Reaching the Unreached

ICT based e-Agricultural Extension for Enhanced Technology and Information Delivery
Bihar Agricultural College established on 17th August, 1908

- One of the first 5 Agricultural colleges established in India
- BAU, Sabour was carved out from erstwhile RAU, Pusa on 5th August, 2010 at Sabour, Bhagalpur
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%
Agriculture in Bihar

- Geographical Area: 9.41 million hectares
- Population: 103.8 million
- Agriculture employs about $\frac{3}{4}$th of the workforce and contributes more than 25% of GDP of the state
- >91% of operational land holding are marginal
- Unable reap the benefits of green revolution
- About 88% 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**

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

<table>
<thead>
<tr>
<th>Technology Dissemination Channels</th>
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<tbody>
<tr>
<td>ICT enabled KGR</td>
</tr>
<tr>
<td>Youtube</td>
</tr>
<tr>
<td>Other Social Media</td>
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<tr>
<td>SD card</td>
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<tr>
<td>Information Kiosk</td>
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<table>
<thead>
<tr>
<th>No of technical videos developed</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Technical contents (PoP)</td>
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</tr>
<tr>
<td>Success Stories of Farmers</td>
<td>60</td>
</tr>
<tr>
<td>Farmers Awareness videos</td>
<td>13</td>
</tr>
<tr>
<td>Other Educational Videos</td>
<td>100</td>
</tr>
</tbody>
</table>
No. of Youtube Subscribers : 2,34,000
No. of Views : > 2.25 Crore
Device used : Mobile (98 %)
Country : India (87%)
Videos through SD cards: An approach to tackle internet issues

- Offline
- Cost effective
- Reaching interior areas
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

- Weather (DKMS)
- Crop Establishment
- Pest & Disease
- KCC

Advisory synthesis
- Crop & Location
- BAU Digital library

Advisory dissemination
- Text SMS
- Voice SMS

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
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....