

Stakeholder perspectives on enhancing the use of satellite-based products and services in smallholder African agriculture

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Introduction

Limited awareness, access and capacity to use the available earth observation data and tools by policymakers in sub-Saharan Africa (SAA) to guide agricultural decision-making

Objectives:

- Identify strategies needed to institutionalize the use of Earth Observation (EO) data, products, and services in national planning processes.
- Create awareness about the role of EO data in fostering food security and enhancing climate adaptation to stakeholders.
- Initiate debate and discussion on the need for collaboration among institutions within the EO data value chain.



Fig 1: Study sites



Fig 2: Stakeholder consultations in Kigali, Rwanda

Recommendations

- Establish collaborative frameworks with Earth Observation (EO) national, continental, and global programs.
- Lobby for open access to very high-spatial resolution satellite imagery and products.
- Create policy and compliance guidelines to ensure that labelled agriculture research datasets are Findable, Accessible, Interoperable, Re-usable.
- Increase awareness of the available EO data, products, and services and processing tools.
- Strengthen the capacity of institutions to develop local models suitable for African communities.

Results and Discussion



Fig. 3: Stakeholder consultations in Gaborone, Botswana: Panel discussion with non-state end-users of EO data, products and services in agriculture.

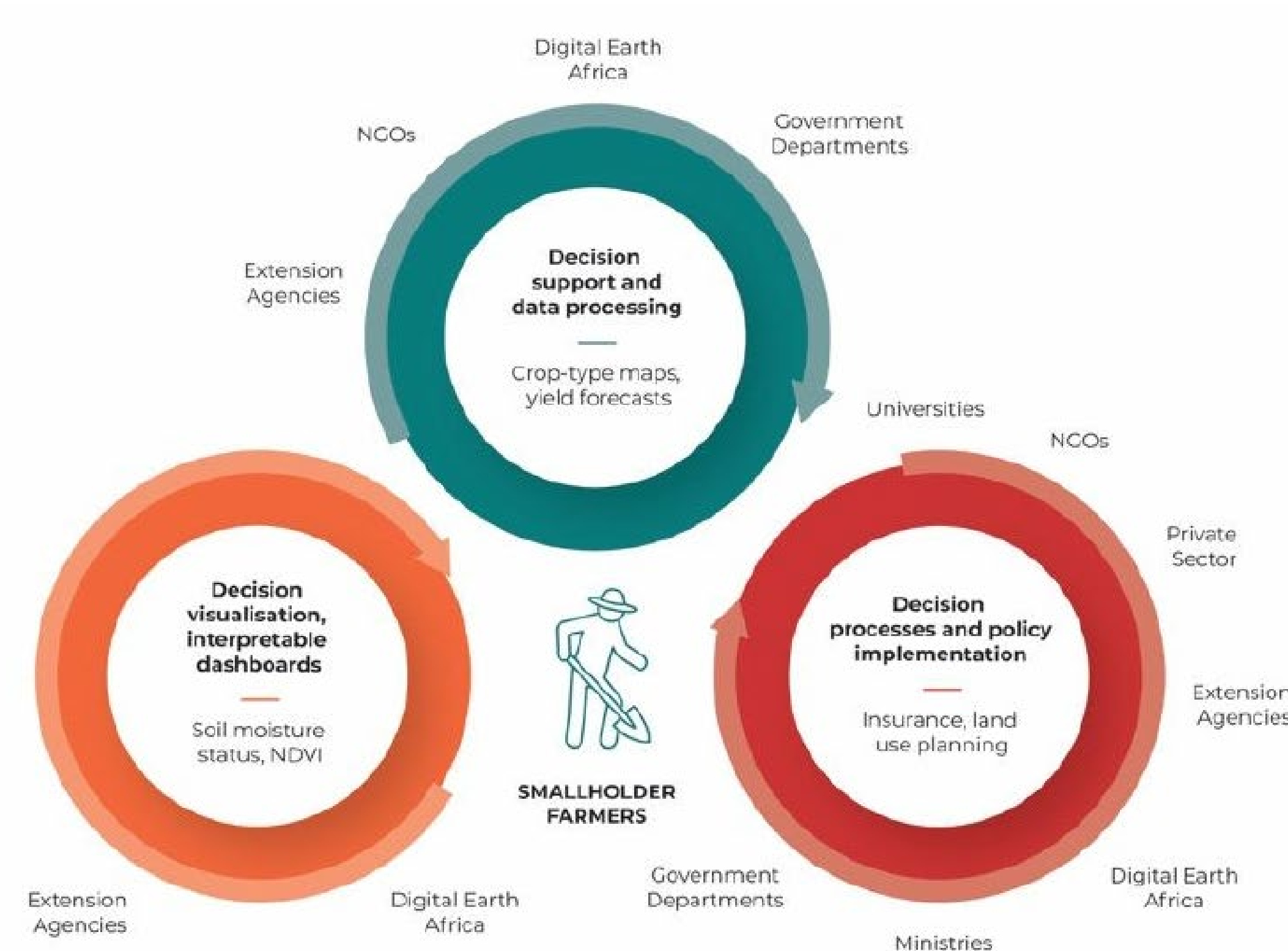


Fig. 4: Conceptual diagram illustrating pathways to impacting smallholder farmers via simple data visualisation, decision support and data processing, and decision processes and policy implementation.

- Develop and design products that target tech-savvy youth who serve as early adopters.
- Enhancing capacity of stakeholders helps to bridge the gap between EO data and its practical application at the grassroots level.
- Integrating EO data into program and institutional M&E frameworks enrich data-driven decision-making.
- Understanding user needs, preferences, and willingness to pay is key.

Approach

- Literature (grey & published) review on the use of EO data in African agriculture.
- National-level Policy dialogues, Focus group discussions and Key informant interviews to gather in-depth insights and experiences of key actors.
- 177 respondents engaged (29 in Botswana, 34 in Ethiopia, 55 in Kenya, 36 in Rwanda, 25 in South Africa, and 50 in Uganda)

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