

Week-06-L-01

ICT & Digital Applications

Digital Tools

Dr. Amandeep Singh
Imaging Laboratory
Indian Institute of Technology Kanpur



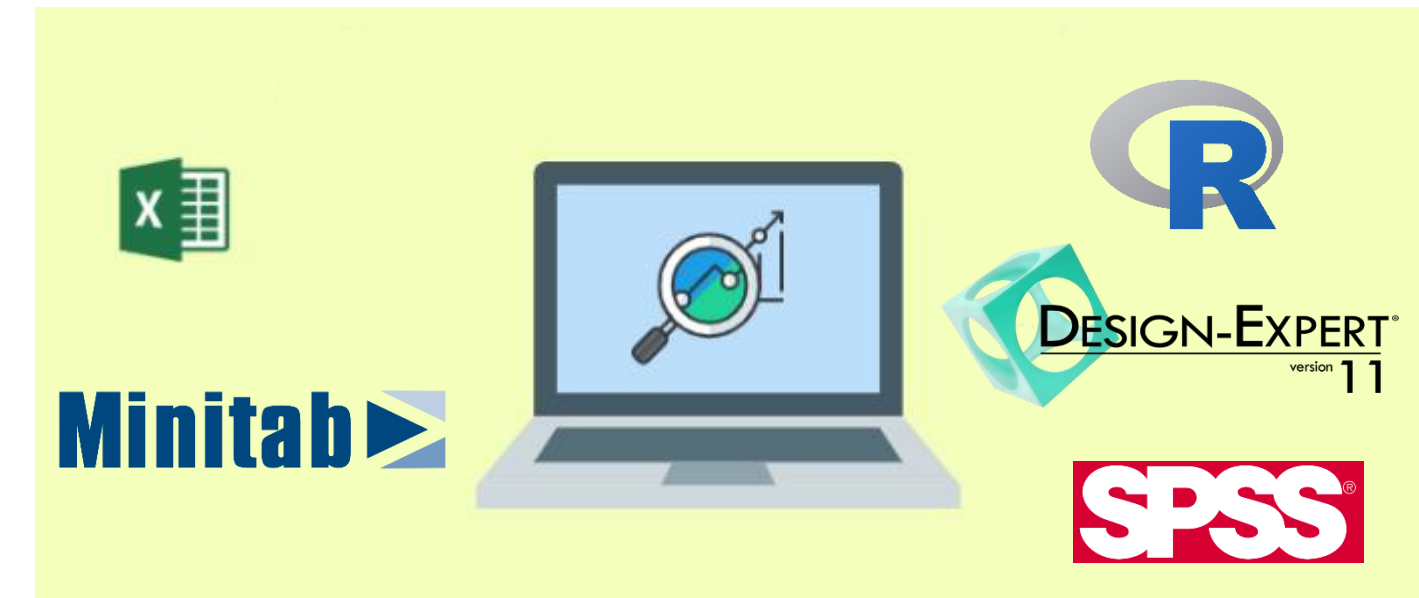
Digital Tools



GUT

- Why do we need them?
 - > Efficient, reliable, more data proof, & improvements help in making them error free.
 - > Using these tools helps us to create and execute analytic processes in a smarter, & more informed manner. *Reduces the cost and time*

- How do you choose them?
 - > Look at your requirements.
 - > Software should offer support for visualizations
 - > Software should be able to model data, if required



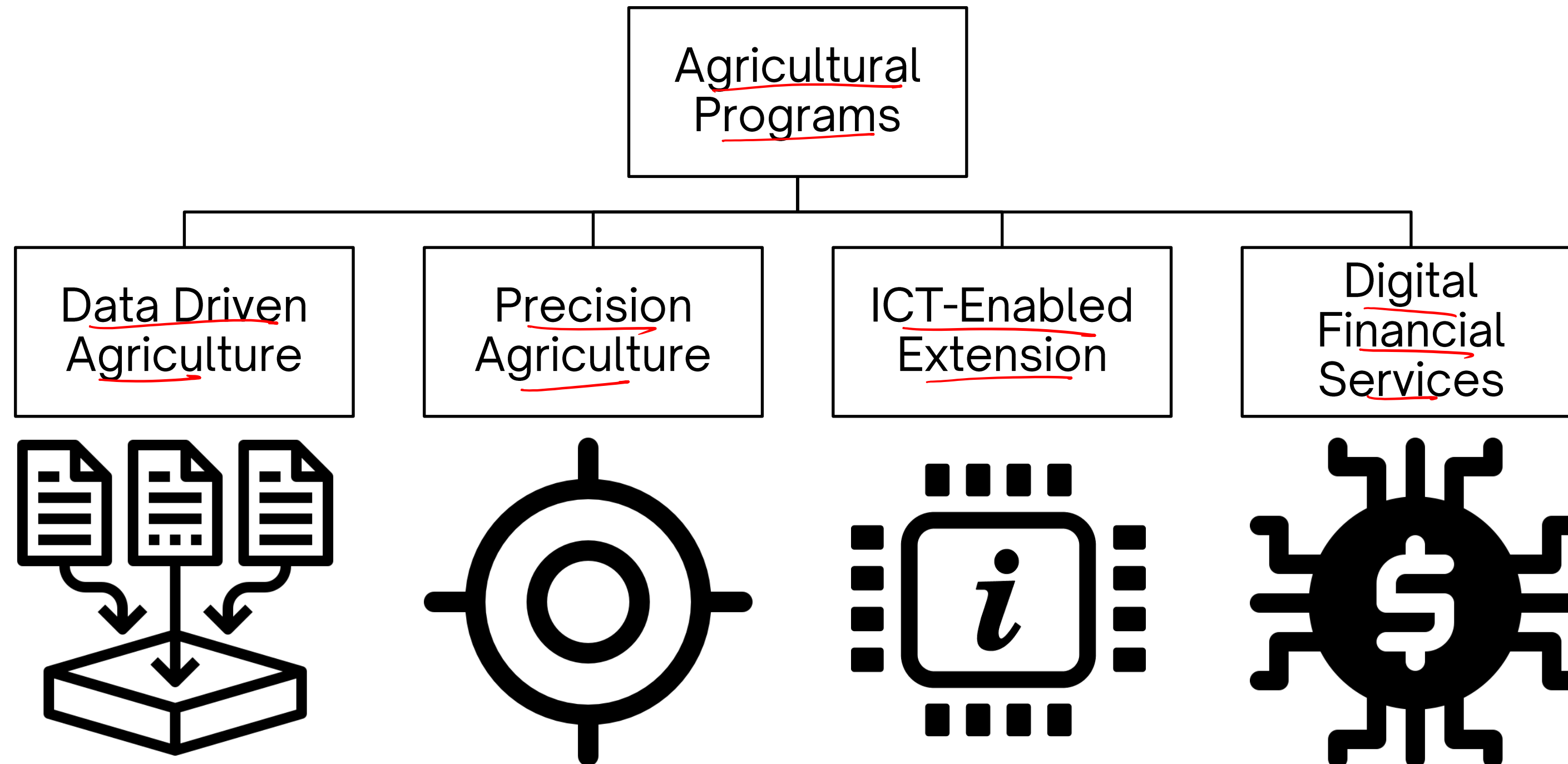
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Types



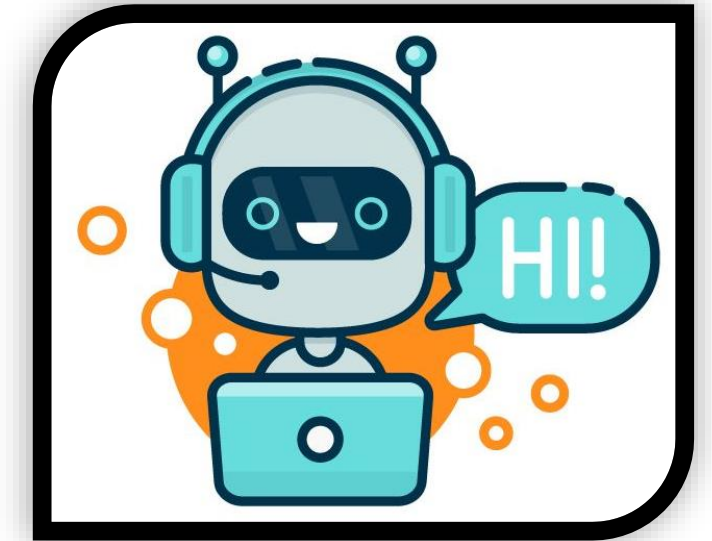
- There are 4 major types of digital tools available for use.



Data Driven Agriculture



- Tools utilizing smartphone technologies like-
voice assistant, SMS, Interactive Voice
Recognition (IVR), chatbots – have introduced
new opportunities to reduce the time, cost,
uncertainty and risk in gathering data and
feedback.



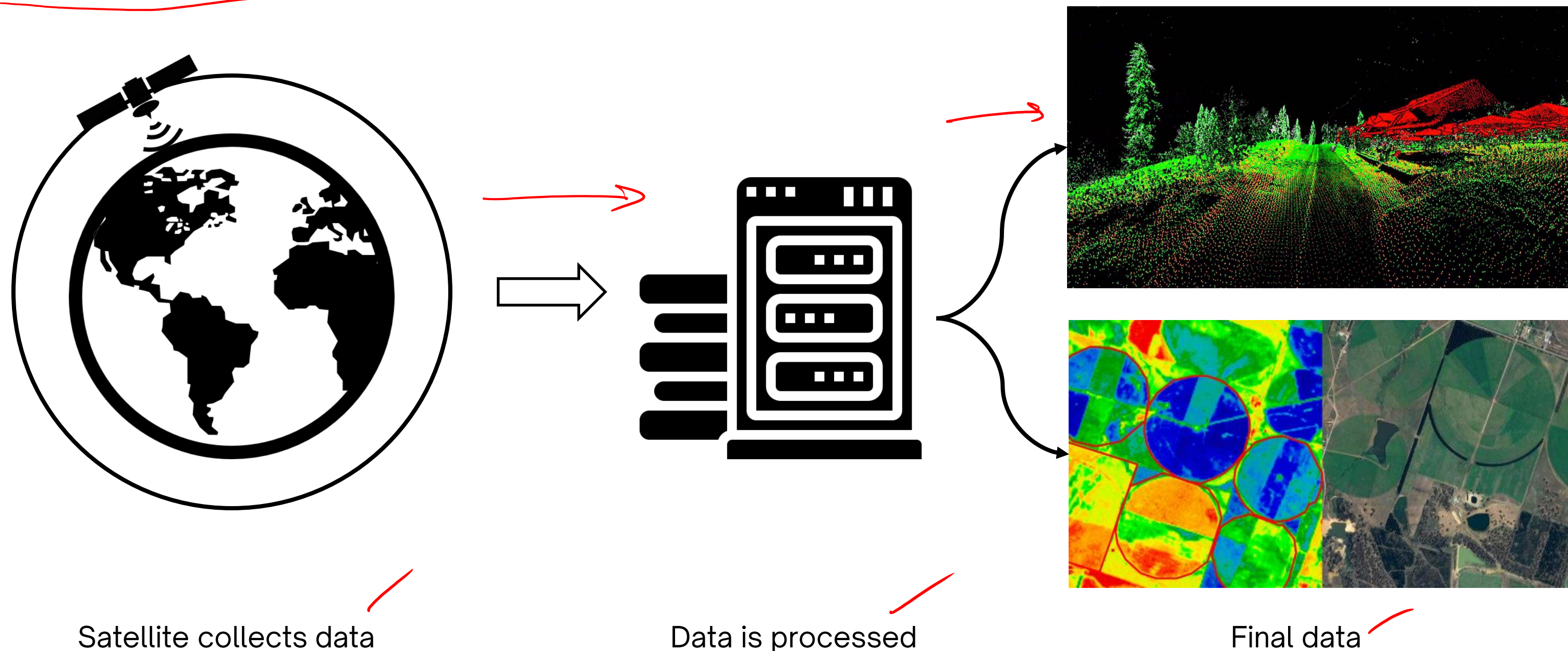
- A Philippine Climate Change
Adaptation Strategy

- Big data for climate smart agriculture

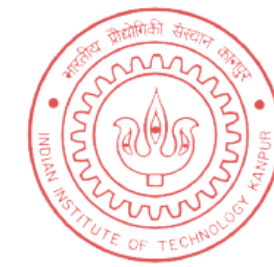
Precision Agriculture



- Geospatial analysis is the gathering, display, and manipulation of imagery, GPS, satellite photography and historical data, described explicitly in terms of geographic coordinates or implicitly, in terms of a street address, postal code, or other identifier as they are applied to geographic models.

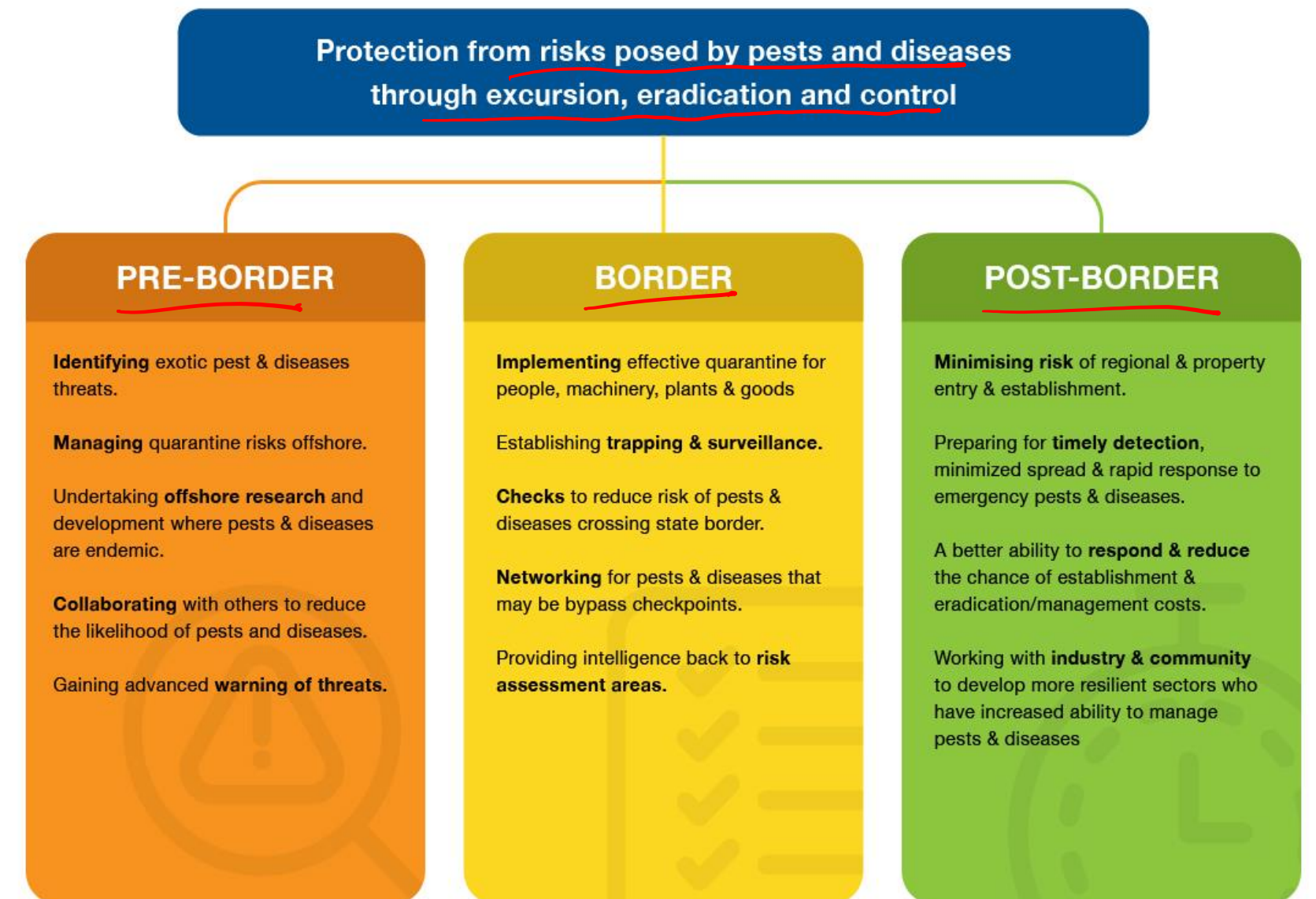
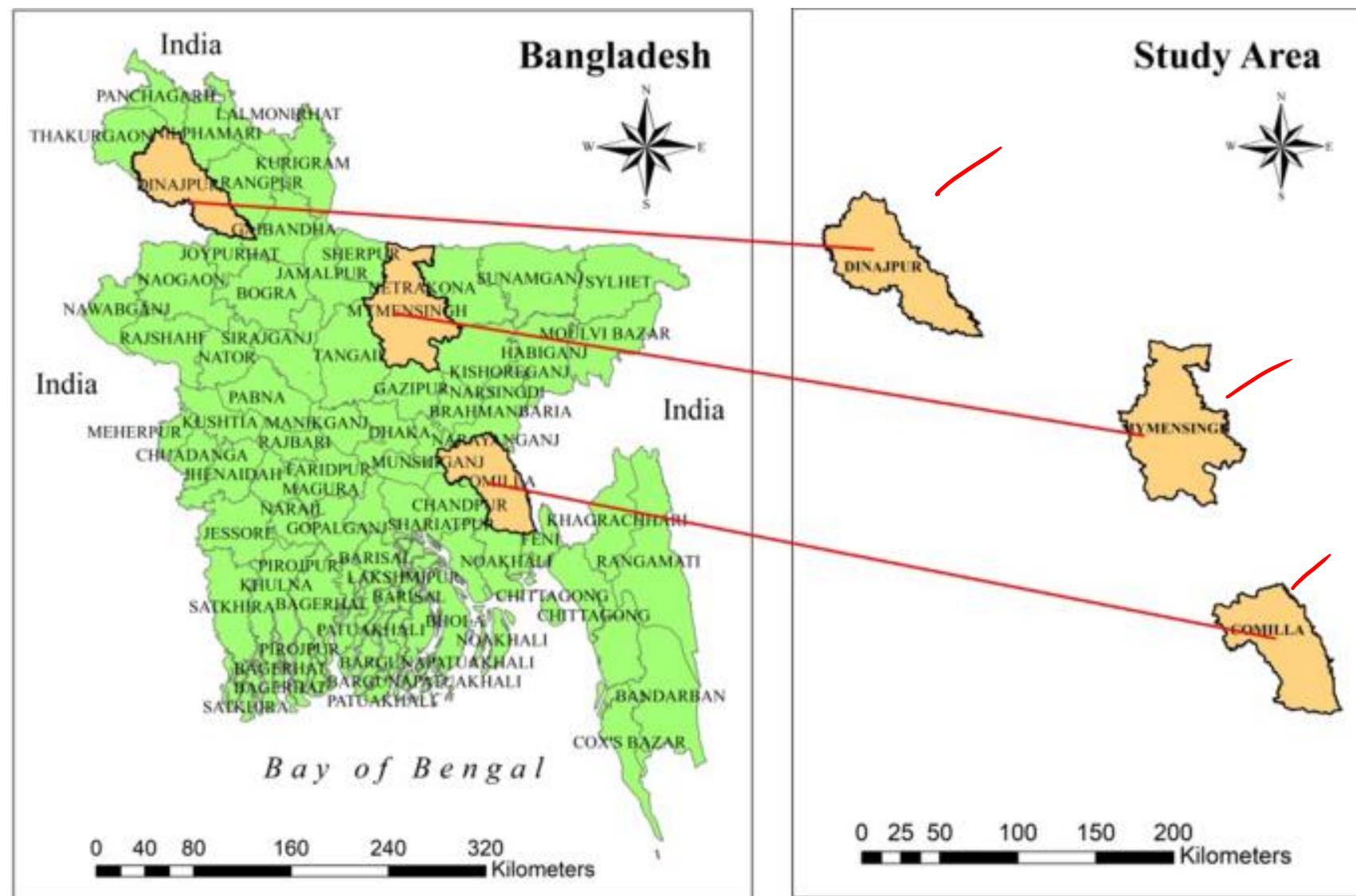


Examples



- Bangladesh Livelihood Map:

- PREMPT: Pest Risk Mapping and Establishment Tool



Source:

www.link.springer.com

Source:

www.aanzfta.asean.org

ICT-Enabled Extension



- ICT-enabled Extension is information delivery via digital channels (including SMS, Interactive Voice Response (IVR), interactive radio, low cost video) allows extension workers (or other information delivery providers) to reach more farmers and provide more timely reminders and alerts, helping to prompt behavior change and enhanced ways of learning for farmers and value chain actors.



Source:

www.shutterstock.com

Examples

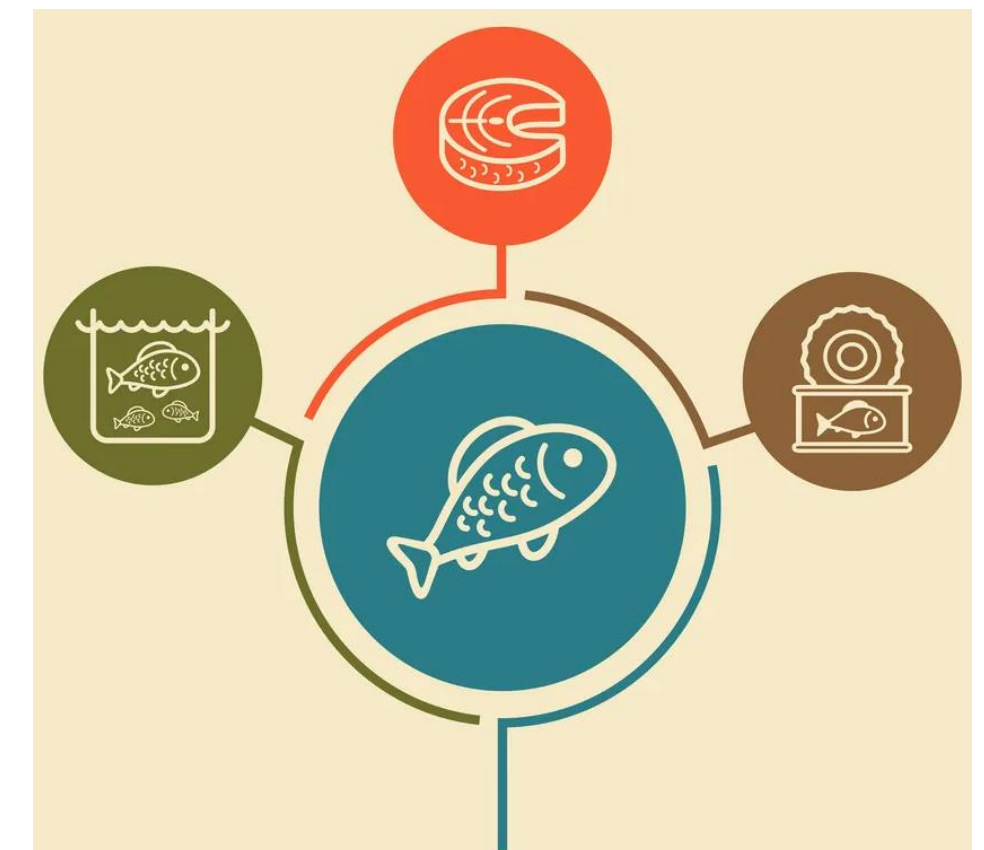


- Harnessing ICT to Increase Agricultural Production:
Evidence from Kenya

↑ 12% Yield
↓ 21% Fertilizers



- Partnering with Indonesia on Mobile Extension Services for Improved Regional Fish Farming



Digital Financial Services



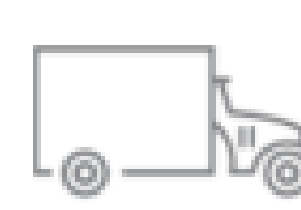
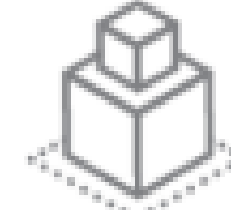
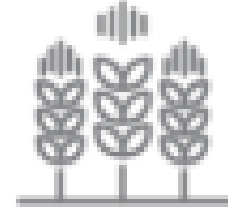
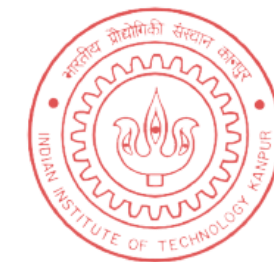
- Digital finance services (DFS) are inclusive electronic payments, such as mobile money, that reduce costs and increase transparency, helping to combat poverty and improve public financial management.
- Increased use of the existing systems and technical assistance to strengthen the supply, demand, and regulatory and policy frameworks contributes to the development of robust digital finance ecosystems in targeted developing countries.

Pradhan Mantri Fasal Bima Yojana

**PRADHAN
MANTRI KISAN
SAMMAN NIDHI
YOJANA
(PM KISAN)**

**Pradhanmantri
Kisan Mandhan
Yojana (PMKMY)**

Benefits of these tools



PLANNING

- Help farmers plan what, when to plant
- Tighten relationship with buyers, processors
- Adapt to climate change
- Provide data for farmers to make business decisions on cash flow and maximizing profit

INPUTS

- Reduce counterfeits
- Reduce costs and risks for buyers
- Increase access to quality inputs
- Enable sellers to know demand in advance
- Provide convenient and secure ways for farmers to purchase, save, and receive credit inputs

ON-FARM PRODUCTION

- Help extension services reach more farmers
- Provide timely reminders/alerts
- Use behavior change media to promote best practices among farmers
- Increase precision and/or adaptability of farming interventions and crop choices through applied data

Storage

- Improve links between farmers, processors
- Reduce post harvest loss with digitally-enabled harvest loans and digitally warehouse receipts
- Inform harvest practices to reduce post harvest losses.
- Monitor storage conditions

POST-HARVEST Processing

- Increase farmer negotiating power by providing market prices
- Track provenance for supply chain optimization and grading

Transport

- Reduce costs of transport
- Increase choice of different types of transport for farmers
- Increase access to timely information so that farmers know if and when transport is arriving

ACCESS TO MARKETS

- Increase ability of smallholder farmers to sell to larger markets by allowing buyers to track crops to source (certification and provenance)
- Increase market information available to farmers so that they have more choices

Thank You

