The projects

Over 120 organisations across 14 partner countries have initiated a total of 23 G4AW projects. They are building business models for public/private partnerships to deliver financially sustainable services. Involved organisations are using existing technology and services, empowering the most important actors in the food production chain: farmers, fishermen and pastoralists.
All projects have the following in common:

- Market: Tackling a well-defined and specific problem.
- Business case: Providing financial sustainability in the long term, supported by investments done by project partners.
- Solution: Part of a portfolio of services, focused on a core offer with added value for clients, well- elaborated use of satellite information and other data.
- Affordability: Services are provided at low cost or free of charge.
- License to operate: The project results will be embedded in the local context.
- Channel: Building on existing delivery mechanism(s), bridging the last mile.
- Maturity: The projects strive to reproduce services already validated elsewhere.
- Education: Empowering users by training and appropriate transfer of knowledge.
- Cooperation: Partnerships of public organisations, research institutes, private sector operators, NGO's, farmer cooperatives, satellite data/service operators, the private (agricultural) sector and transmission operators, bridging the entire information chain.
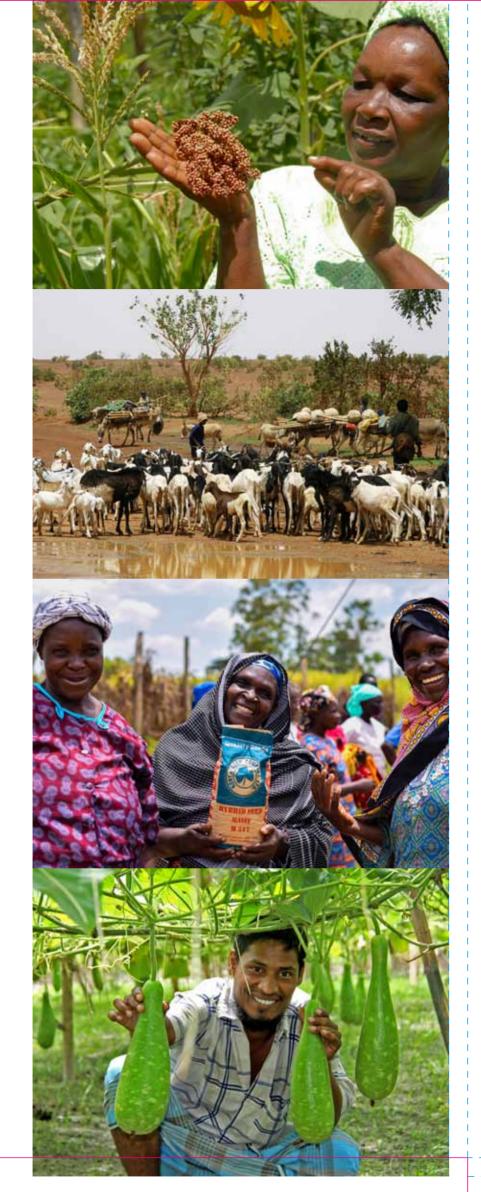
Overview

GIACIS (Ethiopia), G4INDO (Indonesia) and SUM-Africa (Mali, Uganda) aim to guarantee income of and investments by small holder food producers. CommonSense supports sesame producers in Ethiopia by providing weather and agro-advisory services.

CROPMON in Kenya builds a crop monitoring system to alert farmers about non optimal growth conditions. Smallholder farmers in Bangladesh will benefit from GEOBIS' as well as IDSS' agricultural advice, and GEOPOTATO to prevent potato disease. In Vietnam, resilience of rice and coffee producing communities will be improved by Sat4Rice and GREENcoffee. In Indonesia, SMARTseeds will support farmers growing chilli, tomato and cucumber. MUIIS will help increase crops of maize, soy bean and sesame in Uganda, combined with loans and/or insurance for farmers.

STAMP and MODHEM improves moving herd management and incomes for Mali and Burkina Faso's pastoralists. Geodatics, R4A and SIKIA help farmers and agribusiness clients to optimise their business activities in Kenya, South Africa and Tanzania.

GAP4A in Burundi serves their smallholder clients by making better and more informed decisions. Sat4Farming in Ghana creates, manages and monitors farm development plans for individual cocoa farms. Angkor Salad (Cambodia), Spice-Up (Indonesia), MYVAS4AGRI and SAM (Myanmar) provide agricultural advice to farmers. SAM (Myanmar) also will provide financial services.

Please see the project leaflets to learn more about the ways G4AW projects help to improve food security.

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Space for Food Security

Photo Credit: Stephanie Malyon / CIAT

G4AW
GEODATA FOR AGRICULTURE AND WATER

Netherlands Space Office

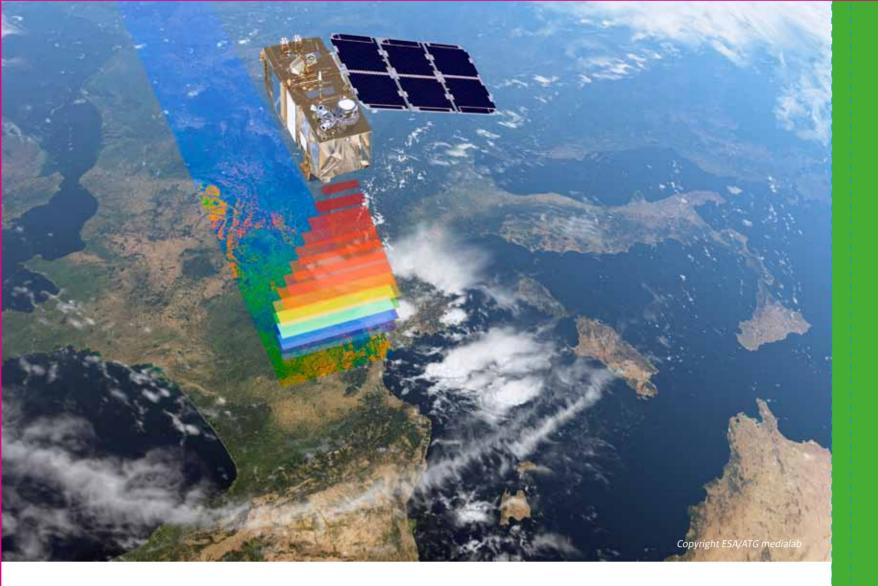Ministry of Foreign Affairs of the Netherlands

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Space for Food Security

A global challenge: Feeding the future

The food producers of our planet face the extraordinary challenge of feeding 9 billion people by the year 2050. As a consequence of climate change, there will be a growing competition in using water and finding fertile land. Further, reliable weather forecasts for food producers are scarcely available in developing countries.

G4AW Goals
- Reaching over 4,5 million smallholders
- Providing them with useful and timely agrometeorological and/or financial/insurance products
- Improving sustainable food production, increase the effective use of inputs (water, nutrients, seeds, pesticides)
- Economic development in participating countries
- Stimulating private investments
- Financially sustainable services after 3 years
- Improved food security and income

The opportunity: satellite and mobile data supporting food security

The combination of improved mobile connectivity, new satellite services and private investments offers the opportunity for scaling up innovations to large-scale implementation and operations. A growing fleet of earth observation satellites encircling our planet guarantee a continuing global coverage and provision of free objective data.

Geodata, converted to relevant information on climate, weather and hazards, can help food producers and other stakeholders in developing countries. These data can be used to generate information for customised and timely agricultural advice, as well as warnings of natural hazards like floodings or droughts. Mobile phone based services providing up-to-date market prices have already been proven successful in numerous countries in Africa and Asia. Increasing the quantity and quality of communication networks enables millions of food producers in remote areas to benefit from agricultural information, empowering them to make better decisions. Also, micro-insurances and/or micro credits combined with information services can help guarantee the continuity of food production.

The G4AW Facility promotes and supports private investments for large scale, demand driven and satellite based information services. It provides a platform for partnerships of public organisations, research institutes, private sector operators, NGO's, farmer cooperatives, satellite data/service operators, businesses and transmission operators, developing space for food security.

Copernicus: free satellite data
The European Commission operates a number of Sentinel satellites (optical and radar) providing:
- Free satellite data
- Data available from 2014
- Continuity for >20 years

G4AW is a programme by the Dutch Ministry of Foreign Affairs within the policy priorities for food security and water, which is executed by the Netherlands Space Office (NSO).

G4AW projects and partner countries:

Country	Project	Lead Partner	Target group	Call	Project Start
Bangladesh	GEOBIS	LTSeed	Potato, rice, vegetable	2	2015
Bangladesh	GEOPOTATO	Wageningen University	Potato	2	2015
Bangladesh	IDSS	ACI	Rice, vegetable	2	2015
Burkina Faso	MODHEM	SNV	Grass (pastoralist)	2	2016
Burundi	GAP4A	AUXFIN International	Various	3	2018
Cambodia	AngkorSalad	ICCO	Vegetables	3	2018
Ethiopia	CommonSense	Alterra	Sesame, sorghum	1	2015
Ethiopia	GIACIS	University of Twente-ITC	Rain fed arable crops (insurance)	1	2014
Ghana	Sat4Farming	Rainforest Alliance	Cocoa	3	2018
Indonesia	G4INDO	Wageningen University	Rice (insurance)	1	2014
Indonesia	SMARTseeds	ICCO	Chilli, tomato, cucumber	2	2016
Indonesia	SpiceUp	Verstegen Spices & Sauces	Pepper	3	2018
Kenya	CROPMON	SoilCares	Coffee, maize, grass, sorghum, cereals	2	2015
Kenya/Tanzania	GEODATICS	ICS	Maize, legume crops	2	2015
Mali	STAMP	SNV	Grass (pastoralist)	2	2015
Mali/Uganda	SUM Africa	EARS	Maize, millet, rice, sorghum (insurance)	1	2014
Myanmar	MYVAS4AGRI	Myanma Awba Group	Rice, green and black gram, maize, groundnut, potato and sesame	3	2018
Myanmar	SAM	Impact Terra	Rice, maize	3	2018
South Africa	R4A	ARC	Various	2	2015
Tanzania	SIKIA	TechForce Innovations	Rice	2	2016
Uganda	MUIIS	CTA	Maize, soya bean, beans, sesame	2	2015
Vietnam	Sat4Rice	VinaNed	Rice	2	2015
Vietnam	GREENcoffee	ICCO	Coffee	2	2016