



# Overview of G4AW projects



**G4AW**

GEODATA FOR AGRICULTURE AND WATER

Netherlands  
**Space**  
Office



Ministry of Foreign Affairs of the  
Netherlands

# G4AW projects

## Africa

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Burkina Faso	<b>MODHEM, Mobile Data for Moving Herd Management and better incomes</b>
Ethiopia	<b>CommonSense</b>
Ethiopia	<b>GIACIS, Geodata for Innovative Agricultural Credit Insurance Schemes</b>
Kenya	<b>CropMon, Crop Monitoring Service Kenya</b>
Kenya/Tanzania	<b>Geodatics, Geodata for smallholder farmers in Kenya and Tanzania</b>
Mali	<b>STAMP, Sustainable Technology Adaptation for Mali's Pastoralists</b>
Mali/Uganda	<b>SUM Africa, Scaling Up Micro-insurance in Africa</b>
South Africa	<b>R4A, Rain for Africa</b>
Tanzania	<b>SIKIA, SAGCOT integrated Knowledge and Information for Agriculture</b>
Uganda	<b>MUIIS, Market-led, User-owned, ICT4Ag-enabled Information Service</b>

## Asia

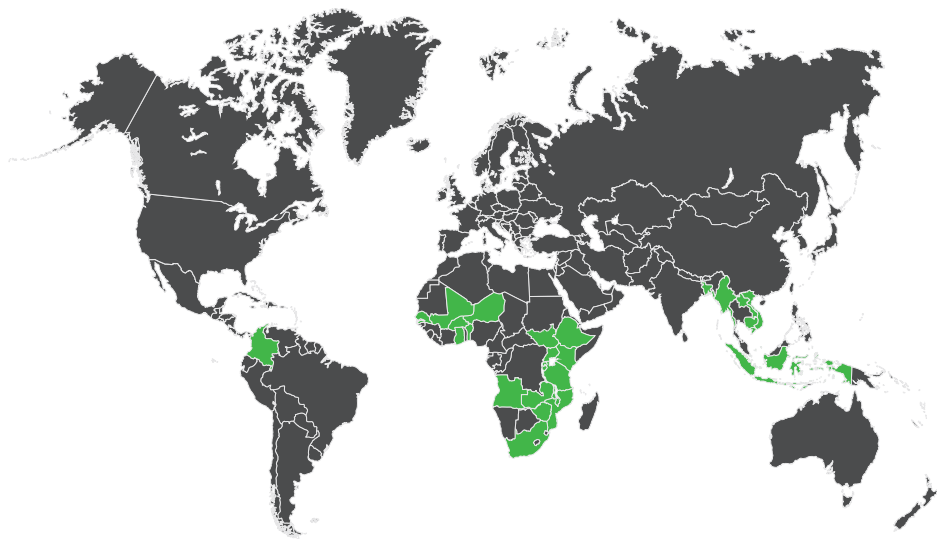
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Bangladesh	<b>GEOBIS, Geodata based information services for small farmers</b>
Bangladesh	<b>GEPOTATO, Geo data to control late blight fungal disease in potato</b>
Bangladesh	<b>IDDS, Farmer's Intelligent Farmer Decision Support System</b>
Indonesia	<b>G4INDO, Geodata for upgrading smallholders' farming systems in Indonesia</b>
Indonesia	<b>SMARTseeds, G4AW Information Services for sustainable vegetable farm management</b>
Vietnam	<b>Sat4Rice, Geodata for Agriculture &amp; Water in Mekong Delta</b>
Vietnam	<b>GREENcoffee Vietnam, Information services for sustainable coffee farm management</b>

# Overview of G4AW projects per country

Country	Project	Target group	Call	Project Start
Bangladesh	GEOBIS	Potato, rice, vegetable	2	2015
Bangladesh	GEOPOTATO	Potato	2	2015
Bangladesh	IDSS	Rice, vegetable	2	2015
Burkina Faso	MODHEM	Grass (pastoralist)	2	2016
Ethiopia	CommonSense	Sesame, Sorghum	1	2015
Ethiopia	GIACIS	Rain fed arable crops (insurance)	1	2014
Indonesia	G4INDO	Rice (insurance)	1	2014
Indonesia	SMARTseeds	Chilli, tomato, cucumber	2	2016
Kenya	CROPMON	Coffee, maize, grass, sorghum, cereals	2	2015
Kenya/Tanzania	GEODATICS	Maize, legume crops	2	2015
Mali	STAMP	Grass (pastoralist)	2	2015
Mali/Uganda	SUM Africa	Maize, millet, rice, sorghum (insurance)	1	2014
South Africa	R4A	Various	2	2015
Tanzania	SIKIA	Rice	2	2016
Uganda	MUISS	Maize, soya bean, sesame	2	2015
Vietnam	Sat4Rice	Rice	2	2015
Vietnam	GREENcoffee	Coffee	2	2016

## G4AW partner countries



## MODHEM, Mobile Data for Moving Herd Management and better incomes

**Country** Burkina Faso

**Lead partner and contact details** SNV Netherlands Development Organisation (Burkina Faso, Ouagadougou)  
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E clecome@snvworld.org

**Partners**

- Centre Agrhymet/CILSS (Niger)
- EcoData (BFA)
- Ministry of Animal Resources (BFA)
- Satelligence (NL)

**Target group** This project will reach 100,000 pastoralists directly and 200,000 farmers that see a reduction in field damage

**Short summary** This project will work to improve the food security situation of pastoralists and farmers' households. By using satellite data, the pastoralists and farmers will be informed on the best locations for pastures and water areas via their mobile phone. They will also have access to accurate information about weather forecasts and livestock market prices. Ecodata will inform the subscribers against a modest fee to a call centre and via text messages.

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## CommonSense

**Country** Ethiopia

**Lead partner and contact details** Stichting Dienst Landbouwkundig Onderzoek (Stichting DLO, NL)  
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**Partners**

- Apposit LLC (ETH)
- Facilitators for Change (ETH)
- Ministry of Agriculture (ETH)
- Airbus Defense and Space NL (NL)
- ExoTalent (ETH)
- ICCO/Terrafina Microfinance (NL)
- Busaa Gonofaa (ETH)
- SFPI Specialized Financial and Promotional Institution (ETH)
- Harbu Microfinance Institution (ETH)
- Weather Impact BV (NL)

**Target group** 200,000 farmers

**Short summary** The CommonSense project in Ethiopia targets smallholder farmers in four regions in the country, directly or through actors across their value chain including unions, cooperatives, and micro-finance institutions (MFIs). CommonSense will provide them with actionable information based on Earth Observations and geographic data through a platform of specialized information services including: management of (geospatial) data for unions and cooperatives, dedicated dashboards for monitoring current and future crop conditions including weather forecasts and satellite observations, and risk assessment based on historical satellite and weather data as well as crop suitability.

## GIACIS, Geodata for Innovative Agricultural Credit Insurance Schemes

<b>Country</b>	Ethiopia
<b>Lead partner and contact details</b>	University of Twente – Faculty ITC (NL) Mr. C.A.J.M. de Bie T +31 53 487 4362 E c.a.j.m.debie@utwente.nl
<b>Partners</b>	<ul style="list-style-type: none"><li>• Agricultural Transformation Agency – ATA (ETH)</li><li>• Kifiya Financial Technology PLC (ETH)</li><li>• National Meteorology Agency of Ethiopia – NMA (ETH)</li><li>• Swiss Re corporate solutions (CH)</li></ul>
<b>Target group</b>	1,6 million farmers
<b>Short summary</b>	In the Ethiopian highlands the poorest farmers use microcredit to buy seeds and fertilizer. One in three crops fail because of too much or too little water. The credit still has to be paid back which reduces the farmer and his family to poverty. GIACIS will offer 1.6 million farmers very affordable insurance based on satellite data, so that the credit will be refunded in case of a failed harvest.

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## CropMon, Crop Monitoring Service Kenya

<b>Country</b>	Kenya
<b>Lead partner and contact details</b>	SoilCares Research (NL) Ir. D. Marcelis T +31 6 310 14 930 E david.marcelis@soilcaresresearch.com
<b>Partners</b>	<ul style="list-style-type: none"><li>• Cereal Growers Association (KEN)</li><li>• Coffee Management Services (KEN)</li><li>• Equity Group Foundation (KEN)</li><li>• KALRO-Sugar Research Institute (KEN)</li><li>• SoilCares Ltd (KEN)</li><li>• Netherlands Geomatics &amp; Earth Observation, NEO (NL)</li><li>• Springg BV (NL)</li><li>• Weather Impact (NL)</li></ul>
<b>Target group</b>	150,000 farmers
<b>Short summary</b>	The objective of the project is to develop an affordable crop monitoring service that provides smallholder and medium-sized farmers in Kenya with location specific and timely information about the actual status of their crops. Additionally, possible causes for yield depressions are given and corrective measures to overcome this.

## Geodatics, Geodata for smallholder farmers in Kenya and Tanzania

<b>Country</b>	Kenya and Tanzania
<b>Lead partner and contact details</b>	ICS Foundation (NL) Mrs. M. Rijerse T +31 33 3030250 E marja.rijerse@ics.nl
<b>Partners</b>	<ul style="list-style-type: none"><li>• Agrics Ltd. (KEN)</li><li>• Agrics Tanzania (TNZ)</li><li>• Manobi Ltd (SEN)</li><li>• Biomass Research (NL)</li><li>• WUR- Plant Research International (NL)</li></ul>
<b>Target group</b>	208,500 smallholder farmers
<b>Short summary</b>	The service is offering farmers advice on the use of fertilizer and crop nutrient requirements. The provided services to smallholder farmers in Kenya and Tanzania use actual geodata for improving product yields and farmers income. The service gives actual and farm-specific information on crop nutrient requirements, availability and deficiencies; optimal timing of activities (land preparation, planting, fertilising, harvesting and post-harvest management); market opportunities and product prices on local and regional markets.

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## STAMP, Sustainable Technology Adaptation for Mali's Pastoralists

<b>Country</b>	Mali
<b>Lead partner and contact details</b>	SNV Netherlands Development Organisation (Mali, Bamako) Catherine le Come T +00 223 20 23 33 47 / M +00 223 76 40 80 11 E clecome@snvworld.org
<b>Partners</b>	<ul style="list-style-type: none"><li>• Action Against Hunger (SPAIN)</li><li>• Institut d'Economie Rurale (MLI)</li><li>• Orange Mali (MLI)</li><li>• Tassaght (MLI)</li><li>• Project Concern International (USA)</li><li>• Hoefsloot Spatial Solutions (NL)</li></ul>
<b>Target group</b>	75,000 active agro-pastoralist users 375,000 beneficiaries (based on households of 5 persons)
<b>Short summary</b>	The project aim is to improve resilience among climate affected pastoralists, through access to and use of geo-satellite derived data. This will result in an information service tailor-made to pastoralists' information and decision making needs, giving them more predictability for their movements. The information service will provide pastoralists with instant access to reliable information on biomass availability and quality, surface water availability, herd concentration and market prices for livestock and staple grains along the points of their different transhumance routes. The services are offered over simple mobile phones to subscribers against a modest fee per USSD requests for livestock and cereals prices and via a call centre exploited by ORANGE Mali.

## SUM Africa, Scaling Up Micro-insurance in Africa

<b>Country</b>	Mali Uganda
<b>Lead partner and contact details</b>	EARS Earth Environment Monitoring BV (NL) Mr. J. van der Woerd T +31 152562404 E joost@ears.nl
<b>Partners</b>	<ul style="list-style-type: none"><li>• Agence Nationale de la Météorologie (MLI)</li><li>• Coprocuma (MLI)</li><li>• Lion Assurance Company (UGA)</li><li>• Ministry of Agriculture, Animal Industry and Fisheries (UGA)</li><li>• Agriculture Reinsurance Consultants (CH)</li><li>• PlaNet Guarantee (FR)</li></ul>
<b>Target group</b>	180.000 farmers in Mali 150.000 farmers in Uganda
<b>Short summary</b>	Drought and excessive rainfall are the two largest causes of crop loss in Africa, keeping farmers stuck in poverty. Insurance is the key to escaping this poverty trap and will enable them to invest in improved agricultural inputs and to realize higher production and income. The aim of the SUM Africa project is to provide low-cost, satellite based drought and excessive rainfall insurance to smallholder farmers in Mali and Uganda.

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## SIKIA, SAGCOT Integrated Knowledge and Information for Agriculture

<b>Country</b>	Tanzania
<b>Lead partner and contact details</b>	TechForce Innovations (NL) Mr. J. Speelman T +31 35 6229658 E j.speelman@innovations.nl
<b>Partners</b>	<ul style="list-style-type: none"><li>• AGRA Alliance for Green Revolution in Africa (KEN)</li><li>• Kilimo Trust (TZA)</li><li>• Kadaster International (NL)</li><li>• Milan Innovincy (NL)</li></ul>
<b>Target group</b>	125,000 rice farmers
<b>Short summary</b>	The project aims to reach smallholder farmers in the rice value chain in the SAGCOT area. Various services will be developed for smallholder farmers and agri-businesses. Radio broadcasts will inform smallholder farmers about weather conditions with the opportunity for registration, allowing smallholder rice farmers to regularly receive growth stage-specific weather forecasts and agricultural advices via SMS. Agri-businesses can subscribe to more advanced services, on plot level and/or area aggregated level. Finally, the partnership will operate general information service provision through the SAGCOT Centre (geo-information and knowledge database) free for use by public institutions, NGO's and interested private investors contributing to overall economic development in the area.

## MUIIS, Market-led, User-owned, ICT4Ag-enabled Information Service

**Country** Uganda

**Lead partner and contact details** Technical Centre for Agricultural and Rural Cooperation (CTA, NL)  
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**Partners**

- Alliance for a green revolution in Africa (KEN)
- Eastern Africa Farmers Federation (KEN)
- Mercy Corps (UGA)
- aWhere (USA)
- EARS (NL)
- eLEAF (NL)

**Target group** 350,000 farmers

**Short summary** Aim of MUIIS is to establish a demand-driven, market-led, and user-owned approach to provide satellite based information services related to weather forecasting, crop management and crop insurances to crop farmers in Uganda. The main output will be to provide 350.000 maize, soy bean and sesame farmers in Uganda with advisory services on weather forecasts, soil moisture predictions, profiling, climate change, crop management tips and 90.000 farmers (in North and East Uganda) with index crop insurance services.

The value proposition focuses on bundled mobile services and index-based crop insurance. Subscribers pay for this information via the mobile network operator. The service builds on already existing customer relationships and previous experiences and makes use of an existing network of ground agents.

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## R4A, Rain for Africa

**Country** South Africa

**Lead partner and contact details** Agricultural Research Council (ARC, ZAF)  
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**Partners**

- South African Weather Services (ZAF)
- eLeaf (NL)
- Hydrologic & Hydrologic Research (NL)
- KNMI (NL)
- Mobile Water Management (NL)
- Waterboard Groot Salland (NL)
- Weather Impact (NL)
- WineJob (NL)

**Target group** 125,000 farmers

**Short summary** The main goal of the Rain for Africa (R4A) project is to compose the best available historical, actual and forecasted weather data and make it easily accessible for each food producer, weather service, added value provider and governmental organisation in Africa, at an affordable price. The information services that will be provided are: improved and calibrated rainfall information for National Weather Services, local/regional weather information for service providers and local and personalised weather information, sowing advice, spraying advice for food producers.



## GEOBIS, Geodata based information services for small farmers

<b>Country</b>	Bangladesh
<b>Lead partner and contact details</b>	Lal Teer Seed Limited (BGD) Mr. S.M. Arefin T +880 5861 0012 18 E shah.arefin@multimodebd.com
<b>Partners</b>	<ul style="list-style-type: none"><li>• Interdisciplinary Centre for Food Security at Bangladesh Agricultural University (BGD)</li><li>• mPower (BGD)</li><li>• Multisourcing Ltd. (BGD)</li><li>• Unnayan Onneshan (BGD)</li><li>• Alterra (NL)</li><li>• Netherlands Geomatics &amp; Earth Observation B.V. / NEO (NL)</li></ul>
<b>Target group</b>	600,000 smallholder farmers
<b>Short summary</b>	This project will develop and implement a business model for the provision of information and advice to (smallholder) farmers on basis of spatial and other geodata while strengthening the service delivery by public authorities as well. The project aims to improve agricultural productivity, yield and farmer income and to upgrade agricultural zoning and the management of weather related emergencies. Information services to be provided are advice on: seed variety and quantity, seed bed preparation and land preparation, sowing and transplanting (timing, how to), irrigation and application of fertilisers and agro-chemicals (timing, quantity, type). Information will be provided on weather conditions and preventive practices in case of adverse weather conditions. Support will be given with identification of pest and diseases, information about pest risk level, advice on prevention, treatment and rehabilitation in case of pests or plant disease attacks.

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## GEPOTATO, Geo data to control late blight fungal disease in potato

<b>Country</b>	Bangladesh
<b>Lead partner and contact details</b>	Stichting DLO, Applied Plant Research/Plant Research International (NL) Dr. H. Hengsdijk T +31 317 480 559 E huib.hengsdijk@wur.nl
<b>Partners</b>	<ul style="list-style-type: none"><li>• Agriculture Information Service (BGD)</li><li>• Bangladesh Centre for advances Studies (BGD)</li><li>• ICCO-Cooperation (BGD)</li><li>• mPower (BGD)</li><li>• TerraSphere (NL)</li></ul>
<b>Target group</b>	100,000 farmers that produce irrigated potato crop in the dry winter season
<b>Short summary</b>	The project will develop a decision-support service (DSS) for an optimal control strategy of late blight (globally the most important, highly destructive, fungal disease) in potato, which will be provided on subscription base to farmers through SMS or voicemail during the growing season. Farmers will be informed through SMS (or voicemail) supporting them with an optimal diseases control with a minimum input of environmental harmful fungicides according to the principles of integrated pest management.

## IDDs, Farmer's Intelligent Farmer Decision Support System

<b>Country</b>	Bangladesh
<b>Lead partner and contact details</b>	ACI Limited (BGD) Md Shamim Murad T +88 1766 668 864 E smurad@aci-bd.com
<b>Partners</b>	<ul style="list-style-type: none"><li>• SNV Bangladesh (BGD)</li><li>• Department of Agricultural Extension, Ministry of Agriculture (BGD)</li><li>• Nelen &amp; Schuurmans (NL)</li><li>• SarVision (NL) / Satelligence (NL)</li></ul>
<b>Target group</b>	967,675 rice, potato and vegetable smallholder farmers
<b>Short summary</b>	The purpose of this project is to develop an Intelligent Decision Support System (IDSS) to give reliable and timely advice to farmers in Bangladesh. The IDSS hardware and software integrates field data, satellite and weather geodata and market information and translates this information into actionable localized crop-specific advice for farmers. This will greatly improve timely, comprehensive and specific information for farmers in Bangladesh. In this way the farmer's decision making along the entire production cycle and the overall food production will improve, reduce damages for farmers and improve the profitability of the farmer's operations. The IDSS service will be made available through a mobile application (basic handset and smartphone).

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## G4INDO, Geodata for upgrading smallholders' farming systems in Indonesia

<b>Country</b>	Indonesia
<b>Lead partner and contact details</b>	Alterra (NL) Mr. A. Schrevel T +31 317 486 576 E aart.schrevel@wur.nl
<b>Partners</b>	<ul style="list-style-type: none"><li>• National Institute of Aeronautics and Space, LAPAN (IND)</li><li>• Indonesian Agency for Meteorology, Climatology and Geophysics, BMKG (IND)</li><li>• PT Jasindo (IND)</li><li>• Ministry of Agriculture (IND)</li><li>• Deltares (NL)</li><li>• KNMI (NL)</li><li>• SarVision (NL)</li><li>• Terrasphere (NL)</li><li>• Syngenta Foundation for Sustainable Agriculture (CH)</li><li>• NDI Insurance and Reinsurance (UK)</li></ul>
<b>Target group</b>	200,000 farmers
<b>Short summary</b>	The Indonesian Government has decided on a crop insurance policy to assist farmers and to boost food security. The target group of the G4INDO project is smallholder rice farmers, with an average of 1 or 2 ha of land in Indonesia, especially on Java, where the project executed. The project will provide services (crop insurance and third crop feasibility advice) to 200,000 farmers.

## SMARTseeds, G4AW Information Services for sustainable vegetable farm management

<b>Country</b>	Indonesia
<b>Lead partner and contact details</b>	ICCO Cooperation South East Asia (IND) Mr. K. de Ruiter T +62 361 895 58 01 E kees.de.ruiter@icco-cooperation.org
<b>Partners</b>	<ul style="list-style-type: none"><li>• IPB, Bogor Agricultural University (IND)</li><li>• PT East West Seeds Indonesia (IND)</li><li>• AKVO (NL)</li><li>• Nelen &amp; Schuurmans (NL)</li><li>• TTC Mobile (NL)</li><li>• University of Twente/ITC (NL)</li></ul>
<b>Target group</b>	100,000 chilli, tomato and cucumber farmers
<b>Short summary</b>	The main goal of the project is to implement a financial sustainable information service that supports vegetable farmers to increase their production, income, food security and to reduce the inputs of water, fertilizer and pesticides. Weather, advisory and market information services will be provided to smallholder farmers. Various other B2B services will generate additional revenues such that subscription fees for smallholder farmers can be kept affordable.

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## Sat4Rice, Geodata for Agriculture & Water in Mekong Delta

<b>Country</b>	Vietnam
<b>Lead partner and contact details</b>	VinaNed (NL) Ms. T.T. Tran T +31 6 3404 4568 E t.tran@vinaned.com
<b>Partners</b>	<ul style="list-style-type: none"><li>• Loc Troi Group (VNM)</li><li>• Can Tho University (VNM)</li><li>• Department of Agriculture and Rural Development (MARD/DARD) (VNM)</li><li>• Nelen &amp; Schuurmans (NL)</li><li>• SarVision (NL) / Satelligence (NL)</li></ul>
<b>Target group</b>	300,000 farmers (within project) >1,000,000 farmers, shrimp farmers and fishermen (after project)
<b>Short summary</b>	Project goals: <ol style="list-style-type: none"><li>Improve the effectiveness of existing extension services and output of (smallholder) rice farmers in the Mekong Delta by enriching the existing basic agricultural information with advanced geodata.</li><li>Increase efficiency of inputs for rice production in the Mekong Delta, e.g. water, fertilizer and pesticides.</li><li>Implement a financially sustainable information service that is hosted by LT (Loc Troi) Group with support from public-private Dutch and Vietnamese partners. After the project, the service can easily be implemented to other regions/countries and for other types of agriculture.</li></ol>

## GREENcoffee Vietnam, Information services for sustainable coffee farm management

**Country** Vietnam

**Lead partner and contact details** ICCO Cooperation South East Asia (IND)  
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**Partners**

- ERIPT (VNM)
- MoA/IPSARD (VNM)
- MoA/NIAPP (VNM)
- AKVO (NL)
- eLEAF (NL)
- Nelen and Schuurmans (NL)
- TTC Mobile (NL)
- UTZ (NL)
- WaterWatch Projects (NL)

**Target group** 100,000 coffee farmers


**Short summary** The main goal of the project is to implement a financial sustainable information service that supports coffee farmers in Central Highlands to increase their production, income, food security and to reduce the inputs of water, fertilizer and pesticides. The services target on specific information on weather, rain and humidity forecasts, daily coffee prices and price forecast, farming techniques, extreme weather conditions, pests and diseases via SMS services. Various other B2B services will generate additional revenues such that subscription fees for smallholder farmers can be kept affordable.

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### Contact

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