



The Geodata for Agriculture & Water programme (G4AW)

Reimagining opportunities for geo-ict driven innovation in agriculture and its transformative potential for rice smallholders

SRP Workshop: GIS-based applications to promote best practices in the Myanmar rice sector

26 July 2021



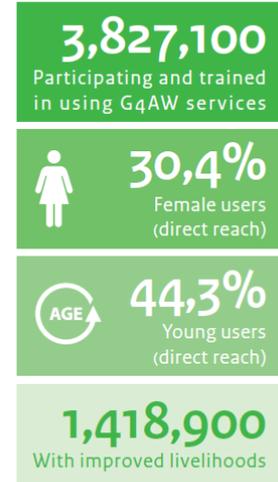
Ministry of Foreign Affairs



Since 2013, the Geodata for Agriculture and Water ([G4AW](#)) has improved food security in developing countries by promoting the creation of digital advisory and/or financial services based on use of satellite data.

- 4,5 mio farmers and (agro-)pastoralists farmers
- 25 projects
- 15 countries
- Commissioned by Netherlands Ministry of Foreign Affairs

NUMBER OF FOOD PRODUCERS



Contributing to:

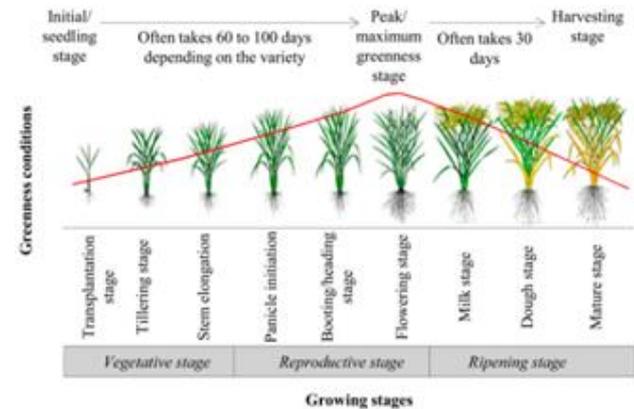




Rice in G4AW

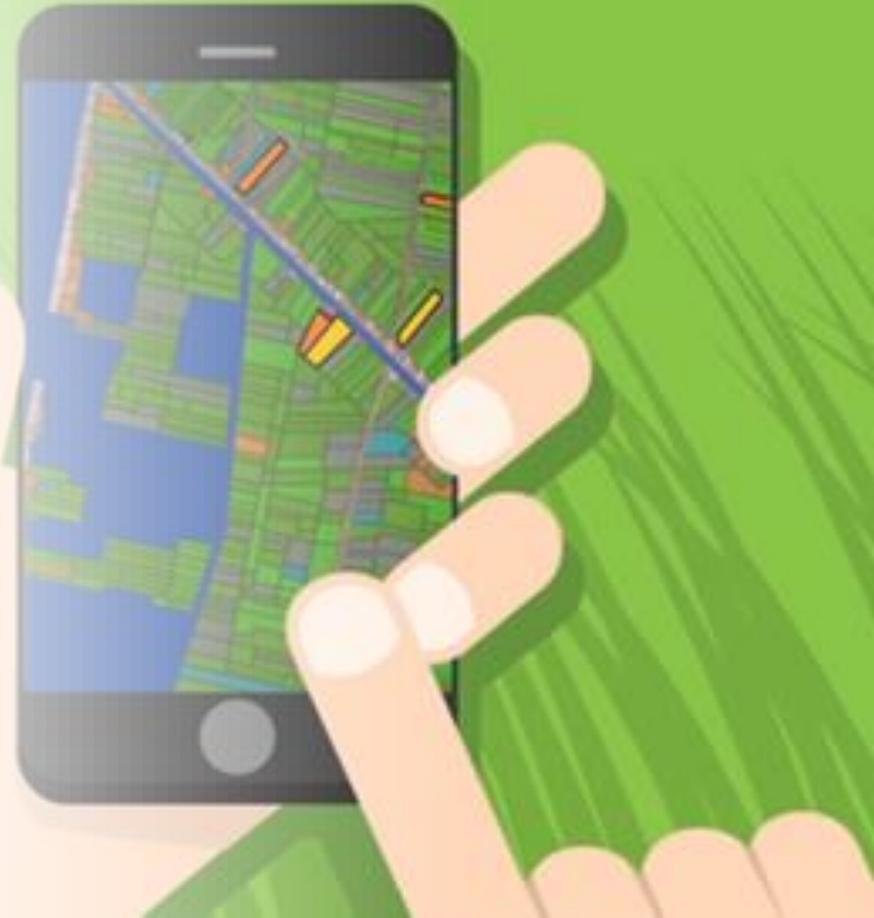
Together with maize, rice is the crop that received the attention in the most G4AW projects (11 projects), both in Asia and Africa.

1. 'Traditional' rice systems are well-researched and easy to monitor due to the 'unique' flooded growing conditions. Costs for creating such advisory services are relatively low.
2. ICT tools for rice monitoring are easily scalable, as rice is grown in many regions in the world under *assumed* similar conditions. This makes the benefit to cost ratio very favourable.



Solutions for SRP

- EO data is used to get **insights** in plot-level conditions (e.g. temperature, soil moisture, vegetation) and weather forecast, allowing for targeted interventions (site-specific advice), resulting in environmental sustainability by applying inputs more effectively.
- Digital tools allow for **traceability** throughout the value chain, resulting in improved monitoring of social and environmental sustainability of the rice.

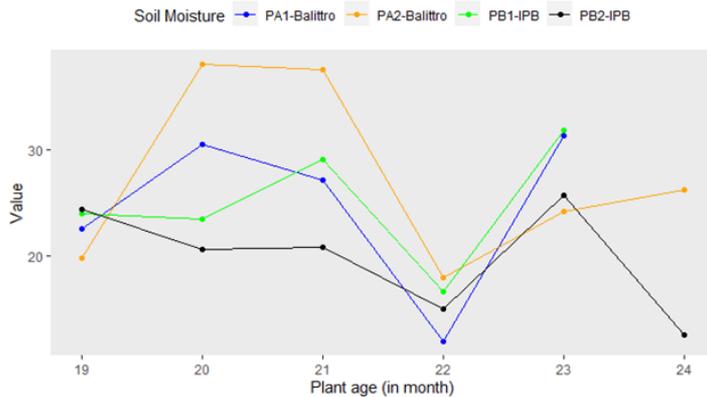




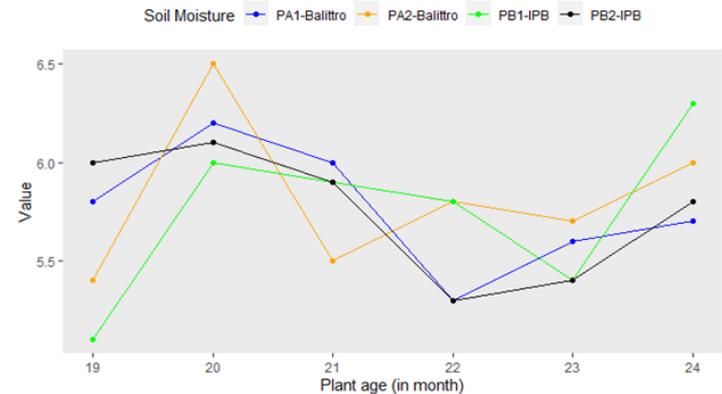
Monitoring demo plots

GIS & ICT tools can be used to monitor rice-performance in (demo) plots, allowing easy data collection and the ability to easily use this data in (big data) analyses.

Petalung Soil Moisture Condition - Period: Aug 2019 - Jan 2021



Petalung Soil Ph Condition - Period: Aug 2019 - Jan 2021





Services:

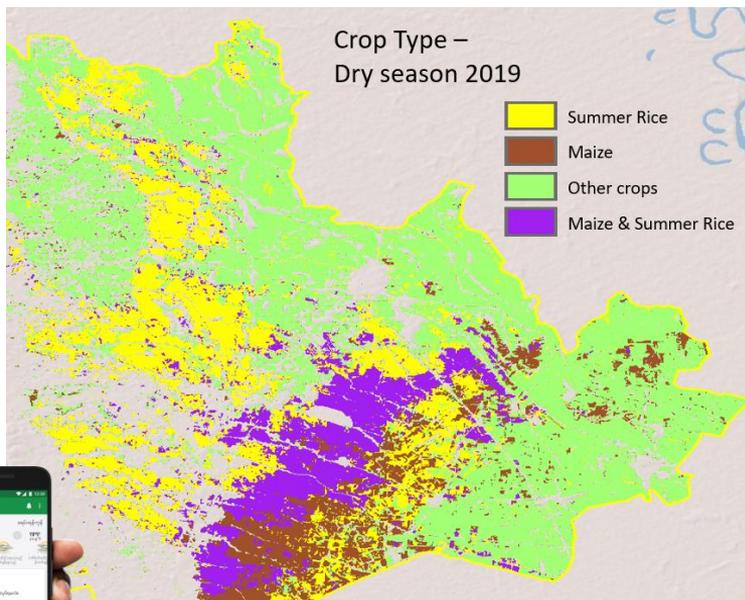
- Weather forecasts
- Crop monitoring
- Good Agricultural Practices
- Flood monitoring

Channels:

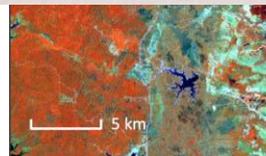
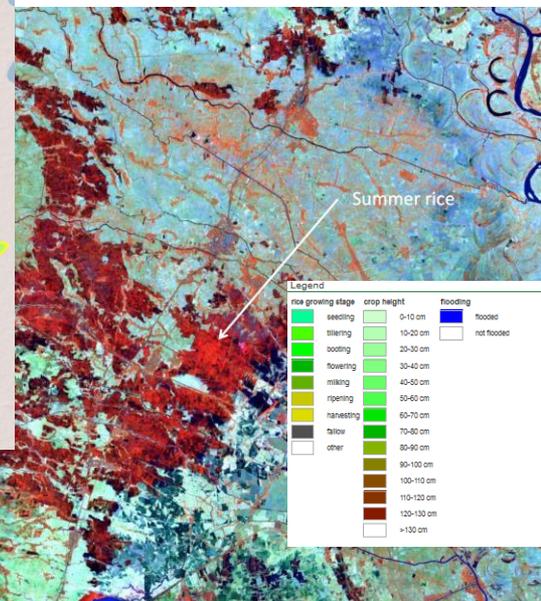
- Call center
- Extension officers
- Smartphone app
- Business dashboard

Results:

- >700k farmers app
- >200+ mio FB views
- >2 mio reactions



ထွက်တိုး
Htwet Toe



Myvas4Agri (Myanmar)



Services:

- Crop monitoring
- Good Agricultural Practices
- Flood monitoring
- Pest & disease

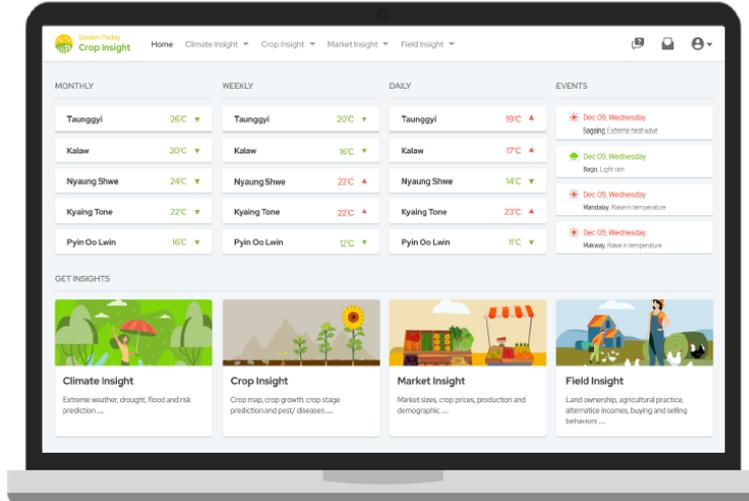


Channels:

- Extension officers
- Smartphone app
- Business dashboard

Results:

- ~100k farmers reached
- >50k farmers profiled
- >New countries



SAM (Myanmar)



Services:

Crop monitoring
Good Agricultural Practices
Flood monitoring

Channels:

Extension officers
Smartphone app
Business dashboard

Results:

>150k farmers reached
>Pilot in Pakistan



Sat4Rice (Vietnam)



Challenge for SRP

- For more efficient water use, the challenge is that most remote-sensing research is done in conventional rice systems.
How can we promote new EO research for water-saving (aerobic) rice systems?
- The challenge is that a sustainable digital service requires a sustainable business model, which often requires involvement of the private sector.
Private sector should thus endorse SRP principles.



Inform and inspire a wide audience:

- (International) policy makers
- Providers of satellite data & services
- Financial institutions / impact investors
- NGOs
- More...

How?

- Publications
- Videos
- Webinars
- Podcasts

Find G4AW resources:



Outreach

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G4AW publications

Space for Food Security: Stimulating smallholders' access to emerging AgTech and FinTech markets, 2021



Space for Food Security
Stimulating smallholders' access to
emerging AgTech and FinTech markets

Part 1: Users and Services (Summary Report)



Thank you for
your attention

G4AW is a programme
commissioned by



Ministry of Foreign Affairs

Ruud Grim & Kees van Duijvendijk

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- 0 - NoData
- 1 - Germination
- 2 - Leaf Development
- 3 - Tillering
- 4 - Stem Elongation
- 5 - Booting
- 6 - Heading
- 7 - Ripening
- 9 - Harvested
- 10 - Fallow

