA MEDINIPUR	5097
PURULIA	7788
SOUTH 24 PARGANAS	7587
UTTAR DINAJPUR	4540
<b>Grand Total</b>	<b>96013</b>



More than 3,000 WUA farmers are connected with KrishiKatha service comes from 22 Districts covering 2,350 villages. More than 12000 farmers registered with KrishiKatha service are non WUA farmers comes from 1,580 villages. Out of total 96000 farmers more than 33,000 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

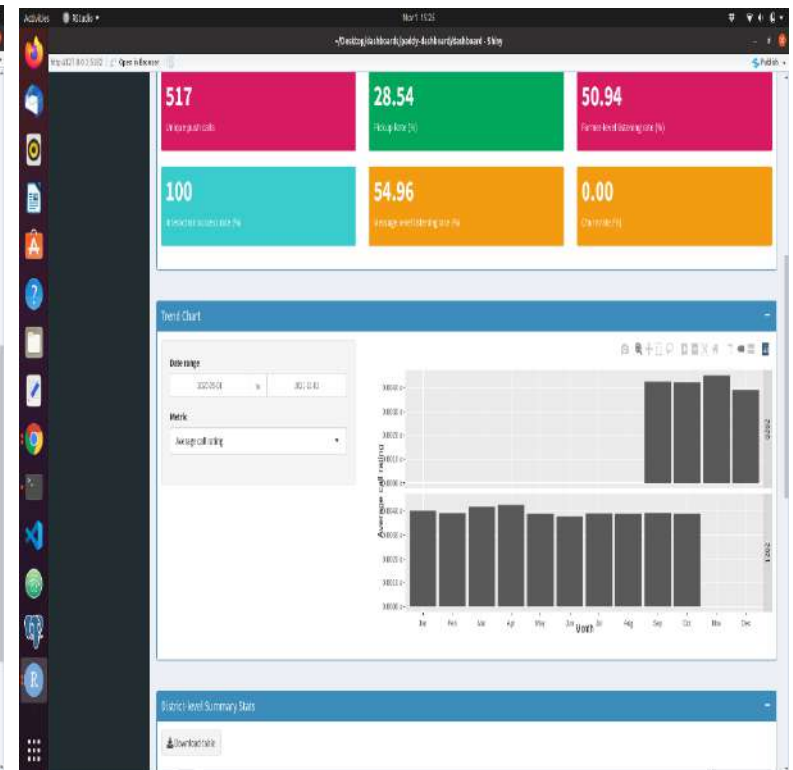
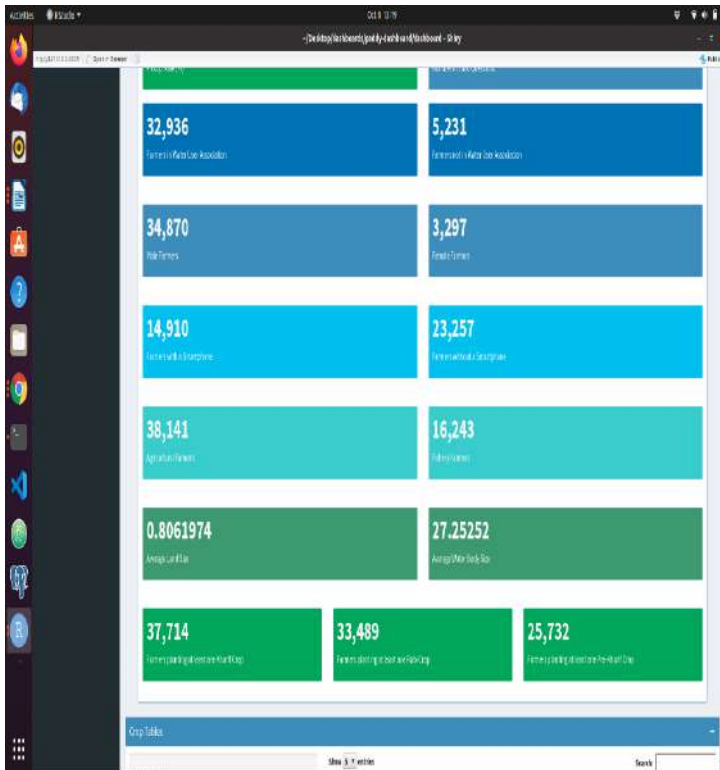
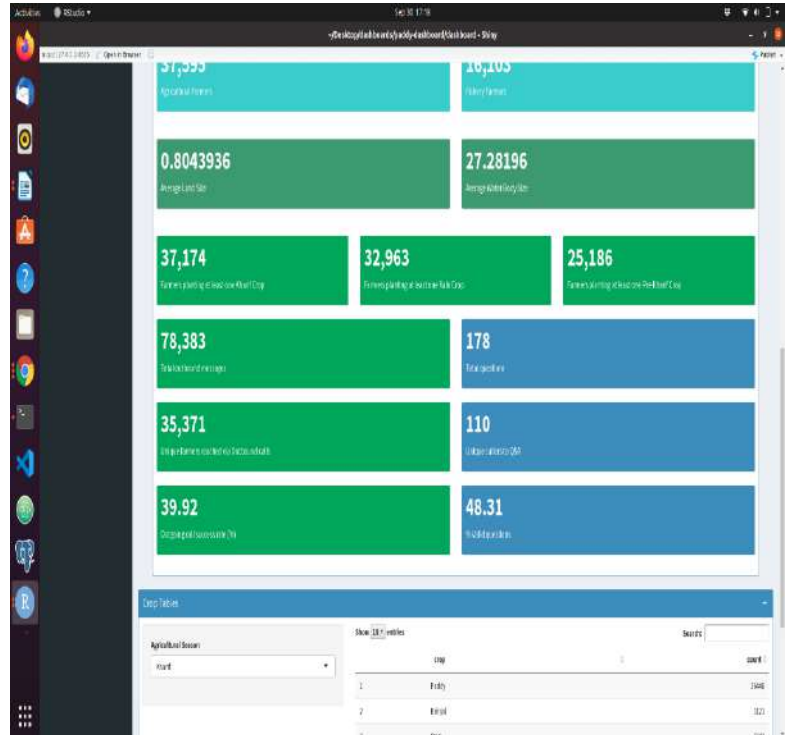


Progress update - Since April-2019 | Registered farmers-96,013 | Weekly advisory message sent-9,504,733 | Question asked-25,799 | Unique question asked-12,368 | Call pickup rate-52.28%

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

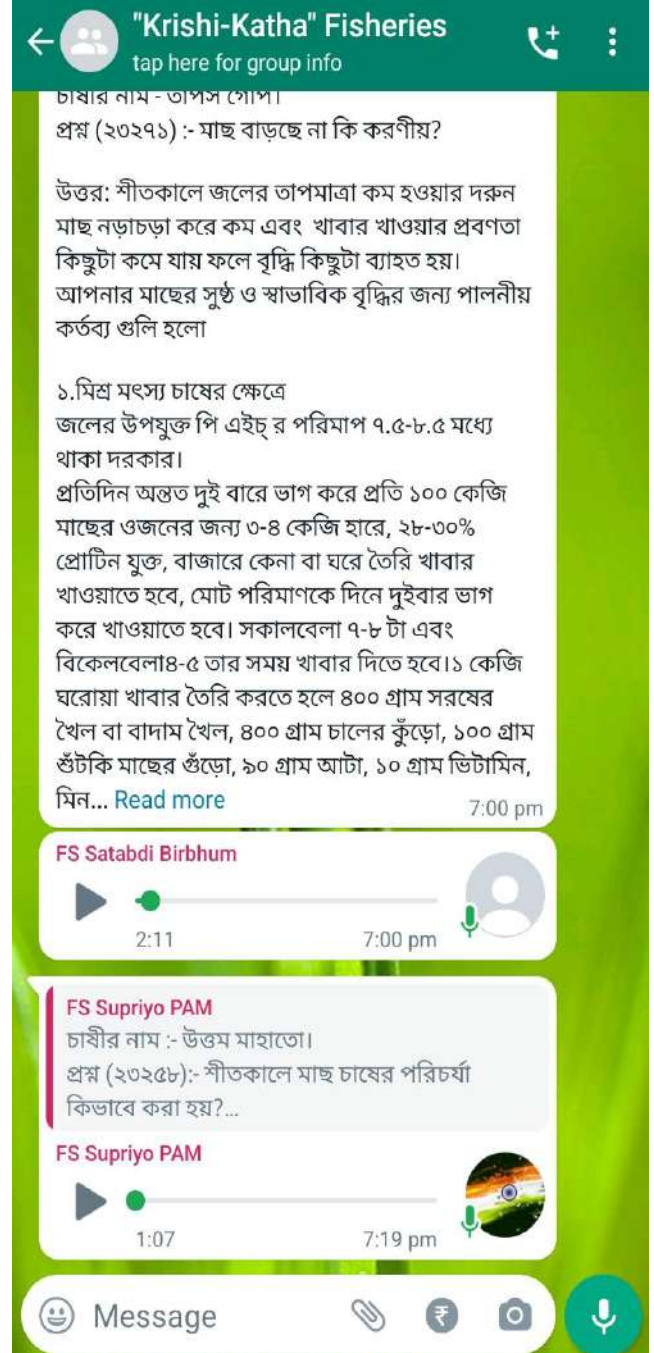
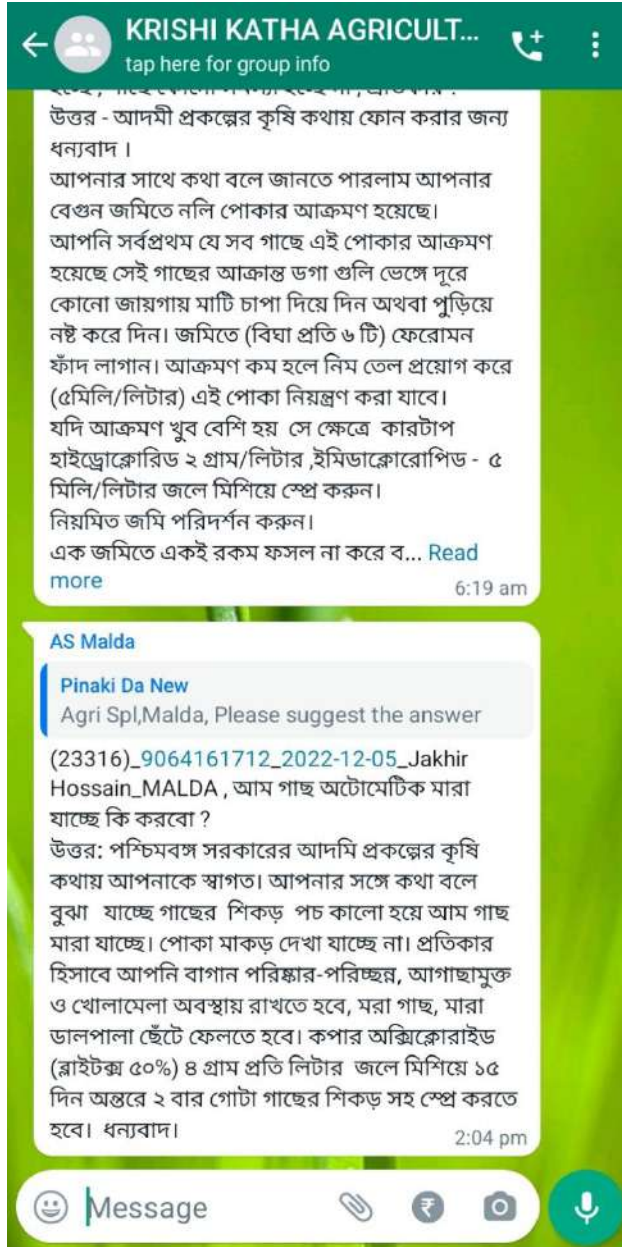


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## WhatsApp groups

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 Sayantan!

<input type="button" value="Choose reason"/>  <input type="button" value="Reject"/>  <input type="button" value="Split"/>	Default answer <input type="button" value="v"/> or <input type="button" value="Choose file"/> No file chosen	<input type="button" value="Choose user"/> <input type="button" value="v"/>  <input type="button" value="Reassign"/>
	<input type="button" value="Answer"/>	
	Agriculture   Horticulture   Fisheries   Common_tags	
	1.Season <input type="button" value="v"/> 2.Crop <input type="button" value="v"/> 3.Main-Topic <input type="button" value="v"/> 4.Sub-Topic <input type="button" value="v"/>	
<input type="button" value="Tag"/>		

Id	Phone	Time (+0530)	Name	District	Block	Audio	Owner	Source	
<input type="checkbox"/>	23054	7063093253	2022-11-23 11:23 10:07	Hemanta Kisku	BIRBHUM	RAMPURHAT I	0:00 / 0:09	9830873307	NA (Other)
<input type="checkbox"/>	23053	9547715179	2022-11-23 11:23 09:27	Kesab Mali	BIRBHUM	RAJ NAGAR	0:00 / 0:20	9830873307	NA (Other)
<input type="checkbox"/>	23052	8372823658	2022-11-22 11:22 20:56	Golam Babbari	DAKSHIN DINAJPUR	KUSHMANDI	0:00 / 0:19	9830873307	NA (Other)
<input type="checkbox"/>	23051	8372823658	2022-11-22 11:22 20:55	Golam Babbari	DAKSHIN DINAJPUR	KUSHMANDI	0:00 / 0:16	9830873307	NA (Other)
<input type="checkbox"/>	23050	6295109345	2022-11-22 11:22 20:41	ANISUR RAHAMAN	DAKSHIN DINAJPUR	KUSHMANDI	0:00 / 0:42	9830873307	NA (Other)
<input type="checkbox"/>	23049	9933531597	2022-11-22 11:22 18:54	Kashinath Jele	HOWRAH	AMTA I	0:00 / 0:20	9830873307	NA (Other)
<input type="checkbox"/>	23048	7872534797	2022-11-22 11:22 17:29	Raban Hansda	BIRBHUM	RAJ NAGAR	0:00 / 0:08	9830873307	NA (Other)
<input type="checkbox"/>	23047	9825643859	2022-11-22 11:22 16:46	empty	empty	empty	0:00 / 0:01	9830873307	NA (Other)
<input type="checkbox"/>	23046	8670573447	2022-11-22 11:22 16:30	Indagul islam	UTTAR DINAJPUR	CHOPRA	0:00 / 0:28	9830873307	NA (Other)
<input type="checkbox"/>	23045	8670573447	2022-11-22 11:22 16:27	Indagul islam	UTTAR DINAJPUR	CHOPRA	0:00 / 0:09	9830873307	NA (Other)
<input type="checkbox"/>	23044	9679950065	2022-11-22 11:22 16:22	LAKHINDRA SAREN	BANKURA	CHHATNA	0:00 / 0:00	9830873307	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"*



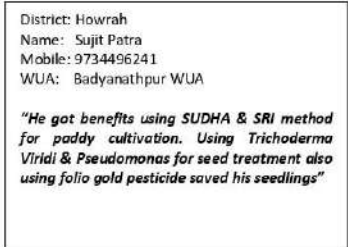
District: DARJEELING  
Name: Nilmas beshra  
Mobile: 7602022693  
WUA: KAMARGACHH ST WUA

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



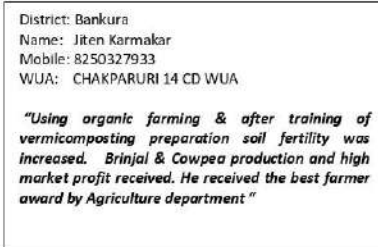
District: KochBehar  
Name: Bishnu Biswas  
Mobile: 8509193233  
WUA: Chhat Singimari WUA

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



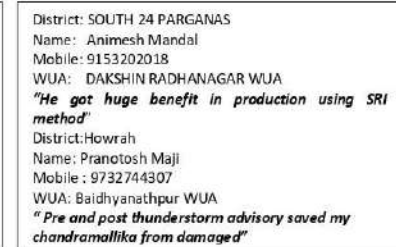
District: Howrah  
Name: Sujit Patra  
Mobile: 9734496241  
WUA: Badyanathpur WUA

*"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: Baidyanathpur WUA  
*"Pre and post thunderstorm advisory saved my chandramallika from damage"*

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.

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## 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 96000 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 1,00,000 small & marginal farmers including 13035 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 9.5 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 >12000 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.