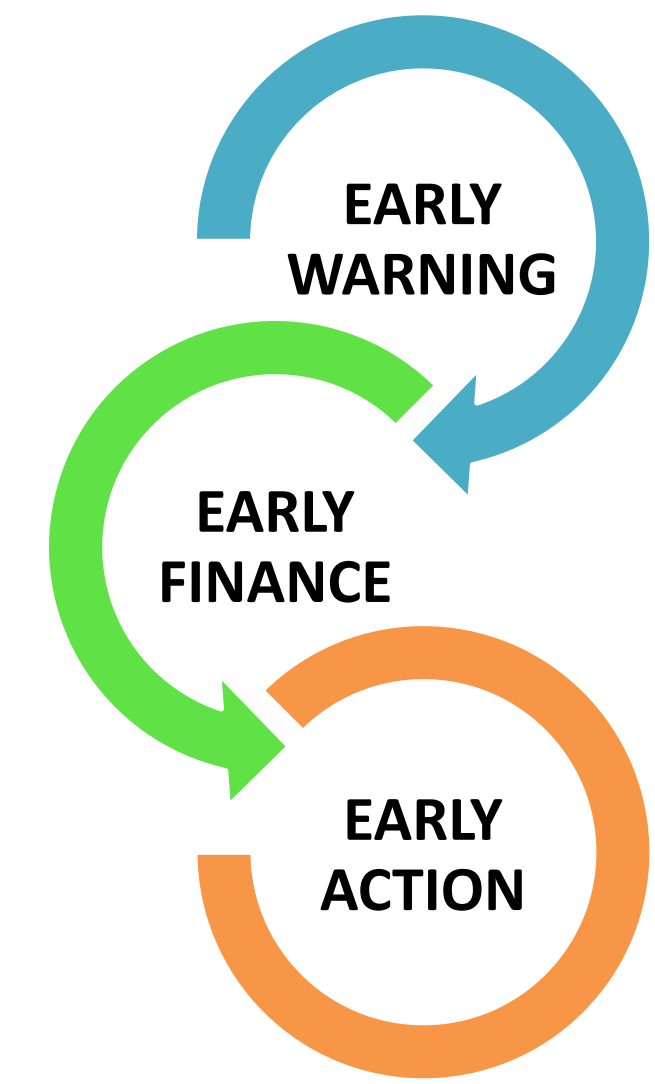


Lesson learnt from the implementation of Index-Insurance for livestock in the African drylands: toward early response and regional scaling

Francesco Fava and Nathaniel Jensen

Climate Risk in African Drylands

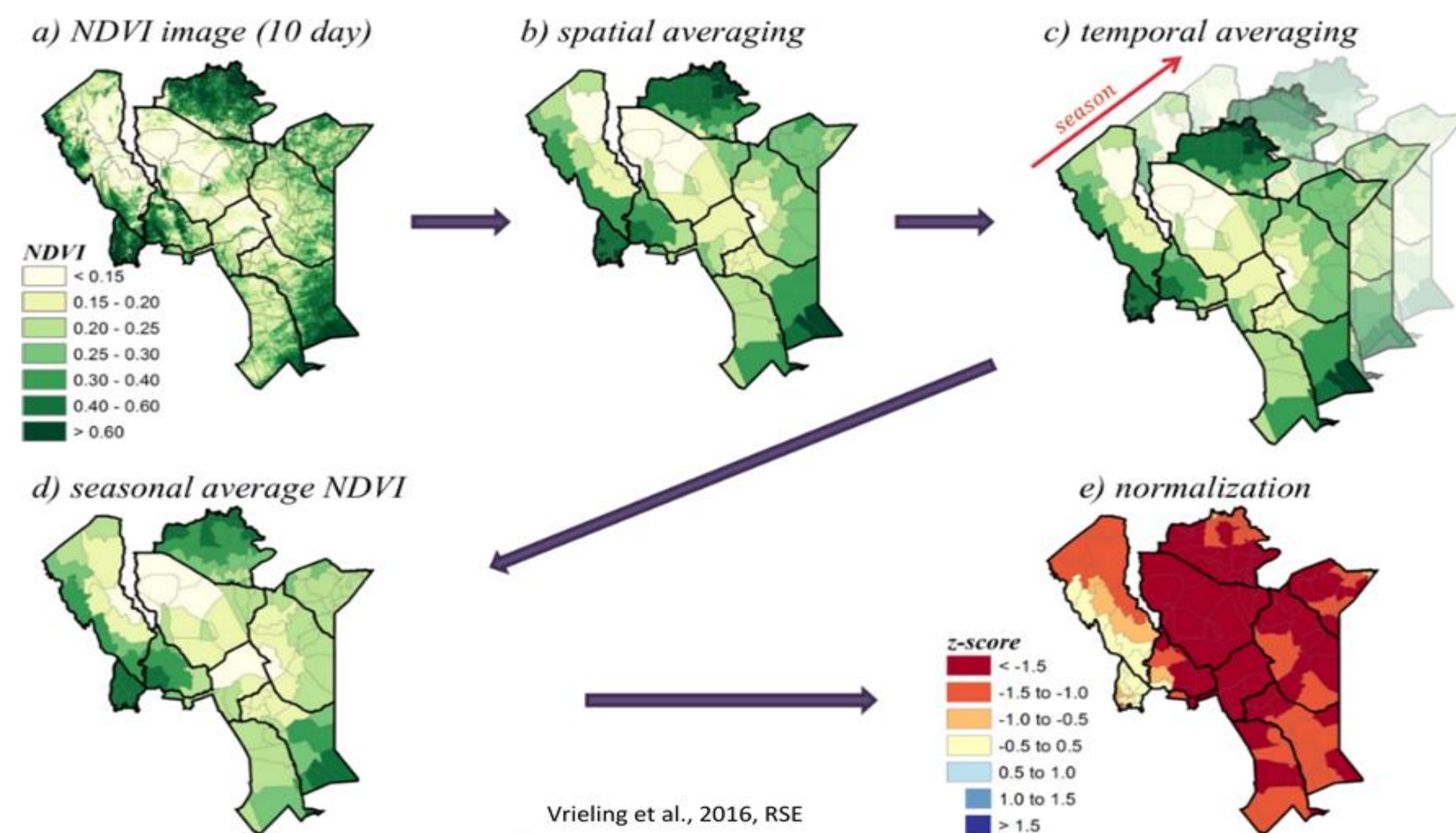
Drought is the main cause of livestock losses and a major driver of poverty, food insecurity, and malnutrition for these households. The increase of climate variability combined with rising population pressure and rangeland degradation increases their vulnerability, making typical herding strategies, such as migration or destocking, and informal traditional coping mechanisms, less effective.



In order to better prepare for catastrophic droughts, governments and institutions should have

- a **coordinated plan** for post-disaster early response agreed in advance,
- **clearly defined rules and triggers** for early disaster response, and
- **risk financing** to ensure that the plan can be effectively implemented

Drought Index-Insurance to Protect Pastoralists' Index-Based Livestock Insurance (IBLI) is a drought index-insurance product based on Earth Observation (EO) data specifically designed to provide **access to formal insurance coverage to households living in extensive pastoral systems of Africa**. IBLI uses NDVI imagery to assess rangeland conditions, which are then elaborated to derive an index of the seasonal forage availability in a given area and a triggering mechanism to provide payouts in case of forage scarcity, as **early indicator of forthcoming drought impacts on livestock**.



Francesco Fava
ffava@cgiar.org • Box 30709 Nairobi Kenya
Addis Ababa Ethiopia • ilri.org
www.drylandinnovations.com



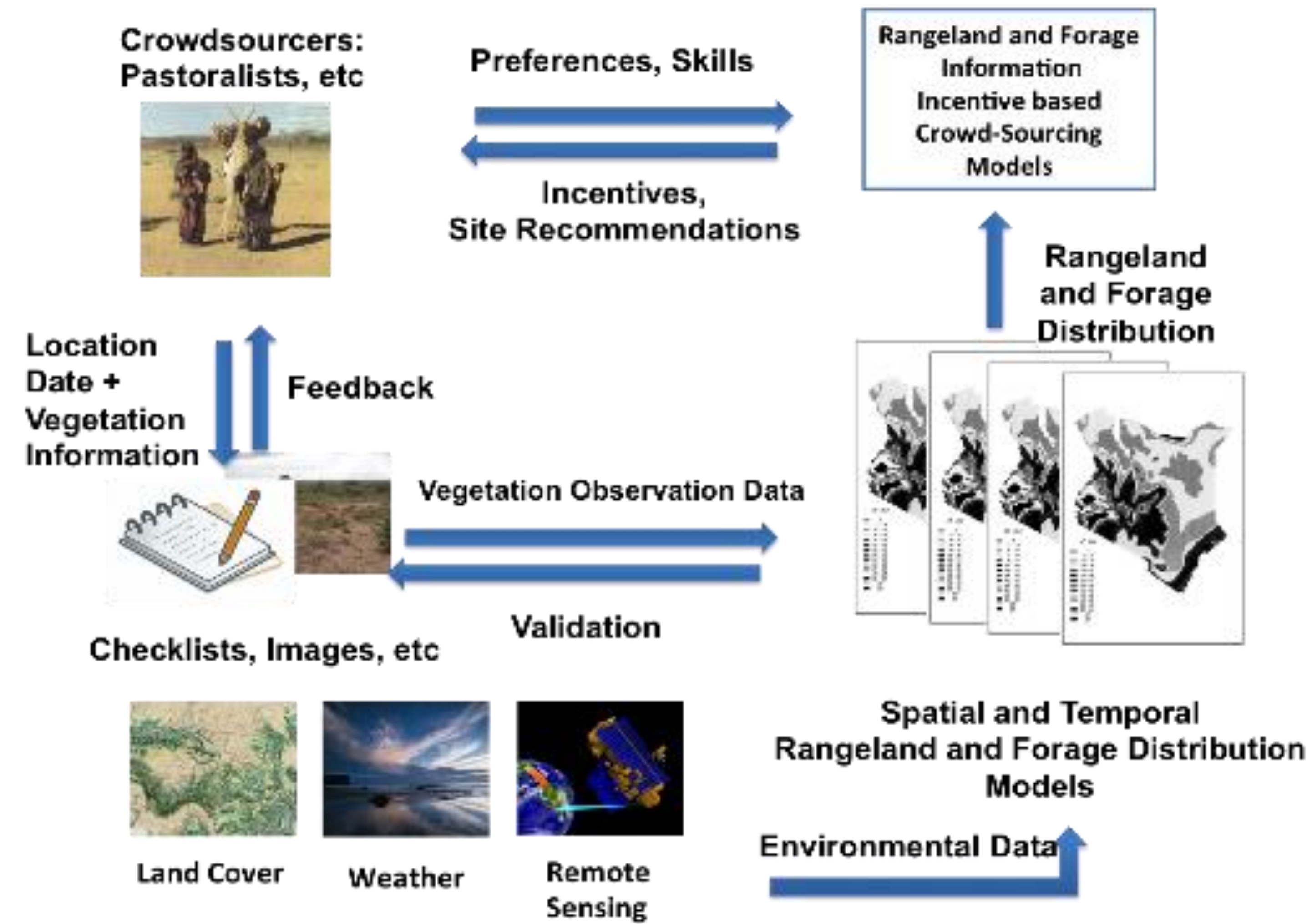
RESEARCH PROGRAM ON Livestock



Digital technologies have the potential to ease service delivery and overcome information constraints in the African drylands

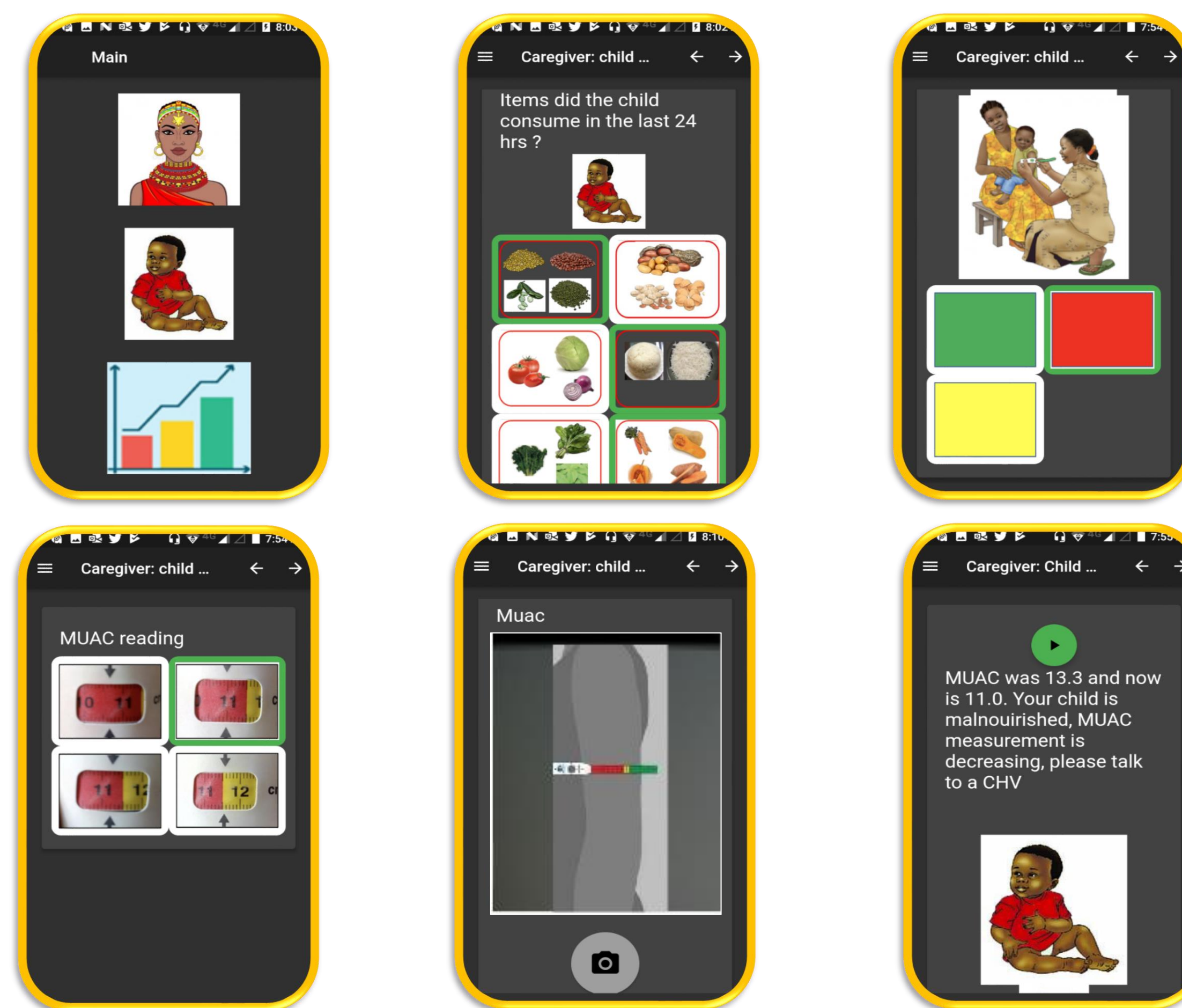
Understanding rangeland condition, use and access

- **Pastoralists** provide frequent information on rangeland composition, accessibility, stocking rate, and water resources
- Remote sensing for land cover mapping and vegetation condition assessment
- **Dynamic modelling of rangeland use patterns**



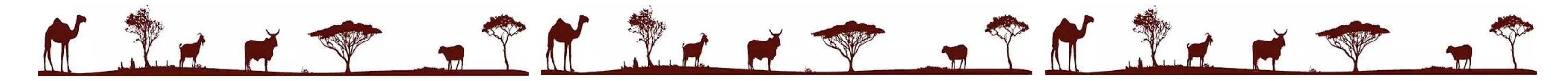
Improving nutrition and health data

- **Caregivers** - to collect and submit information children's consumption and health status
- **Important high-frequency monitoring, evaluation and impact assessment tool** - for implementation programs and integration into national early warning systems



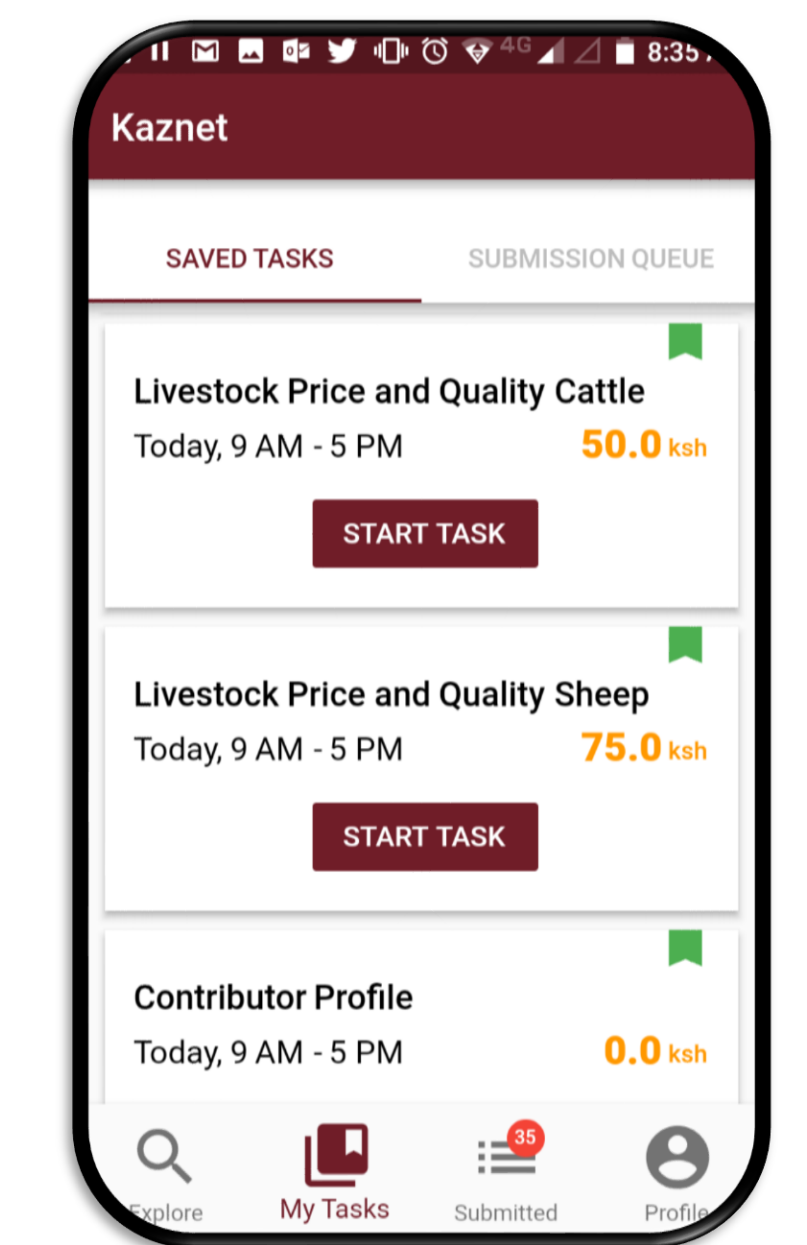
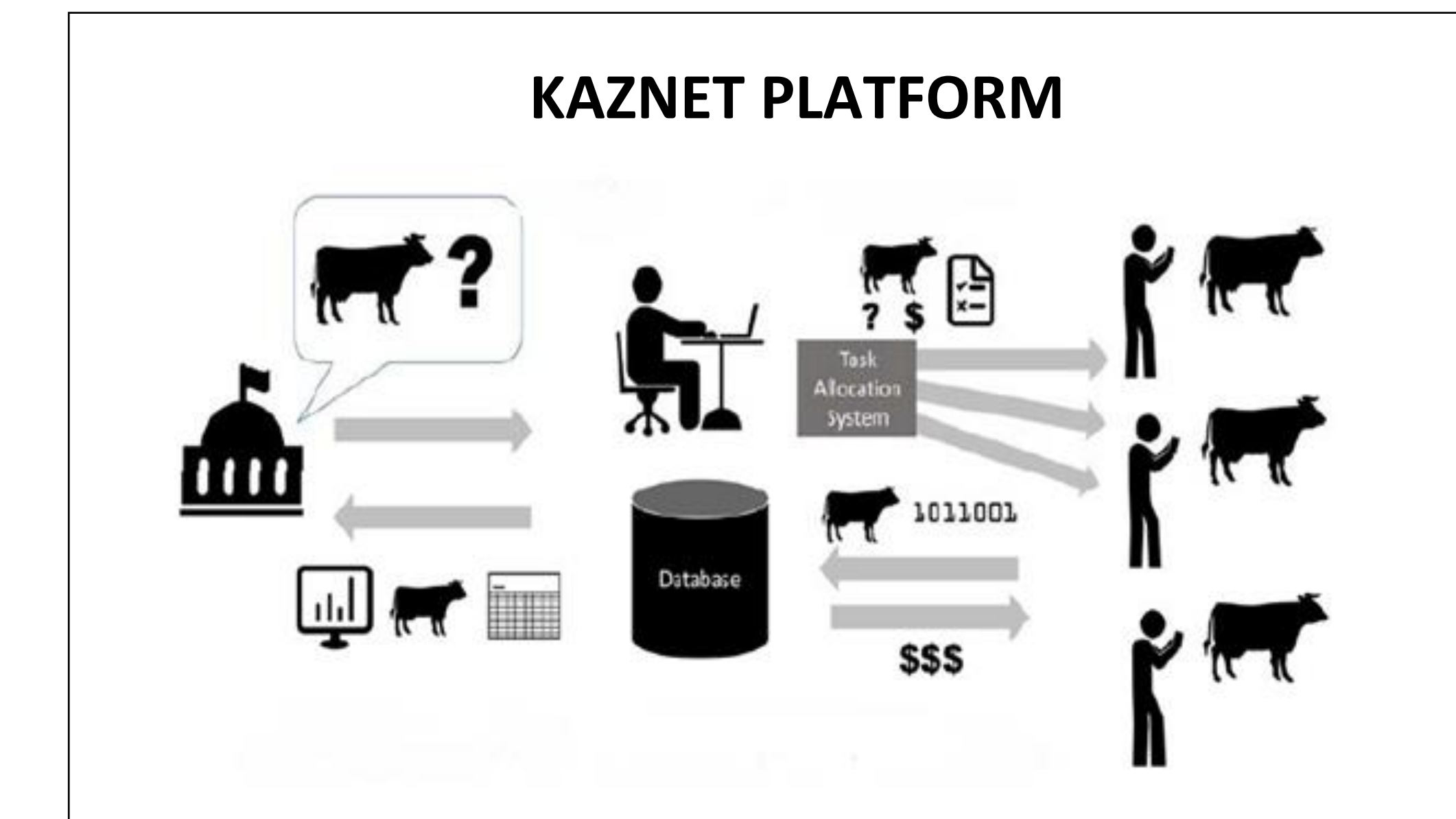
AGU Fall Meeting – December 2019

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KAZNET Crowdsourcing Platform for livestock markets

- **Geo-fenced and period specific task** are developed to meet data needs
- A mobile application provides contributors with a menu of available tasks and related parameters (e.g. livestock price, market volumes, livestock weight, etc.)
- Contributors complete as many task as they like and are paid for all accepted submissions
- Automated and manual data checks



e/mLearning and Gamification

- **Improved access** to extension materials and information
- **Standardization** of training content and delivery
- **Incentivized learning increases effectiveness of training**
- **More opportunities** to "learn by doing"

