



# Reaching the Unreached

ICT based e-Agricultural Extension for Enhanced Technology and Information Delivery







# BIHAR AGRICULTURAL UNIVERSITY, SABOUR

*An ISO 9001:2015 certified organization*

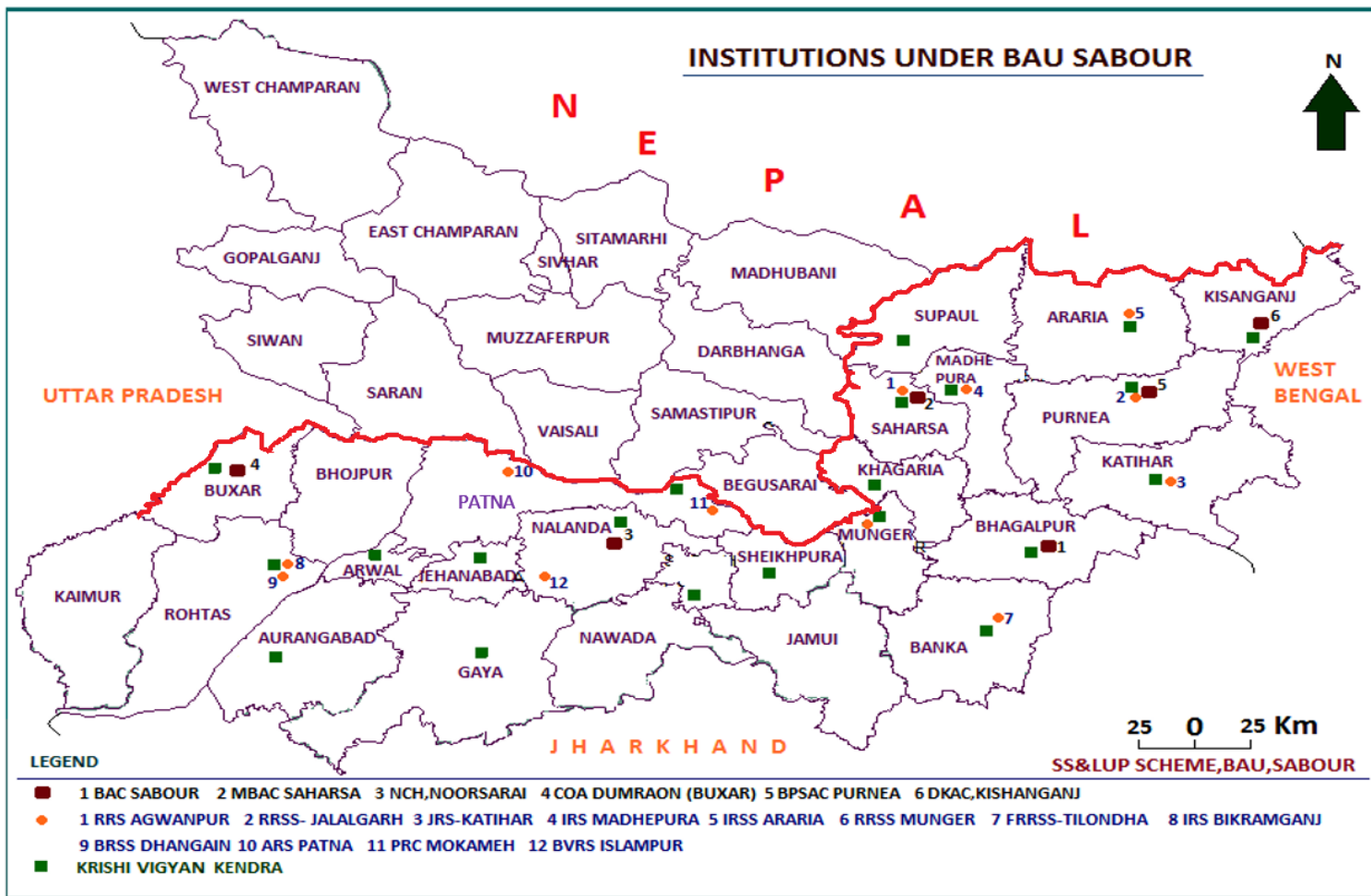


- Bihar Agricultural College established on 17<sup>th</sup> August, 1908
  - One of the first 5 Agricultural colleges established in India
- BAU, Sabour was carved out from erstwhile RAU, Pusa on 5<sup>th</sup> August, 2010 at Sabour, Bhagalpur





# TERRITORIAL JURISDICTION AND MANDATES



The University has

- 6 Colleges
- 12 Research Stations
- 21 KVKs

**MANDATES of the University**

- Education
- Research
- Extension
- Training

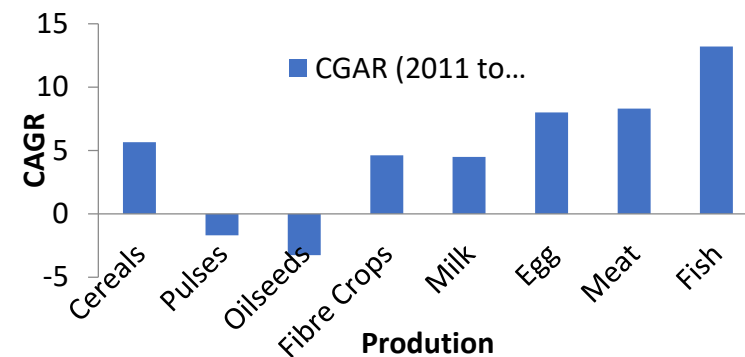
No. of Districts : 21/38  
 Geographical Area : 51%  
 Population : 42%



# THE CONCERN

## Agriculture in Bihar

- Geographical Area: 9.41 million hectares
- Population: 103.8 million
- Agriculture employs about  $3/4^{\text{th}}$  of the workforce and contributes **>25 per cent** of GDP of the state
- **>91 %** of operational land holding are marginal
- Unable reap the benefits of green revolution
- About **88 per cent** of poor are living in the rural area



### Slow Rate of Technology Dissemination

- Low extension personnel to Farmer ratio
- Lack of convergence between scientist and field extensionists
- Lack of scientist-farmer interface
- Low Rate of Technology Retention

### Challenge

- *Enable farmers to take appropriate farm decisions*
- *Right Information at Right Time*



# The Strategy : ICT based e-Extension Module

## ICT APPLICATIONS FOR TECHNOLOGY TRANSFER

Scientist-Farmer Interface through Videoconferencing

ICT Enabled Information & Technology Delivery System

Farmers Friendly Digital Content Creation



Kisan Gyan Rath



Social Media



SD Card for ToT



Community Radio



Mobile Messaging

## Issues to be addressed

- Bring convergence between **scientists-extension** **functionaries-farmers**
- Reach maximum farmers in minimum time
- Provide **technically sound** information at *right time*
- To increase *technology and information retention per cent*
- **Best Utilization** developing **ICT ecosystem**




# Digital Storytelling: Content creation to Dissemination

- **Technology/Information retention**
- **Real Time Access to Technical information was needed**
- **Content suitable to the existing ICT Ecosystem**

**Dissemination**

<b>No of technical videos developed</b>	<b>273</b>
<b>Technical contents (PoP)</b>	<b>100</b>
<b>Success Stories of Farmers</b>	<b>60</b>
<b>Farmers Awareness videos</b>	<b>13</b>
<b>Other Educational Videos</b>	<b>100</b>




**ICT enabled KGR**



**Youtube  
Other Social Media**



**SD card**



**Information Kiosk**

**Technology Dissemination Channels**



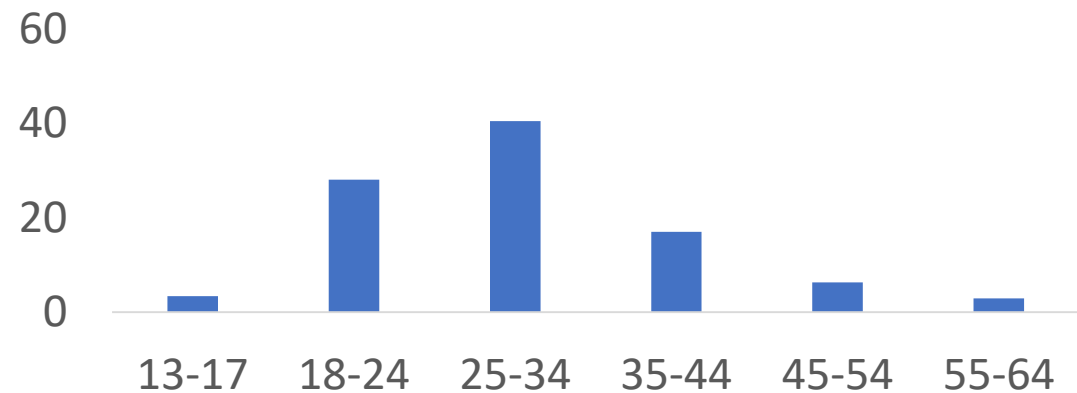


# Technology Dissemination Through Youtube

Youtube Channel : <https://www.youtube.com/bausabour>

- No. of Youtube Subscribers : **2,34,000**
- No. of Views : **> 2.25 Crore**
- Device used : **Mobile (98 %)**
- Country : **India (87%)**

Age pattern of viewers





# Videos through SD cards: An approach to tackle internet issues

- Offline
- Cost effective
- Reaching interior areas



सभी स्मार्ट फोन के लिए उपयुक्त डोंगल के माध्यम से LCD/LED TV, कंप्यूटर, लैपटॉप या USB युक्त CD/DVD प्लेयर से भी चलने में सक्षम



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किसान कॉल सेंटर : 18003456455 (टोल फ्री)

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# Knowledge at Farmers Doorsteps “KISSAN GYAN RATH”

- The *Kisan Gyan Rath* is a Mobile extension advisory system
- University has 2 ICT enabled KGR
- Fitted with a *mini Soil Testing Lab*
- An LED Screen for display of technical videos (Indoor & Outdoor)
- It acts as campaign vehicle for technology transfer

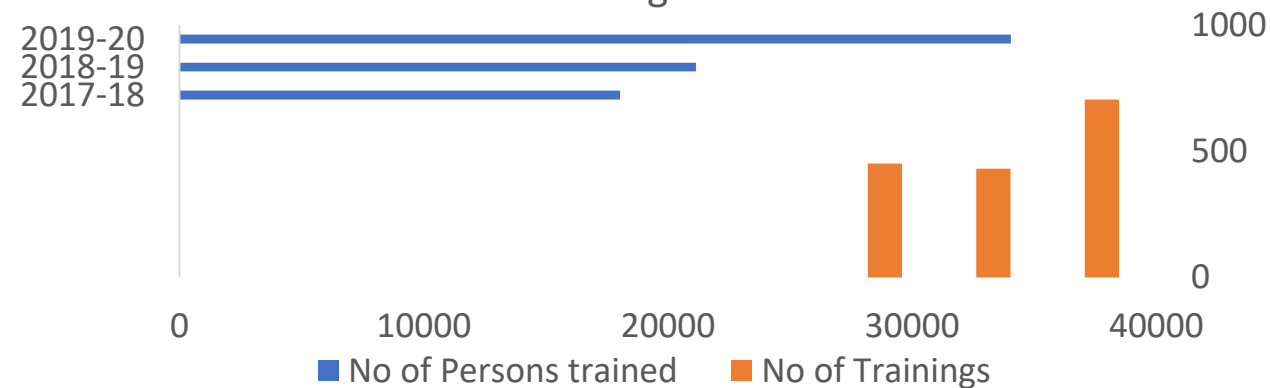




# Real time Farmers and Scientists Interface : Video Conferencing

- **Connected with all 20 KVK's & 6 Colleges**
- **It provides platform for real-time feedback mechanism**
- **Trainings through VC are tailor made for each season and district based on real-time feedback**
- **Four VC based training conducted each day with 4 centers (100 farmers/day)**
- **Demonstrations, outdoor broadcasting, crop health Diagnostics are regular part of the VC-Programme**
- **Farmers interaction with agricultural department for better convergence**
- **Outdoor Broadcasting for live demo (Mobile Signal Aggregator)**

Figure 2. Training imparted to farmers through videoconferencing at BAU Sabour



No of trainings conducted through Video-Conferencing (VC): **2850**

No. of Farmers/Extension Personnel Trained through VC: **11152**



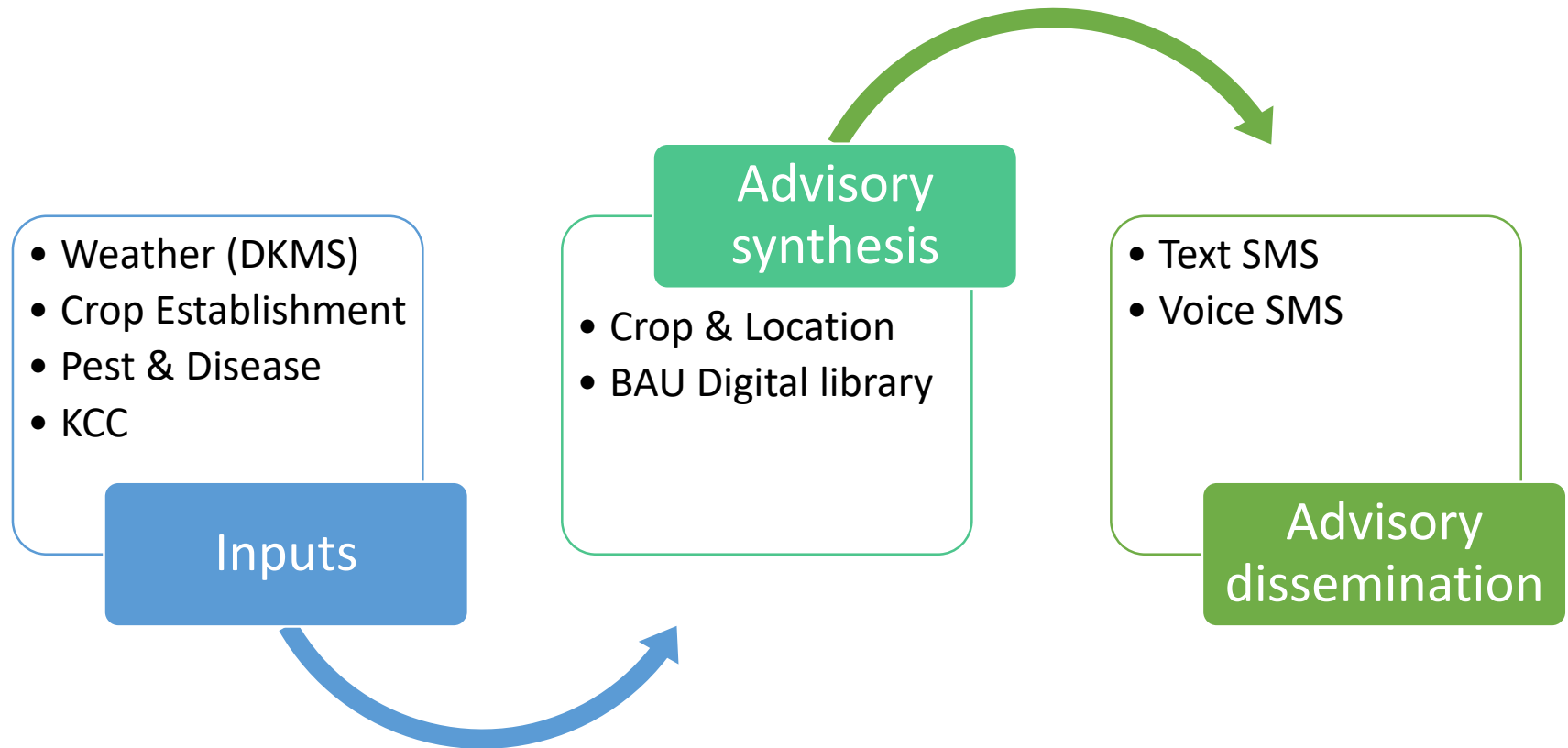
**About 15% per cent Increase in No. of farmers Trained during 2019-20**





# Real time farm Advisories through Mobile Messages

**Kisan Chaupal:  
Krishi Vigyanik  
Kisano Ke  
Dwar**

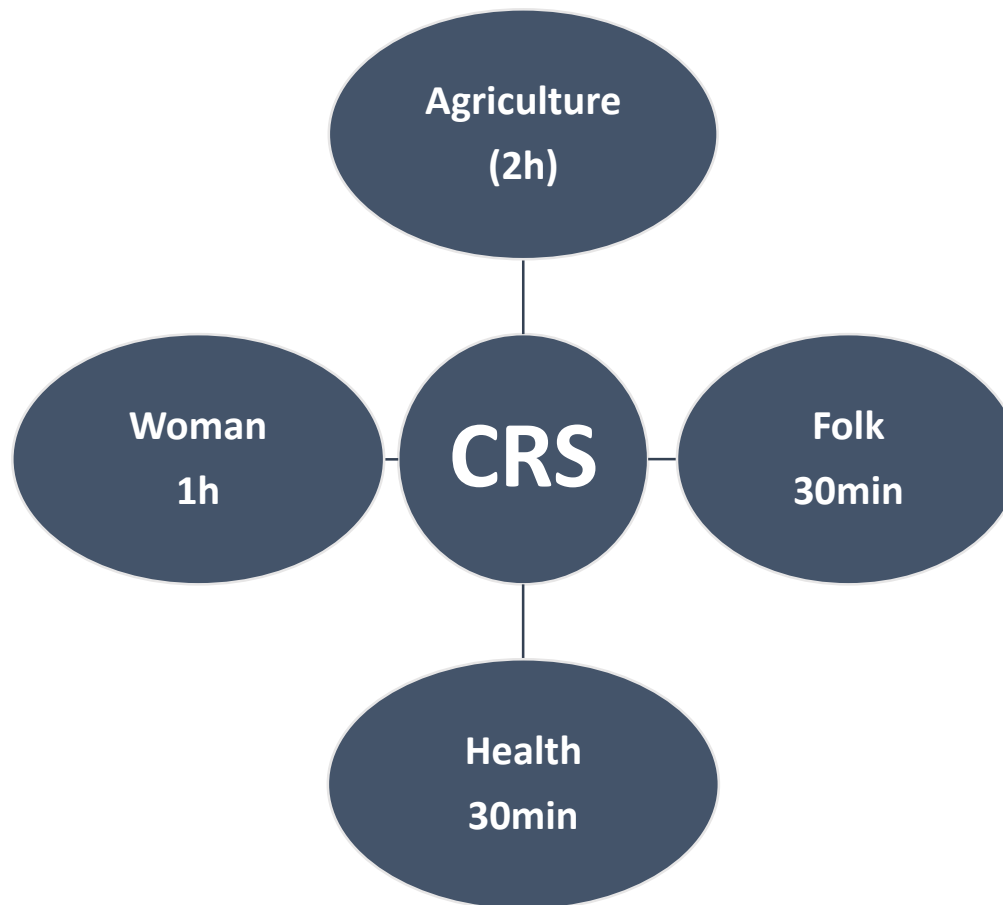


**No. of advisories sent through mobile SMS : About 3000 advisories/year**

**No of Farmers covered under SMS advisories : 6.5lakh**

**MoU with Reliance Foundation for accelerating the delivery of Farm Advisories**

# Community Radio Station



## Two CRS

- KVK Barh: 91.2MHz
- BAU, Sabour: FM Green 90.8MHz







# Out scaling & Future strategies

## Technology & Information dissemination Module

Digital Content Creation  
(Updated, Relevant & Specific)

Scientist –Farmer-  
Extension worker  
interface  
(VC & OB)

Dissemination  
Campaign  
(ICT-KGR)

Social Media  
(Local  
language)

Emerging  
Technology  
(AI based)

Government to Citizen:

- Democratization of Agril. Information
- Increased farm productivity and income
- Reduced input due adaptation efficient technology

Government to Govt.

- Increased visibility of University and Govt. Schemes
- Reduction in cost of capacity building

Future Initiatives,

- AI Based app
- Real time monitoring through Drones



*Hamara Kisan  
Ab Nahi Rehega Anjan....*



**Thank You**