

Information and Matchmaking Workshop

Geodata for Agriculture and Water

Myanmar, Yangon, March 16, 2017

Workshop Report - May Pwint Phyu (AgriProFocus)

Introduction

On March 16, 2017, Netherlands Space Office (NSO) and AgriProFocus organized the information and matchmaking workshop called "Geodata for Agriculture and Water (G4AW)" in the Inya Lake Hotel, Yangon, Myanmar.

The main objective of the workshop was to introduce the G4AW Facility and upcoming 3rd Call and to facilitate matchmaking for potential partnerships.

The call for proposals was launched on March 17, 2017 and will be closed on September 14, 2017.

Geodata for Agriculture and Water (G4AW) improves food security in developing countries by using satellite data. The aim of this program is to increase the agriculture sector output by providing food producers with relevant information, advices or financial products through operational information chains using satellite and other geodata. The impact aims to be improvement in food production, income of smallholders, more efficient use of inputs (including water) and improved resilience against effects of climate change.

This report will give a short overview of the program and presentations and the main outcomes of the group discussions. Presentations can be found on the Geodata for Agriculture and Water (G4AW) website: <https://g4aw.spaceoffice.nl/en/>

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Program and Participation



Overall, 63 people attended the workshop, including representatives from government agencies and departments, mobile application and service providers, satellite information providers and companies from the agriculture sector, NGO's, research institutes and others. The list of the participants is mentioned in the Annexes.

The program of the day consisted of various presentations and discussion rounds. The day started with an opening speech and introductions by Frederik Heijink, agricultural counselor of the Embassy of the Kingdom of the Netherlands and Ruud Grim from NSO. After this, Thijs Wissink, consultant for AgriProFocus presented the quick scan he prepared for the workshop. Then, the participants discussed problems, bottlenecks and information needs in Myanmar. Before lunch, NSO and various international and Myanmar companies presented examples of innovative information services to farmers.

During the afternoon session, the participants were challenged to design their own information chain solution using geo and satellite data. After this, NSO presented the criteria, process and timelines for the 3rd call proposals for G4AW.

Presentations

Presentation Frederik Heijink, Agricultural counselor, Embassy of the Kingdom of the Netherlands

Frederik Heijink gave an overview of the different areas of collaboration between Myanmar and the Netherlands in the field of agriculture. The main sectors for collaboration are horticulture, potatoes, seeds and planting material and poultry. Furthermore, the collaboration focuses on strengthening the agriculture knowledge system and bringing regulatory frameworks in plant protection and variety in line with international standards.

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He stressed the importance of innovation in agriculture and regards the use of satellite data as an important contribution to this goal. Furthermore, he highlighted the importance of up to date information services for smallholder farmers. Therefore, he warmly welcomes the G4AW call and hopes the workshop will be a first step in setting up successful projects.



Presentation Ruud Grim: Introduction NSO and G4AW

Mr. Ruud Grim, Senior Advisor Applications & Coordinator G4AW from NSO, gave an introduction about NSO and the purpose and history of G4AW. Moreover, the presentation covered about food security and satellite based information services. Satellite information can support farmers to improve food security, by providing the right information at the right time. Later, he explained about the G4AW Facility and information chain and partnerships information.

Presentation Quick Scan Myanmar

Mr. Thijs Wissink is a consultant from AgriProFocus and he delivered the presentation about the quick scan he prepared in the past few months. This quick scan report includes the main finding on agriculture and information services in Myanmar.

Contents of the presentation:

- Agriculture sector in Myanmar including main figures and data
- Relevant organizations and initiatives
- Assessment of Myanmar with a focus on agricultural issues
- Assessment of status and problems of information supply in the agricultural sector



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- Needs assessment and inventory of potential solution using Geo-ICT

The quick scan report has been sent to the participants that attended the workshop and will be shared on the G4AW website.

Group Discussions

After the coffee break, participants were asked to discuss the main problems, bottlenecks and information needs in Myanmar agriculture in smaller mixed stakeholder groups.



The representatives of different groups presented their findings about the challenges, bottlenecks and information needs in the agriculture sector in Myanmar.

The following problems and information needs were identified:

Problems

- Lack of information about weather forecast and weather information for seasonal crops
- Limited access of agricultural technical information
- Unbiased information in fertilizers, pesticides, seed, etc.,
- Lack of local market information such as market potential.
- Insufficient access to finance
- Due to insufficient finance, farmers cannot access the correct information sources.

Information needs

- Accurate weather & climate forecast in timely manner
- Localized market information
- Unbiased technical information for sustainable agriculture

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Presentation by NSO: Satellite and Information Services; Overview and examples

After the group discussion, Mr. Ruud Grim delivered the presentation about the following;

- Challenges in agriculture sector including world population, food production and climate change
- Agriculture related application areas such as food security, agro business, crops, irrigation, water management, water quality and drought.
- Introduction to satellite technology
- Sharing links to websites providing information about geo data related information. (G4AW & NetherLands Space Directory)

Pitches information services Myanmar

Five companies presented how they offer innovative information services to smallholders.

Satelligence - Arjen Vrieling (CEO)

Satelligence is a Dutch satellite information provider that works on agriculture crop performance monitoring such as maps. Their system is based on local knowledge information system. The main distribution channel is smart phones that can easily be accessed by farmers and other stakeholders. Satelligence focuses on actionable information to manage risks and opportunities for agriculture.

Impact Terra – Erwin Sikma (CEO and Founder)

Impact Terra is a Dutch startup active in Myanmar. Their mission is to support farmers in improving livelihoods and make food supply more secure and safe. It has developed and operates the Shwe Thee Nhan Facebook page and Android application. The main categories of application include weather information, water risk, pest risk, soil condition information and market price of the crops. They aim to reach 1,000,000+ farmer users on their application.

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Mandalay Technology – Zaw Naing (CEO)

Mandalay Technology is a Myanmar tech company. It provides geospatial solutions, IT solutions, science and engineering education solutions and consultancy services for Engineering and Development in Agriculture and Water sectors. They work together with related government departments, regional governments, universities and other stakeholders in various programs. Their aim is to train young professional who will contribute the sustainable development of the country.

Miaki – Quyen Ho McGrath (Partner Manager)

Miaki developed a mobile application for farmers which is called Site Pyo app; working together with Ooredoo. The main beneficiaries are farmers, agricultural input suppliers and agriculture extension workers. They have achieved the 175K download target. There are three main features in the application;

- a. Weather forecast
- b. Emergency alert for extreme weather
- c. Market price (wholesale only)

The weather feature is the key to keep users engaged on a daily basis. Moreover, there is also a farmer line for special service in the application. Farmers only check the weather information. So, the application gives a reminder alert if there is emergency information. The ways forward are Agro IVR (interactive voice records), Agro Call Center, Agricultural SMS tips and Agro Voice.

Green Way – Thein Soe Min (CEO)

Green Way is a leading mobile application for farmers in Myanmar. Greenovators's vision is to empower farming communities in Myanmar to improve their livelihoods and build a more sustainable and resilient agriculture sector in Myanmar. The features are based on the needs of the farming community to help them access information for their daily needs. The application has been designed to be simple and farmer-friendly. It includes weather forecast, farming practice, Q&A, daily crop market price and price trends, etc. There are 31,000 users currently.

Discussion round 2: Possible information service solutions for smallholder farmers using satellite and other geodata in Myanmar



The participants were challenged to design their own information chain solution for smallholder farmers using satellite and other geodata in Myanmar.

The questions the groups had to answer: What stakeholders are needed and how do they process and deliver information? What are the benefits for farmers if using services? Which organizations might

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also benefits from technology and services? How to ensure that the user is involved from the early beginning?

Small groups covered the following topics:

1. Fertilizer, pesticides, seeds and localized weather forecast
2. Water Management
3. Rice Farming System



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Group (1): Fertilizer, pesticides, seeds and localized weather forecast Main issue: lack of accurate/localized weather information which can affect harvesting. When the farmers need to use fertilizer and pesticides, they cannot get the right information to assess how they should be used. Farmers cannot easily assess the technical information when they want to get the information about the quality of seeds. There is also need of the market information of the crop and value chain.

Possible solution: Satellite service data is the best solution to develop technology to more localized knowledge for farmer. With the help of mobile satellite technology, farmer will get the information on time about weather forecast, seed quality and other agriculture related information. Moreover, the related institutions, universities and weather forecast stations also have to upgrade the system according to local agriculture sector needs. Local agronomic expertise entering system is also important.

Group (2) – Water Management

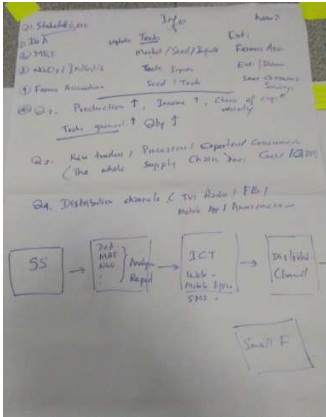
Main issue: government only controls the satellite image currently. So, Government sends the information step by step to the farmers. Only government organization controls the management of water in Myanmar. Government agencies share the water related information in short notice. Water quality has to be checked during the storing period. After the rainy season, it is difficult to get enough amount of clean water.

Possible solution: Using satellite is the good solution for managing the water system. Government gets the information from satellite and send to Department of IT and share to farmers normally. The group proposed to change the channel, like Government to private sector to farmers or Government to mobile application to farmers. If we will change the satellite system, farmers can get the benefits.

Water user groups should be trained to avoid water losses. In the field, the lay out system should be build up. The Department of Water Resource and Management also should be involved in this project. Farmers have to identify the type of crop before growing. And then, water supply system will be calculated, based on the local level. Department of Hydrology and Department of Water Resources and Management should work together with private sector and stakeholders to assist the required information for farmers.

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Group (3) – Rice Farming System



Main issue: Farmers require distribution channel and rice experts.

Possible solution:

Stakeholders, Department of Agriculture, NGO's, and Farmers association should use up to date technology, like website, mobile application, sms. For example, with the help of applications like Green Way that can share the information when farmers need to know the nature of changes. Moreover, government agencies should work together with NGO's, private sector, local stakeholders to perform capacity building. Make sure that feedback dialogues are also a key factor in the project. The system should be designed for

the local context. By using local distribution channels, farmers can more easily assess the risk.

Groups (4) –Rice farming systems

Main issue: Limited possibilities for small holder farmers to assess risks

Possible solution: Stakeholders should be involved in knowledge sharing by satellite services. The service should be suitable for farmer level. For example, sending mobile message about agriculture related information to farmers.

Presentation from NSO: Information on 3rd Call: Process & Planning



Mr. Ruud Grim presented about the criteria, process and timeline for the 3rd G4AWcall. For more details, please look at the presentation that is shared at the G4AW website.

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Conclusion and next steps

The main issues of the agriculture sector in Myanmar were discussed and presented during the workshop. The workshop was successful in terms of participants and their opinion and discussion. Moreover, the participants belong to different organizations such as government agencies, NGOs, research institutes, private sector and others. During the workshop, they discussed and shared their ideas with representatives from different sectors. Hopefully, this will help the participants to set successful partnerships for G4AW projects.

The Quick Scan provided an up-to-date information assessment on agricultural and associated activities. It provides an overview of the main developments in the agriculture sector in Myanmar. Additionally, stakeholders from different types of organizations are identified and reported. The document is initially supporting the country visits and workshop, but the provided information can also contribute to the development of partnerships that are intending to bring forward a proposal in the third call of the G4AW Facility.