



**Sustainable Intensification Indicators:
perspectives from European and African researchers**

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Introduction

- Common challenge of African and European agriculture: to **ensure food production** while reducing its **environmental impact**
- Context: **global climate change**, **unpredictability of water supply**, **increased land degradation**
- Possible answer -> **Sustainable Intensification (SI)**: conceptualized in different ways depending on the **specific environmental and socio-economic context**
- Main objective -> to mobilize the **expert knowledge** of European and African researchers to orient the **analytical framework for the SI assessment** of the tested technologies and practices **on the basis of the local agroecosystems**



Materials and Methods

1. In-depth analysis of literature

to gather a preliminary comprehensive list of SI indicators at/for different

scales:
field/animal herd,
farm/household,
landscape

domains:
productivity,
social, economic,
environmental,
human

2. Digital survey

European and African researchers belonging to various disciplines were asked to:

rank the proposed indicators from the most to the least relevant (within each domain)

express a measurability score on a 5-point scale (for each indicator)

3. Datasets analysis

to outline the analytical framework for the SI assessment of the tested technologies and practices through a definite set of SI indicators

Results

69 questionnaires completed: 31 Kenya, 2 Ethiopia, 8 Tanzania, 3 Burkina Faso, 5 Ghana, 3 Italy, 10 Greece, 1 France, 6 United Kingdom

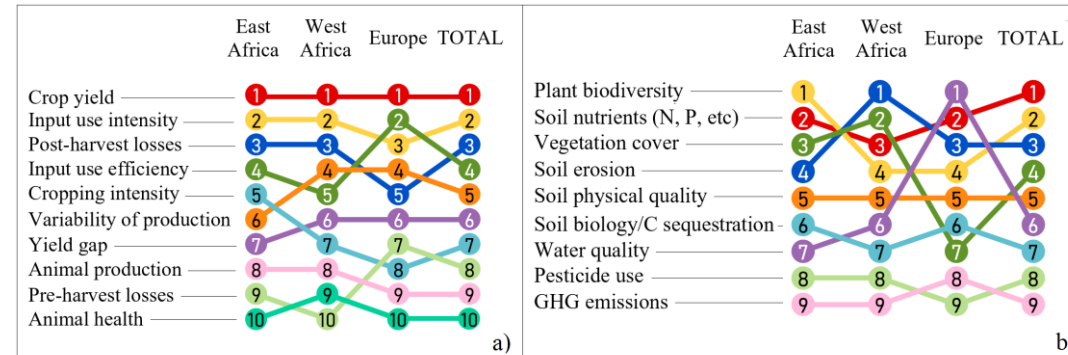


Fig. 1: Bump charts of the SI indicators' classification in the productivity (a) and environmental (b) domains as ranked by the researchers from East Africa, West Africa, Europe, and the Total.

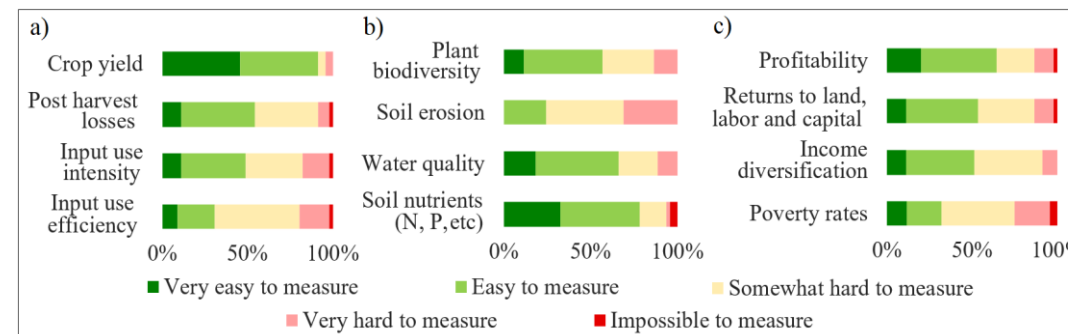


Fig. 2. Measurability score of the most relevant indicators within the productivity (a), environmental (b) and economic (c) domains as assigned by the EA and WA researchers.



Conclusions

- **Crop yield**, **Profitability** and **Food security** -> unanimously identified as the 1st most relevant indicators in their respective domains
- **Environmental domain** -> very diversified priority perceived from EA, WA and EU researchers based on the agro-environmental context
- High awareness of African researchers of the relevance of **Post-harvest losses** (3rd) in the food security issue in Africa
- **Outcomes** -> provide a basis to outline the framework for the SI assessment of the tested technologies within the EWA-BELT project

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