

# Agriculture Information Management System (AIMS)

Improving Sustainability and Profitability in Agriculture through Digitization

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The objective of the Department of Agricultural Development and Farmers Welfare was to digitize the entire Agriculture Department in order to provide farmers with online access. This initiative led to the creation of the Agriculture Information Management System (AIMS) portal, which offers farmers an all-comprehensive platform to access all departmental services such as scheme-based services, advisory services,

AIMS is an integrated digital platform, providing single window for farmers to avail different types of departmental services easily without visiting Krishi Bhavans. Declaration of land parcels and crops being cultivated by the farmer can be done online in AIMS for availing benefits under various services offered by the Government. The portal also provides support to department to deliver services to farmers more efficiently by paper-less application processing and utilizing the configurable work flow engine of the system. AIMS has been architected as an one stop solution for digitizing 400+ services offered by the Government of Kerala to farmers in the state.

certificate services, disease reporting, grievance redressal, and data collection services from field offices. Through personalized dashboards on the portal, farmers can monitor and update their cultivation progress, and directly raise any grievances or queries. As of now, AIMS portal has registered over 41 lakh farmers across all Krishi Bhavans in the state, with more than 30,000 registered groups and over 500 registered institutions.

Major services offered through the portal are:

- Assistance for crop loss due to natural calamity
- Crop Insurance Policy: facilitates premium payment as well as issues policy certificate
- Insurance claim submission for compensation
- Royalty to owners of cultivable paddy land
- Base price as per Kerala Farm Fresh Fruits and Vegetable policy to manage market fluctuations
- Land verification for PM-KISAN beneficiaries using ReLIS (Revenue land Information System)
- International Technology Exposure Tour

## Features

- Bilingual farmer portal
- Mobile app for farmers and field officials
- Allows self-registration and declaration
- Online application submission & tracking
- End-to-end application processing
- Sets rules and conditions for identifying scheme beneficiaries
- Auto calculates assistance and benefits



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▲ Fig 8.1.: AIMS at glance

## Technologies Used

Key technologies used for the development of AIMS portal are

- Framework : Symfony
- Language : PHP
- Database : PostgreSQL
- Caching Server : Redis
- Version Controller : GIT
- Project Management : Redmine
- Media Storage : NAS

## Integration

AIMS is integrated with various applications using APIs. Some of the prominent applications are

- Treasury Information System for processing DBT claims and disbursement of payments
- NICDSign for digital signing
- eTreasury for ePayment
- NIC SMS for SMS gateway
- Service and Payroll Administrative Repository for Kerala (SPARK) for office onboarding

- ReLIS for verification of land Records
- India Meteorological Department for weather forecast and crop advisory
- PM-KISAN for building national database
- Jan Parichay for single-sign on

## Innovations Applied

AIMS Platform facilitates on-boarding of services seamlessly based on the individual service requirements by defining

- Service-wise activities and actions
- Dynamic interface design
- Eligibility Engine to define eligibility conditions
- Rule Engine for subsidy / assistance calculation
- Workflow Engine - service wise work flow management
- Service and user wise Instructions, declarations, guidelines
- Service calendar to make services available for selected Krishi bhavans for selected period
- Centralized and de-centralized DBT System integrated with Treasury

- Direct Benefit Transfer through PFMS
- ePayment configuration
- Define triggers to send SMS notification

## Key Benefits

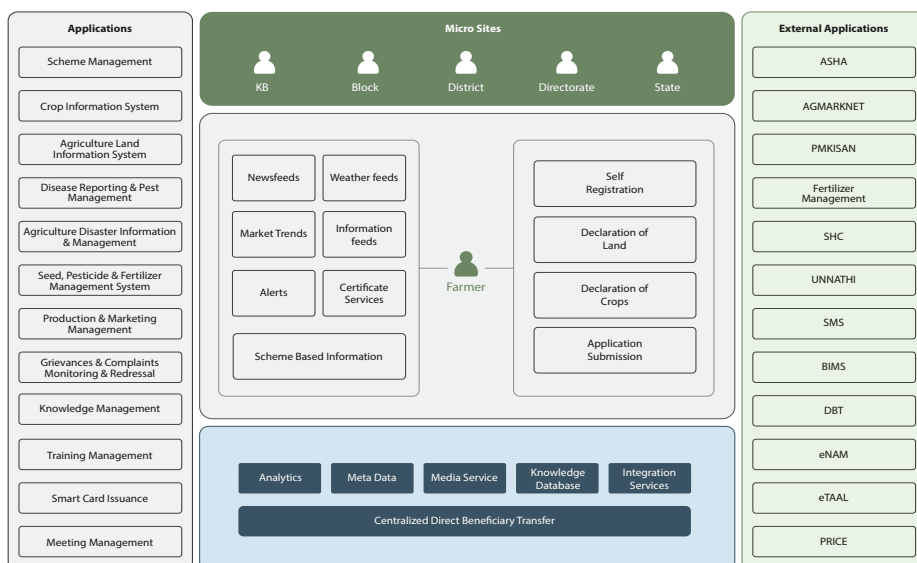
- Improves government service delivery
- Improves government interactions with farmers
- Citizen empowerment through access to information
- Creates digital record for all farmer interactions
- Increased efficiency transparency in administration

AIMS is an Integrated MIS developed for the Department to provide departmental services efficiently to farmers with the help of Information Technology. It is expected to be the most reliable and established platform which accommodates almost all the activities of the Department in a most user-friendly and effective mode. It has such an architecture that will satisfy the expectations and addresses the complexities and practical difficulties to a great extent.



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▼ Fig 8.2: AIMS Application Stack



So far AIMS has processed more than 43 Lakhs applications and around Rs. 224 crores has been disbursed to the farmers through DBT system.

## Way Forward

AIMS has a provision of Digital Media Library for the department to store and share multimedia content related to agricultural practices. This content will be available to the public and officials for the Subhiksha Keralam project. The system will have a 24/7 streaming facility for training and managing traffic. The library will be easily accessible and searchable with minimal delay for downloading and navigating offline content.

Contact for more details

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