



smartfarmer 

## Integrated solution for agricultural enterprises

**S**mart Farmer is an agriculture value chain connector, linking agricultural communities to value adding services through networks with markets, suppliers, service providers, other farmers and relevant government departments.

It achieves this through the provision of user friendly, efficient and flexible ICT-based services which cut across many functions and access channels. The value of Smart Farmer is in assisting farming communities and other stakeholders in doing things smarter, with transparency, accountability and efficiency, while driving profitability.

### What are the problems faced by farmers?

Agricultural communities currently face countless challenges that have a negative impact on their business. These are sometimes, but not limited to, inadequate access to extension services, weak direct networks with ecosystems, and limited real-time information on disease outbreaks and national, regional and international market prices.

Some of these challenges are more critical than others; the lack of insight and access to markets often results in revenue loss to unscrupulous middlemen who buy from dis-empowered producers and resell to markets at marginally higher prices. Furthermore, poor disease warning and related systems lead to loss of produce worth millions

every year. All these challenges are characterised by the common root of lack of access to crucial information on-the-go.

Smart Farmer tackles these problems through simple but sophisticated technologies which provide comprehensive and current information critical for the success of agricultural communities.

### How does Smart Farmer address these problems?

As a response to the problems faced by agricultural communities, Smart Farmer provides the following services:

- Peer-to-Peer communication for Farmer to Farmer Interaction
- Funder-to-Farmer Communication
- Government-to-Farmer Communication
- Price tracking and reporting
- Agricultural alert systems (sending and receiving)
- Commodities offer and bid facilitation
- Location services for service providers
- Production information systems e.g. Best practices, planning, etc
- e-Extension services

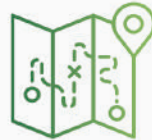
These services assist farmers throughout the production cycle – from planning to sale stages, whether locally, regionally or globally. Smart Farmer offers a new way through which information systems in agriculture are vastly improved.

# Smart Farmer Solution Modules



## Registration & data collection

Facilitates registration of farmers and their farms, and through geo-pinning of actual farm locations, forms the foundation for data collection



## Farmer tracking & support

Allows tracking of contract disbursements throughout the production cycle as well as offering support services on the go.



## Inputs registry & disbursements

Manages inputs allocations systematically, while dealing directly with Input suppliers



## Logistics Management

Provides visibility into movement of commodities from one place to another, relying on reputable logistics service providers



## Marketplace

Provides a market connecting buyers to sellers. It is segmented into two platforms: one for general trade, and another for GAP certified produce



## Agronomy services

An open knowledge base of diseases, pests and solutions, which allows contributions from farmers and other concerned partners



## Contract mgt with contract farmers

Provides contracts administration functions including real-time tracking and progress logging for each contract. Support is extended through this module to extension officers



## Yield forecast

Provides aggregate data across the platform, to give global estimations of the yield forecast and related information



## Insurance

Provides a platform for insurance cover for crops and animals against eligible factors. It manages season history for swift claims processes and using IoT and Big Data, allows Insurers to manage risks and set optimum premiums



## Reports

Provides comprehensive and flexible reports on key metrics such as funding analyses, crop yields, and land utilization, including built in analytics for viability evaluation and predictive analysis

## Underlying Technology

The Smart Farmer solution is developed using open source PhP technology which provides a platform for increased adaptability and openness. The platform enables effortless integration and interfacing of different systems and services into one holistic package. In addition, the technology allows for multi-channel access by various stakeholders onto the platform.

## Accessibility

Smart Farmer is modelled to provide easy access. From basic SMS systems to Internet connections, Smart Farmer is built to suit the needs of all farmers. Services can be accessed using basic mobile phones, smart phones, tablets, laptops and desktop computers through SMS, email and internet facilities. Access will be increased by Service Access Points such as kiosks in rural areas. It guarantees access on-the-go, in any place and at any time.

## Benefits

There are various benefits to be derived from using Smart Farmer. These include:-

- Increased agricultural production - Farmers benefit from the availability of information which directly impacts their

planning and production

- Improved capacity for planning - Because Smart Farmer provides government with real time information on aspects concerning the agricultural cycle, the technology increases capacity for more effective planning
- Improved profitability for farmers - Provides real-time information on prices and trends thereby assisting farmers to make calculated financial decisions
- Provision of early warning systems - Smart Farmer helps in protecting investments through early warning systems against factors such as crop and animal diseases
- Elimination of barriers to markets - Improves connection between farmers and markets eases trading
- Effective communication within the farming community (peer-to-peer) improves collaboration and information exchange
- Access to technical support on-the-go - Smart Farmer facilitates access to extension services electronically, thereby improving turnaround times and support
- Improved knowledge management
- GIS mapping
- Cashflow analysis
- Contract Management
- Loan management for contractor
- Production tracking