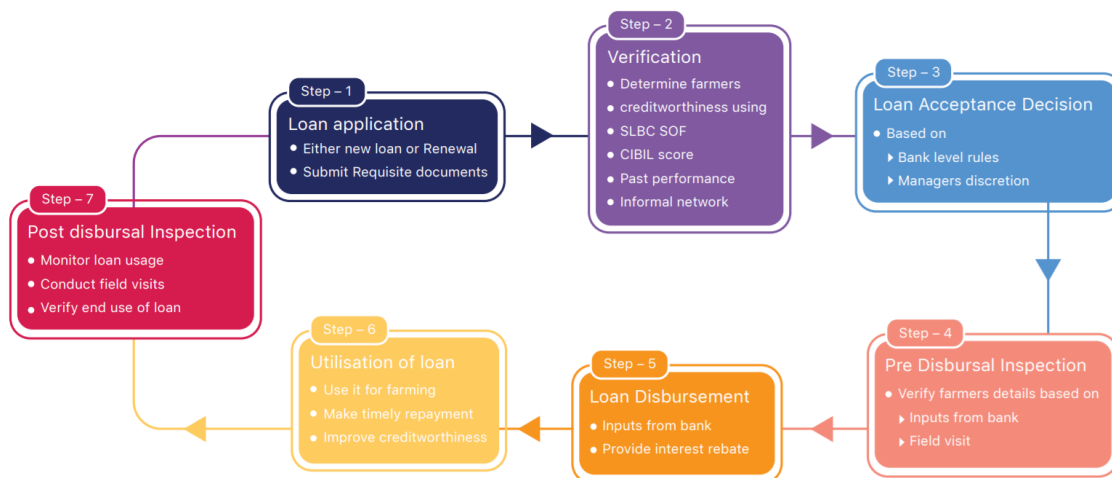


Satellites and AI for Agriculture Lending: SatSure SAGE

Driving Financial Inclusion of Farmers in Asia

Majority of the population in South and South-east Asia depend on agriculture and allied activities as a direct source of income. A major characteristic of agriculture in this region is small land holdings and high cropping diversity. These small and marginal landholders need access to liquidity every season to continue their agricultural practice. However, they face problems proving their creditworthiness and are in remote locations that are not easily accessible, leading to borrowing money from local money lenders, relatives, and friends. Banks, MFIs and NBFCs on the other hand, have limited access to accurate data about regional agricultural performance history, farm level history, and weather at a granular level leading to agriculture lending being seen as a high-risk business. And because of the efficiency of business operations in agriculture lending being low; loan rejections, high-interest rate products, and low penetration in rural areas is the state of the market today.

SatSure: Turning the table around using Satellites and Artificial Intelligence

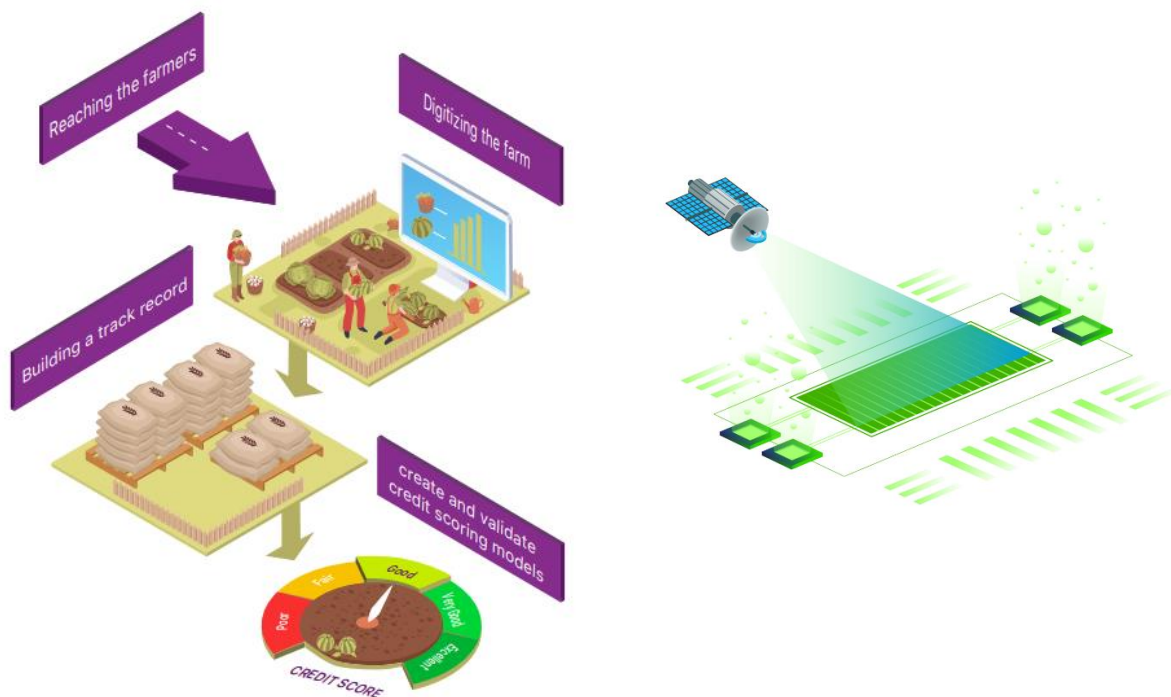


Globally, Banks and MFIs follow a traditional process for loan lifecycle management. Adoption of any technology in lending will only happen if the advanced technology interventions are easy to integrate into the existing processes without causing major operational and business change management in the organisation. SatSure’s solution, spanning the entire loan lifecycle does just that, by helping banks re-engineer their existing business processes to create a risk integrated data and information flow system which enables data driven decision-making capability across the organisation, from top management to the last mile field staff.

Satellite imagery analytics can map the entire crop life cycle by monitoring crop health, soil moisture using satellites, and weather data. This helps the bankers to determine and analyse cropped acreage, yield predictions, availability of ground and surface water and price movements. It can cut short the existing crop loan process and drastically improve its overall efficiency. SatSure can regularly monitor the performance up to even a farm that is less than a hectare. This reduces the requirement of regular customer visits, decreasing the loan life

cycle management cost to the bank. This also helps the bankers to assess if the loan proceeds are only being used for farming.

Satellite analytics helps in sourcing of farmer customers more transparently and efficiently. It can help a banker to expand his portfolio through better micro-market planning by lending in areas that have shown improved performance in the recent past. This process would reward those farmers who have been working hard and applying better land management practices that lead to better utilisation of the land. This also gives confidence to the banker to expand his loan portfolio in a way that does not lead to increased risk. And a historical farm report can be generated upon the farm digitization, which provides indication to the loan officer on the historical cropping pattern and water availability.



Further, due to constant monitoring, the bankers could well understand the trend of the market price and harvesting windows in advance. This information helps in planning for loan recoveries due to the lead time provided by the predictive farm level analytics. As satellite gives a clear and accurate picture of what happened in a given land, the loan recovery officers could argue with facts and achieve higher recollection. In case of loss at the farm due to environmental factors, the banker being equipped with a better understanding of the reality, can be more empathetic to the situation and find a better solution that involves cooperation on both sides.

About SatSure

[SatSure](#) is an innovative decision analytics company with its offices in Bangalore (India), St. Gallen (Switzerland), London (UK), and Sydney (Australia). SatSure, leverages advances in satellite remote sensing, machine learning, cloud computing and Big Data analytics to provide answers to large-area questions, with agriculture, forestry, and renewables being the key sectors of focus. SatSure's platform SPARTA enables combining of satellite imagery with weather, IoT, social and economic datasets, among many others to generate timely, location specific decision insights.

