



Space for Food Security

Timely and actionable information for smallholder farmers in developing countries

Ruud Grim

SRP Annual Meeting

22-23 January 2019 (Siem Reap)

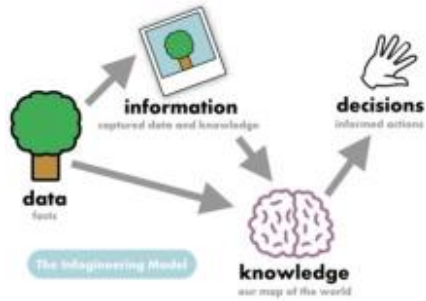


G4AW

GEODATA FOR AGRICULTURE AND WATER

Netherlands
Space
Office

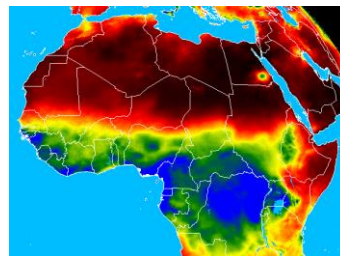
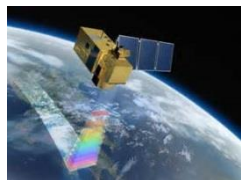
500 million smallholder food producers





Satellite and ICT provide scaling: big opportunity

Major (technology) enablers



Satellite and other
sensor systems

Operational
infrastructure

Value adding
& knowledge
engines

Distribution
channels

Food
producers



Geodata for Agriculture and Water ([G4AW](#)) improves food security in developing countries by using satellite data.



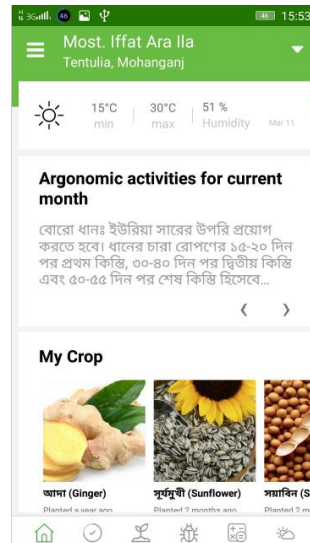
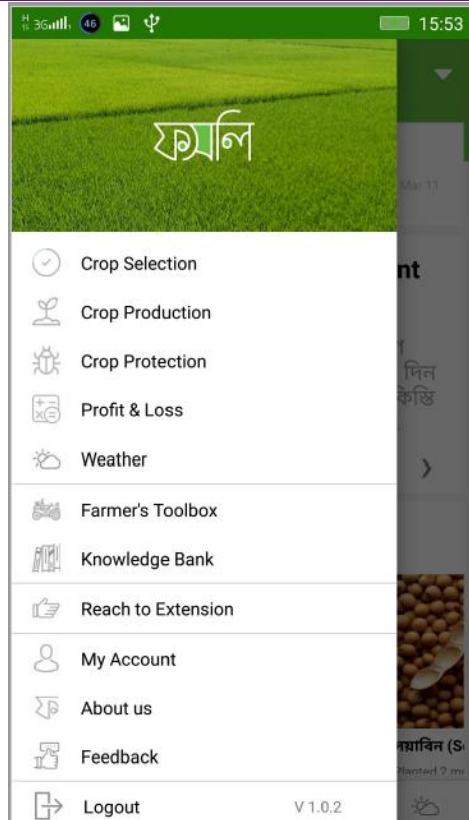
- 4,5 mio farmers
- 60 mio €
- 2014-2021
- 23 projects
- 14 countries

Netherlands Space Office (NSO) is executing this programme, commissioned by the Dutch Ministry of Foreign Affairs.



Target: 967,675 farmers

Intelligent Decision Support System (IDSS) for Farmers Bangladesh



ফার্মলি

An Information Platform for
Farming Community





Target: 300,000 farmers

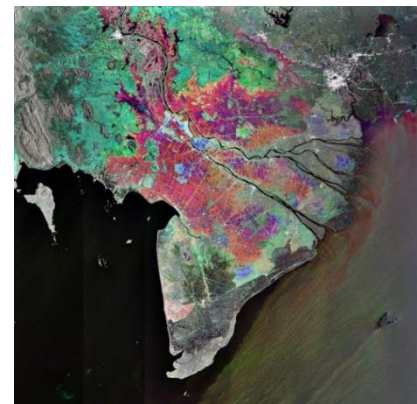
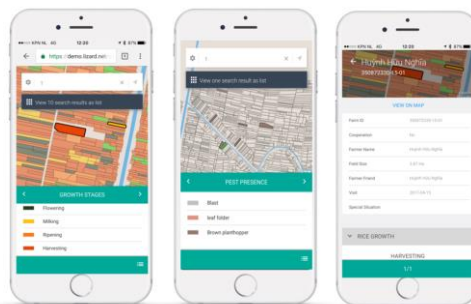
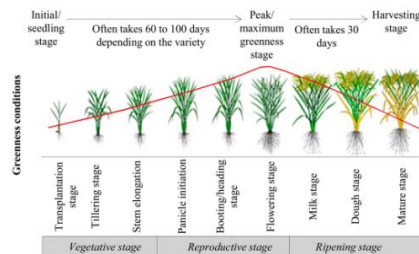
Services:

Rice growth stages
Pests & diseases
Agri-advisory
information

Channels:

Extension officer
Computer/tablet
Smart Phone

Satellite data for Rice (Sat4Rice) Vietnam





Target: 850,000 farmers

Services:

Weather information
Pests & diseases
GAP information
Market information
Available: Mar. 2018

Channels:

Extension officer
Computer/tablet
Smart Phone

Myanmar Mobile Value Added Services for Agriculture (MYVAS4AGRI), Myanmar



Officially launched on
20 March, 2018



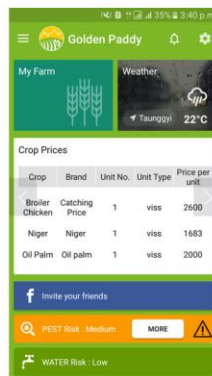
SAM - Myanmar



567,500 farmers



Two states



Services:

Weather information
Agronomic advices
Market information
Access to credit
Available: since 2017



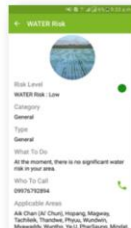
WEATHER

- Temperature
- Precipitation
- Sun-hours
- Humidity



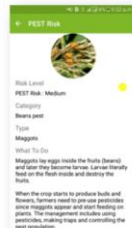
FLOOD & DROUGHT RISK

- Chance of floods and droughts



SOIL MOISTURE

- Soil water content



CROP GROWTH

- Crop growth status versus normal growth pattern



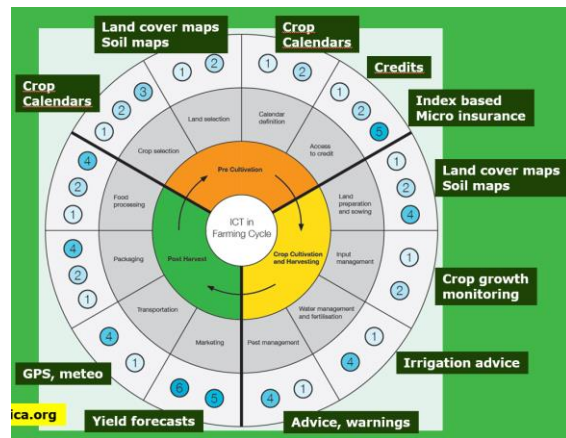
Channels:

Extension officer
Computer/tablet
Smart Phone
Facebook



G4AW overall insights

- Services comply with needs
- Business owner & model crucial
- Government support facilitates
- G4AW is “seed funding”
- First projects enter follow on phase (B2B, B2C)
- Opportunity to engage with SRP?





Want to know more about G4AW?

Website: <https://g4aw.spaceoffice.nl/en/>

LinkedIn: <https://www.linkedin.com/groups/8509495>

Publications: <https://g4aw.spaceoffice.nl/en/about-g4aw/publications/>

- Lessons learned first G4AW calls and project progress (Feb. 2017)
- Geodata for Inclusive Finance and Food (NpM reports 2017, 2018)

Videos: <https://g4aw.spaceoffice.nl/en/projects/g4aw-project-videos/>

Leaflets: <https://g4aw.spaceoffice.nl/en/projects/g4aw-project-leaflets/>

Apps: <https://g4aw.spaceoffice.nl/en/projects/g4aw-mobile-apps/>



Time to scale
reaching
800 million
smallholders



CLICK TO JOIN

Questions?





Thank you for
your attention

G4AW is a programme
commissioned by



Ministry of Foreign Affairs

Contact: g4aw@spaceoffice.nl



G4AW

GEODATA FOR AGRICULTURE AND WATER

Netherlands
Space
Office



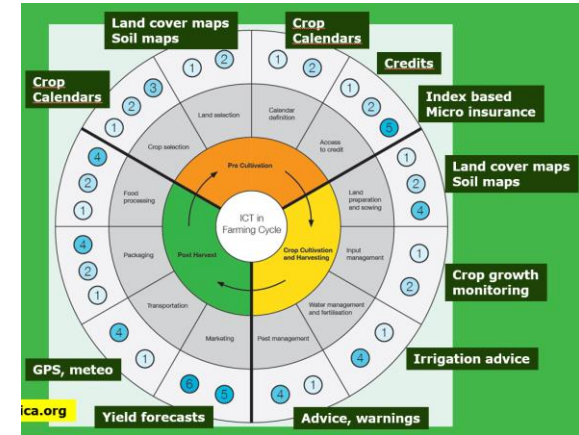
Additional slides





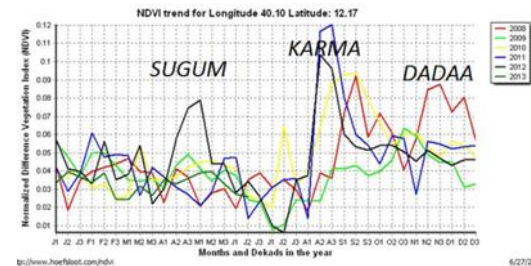
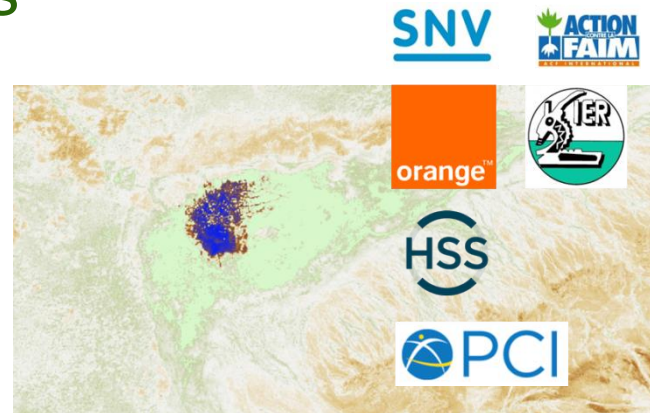
Examples of services in G4AW

- More localized weather forecasts
- Yield forecasts / growth stages
- Pest & disease warnings
- Drought and flood warnings
- Micro insurance
- Risk profiling supporting insurance and credits



Information services for pastoralists

- Biomass availability & quality
- Availability of surface water
- Concentration of livestock
- Market price
- Routing service





Target: 200,000 pastoralists

Services:

Navigation of herds to areas with sufficient water and vegetation

Avoiding agri zones

Market information

Channels:
Call center

“Garbal”, a TomTom for pastoralists in Mali and Burkina Faso

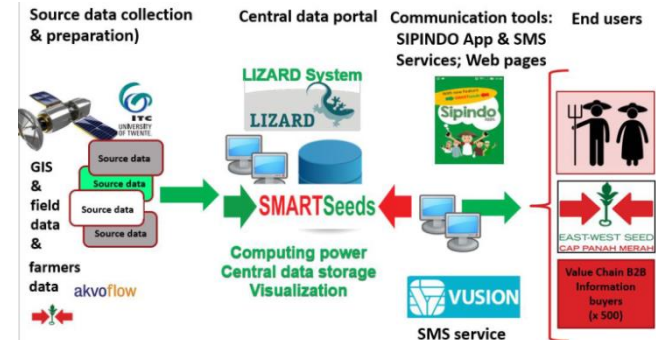
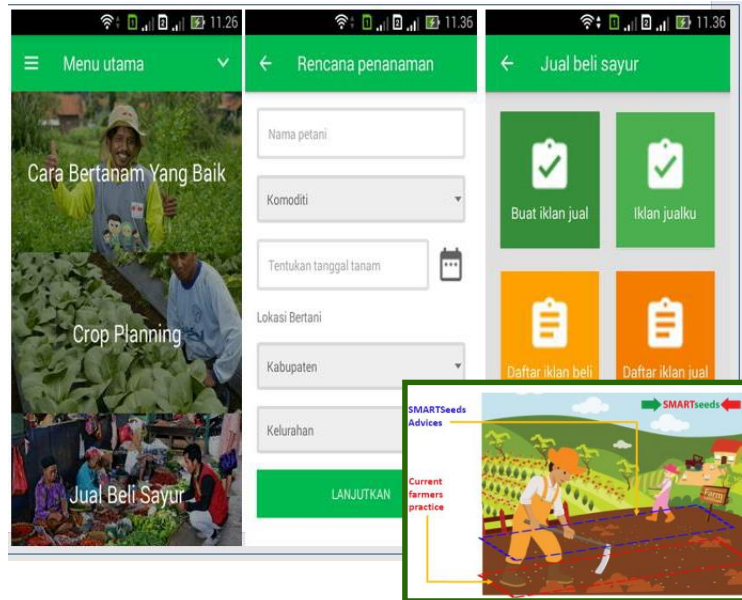
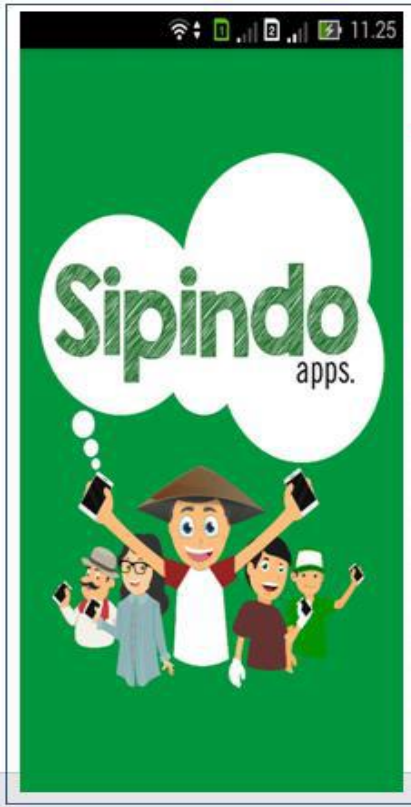


The advertisement features a man in a blue robe standing in a dry landscape. On the left, there is an orange square with a white circle inside, labeled 'Service'. Below it is the 'orange' logo and the text 'Vous rapprocher de l'essentiel'. In the center, the text reads 'Tirer le meilleur bénéfice de mon élevage'. To the right, a large orange speech bubble contains the text 'Garbal 37 333 ou #222#'. On the far right, the 'SNV' logo is visible.



Target: 100,000 farmers

Information services for vegetable farmers (SmartSeeds), Indonesia



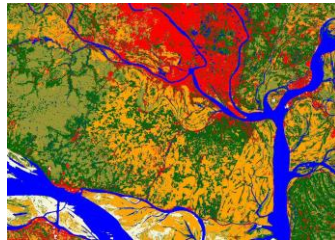
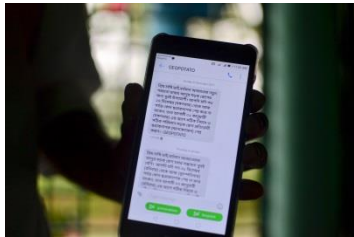


Target: 100,000 farmers

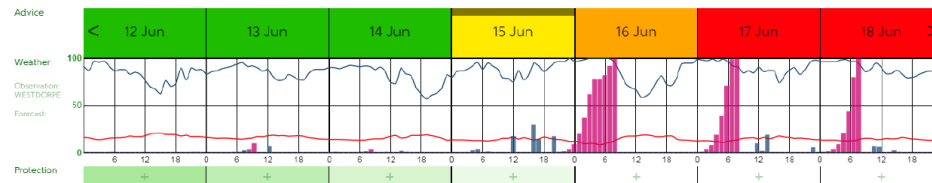
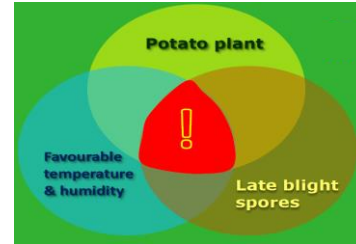
Locations:
Rangpur &
Munshigansj

Geodata to control potato late blight
in Bangladesh
(GEOPOTATO)
Bangladesh

Services, a.o. :
Night Blind alerts
Spray advice

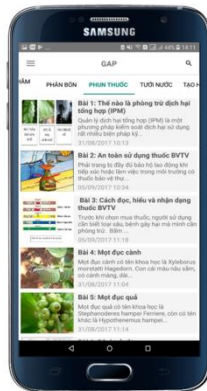
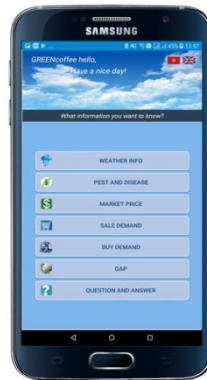
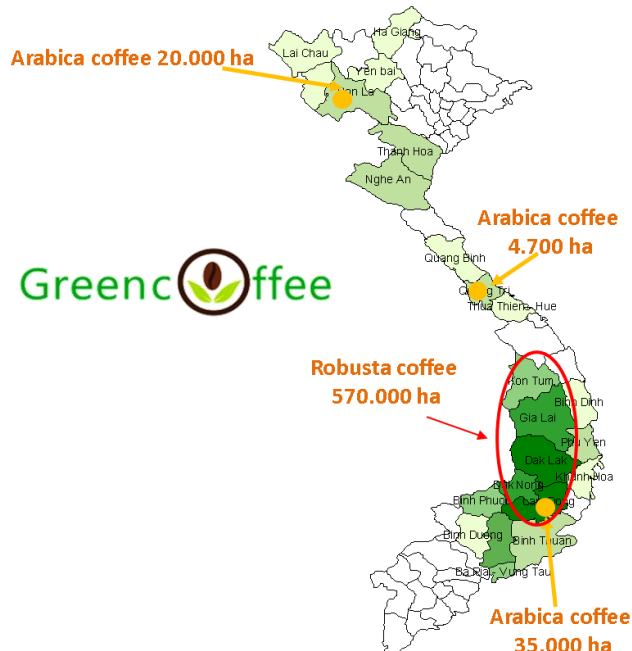


Red = urban
Orange = potato
Green = other veg.





Central Highlands Vietnam



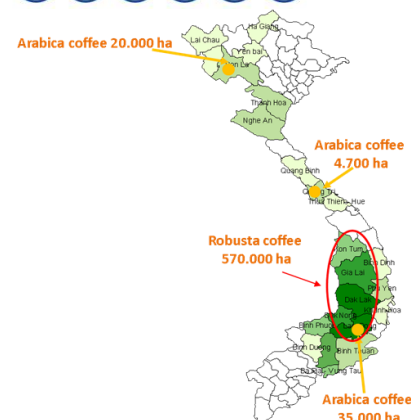
Services:
Weather information
Pests & diseases
GAP information
Market information
Available: Oct. '17

Channels:
Extension officer
Computer/tablet
Smart Phone
Text Messaging



Target: 100,000 farmers

Information services for coffee farmers (GREENcoffee), Vietnam





Various states / regions in Myanmar



ထွက်တိုး
Htwet Toe

Officially launched on
20 March, 2018



Services:

Weather information
Pests & diseases
GAP information
Market information
Available: Mar. 2018

Channels:

Extension officer
Computer/tablet
Smart Phone



Target: 567,500 farmers

Services:

Weather information

Agronomic advices

Market information

Access to credit

Available: since 2017

Channels:

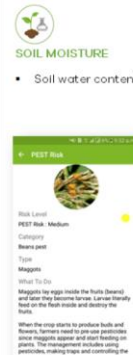
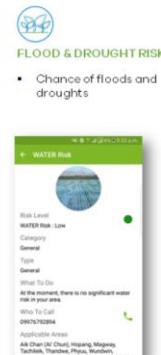
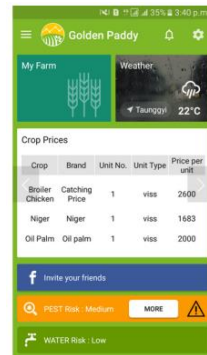
Extension officer

Computer/tablet

Smart Phone

Facebook

Smart Agriculture Myanmar ([SAM](#)), Myanmar

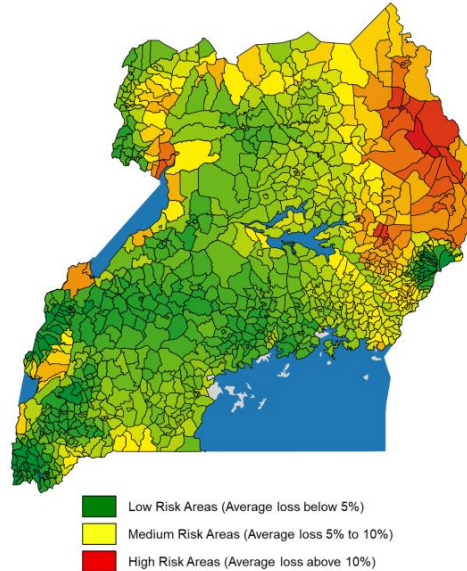
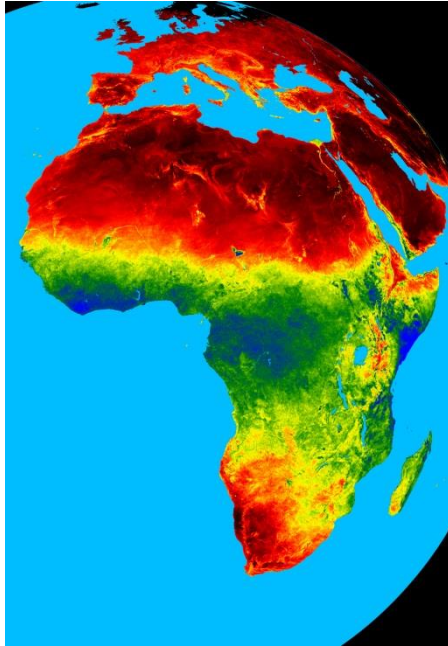




Target: 282,000 +200,000 farmers

Micro insurance Risk profiling SumAfrica & MUIIS, Mali & Uganda

Uganda Risk Rates (Generic Product)





Target: 100,000 farmers



Score: 0

Updated: 2018-04-20 15.22.17

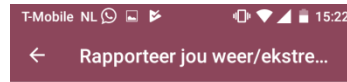


Language

English



Rain for Africa (R4A) South Africa



Son



Wind



Reën



Donderweer



Tornado



Mis



Ryp



Hael



Floed



test
test



Bjala

Pula ga ya lekanela gore o ka thoma go bjala



Fothela sekoro

Ke nako ye botse ya gore o fothele sekoro



Fothela malwetši

Ke nako ye botse ya gore o fothele malwetši

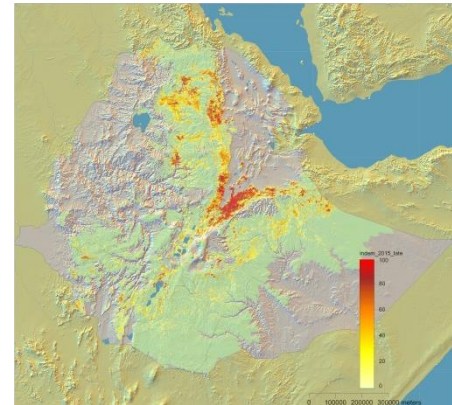
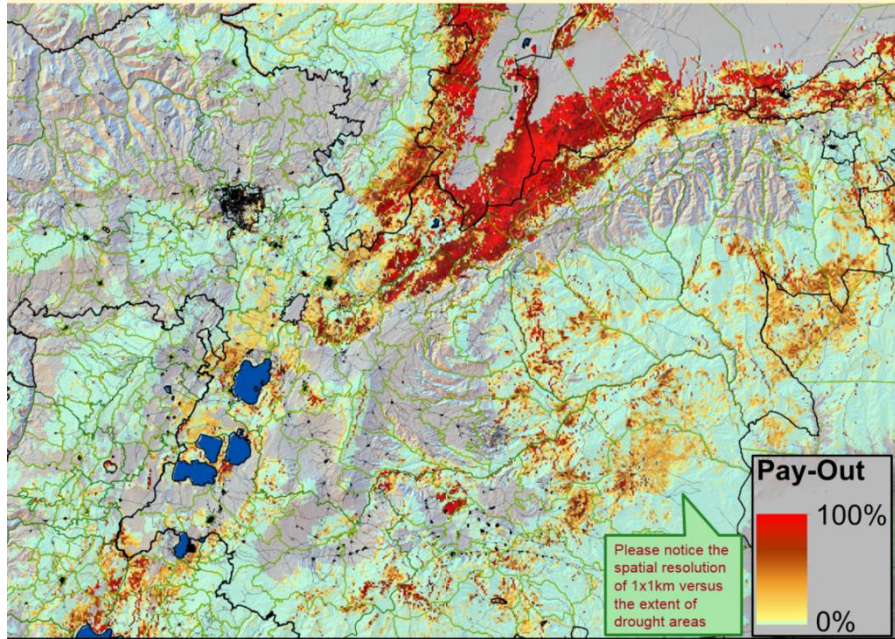




Target: 1,600,000 farmers

Geodata for Innovative Agricultural Credit Insurance Schemes (GIACIS) Ethiopia

2015 Late Season – same areas were hit twice in one year!





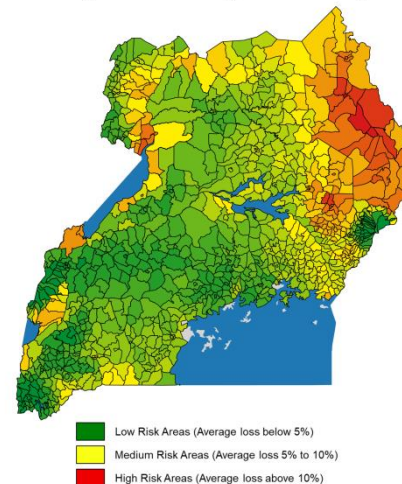
Geodata for Inclusive Finance & Food (G4IFF)



Improve
access to
finance for the
rural target
groups



Uganda Risk Rates (Generic Product)



G4IFF is coordinated by Dutch Platform for Inclusive Finance.

Netherlands Space Office

- Space agency of the Netherlands government (established 2009)
- Reporting to:
 - Ministry of Economic Affairs
 - Ministry of Infrastructure and Environment
 - Ministry of Education, Culture and Science
 - Ministry of Foreign Affairs
 - Netherlands Organisation for Scientific Research (NWO)
- Task: to develop and implement Netherlands Space programme
- Outcome: space applications for science, economy and society