

Greenhouse Gas Observation & Climate-Smart Agriculture



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Findings from SEACRIFOG Stakeholders Consultation Workshops

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SEACRIFOG project promotes the EU-Africa cooperation dialogue at different levels (policy, science, society) on the following themes: *land use, land use change, climate-smart agriculture, food security, carbon cycle and greenhouse gas (GHG) observations*.

In order to identify user needs, SEACRIFOG project initiated the **process to engage relevant stakeholders** from Africa and EU to exchange and gather existing knowledge. Three workshops have been organized in **Eastern Africa** in Kenya, Nairobi (31st May 2017) and **Western Africa** in Ghana, Sunyani (16th June 2017) and **Southern Africa** in Lusaka, Zambia (18th April 2018). In total, 73 participants from 33 organizations across Africa attended these three SEACRIFOG Stakeholder Consultation workshops.



Main findings of SEACRIFOG Stakeholders Consultation workshops

SEACRIFOG Stakeholders three The Consultation Workshops (Eastern Africa, Western Africa and Southern Africa) underlined the importance of **sharing data** and knowledge and the need to develop not only technologies and research infrastructures, but also strong and collaborative networks. For all three thematic groups (LUC, food security, GHG and CSA) data availability, accessibility, and accuracy was the core of all discussions. The workshops also identified an urgent need to address a farmers responsive research to provide accessible know-how in terms of technology and good agricultural

Aims of SEACRIFOG Consultation workshops

The aim of the SEACRIFOG Stakeholder Consultation Workshops was to identify general user needs and knowledge gaps in the area of research infrastructure related to: 1) Land use change implications on food security, 2) GHG observations, carbon stocks and climate change mitigation, 3) Climate smart agriculture in Africa. In Zambia, the third topic focused on capacity development.

TAB 1: Summary of workshops findings

TOPICS REMARKS Presence of lots of data but: - Low data availability, accessibility, sharing, networking, accuracy and visibility DATA NEEDS - Data in not usable/understandable format AND GAPS - Problems of time and spatial resolution, low interoperability and quality of data and metadata, needs for data repository and increased frequency of data up to-date - Satellite images as useful tool for information sharing and communication with stakeholders about the state of the art of the environment. - Investment needed (e.g. into technologies and equipment) **INFRASTRUCTURES** - Many efforts in place, but coordination lacking, specific government subsidies required, inadequate road connections from farms to the main markets - Need for data management skills CAPACITIES - Need for capacity building to understand and implement guidelines for GHG emission reporting - Appropriate use and monitoring of NDCs - Nationally determined contributions that were established by Paris Agreement in order to achieve long-term goals **Financial resources Market & Prices** -Inadequate financial resources - Poor and inadequate infrastructures to access to the market Land - Inadequate storage and processing facilities **CONSTRAINTS** - Complex land tenure systems - Price insecurity of agricultural products - Land suitability, affordability and fragmentation - Inadequate system to certify low carbon emission products - Land grabbing and illegal activities (mining, charcoal, logging, etc.) - Communication, use of different terminology Urbanization

practices (López-Ballesteros et al., 2018).



SOLUTIONS	 Pressure on farming land and land conversion (from farms to urban areas) Communication Improve the connection between existing systems (research infrastructures, datasets, etc.) Farmers responsive research, in response to farmers needs Bridge between scientific and traditional knowledge for innovative solutions Considering central rule of farmers as data source and data users of scientific information, products, services, etc. Citizen science could be a new kind of low cost monitoring infrastructure Improvement and promotion of climate smart agricultural practices with pilot farming systems (multi-cropping, appropriate irrigation systems, agroforestry, etc.) 	 Know-how and connections Accessible know-how sharing (mobile technology and innovative technologies, education, communication networks, etc.) Land classification and land productivity assessment Increase the use of RS data and GIS application Improved connection between government and farmers through the extension offices
ADAPTATION VS. MITIGATION	Adaptation is a priority for Africa, while mitigation is not. Mitigation can be seen also as an op health, nutrient and carbon conservation, etc.); market opportunity for new technologies	portunity: mitigation practices are often linked to adaptation practices; sustainable productions (

Source: López-Ballesteros, A., Beck, J., Bombelli, A., Grieco, E., Lorencová, E. K., Merbold, L., Brümmer, C., Hugo, W., Scholes, R. (Bob), Vačkář, D., Vermeulen, A., Acosta, M., Butterbach-Bahl, K., Helmschrot, J., Kim, D.-G., Jones, M., Jorch, V., Pavelka, M., Skjelvan, I. and Saunders, M. (2018) 'Towards a feasible and representative pan-African Research Infrastructure network for GHG observations', Environmental Research Letters. doi: 10.1088/1748-9326/aad66c.

