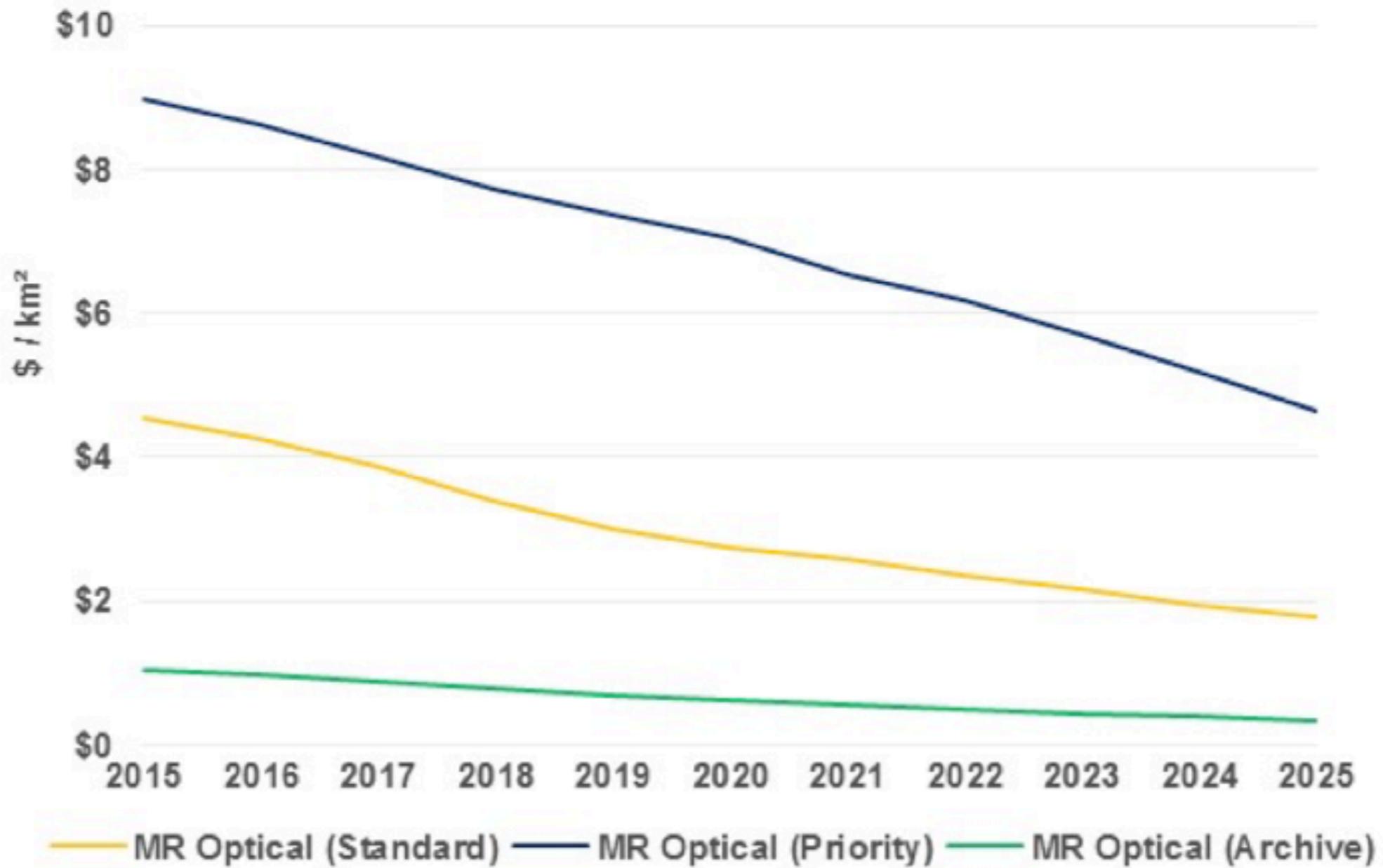


**Providing satellite-  
powered data analytics to  
empower lives of farmers**

**Narayan Prasad**

# Key supply factor

## Medium Resolution Optical Data Cost



Source: NSR

# Case Study: Farm Sector in India

- 67 percent of India's farmland being held by the marginal farmers with holdings below one hectare
- Over 12,000 suicides/year were reported in the agricultural sector of India
- Crop insurance claims in India are likely to touch Rs 13,000 crore (~\$2b) in the 2016-17 crop year
  - About Rs 15,891 (~\$2.4b) crore premium is estimated to have been collected by the 11 empanelled insurance companies who sold crop insurance policy to the farmers in both kharif (summer) and rabi (winter) season during the 2016-17 crop year.

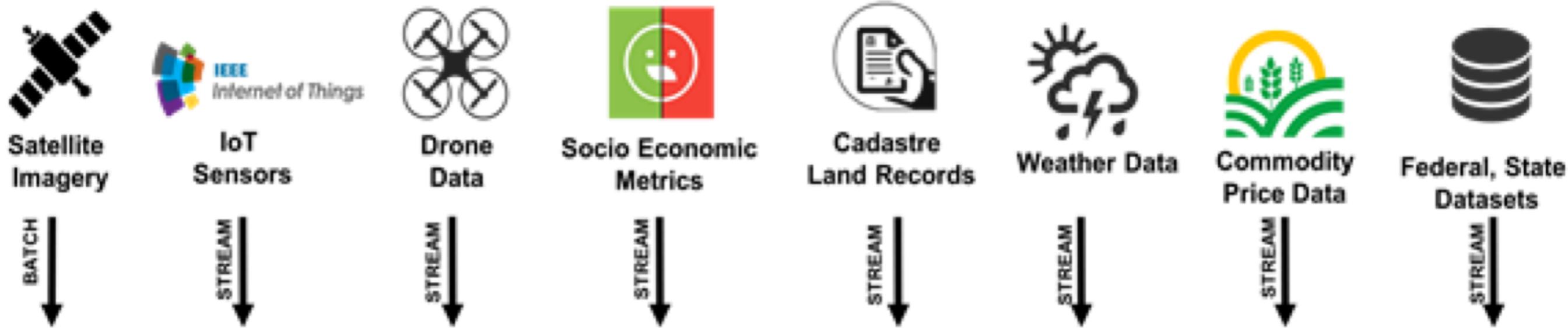
# Challenges

- Debt burden
- Lack of access to scientific agricultural practices
- Dwindling farm holding sizes
- Institutional apathy access to markets.
- Lack of proper insurance market
  - unfocalized insurance index
  - fair insurance premiums are not triggered at the time of need.

# Challenges

- Depleting groundwater resources
- Climate change – increase in the frequency of extreme events like droughts, floods
- Lack of fair and timely compensation for losses incurred
- Lack of transparency in fixing the fair price for the produce
- Difficulty in accessing credit through organized banking sector

# Data Sources

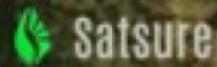


## DATA SYNCHRONISATION MIDDLEWARE

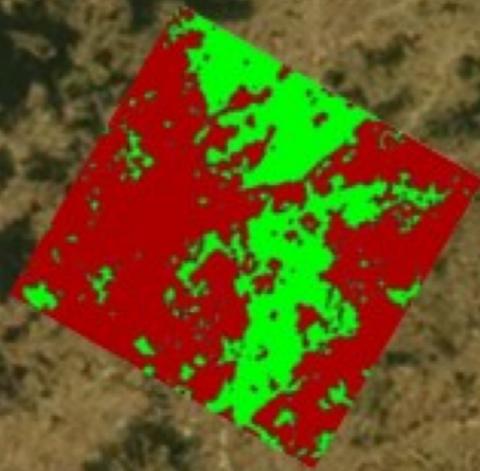


# SatSure's Geospatial Analytics Platform

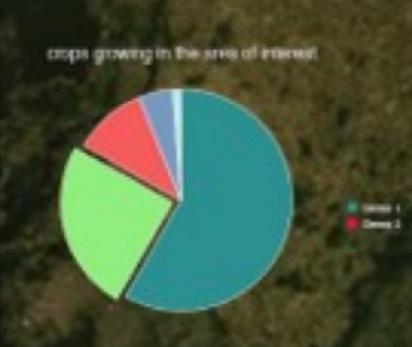
# Decision Makers Interface



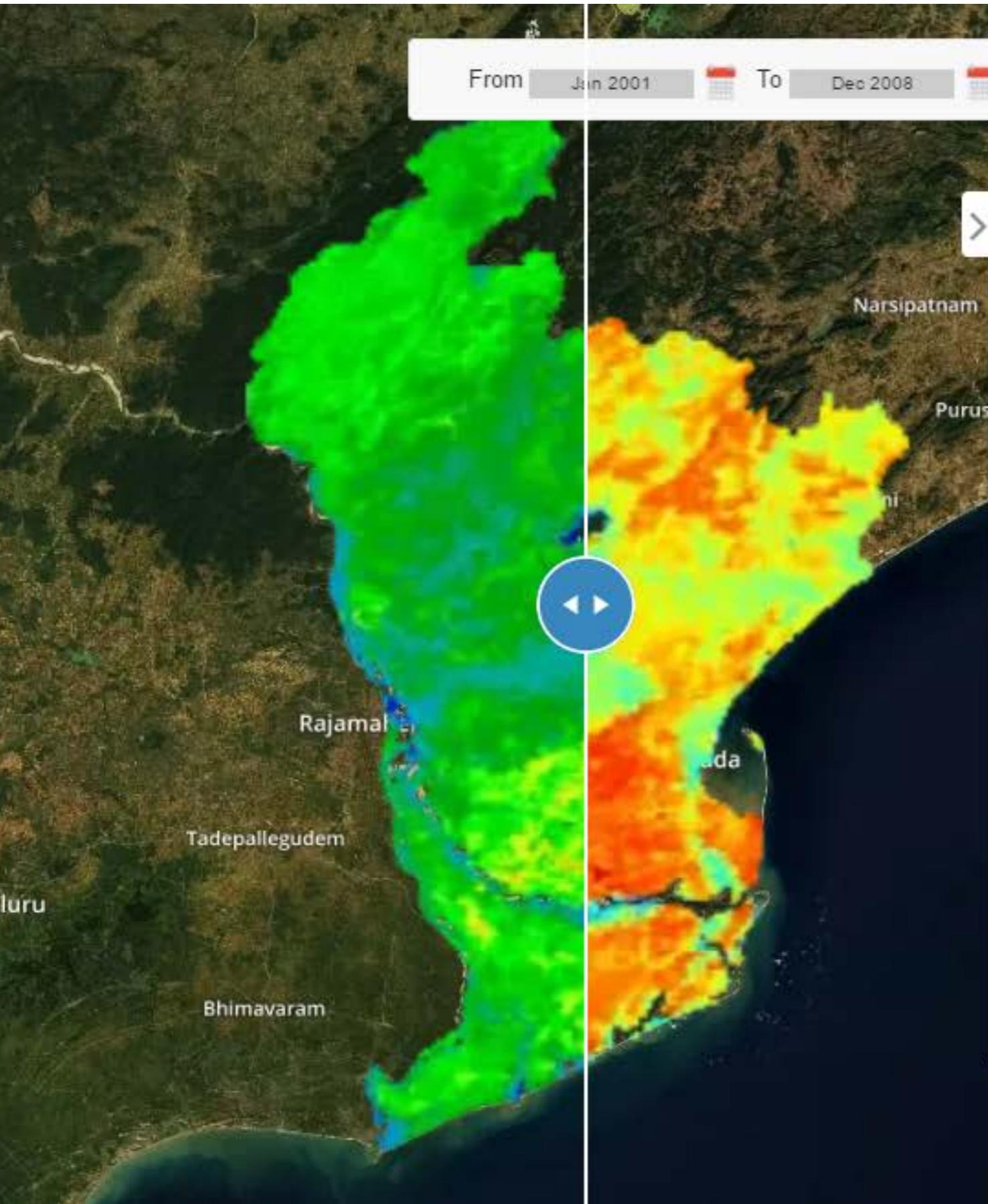
Visualization ● From Jan 2012 To Jan 2017 Andhra Pradesh Anantapura Process Reset S



Agriculture	Supporting Data	Weather
 Poor Average Good	 Poor Average Good	<input checked="" type="checkbox"/> Crop Yield Index
 Poor Average Good	 Poor Average Good	<input checked="" type="checkbox"/> EVI
 Poor Average Good	 Poor Average Good	<input checked="" type="checkbox"/> NDVI
 Poor Average Good	 Poor Average Good	<input type="checkbox"/> DEMO
 Poor Average Good	 Poor Average Good	<input type="checkbox"/> DEMO



Timeline navigation: Jan 2012, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec, Jan 2013, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec, Jan 2014, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec, Jan 2015, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec, Jan 2016, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec, Jan 2017. 3 Years



From  To      g

**Agriculture** | Supporting Data | Weather

**NDVI**

**Crop Yield Index**

**EVI**

Month wise trends

^ Show Less

From  Jan 2016

To  Jan 2016



Andra Pradesh 

Anantapura 

Process 



Agriculture

Supporting Data

Weather



IOT



FIN



LAND - USE

 Sensor ID

Time Range



 Show Less

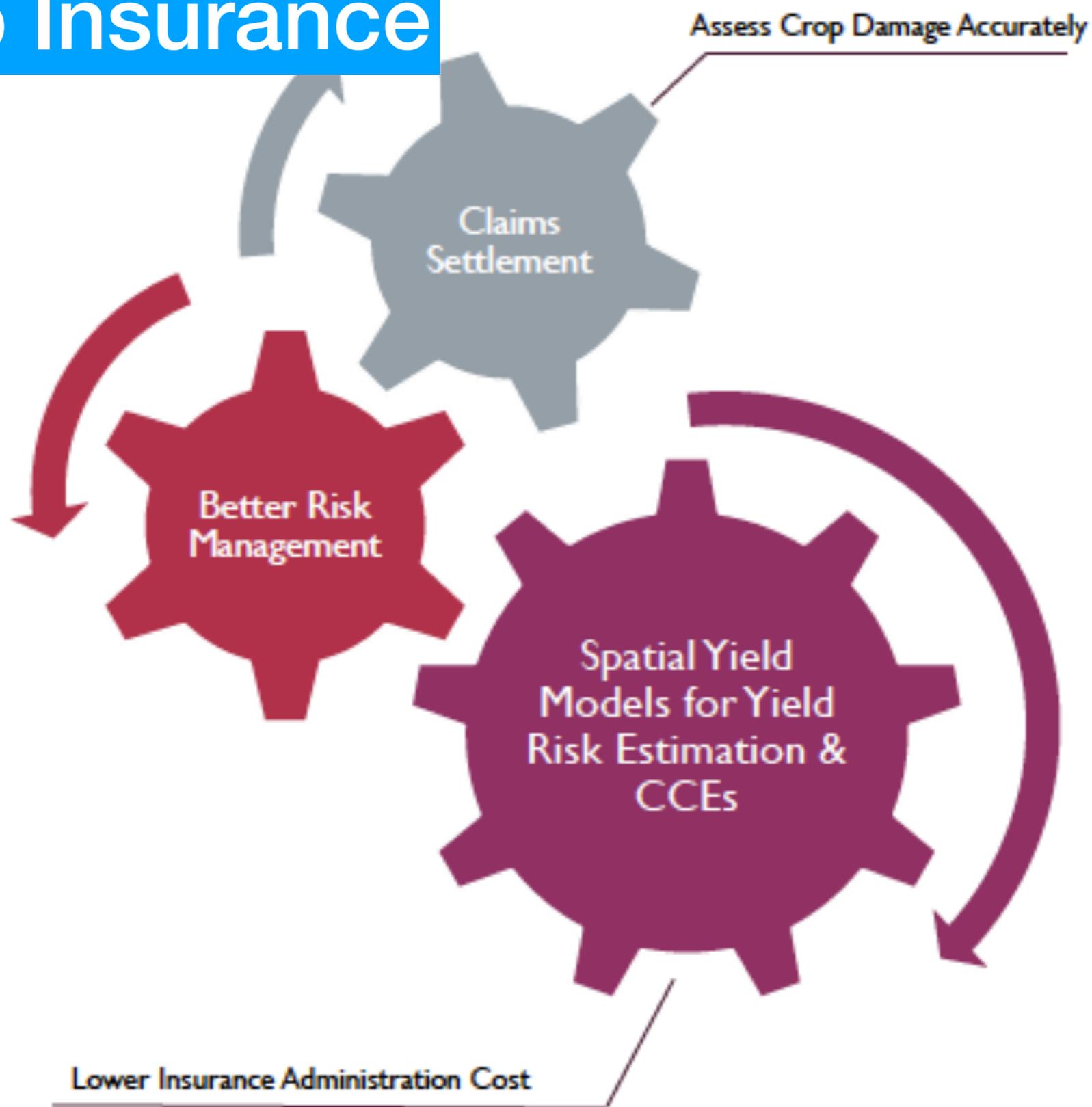
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PRESSURE : 91446.5 Pa  
MOISTURE : 14 VWC  
AMB TEMP : 26 C  
SOIL TEMP : 26 C  
HUMIDITY : 87 %  
LIGHT : 0 lux  
WIND SPEED : 0 kmph  
WIND DIRECTION : 0  
LATTITUDE : 18.3085  
LONGITUDE : 83.8940  
UPDATED TIME : 2017-02-22 00:50:23

1234

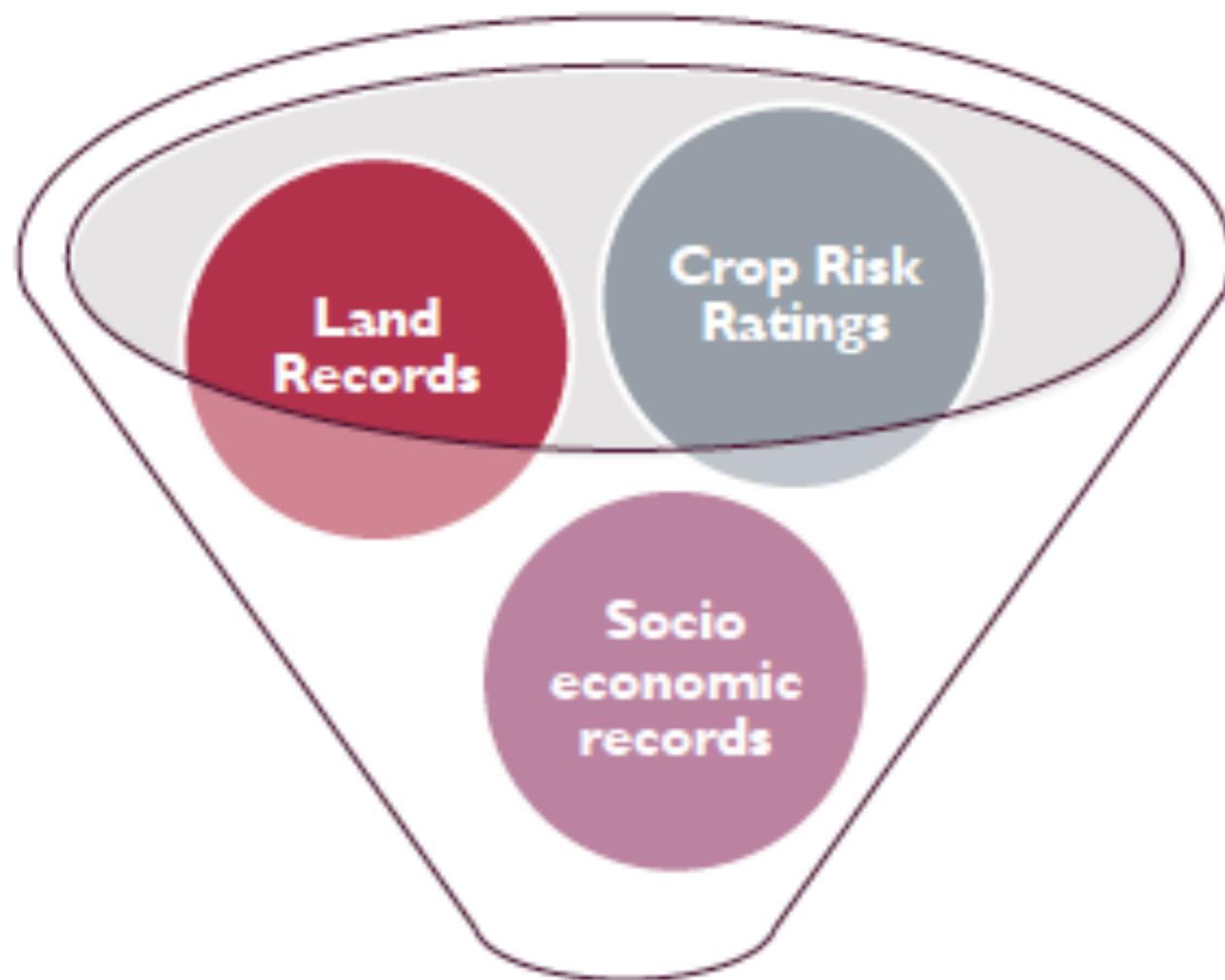


Edit

# Crop Insurance



# Banking Services



Source: InGreens

**Private Blockchain Record Storage**



# Policy & Decision Making

## Policy & Decision Making

Drought Monitoring

Watershed  
Monitoring

Crop Yield Estimates

Crop Harvest  
Volatility  
Monitoring

Climate change &  
Food Security

Vegetation  
monitoring

Irrigation  
Management

Manage  
surface water  
bodies

Decrease  
Operational costs

Crop Risk  
Management for  
Insurance

Improve agri -  
commodity  
markets

Early adaptation  
to Weather  
shocks

**Thank You!**