Providing satellite-powered data analytics to empower lives of farmers

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Key supply factor
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

- Satellite Imagery
- IoT Sensors
- Drone Data
- Socio Economic Metrics
- Cadastre Land Records
- Weather Data
- Commodity Price Data
- Federal, State Datasets

Data Synchronisation Middleware

- Data Ingest: Gathine
- Data Store

- Analytics: VEGA

Deep Learning:

Reporting:

SatSure’s Geospatial Analytics Platform
Decision Makers Interface
Crop Insurance

Assess Crop Damage Accurately

Claims Settlement

Better Risk Management

Spatial Yield Models for Yield Risk Estimation & CCEs

Lower Insurance Administration Cost
Banking Services

- Land Records
- Crop Risk Ratings
- Socio-economic records

Private Blockchain Record Storage

Source: InGreens
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!