



KENYA NEWSLETTER

December 2020

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BRECCIA December 2020 Overview

BRECCIA has successfully navigated 2020, with its final year 2021 now in focus. Our [Small Research Projects \(SRPs\)](#) are actively carrying out research, whilst starting to combine forces to 'upscale' their research via new Large Research Projects (LRPs) to address food and water security challenges on a larger scale with a multi-country/regional focus. BRECCIA faced down the challenge of working under travel and social distancing restrictions during the ongoing COVID-19 pandemic. Through [rapid adaptation](#) including increased virtual communication, [digitised events](#) and careful management of travel where legally permitted, our researchers have been able to advance their [research activities](#) regardless. Read on for the latest BRECCIA Kenya news, including a reflection from one of our lead researchers into their ongoing research for our December issue:

Kenya Policy Summer School

The 2020 Kenya Summer School was held on the 6th November in Nairobi's Nairobi Safari Club, where our Kenya team hosted policy makers and other professionals involved in water and food security. BRECCIA researchers presented their Small Research Projects to policy makers, inviting feedback and discussion on using research outputs and evidence to impact on policy change.



High on BRECCIA's agenda for the event was developing synergies and collaborative links with policy makers in food and water security, and the development of a Kenya policy brief on sustainable food and water security in Arid and Semi-Arid Lands (ASALs). [Read about the event in more detail here.](#)

SRP: Analysis of the national seed policies seed of Malawi and Kenya: implications for resilience building in drylands under climate variability – Henry Hunga

In agriculture, seed carries one of the highest risk levels of all factors in limiting production, and this has been complicated by climate variability. Two seed systems, formal and informal, exist in Malawi and Kenya. The formal seed system is mainly comprised of the multi-national companies, whereas the informal seed system is traditionally managed by smallholder farmers with some support from Farmer Organisations and NGOs. The formal seed sector only supplies 20% of the seed planted by farmers overall, mostly maize, compared to 80% from the informal system.

Since 2010, African governments have moved towards regional integration of the seed industry through harmonised policies and regulation systems through COMESA and SADC. The recent policies that have been developed with regional integration in mind have not recognised the informal seed sector, giving it minimal attention and no regulations.

The research would like to understand the events that have led to this situation; who were the champions of the change and how could they be influential for future changes? What was the evidence used to make the shift? Is the current policy able to build resilience among smallholder farmers? Capacity to implement and the potential impact of the policies will also be assessed together with the coordination of the various stakeholders within the seed sector. Cross country comparisons between Malawi and Kenya will be done and lessons drawn from both countries for future policy design and implementation improvements. The research will be critical for future policy reviews within the agriculture sector and other sectors to ensure greater inclusion, policy impact and outcome.

Field work was disrupted by the Covid-19 pandemic. However, efforts are underway to re-start after amending the ethics application to include the preventative measures as instituted by the Governments of Malawi and Kenya.



Seed testing laboratory in Lilongwe



BRECcIA researchers gathering information on harvested land pre-COVID lockdown

All Kenya based SRPs and LRP (including multi-country projects)

Small Research Projects and Large Research Projects	Lead Researcher(s)
SRP: Hydrological dynamics of food and water security in Wajir County, Kenya/ Evaluation of land use change on water and food security in Lagha Bor Catchment, Wajir County, Kenya	<i>Prof. Joy Obando</i>
SRP: Building capacity for food and water security policy uptake in Kitui and Wajir counties of Kenya	<i>Dr Fiona Ngarachu</i>
SRP: Predicting water and food security in dry land regions of Kenya from spatio-temporal trends of rain-induced land surface processes	<i>Francis Oloo</i>
SRP: Analysis of the contributing factors to food insecurity and the coping strategies amongst rural communities in the arid regions of Marsabit, Kenya	<i>Sospeter Wekesa</i>
SRP: Comparative analysis of mainstreaming use of climate information services use for food and water security in the drylands of Malawi, Ghana and Kenya: Supply versus demand	<i>Henry Hunga</i>
SRP: Monitoring agricultural land use change and its linkage to food security in Sub-Saharan Africa	<i>Dr Chengxiu Li</i>
SRP: Analysis of National Seed Policies of Malawi and Kenya: implications for water and food security resilience building in drylands	<i>Henry Hunga</i>
SRP: Trends in climate variability, land use change, watershed governance and implications on food security in the dryland of Suam River Basin, West Pokot County, Kenya	<i>Dr Daniel Naburi</i>
SRP: Determining resilience attributable bio-physical, social/gender and political factors that influence Food and Water Security in ASALs of West Pokot and Turkana Counties-Kenya	<i>Kaleb Mwendwa</i>
SRP: Understanding the outcomes of developing and strengthening networks in an international food and water security research project	<i>Genevieve Agaba</i>
SRP: Utilisation patterns and management of the invasive species <i>Prosopis juliflora</i> in the drylands of Turkana, Kenya	<i>Prof. John Obiri</i>
SRP: Calibration and evaluation of selected crop growth models for maize in multiple environments in sub-Saharan Africa	<i>Dr Tendai Chibarabada</i>
SRP: Capacity building and variability in the drylands of Ghana and Kenya	<i>Dr Matt Kandel</i>
SRP: Multi-model approach to assess water resources availability and variability across Kenya, Ghana and Malawi	<i>Dr Daniela Anghileri</i>
SRP: Spatial climate change vulnerability assessment of livelihoods in the drylands of Ghana, Kenya and Malawi	<i>Dr Meryl Jagarnath</i>
SRP: Spatial climate change vulnerability assessment of livelihoods in the drylands of Ghana, Kenya and Malawi	<i>Dr Meryl Jagarnath</i>
SRP: Assessing resilience of drylands communities to shocks associated with rainfall extremes under changing climate and land use conditions: Case of Turkana County, Kenya	<i>Dr Stephen Rwigy</i>

All Kenya based SRPs and LRPs (including multi-country projects) Continued

Small Research Projects and Large Research Projects	Lead Researcher(s)
LRP: Hydrological Modelling and Forecasting for Water and Food Security: Upscaling data and methods for national to regional risk mapping and early warning	<i>Prof. Justin Sheffield, Dr Luke Olang</i>
LRP: Understanding, influencing and building capacity for policy in food and water security in Sub-Saharan Africa	<i>Dr Fiona Ngarachu, Prof. Chris Shisanya, Prof. Joy Obando</i>
LRP: Understanding spatial characteristics, socio-economic effects and opportunities of Prosopis Juliflora and other invasive plant species in drylands of sub-Saharan Africa	<i>Prof. John Obiri, Dr Francis Oloo</i>
LRP: Climate change, beliefs and social systems and food and water security in drylands of Sub Saharan Africa	<i>Prof. Samuel Codjoe, Yaw Atiglo</i>
LRP: Maize yield gaps in smallholder farming systems of sub-Saharan Africa	<i>Dr Tendai Chibarabada, Prof. Jadu Dash, Prof. Jean-Marie Kilyeshe</i>
LRP: Valuing Variability of Drylands in sub-Saharan Africa	<i>Prof. Joy Obando, Dr Claire Bedelian, Ced Hesse</i>

In other BRECCIA News...

BRECCIA receives funding for further collaborative Malawi research

BRECCIA received some great news in November, having been [awarded funding](#) as part of [UK Research and Innovation](#) and [Global Challenges Research Fund's Collective Programme](#).

This funding will see BRECCIA partnering with the projects [AFRICAP](#) and [FutureDams](#) to address: "Bridging national strategy on sustainable development of water-energy-food systems to local scale needs in Malawi"

The award is one of over 140 projects, across 18 calls, that form the UKRI GCRF Collective Programme, designed to enhance the overall impact across UKRI's six strategic GCRF Challenge portfolios in global health, education, sustainable cities, food systems, conflict and resilience.

BRECCIA at the first SADC-WaterNet virtual symposium

The BRECCIA team was able to secure a slot to host a special session at the first ever virtual SADC-WaterNet virtual symposium, read about the event [here](#).

BRECCIA researcher capacity building partners

[SARIMA](#) – Southern African Research & Innovation Management Association

[VITAE](#) – Realising the potential of researchers

...want to contribute to our next issue due in early 2021?

If you are part of BRECCIA's Kenya network and would like to notify our network of an upcoming event or interesting story about your activities in the next issue, please email s.reichel@soton.ac.uk or fngarachu@gmail.com for details.

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