

G4AW INFORMATION AND MATCHMAKING WORKSHOP

Workshop Report

24TH June, 2014 Best Western Premier Hotel, Airport Accra - Ghana





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MATCHMAKING WORKSHOP REPORT: GEODATA FOR AGRICULTURE AND WATER

Workshop Objectives

On June 24th 2014, the matchmaking workshop "Geodata for Agriculture and Water" took place at Best Western Hotel in Airport, Accra. The aim of the event was to introduce the new G4AW (Geodata for Agriculture and Water) facility; for funding of innovative projects that use the satellite data in agricultural development and water management to improve food security.

Workshop participation & Organization

The workshop was well attended. In total 48 people representing Government Ministries and agencies, Dutch Embassy, NGOs (International and Local), Insurance Companies, Financial institutions, Agri-Business companies, Telecommunication Companies and Service providers of satellite data attended the workshop.

The Geodata for Agriculture and Water programme is implemented by the Netherlands Space Office (NSO) on behalf of the **Netherlands Ministry of Foreign Affairs**. SNV Ghana played a role in the preparation, organization and facilitation of the workshop in collaboration with Netherlands Embassy in Ghana. The conference was moderated by Ms Sally Adjetey.

Workshop Programme

The programme of the day comprised many sessions and presentations (see page 13 for the agenda of the workshop)

Introductory Remarks

The workshop was opened in the presence of 3 speakers: The Minister for Food and Agriculture Ghana, Hon. Mr Kofi Humado; the Country Director of SNV Ghana, Amanda Childress and First Secretary, Agriculture, of the Embassy of the Kingdom of Netherlands, Mr Thierry van Helden.



Country Director of SNV Ghana, Amanda Childress delivering her Opening Address

In her opening address, Amanda Childress pointed out SNV's intervention in Agriculture in Ghana and made some key points on the subject matter of Climate and satellite data:

- SNV is working to make agriculture more sustainable, globally and in Ghana
- Food security will become a bigger issue as the population grows
- With the climate changing, there is a need for "climate smart agriculture"
- SNV is working to build smallholder supply chains and to transform agriculture into a business
- With changing rain patterns loss of rain or extreme rainfall there is a need to be able to plan for such things so that the crops are not as affected



Minister of Food and Agriculture, Ghana. Hon. Kofi Humado, delivering his Opening remarks.

The Minister of Food and Agriculture, Hon Kofi Humado, in his remarks highlighted the importance of Water in agriculture and made the following remarks:

- Demand for water is increasing as the supply of water becomes more limited
- Countries in Africa have either yet to realize their full potential with water or they have yet to put in place the programs to do so
- Transformation of agriculture is high on MOFA's agenda. **Especially through irrigation**
- Water for food need programs and incentives for farmers when it comes to irrigation
- Only 2.4% of agricultural land is irrigated in Sub-Saharan Africa
- 15% of Ghana's water is used for irrigation
- Water sector reforms are needed
- Highlighted the important role of the Ghana Water Resources Commission
- Mentioned that PPP's are on-going in irrigation
- Irrigation issues:
- Delivery of water at least costs, for instance using solar power
- Involving youth
- Funding by public sector alone is not possible anymore. Therefore seeking collaboration international funders and private sector:
- EU infrastructure in northern Ghana
- WIENCO irrigation in northern Ghana (with GIDA Ghana Irrigation Dev't Authority)
- JICA, World Bank, GADCO and Agro-Brazil development of Accra plains to boost agricultural productivity
- Vegpro taking water for irrigation form lower Volta river
- Other projects:
- Exploration of groundwater resources (with Spanish Aid)
- Soil management/drainage in South-East of country
- Guidelines for land development by EPA
- Ghana Resources Commission implementing and renovating water resource development
- Irrigation development challenges how to have the water delivers; solar energy
- Need actions from more than the government PPPs
- Exploration of ground water resources



First Secretary for Agriculture at the Embassy of the Kingdom of Netherlands, Mr Thierry Van Helden delivering his opening remarks.

The First Secretary for Agriculture at the Embassy of the Kingdom of Netherlands, Mr Thierry Van Helden also made these remarks:

- As Ghana becomes a "middle income" country, the relationship between Ghana and the Netherlands changes into more of a trading partnership
- Need to work to enable farmers
- Agricultural insurance
- Forming public/private partnerships in agriculture

Quick Scan Findings Presentation

Quirin Laumans, Country Sector Leader for Agriculture of SNV Ghana presented the finding of the Quick Scan.

Quick Scan 1: Ghana Context

- Background info on Ghana
 - o Average \$1,550 per capita
 - 10 administrative districts; 216 district assemblies
 - \circ 11% representation of women in parliament
- Instability of the Cedi provides challenges
- 58.8% of land used for agriculture
- 4% of land uses irrigation
- The north receives less rainfall
- Average temperature: 30 degrees
- Climate Changes: 20 year observations
 - o More frequent and longer periods of drought and floods
 - o Rising temperatures
 - o 2060 predictions

- 1-3 degree rise in temperature
- Decline of rainfall: 1.1% by 2020; 20.5% by 2050
- High rainfall periods followed by long periods of drought
- o Potential Effects
 - Inadequate water for hydroelectric power and irrigation
 - Agricultural and socio-economic effects
- Government action
 - Committee set up
 - Working on creating early warning signs
 - Isolated efforts need collaboration
- o Main concerns
 - Food security
 - International competitiveness refers then back to transforming Ghana into more of a "trade partner"
 - Water issues
 - 12% less water by 2020

Quick Scan 2: Challenges and Opportunities

- "More phones than people in Ghana"
- Most spatial information is from local agents working for foreign principals no ground principals
- Some NGOs and projects have their own spatial databases the information needs to be available to farmers
- Limited information sharing among actors Collaboration
- High illiteracy rates make it hard to get this information to farmers
- Sectors important to Agriculture
 - o Telecommunication
 - o Environment/meteorology
 - $\circ \ Education$
 - o Land and natural resources
 - o Finance
 - o Roads and highways
- Agri-spatial info services
 - o Have to move agriculture to modern mechanisms
 - Need local platforms and supports
 - Farmers do not have the capacities to reach these alone
 - Rundown from the national level to the district level
- Traditional Farmers have signs that signal rainfall, etc, but climate changes have thrown this off
 - o Need education for farmers
 - o Difficulties getting farmers to believe it
 - o Need for info in their own languages
- · Communications products to get info out
- Agriculture is a huge sector for communications
 - o Working on building community with communication technology (Vodafone)
- Farmer's major means of communication radio
- Lack of financial services
 - o Lots of perceived risks
 - o Not enough focus on other financial services besides lending
 - \circ Perceived risk \rightarrow need research \rightarrow need education

Quick Scan discussion points.

- the need for packaging Geodata and spatial information so that farmers have easy access to these data and can apply the information for improving productivity
- to involve the Ministry of Finance as a stakeholder
- to involve Farmer Organizations as stakeholders

- to not underestimate small holders capacity to use ICT data, as very often their children have ICT literacy and will assist the older generation
- · to involve the media to support awareness creation on the usefulness of spatial data
- to analyse current information products such as CocoLink (Cocoboard) and the products offered by cell phone companies such as MTN and Vodafone





NSO Advisor, Applications/G4AW, Ivo Walsmit presenting the introduction to the G4AW facility.

The keynote speech was addressed by the NSO Advisor, Mr. Ivo Walsmit who introduced the G4AW facility to the participants. In his presentation, he highlighted that the overall objective of the G4AW facility is to contribute to improved food security and access to water in the 15 G4AW partner countries by providing food producers with relevant information, advices or (financial) products through operational information chains using satellite data, hence increasing the agricultural sector output in the participating countries.

To reach this objective the G4AW Facility will develop:

- I. A platform that supports the formation of partnerships between participating public organizations, research institutes, private sector operators, NGO's, and farmer cooperatives satellite data/service operators, private (agricultural) sector, transmission operators.
- II. A programme that promotes and supports private investments for putting large-scale demand-driven satellite-based information services into operation. He continued by a

presentation on how the satellite based information services are improving Food Security. Several key effects of climate change on food & water security, as extensive rainfall, drought, etc. were mentioned.

He continued with a presentation on how the satellite based information services are improving Food Security. Several key effects of climate change on food & water security, as extensive rainfall, drought, etc. were mentioned. Below are some key points from his presentations.

- To help farmers make proper decisions
- Data→ info→ knowledge
- Satellite data
- Land and soil maps
- Crop calendars
- Crop monitoring
- Irrigation advice
- Micro-insurance: needs to be upscaled -- will allow for it to be cheaper for each farmer

After his presentation, participants were given the opportunity for comments, below are some key points raised by the participants.

- Most crops mentioned were annual, what about perennial?
- · Would be helpful to have all of this apart of a bundle instead of having multiple services
- Creating a national service instead of having information received at all different times; would make it more equally distributed and farmers would be more likely to use it
- Connect the service to the radio dial a code and listen to it in different languages

G4AW: Goals and How to Tender

- Information on Call for proposals for G4AW
- Overall aim: to reach 3 million small holder farmers in 15+ countries
- Output/outcome/impact
- Project duration: 3 yrs.
- Project budget: € 1-5 million, with 30% own contribution
- Project must include:
 - user demand, (including user groups and stakeholders)
 - o PPP
 - o business plan, (solid business case, financially sustainable model)
 - o information services with use of Geodata
 - o at least 200,000 farmers
 - o 10% production increase
 - o 10% reduction in input use (water, fertilizer)
 - o Dutch organization as applicant
- Questions about Call for proposals can be asked till: 30/11/2014
- Application deadline: 28/02/2015
- <u>www.spaceoffice.nl/g4aw</u> has a G4AW matchmaking directory
- <u>www.waterandclimateservices.org</u>

Pitches (Business Cases) from Selected Organizations

9 companies were pre-selected and given the opportunity to give an overview and business case of their services related to satellite data provision. Below are the key points from their presentation.

1) Ghana Space Science and Technology Institute (GSSTI)

- Since 2011
- · Collaboration with South Africa
- Preparing for installation of ground receiving station
- Is looking for partners to make this possible
- Conversion of a 32m telecommunications antennae into a radio telescope
- Putting science and technology into the minds of the young
- Comments from participants
 - Ought to build programs into the curriculum at technical schools or universities
 - Many farmers cannot read, how will they access the data? radio
 - o Vocabulary does not support all words in English, could still sustain certain words
 - o Could organize farmers and designate one person to communicate to the group
 - Allowing information to travel by "word of mouth"

2) aWhere

- Analysing data over time and space
- Climate smart agriculture
- Based out of Colorado
- Business intelligence for agriculture
- BIG data
- Paid service works at the institutional level and they then send to retailers
- Weather→ Analysis→ Data library
- Data collection→ Data manager→ Data library

3) Ghana Agricultural Insurance Programme (GAIP)

- Support from GIZ
- Oversees entire development of Agric insurance in Ghana
- 19 insurance companies as pool members
- Rice, cocoa, poultry, livestock
- Has other insurance companies as pool members
- Weather index, area yield index, traditional

4) Ignita

- Iska
 - o Goes directly to SMF
 - Sends a daily text (5 days per week) with words and symbols for both the literate and illiterate
 - Works with telecommunications to find location and only delivers information for the farmer's specific location
- Precision
 - o Monitors forecasts
 - Soil content
 - o Seasonal outlook
 - o Accessible by smart phone, email, and web app
- Weather forecasts through text messages
- Location specific
- 3-day weather outlooks
- Service costs: GHC12/yr.
- How? NASA info, weather balloons, etc
- Optimized for this specific region

5) SYECOMP

- Mainly works with farmers
- Multi-spectral satellite images
- Monitors weather, crop growth, water, hydrology

- Available in:
 - o Interactive web platform
 - o Mobile platform
 - Hard copies
 - o FM radio

6) Centre for Remote Sensing and Geographic Information Services (CERGIS)

- GIS
- Data on specific crops
- Provides locations of financial institutions
- Platform for development partners to access
- Integrated feedback system (messaging, etc)
- · Produce detailed maps on crops, soils, climate, land suitability
- M&E on-line
- Improved communication between Value Chain stakeholders/actors
- Mainly working with government
- Comments:
 - Originally (the company) had been set up to be self-serving, resulting in to be perceived as more expensive –no longer the case
 - Ideal to have information readily available for new donors in an area based upon the experience of the previous donors

7) West African Science Service Centre on Climate Change and Adapted Land Use (WASCAL)

- Capacity building in research
- Developing stable scientific structures
- Research: interaction between "man and land"
- Services need info
 - o Meteorological, hydrological, land, household, biodiversity
- PhD and MSc schools
- Studying the physical and human side of the changes in the planet
- Provide policy advice

8) Fidelity Bank Ghana

- Fidelity Smart Account
 - The Fidelity Smart Account is designed to provide a full bank account in less than 5 minutes.
 - One requires only one piece of documentation, any valid Ghanaian ID, to open an account.
 - $\circ\quad$ Offers clients the opportunity to have both a Current and a Savings Account
 - o Available in Rural or poor urban areas
 - o Allows them to build credit so that they can get access to loans
- Fidelity Smart Agents
- Conduits through which any member of the public can open a full bank account, called the Fidelity Smart Account, and receive an instant ATM card in five minutes.
- Loan facility would be added in the near future to provide loans as low as 100-200 Ghana cedi
- Comments:
 - Helpful to have a way to guide farmers to ensure that there is not a misappropriation of funds (financial literacy)

9) Prepeez

- Affordable and accessible information services
- Affordable communication system for farmers
- Translated into six different local languages
- Audio access
- Multi-lingual audio library
- Allowing banks to reach out to farmers without worrying about a language barrier
 - Discounted service price through MTN

- Toll-free services through helpdesk/call-centre (tel.number 30037)
- o Cheaper than ESOKO and others

Matchmaking Event



Participants during the Matchmaking Event with pitchers

After the business cases were presented, participants were given an opportunity to meet with potential service providers that is pitchers to identify and agree on mutual areas of interest they might want to explore and work on. To give all interested parties an opportunity. The nine companies were allocated a table and participants were guided to move around to engage with the respective service providers after which they had to move to another. The intent of the matchmaking was not to conclude agreements, but to initiate a discussion that will be picked up later. Each contact was documented on a form provided on each table for follow up.

Closure

Closing the workshop, Mr. Ivo invited anyone who is willing to apply to the fund, to begin by registering his company/organization on NSO's website (www.spaceoffice.nl/spacedirectory) for a better matchmaking with Dutch companies and send good draft proposals as early as possible to void stress of last minute submissions.

More info on NSO website: www.spaceoffice.nl/g4AW

E-mail: g4aw@spaceoffice.nl

G4AW Workshop Program

Matchmaking and information Day Tuesday, June 24, 2014

Location: Best Western Premier Hotel, Accra Airport

Agenda

- 8:30 9:00 Arrival, Registration of Guests and Introduction
- 9:00 10:00 Welcome and general introduction
 - Amanda Childress, SNV Ghana Country Director
 - Thierry Van Helden, First Secretary Agriculture, Embassy of the Kingdom of Netherlands
 - Hon. Kofi Humado, Minister of Food and Agriculture, Ghana
- 10:00 10:45 Quick Scan, part 1: Ghana context
- 10:45 11:45 coffee break
- 11:15 12:00 Quick Scan, part 2: Challenges and Opportunities in Ghana's agriculture and water sector
- 12:00 12:45 State of the art: Satellite based information services introduction
- 12:45 13:45 Lunch
- 13:45 14:15 G4AW: Goals and how to tender
- 14:15 15:15 State of the art: pitches from selected organizations
- 15:15 15:30 Coffee break
- 15:30 17:00 Match making
- 17:00 closure

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