

Objective

 To harness CGIAR and other research for application to enhance the resilience of populations living in the drylands in the Horn of Africa

How do we do this?

- Working with partners (donors, research institutions, academia and governments) to develop analytical tools to enhance decision analysis support for rational and equitable implementation of the investment plans (Country Programme Papers) designed to enhance resilience in the Horn
- Developing sound M&E systems, including baseline datasets, outcome indicators and impact indicators to monitor progress of investments towards impact on standard human development indicators (health, nutrition, living standards, education etc.) and eventually resilience



What do we need to know?

- How well are current and proposed investments (CAADPs, NAIPs, CPPs – Horn of Africa) being informed by the best technical advice available?
- What is the criteria that has been used to select an innovation and what evidence has been used to design investments and interventions? Do the innovations from the IARCs reflect the demand from farmers?
- What is the potential in terms of economic transformation through technology and innovation in agriculture in Africa? le., how do we identify opportunities for agricultural technology and innovation to scale up to 20 million+ people?



- How involved is the private sector; commercial entities eg., agri-business, market traders etc and in which technologies?
 Why does the private sector pushing a particular technology?
 What rationale did they use to decide it was the best one?
- How can we find appropriate technologies for CPPs and other investment planning documents? How do we test and trial these? Can we develop a systematic process?
- What do we know about existing data evidence for different technology solutions....is it useful? Do we have empirical evidence for impact?



Catalogue of baseline datasets for Member States

Spatial tool for targeting investment

- a) Drought specific module
- b) Sectoral profiling

Investment targeting and monitoring toolbox

NO CATOR SELECTION

Decision Analysis Framework

- a) Decision Analysis Modeling
- b) Case Study

M&E of investment for impact

- a) Common analytical framework for measuring resilience
 - . Project monitoring
 - ii. Impact monitoring



Member State Baseline Datasets





Catalogue for data to measure impact of investments on enhanced resilience

A baseline data catalogue which contains meta data and links to raw data which the IGAD member states can use to populate baselines to establish current status of populations with respect to different indicators (mainly sustainable development indicators) AND which will house subsequent data as it becomes available from projects/activities that have been rolled out in the drylands investment plans for the IGAD region.

Data Management Plan

- Includes details on what data is available and/or will be generated throughout project lifecycle, when, by whom, and whether final datasets are publicly accessible and where
- Explicitly address licensing, ownership, IP, and confidentiality issues



Process

- Collection, curation and cataloguing of existing datasets
- Systems review and identification of relevant resilience indicators
- Validation of systems indicators
- Mapping of indicators (project-related)
- Gap analysis wrt. periodicity, target population, spatial scale
 need for harmonization
- Strategy to generate missing data (primary or modeled) linking with existing programs, eg. Statistics from Space, SERVIR, Member States, etc.



Points to consider

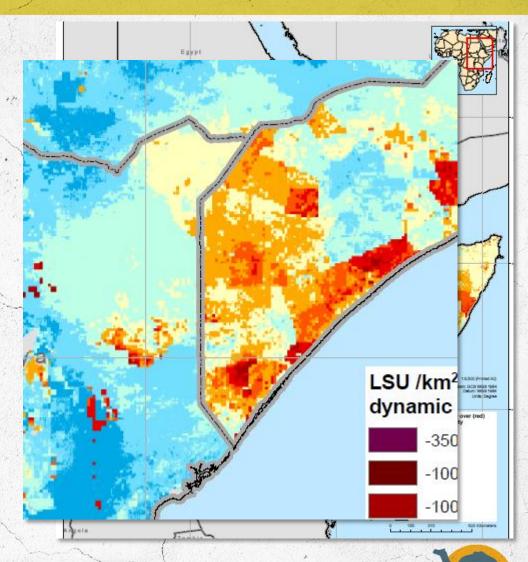
- Need to ensure that choice of data catalogues etc conforms to existing efforts by CGIAR, member states' National Bureaux of Statistics, donors etc. (Dataverse, CKAN, Socrata etc)
- Must ensure that member states see value and benefit to cataloguing data, otherwise they will not maintain the catalogues, ie, develop and enforce protocols for data standards, routine surveys, uploading of data



Livestock-Feed Imbalance

- Sources:
- FAO Gridded Livestock of the World
- TAMSAT, Reading University TARCAT Rainfall estimate
- MODIS Continuous Fields Dataset (Treecover)
- WorldClim Bioclim 1

Rangeland condition is assessed by comparing an estimate of dynamic carrying capacity (LSU/km2) at 0.5 km resolution for that year with the FAO and ERGO Gridded Livestock of the World data at 5 km2 resolution (2000 / 2005). Livestock densities will have changed since the GLW data were collated but it represents the best spatial data currently available.

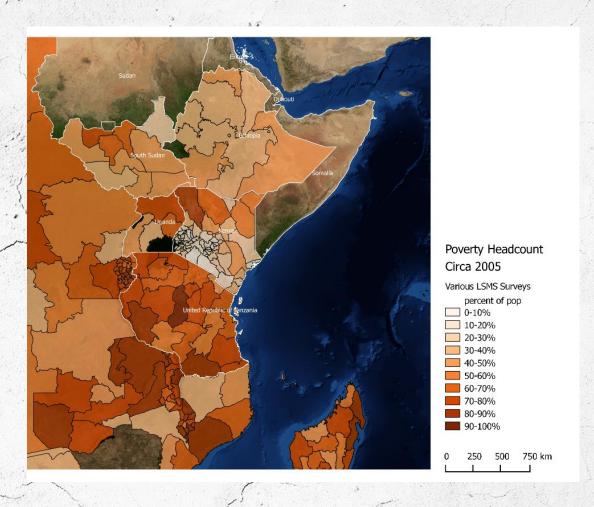




Building Resilience in the Horn of Africa

No measure of sub-national poverty currently available for Somalia, Sudan and Eritrea.

Majority of nationally – representative surveys ignore nomadic populations (survey sample is biased towards urban areas).







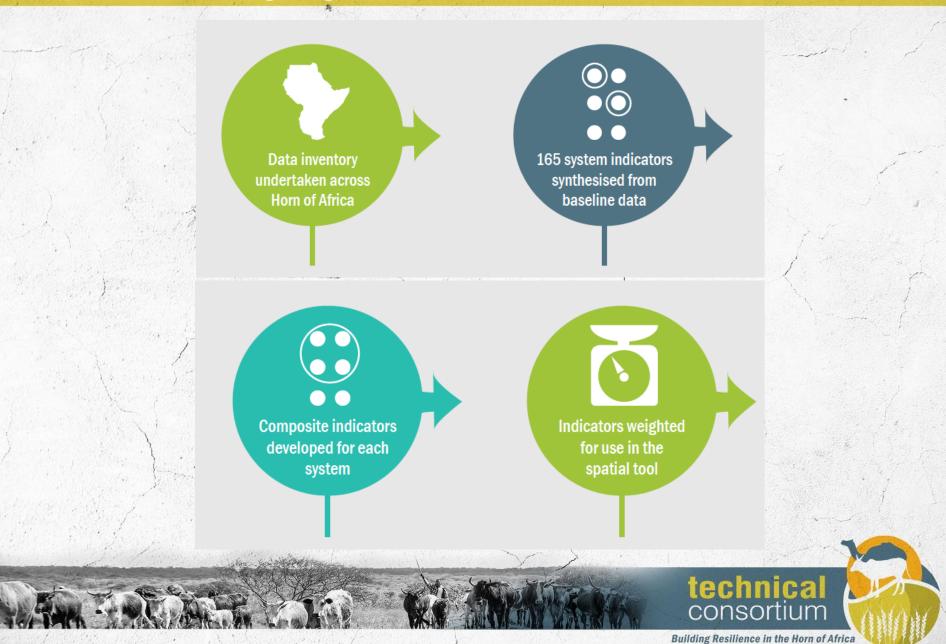
PILOT TOOL UNDER DEVELOPMENT



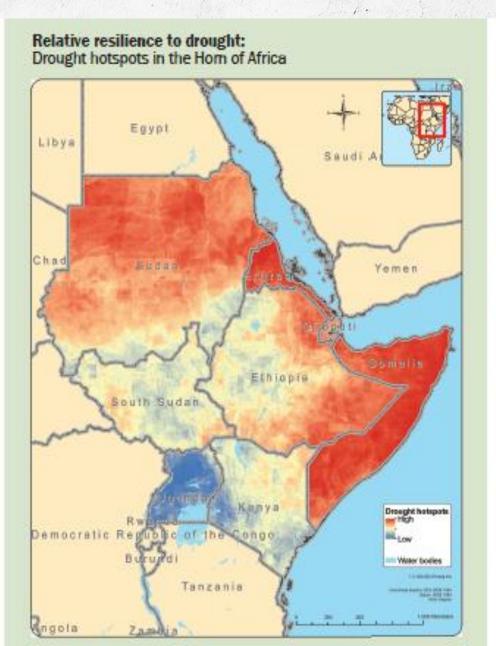


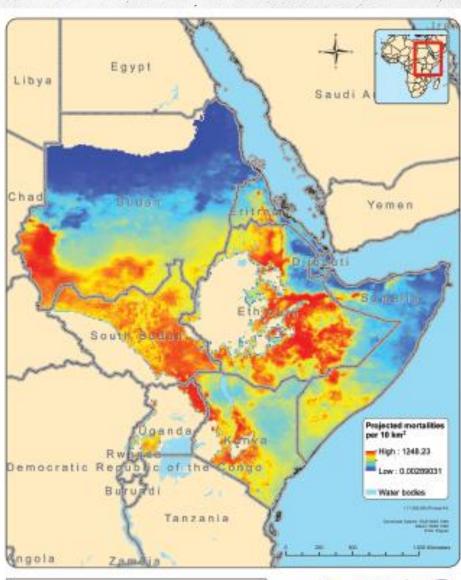


Spatial Tool for Targeting Investment



Drought Hotspots and Predicted Livestock Mortalities





Total livestock mortalities is an output of the livestock mortalities model developed by habitat INFO.





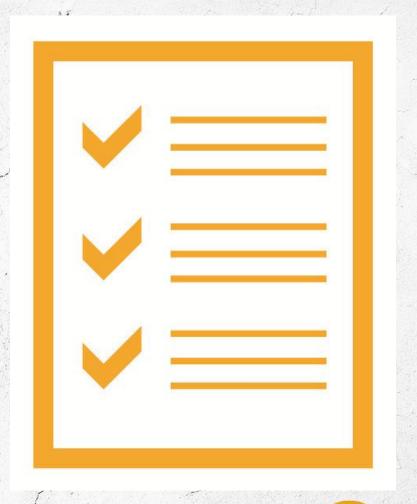


Next steps:

- Refine model for resilience At present this is rudimentary the more one is able to reduce risk and reduce the time to recover from a shock, the more resilient one is
- Weighting of the variables within the composite indicators needs to be validated
- Develop models which can forecast ie, look at the impact of investment in a particular sector with respect to the effect in variables in different systems, within systems, to different impacts and outcomes
- Ensure that the best datasets are being used
- Ensure that dynamics of the social and ecological systems are well reflected, taking into account production dynamics in extensive systems



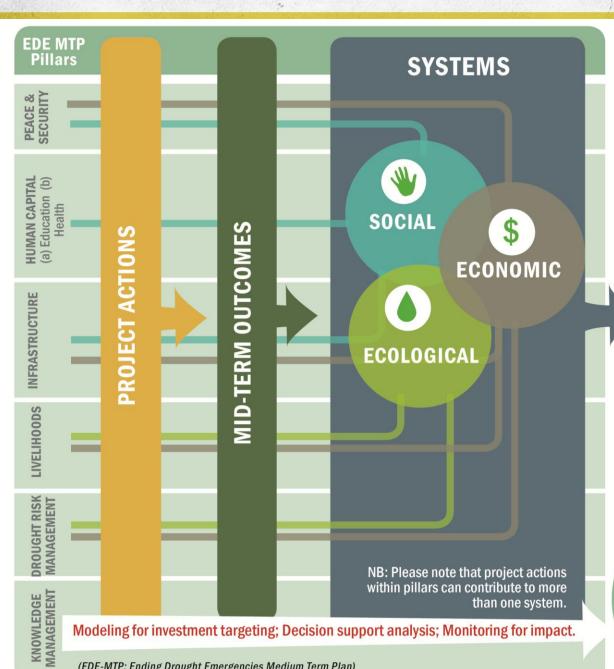
Monitoring and **Evaluation of** Investments in Drylands for Enhanced Resilience





- We need to monitor impact of technology and innovation on populations
- How will we reflect impact? Standard development indicators such as MDG>SDG, HDI – health, education etc
- Do we have the data to put together a baseline?
 Demographic data, health, education, nutrition, agricultural data etc. to do this?
- Do we have panel datasets over long enough time periods to reflect changes in standard development indicators?
- Do we know which indicators to monitor to look at attribution over longer temporal scales? Impact pathways etc....





Impact of investment to enhanced resilience is reflected over a longer timescale

LOWER RESOLUTION

Unit of measurement: coarser

household

HIGHER RESOLUTON Unit of measurement:

SYSTEMS-LEVEL **INDICATORS**

MEASURING ↑↓ IN **INDICATORS**

System-level indicators, such as those of peace & security, herd

dynamics etc, could be

representative of those

associated with production

activities that contribute

to changes in living

standards.

HUMAN **DEVELOPMENT IMPACT INDICATORS**













MEASURING ↑↓ IN **DEVELOPMENT INDICES**

(EDE-MTP: Ending Drought Emergencies Medium Term Plan)

PROJECT-LEVEL MONITORING

