



G4AW Results & New Perspectives



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The Hague, The Netherlands

Ruud Grim

Program Manager (NSO)



G4AW
GEODATA FOR AGRICULTURE AND WATER

**Netherlands
Space
Office**



Ministry of Foreign Affairs of the
Netherlands



Geodata for Agriculture and Water

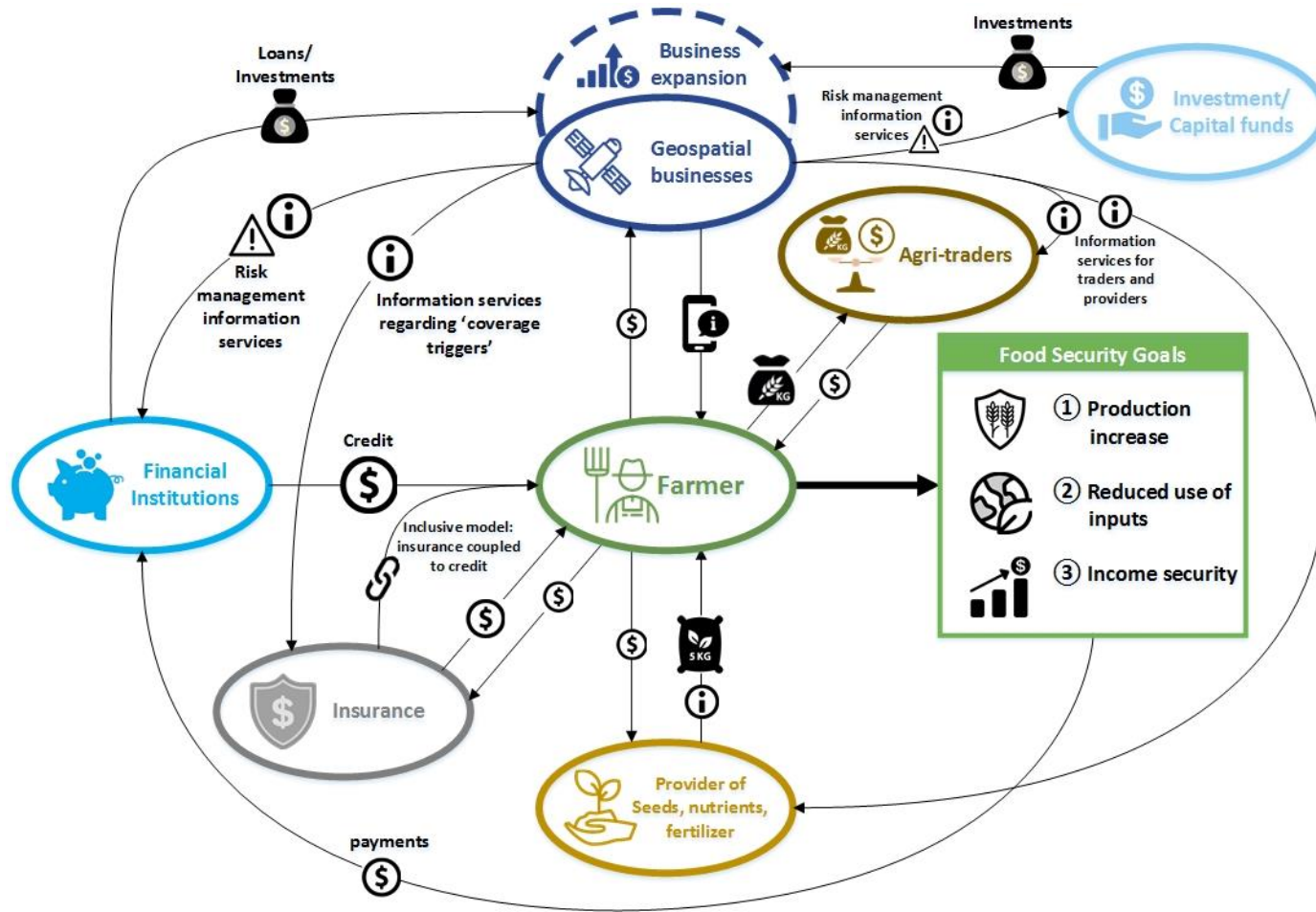
Promoting the creation and use of digital advisory and financial services for smallholder food producers since 2013.

Objectives largely realized:

- **Reached** 4.9 million smallholder food producers, about 1.6 million users
- Decreased **use of inputs**
- Increased **production**
- Higher **incomes**



Smallholder farmer in the centre of an ecosystem



G4AW projects



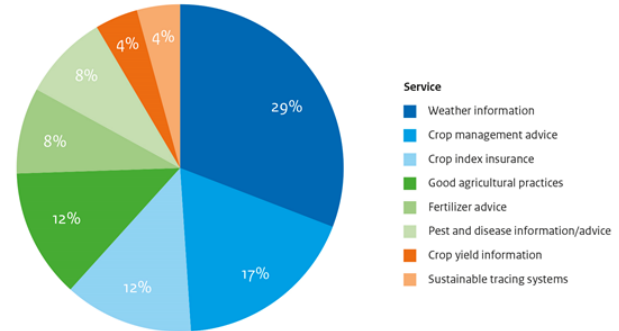
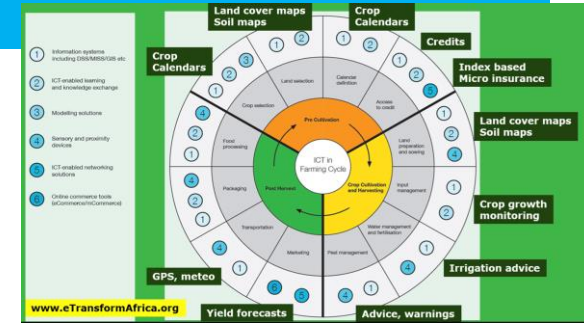
SPACE FOR FOOD SECURITY – NEXT PERSPECTIVES





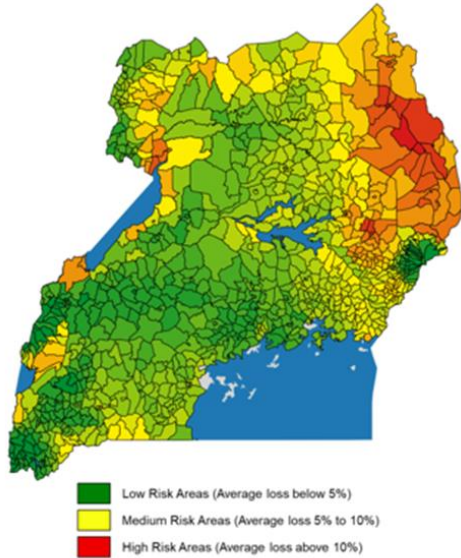
Examples of agtech/fintech services in G4AW

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



G4AW Applications (still operational - 1)

Uganda Risk Rates (Generic Product)



Uganda
Coffee farmers
Insurance
> 285,000

Garbal
37 333
ou
#222#

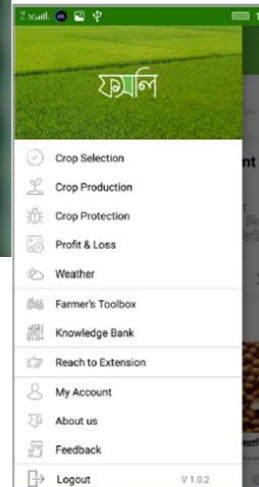
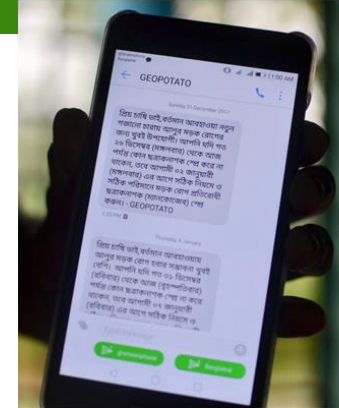


Mali, Burkina
Pastoralists
Routing advice
> 100,000

Sipindo
apps.



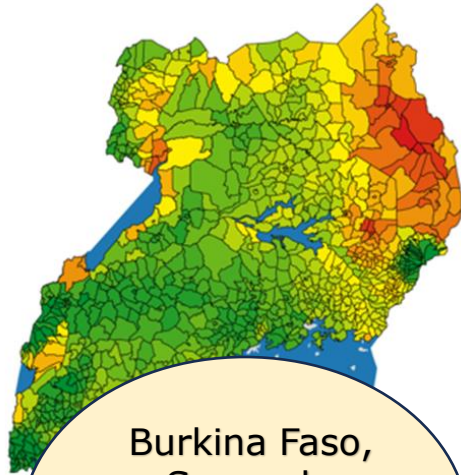
Indonesia (farmers)
Vegetable, pepper
Farmer advices
> 100,000



Bangladesh (farmers)
Potato, rice
Farmer advices, a.o. late blight
> 300,000

G4AW Applications (and scaling)

Uganda Risk Rates (Generic Product)



Burkina Faso,
Senegal,
Cameroon
Mozambique,
Togo

Uganda
Coffee farmers
Insurance
> 285,000

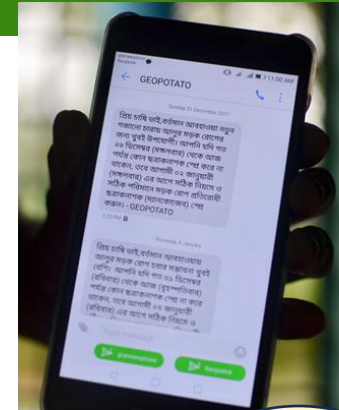
Garbal
37 333
ou
#222#

Niger

Mali
Pastoralists
Routing advice
> 100,000

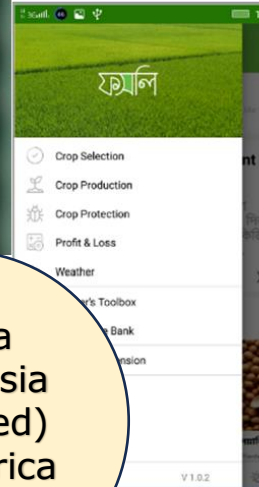
Sipindo
apps.

Indonesia (farmers)
Vegetable, pepper
Farmer advices
> 100,000



India
Indonesia
(planned)
East Africa
(planned)

Bangladesh
Potato, rice
Farmer advices, a.o. late blight
> 300,000





**Scaling Up Crop Insurance for
Smallholder Farmers in Ethiopia**
Innovative vegetation-index crop insurance for
smallholder farmers combined with cloud
micro-insurance

Thursday, April 07, 2022

by Kees de Bie and Andy Nelson, ITC, University of Twente, Netherlands.

This article is about the **Vegetation Index Crop Insurance (VICI)** product for rainfed small holder farmers. VICI was initiated as a Public-Private Partnership between ITC (University of Twente), Kifīya, NMA, PFEA and ATA, funded by the Netherlands Space Office **G4AW** programme.



Weather Impact



831,956

Number of farmers reached

Current:
Bangladesh
Burundi
Gambia
Mali
Myanmar
Lesotho
Tanzania



Our raw, green coffee beans come from the Coffee Belt, which means that we source from various countries around the equator. In these countries of origin, our farmers use the Farmers App that we developed. This app is a training programme that provides efficiency, increased yield and sustainability. Agronomists are also used in order to add to the knowledge base. Watch Ward de



G4AW Applications (still operational - 3)



HANDS ON MULTI-YEAR BUSINESS PLAN

GATHERING AND COMBINING DATA

The combination of individual families' situations, different crops and different needs for interventions on the cocoa plots on the farm, are a complex data set.



400.000
households are using
AgriCoach



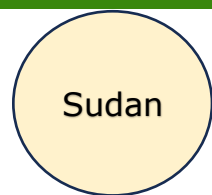
2,3 million
Benefitting appr. 2,3 million
people in Burundi



42% Female
28% Youths
Reached by AgriCoach



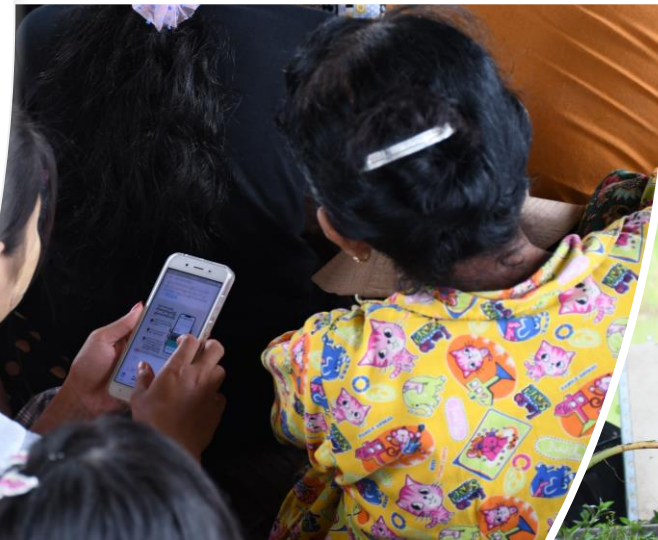
99%
Of farmers is satisfied with
their plot results after
using AgriCoach



Some firms also have developed their own apps which farmers can download (Table 10). The most widely used are those of Greenway and Village Link, started in 2016 and 2018, respectively.

2023). The app developed by Village Link was reported by them to have been downloaded 850,000 times between 2018 and November 2023 (a lower number is reported in Table 10 as it reflects only those downloads reported by Google Play Store).²² Their app provides information on daily crop/fish prices, weather advisories (e.g. indicating if the weather is good for the application of fertilizer), daily, weekly, and seasonal weather forecasts, news, articles and videos. They have also developed tools

Trainings in Myanmar (2024)



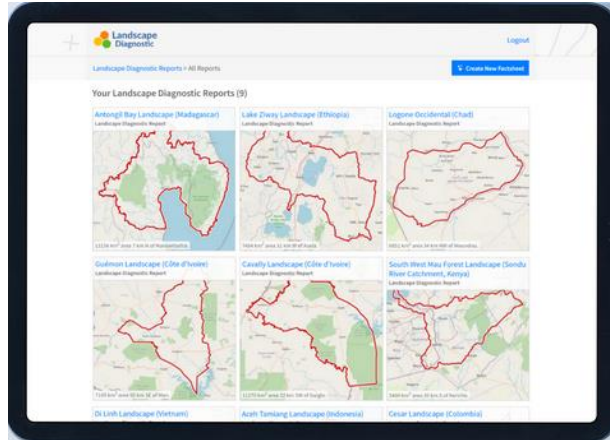
Inclusive Finance (G4IFF, 2017)

Conference: ~350 people,
connecting space with
finance, policy and ngo's

- By NpM, with NSO, Rabobank, FMO
- Innovation challenge
- Inspirational for new services, e.g. Rabobank ACORN (agroforestry)



Open Geodata Competition (2022)



FutureWater



Our successes (and pit fall)

- Cooperation over different disciplines, ngo's are enthusiastic
- Added value geodata demonstrated, broad use of geo-ICT
- Enabler of digital services for BoP food producers
- Reach and scale of service provision
- Stimulation innovation and local entrepreneurship
- Business case extremely challenging



DCAS is becoming mainstream

- G4AW is an example of digitalization for development for MoFA and EC; G4AW contributed to the initiation of MoFA Digital Policy
- WUR Digital Agri Hub collects and shares knowledge
- Financial support by EC, IFI's, GCA, ISF, and other donors; NSO shares G4AW insights as technical / scientific advisor
- G4AW parties continue to develop and deliver services



Next perspectives?

- G4AW → development and scaling of DCAS (Digital Climate Advisory Service), opportunities for
 - Soils & advisories (SoilValues)
 - Digital Services for Saline Agriculture
 - Use of Copernicus Services in DCAS
- Inclusive finance (several actors)
- Sustainable landscapes & finance
- Local innovation & employment (e.g. with Orange Corners, EC D4D)



The G4AW team



Adri Bakker
Project advisor
2014-2021



Kathelijne Beenen
Monitoring & Evaluation
2020-2022



Marlène van Benthem
Project advisor
2015-2017



Ties van Doorne
Finance Controller
2013-2021



Kees van Duijvendijk
Project advisor
2020-2023



Mirjam Gommers
Communications officer
2018-2021



Ruud Grim
Program Manager
2013-2023



Mathijs Hinkamp
Trainee
2022-2023



Vera Hollander
Trainee
2019-2020



Raihaan Jagga
Finance Controller
2021-2023



Bart Kuiter
Trainee
2016-2016



Marcelina Leigh
Trainee
2022-2022



Mark Loos
Project advisor
2013-2023



Glenn Manurat
Finance administration
2013-2023



Kees Oude Lenferink
Project advisor &
Monitoring & Evaluation
2019-2023



Joanna Ruiter
Project advisor
2020-2023



Geert van Seggelen
Monitoring & Evaluation
2016-2018



Wouter Steen
Trainee
2023-2023



Elise van Tilborg
Monitoring & Evaluation
2018-2020



Joost van Uum
Project advisor
2014-2020



Lauran Verstraeten
Project advisor & Communication
2020-2023



Ivo Walsmit
Project advisor
2014-2015

Wim van Looljen, Project advisor, 2023-2023

Michiel Verheij, Project advisor, 2013-2013

Iris Vesters, Administration, 2013-2023

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Thank you for your attention

Let's stay connected!



About NSO

Objectives:

- Inspiration, education & research
- Increased usage of satellite data
- Benefit for society (SDGs)
- Strengthen space sector & trade support
- Execute NL Space Policy





The Netherlands Space Office governance

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