



**CSAM**

Centre for Sustainable  
Agricultural Mechanization

# AI Opportunities for Data Driven Rice

## Production

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# AI APPLICATION FOR RICE PRODUCTION

**1 LAND PREPARATION**

- Land Leveling Index
- Variable Rate Seeding

**2 WATER MANAGEMENT**

- Water Gate Management
- Water Quality
- Water Level

**3 NUTRIENT MANAGEMENT**

- Fertilizer Application

**4 CROP MONITORING**

- Pest and Disease
- Climate Change

**5 HARVEST AND POST HARVEST MANAGEMENT**

- Yield Monitoring
- Yield Prediction

**6 LOGISTICS AND MARKETING**

- Rice Milling
- Stock tracking
- Fleet Management

**7 BIG DATA**

- Data Analysis
- Cloud Computing
- Artificial Intelligence (AI)



# Challenges



## Education

Level of education and willingness to accept technology



## Success Stories

Lack of success stories of AI application in agriculture



## Useful DSS

Lack of localized model for meaningful DSS validation



## Affordability

Perception of high cost and long ROI



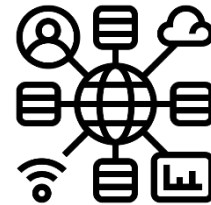
## Security

Data security issues among all stakeholders



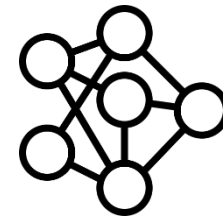
## Cooperation

Lack of coordinated cooperation among stakeholders



## Data/Information

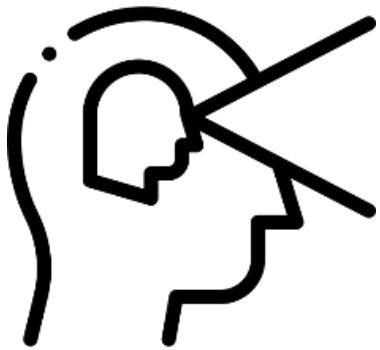
No centralized data platform.  
Lack of high quality data



## Connectivity

High speed connectivity in farming areas, needed for large sensor network

# Role of CSAM



## Awareness

Spread awareness on impact and benefit of AI



## Facilitation

Facilitate collaboration between member countries



## Standard

Standardized protocol for data sharing and processing

# THANK YOU



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