



The Sixth African Higher Education Week and RUFORUM Biennial Conference,

Date: 20th October, 2018.

SENTINEL PROJECT:

Building foresight research capacity to support decision-making for Africa's agricultural development

Concept Note

Background

Agriculture remains the main stay for majority of people in the African continent contributing close to a quarter of its Gross Domestic Product (GDP); and this will continue to be the case due to increased demand for food to meet dietary needs of the rapidly growing population (AGRA, 2017). However, past increases in agricultural production in Africa have largely been attributed to expansion into unused arable land (Franks *et al.*, 2017). This kind of agricultural development has contributed to the degradation of ecosystem services and growing inequalities in society. If no action is taken, current agricultural development strategies which are poorly informed especially in light of the changing climate will further exacerbate environmental degradation, increase inequality and further marginalize vulnerable communities that depend on agriculture for their livelihood. The challenge is that decision makers such as private sector and policy makers continue to base their decision making on limited understanding of the trade-offs, risks and impacts of the different agricultural development pathways.

Scenario development reveals the significance of thinking deeply and creatively about the future lest we run the risk of being surprised and unprepared (Bishop *et al.*, 2007). Given that the future is uncertain there is need to prepare for multiple plausible futures not just the one we expect to happen (Ash *et al.*, 2008). The aspirations to understand future changes requires assessing developments that while they may have their origins in past or current trends have not happened yet (and may or may not happen) (Ash *et al.* 2008). Consequently, assessments of the future in various contexts need to deal with considerable degrees of both complexity and uncertainty. Scenario development and analysis is an

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approach that explores uncertain and complex developments in a structured manner (Bishop et al. 2007; Ash et al. 2008). Thus, over scenario analysis has been applied as a useful tool for assessing the prospects of future developments within complex and uncertain systems (Ash et al., 2007). Over the last decade, Van Dijk and Meijerink (2014) note that scenario analysis has been increasingly applied as a tool for dealing with complexities and uncertainties associated with climate change, food security and land use.

According to MA (2005) scenarios are plausible and often simplified descriptions of how the future may develop based on a coherent and internally consistent set of assumptions about key driving forces and relationships. This definition captures the key features of most scenarios, although alternative definitions of what exactly constitutes a scenario have been put forward (e.g. IPCC, 2002; UNEP, 2002, EEA, 2005). While there are various definitions for scenarios on one point there is consensus: that it is not a prediction (Van der Heijden et al., 2002). Given their importance, scenarios are used in a wide range of contexts including agricultural development, environmental assessments, as well as regional and national foresight studies among others (Van Notten, 2005). For instance, as noted by Van Dijk and Meijerink (2014) scenario analysis has increasingly being used to explore the main drivers affecting global food supply and demand in the future over the last decade.

The Sentinel Project

In light of the above context, the Social and Environmental Trade-offs in African Agriculture (SENTINEL) project funded by the UK Research Councils has a vision for *Decision makers and other stakeholders in Sub-Saharan Africa to engage effectively with research organisations to design, co-produce and use state-of-art research on the impacts, risks and trade-offs within and between social, economic and environment dimensions of agricultural development with a focus on Sustainable Development Goals (SDG) 2, 10 and 15.* The project is a consortium of UK and African Partners including International Institute of Environment and Development (IIED)-UK, Copperbelt University-Zambia, University of Ghana-Ghana, Imperial College London-UK, University of Reading-UK, University College London-UK, University of Greenwich-UK, University of Reading-UK, Ethiopian Development Research Institute (EDRI) and The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM). The project utilizes findings on the past and present status of agricultural development on the African continent to build alternative scenarios of agricultural

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development that take into account Climate change, technological progress in agriculture, and predicted rates of population growth, urbanization and agglomeration. The scenarios exercise is a powerful methodology for examining prospects of future developments in complex ecosystems (Ash, 2010). However, the applicability of this methodology is still limited within the African research context. Hence, there is need to build capacity of African researchers and students to conduct futures research to guide decision making on the various agricultural development pathways to reduce risk and impacts on African ecosystems. Nonetheless, capacity building is an integral part of the SENTINEL project and involves mentoring of researchers to conduct high quality research in project research themes including scenarios development and foresight modelling.

Rationale and Objectives of the side Event

The overall aim of the side event is to strengthen capacity of SENTINEL researchers, university academics and PhD students to conduct scenarios work in order to contribute to identification of hot spots (locations experiencing higher levels of impact and trade-offs) and hot topics (specific types of impacts and trade-offs) that merit further research. Furthermore, the mentoring of PhD students and researchers under the RUFORUM network on scenarios and foresight research will increase the impact of the SENTINEL project by scaling out research to 36 African countries. The two days scenario development programme is aimed at familiarizing participants with scenario development and analysis. The programme sets to provide an overview of all the important steps that need to be considered when developing and analyzing scenarios using examples from the Zambian SENTINEL scenario development workshop. Specifically, the training workshop has been organized to:

1. To familiarize RUFORUM SENTINEL PhD students, academics and project researchers with scenarios/foresight research methodology
2. To help identify particular scenarios as topics that warrant further investigation by the SENTINEL PhD students
3. To provide a practical understanding of scenarios work and share experiences related to scenarios development methodology.
4. To build on the scenarios training workshop held in Oxford so as to increase understanding of scenarios methodology by SENTINEL project team members from Zambia, Ghana and Ethiopia so that they can refine their research questions.

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5. To increase visibility of the SENTINEL project and foster networking and knowledge sharing between SENTINEL project team and Higher Education stakeholders at the RUFORUM Biennial conference.

Approach and Methodology

The delivery of the scenarios training will involve face-to-face interactive sessions guided by two (2) experts in scenarios development. The methodology will be applied to a practical example of a plausible scenario. Flip charts, group work and Q&A will be applied to foster learning and Knowledge sharing among the participants.

Venue and Participants

The meeting will be held at Kenyatta International Convention Center (KICC), Nairobi Kenya. The following groups of participants are expected to attend the training.

1. SENTINEL PhDs Students
2. Two representatives from each SENTINEL target country (Ethiopia, Zambia and Ghana)
3. Academic Staff from RUFORUM member universities.

Side Event Organizers and Contact

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Annex1: Detailed Programme for the training will be provided by the facilitators.

Day		Training contents	Learning objectives	Who?
21 October Sunday	09.00 - 09.30	Introductions		All
	09.30 - 09.45	P Overview of objectives for the training workshop	Re-familiarise participants with the objectives of the training workshop	Dr. Jane Kwenye
	10.00 - 10.45	P Introduction to scenarios, their importance and use	Basic understanding scenarios, their importance and use	Dr. Jane Kwenye
	10.45	Tea break		
	11.00 - 11.30	P Introduction to scenario development methods	Basic understanding of scenario development methods	Dr. Jane Kwenye
	11.30 - 12.00	P Introduction to the four stages of scenario development	Basic understanding of stages of scenario development	Dr. Jane Kwenye
	12:00-13:00	EX/GP Stage 1: Identify focal issues Identify local issues using examples from the Zambian scenario development workshop	Start scenario process in practice	Participants in groups
22 October Monday	09.00 - 09.30	Q Recap of Day 1 and Q&A session		Stage 2 participants
	09.30 - 10.00	P Stage 2: Select scenario logics	Understand types of drivers Understand trends and uncertainties Understanding how to use the axis method to develop scenarios Understand how to determine time horizons for scenarios	Dr. Jane Kwenye
	10.00 - 11.00	EX/GP Drivers identification using examples from the Zambian scenario development workshop	Continue with scenario development process	Participants in groups
	11.00	Tea break		
	11.30 - 12.00	P Stage 3: Description of scenario storylines	Continue with scenario development process	Dr. Jane Kwenye
	12:00-13:00	EX/GP Developing scenario storylines using examples from the Zambian scenario development workshop	Continue with scenario development process	Participants in groups
	09.00 - 09.30	Q Recap of Day 2 and Q&A		2 participants

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09:30-10:30	Ex/GP	Finish Stage 3	Find creative ways to tell your stories	Participants in groups
10:30-11:00	P	Stage 4: Analyzing implications of scenarios	Basic understanding of how to analyze implications of scenarios	Dr. Jane Kwenye
11:00-11:15		<i>Tea break</i>		
11:15 - 12.15	Ex/GP	Stage 4: Analyse implications of scenarios using example from the Zambian scenario development workshop	Continue with scenario development process	Participants in groups
12:15-12:30		Wrap up of training programme and concluding remarks		Dr. Jane Kwenye/RUFORUM representative(s)

- P** Presentation/lecture
- Ex** Exercise applied to Zambian scenario development workshop, facilitation rotates among participants
- GP** Presentation about what was learnt from exercise, each time by different (small) group
- Q** Recap by 1-2 participants and followed by a Q&A session for the entire group

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