

Vaccinator inoculating a cow

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"... our hope is to understand better the health links between people, animals and the environment. This should lead to improved nutrition, less risk of new diseases emerging from animals, and more prosperity..."

Professor

Matthew Baylis,
HORN Project PI

Project Newsletter - November

About the HORN project

The One Health Regional Network for the Horn of Africa (HORN project), aims to strengthen capacity for One Health research in the Horn of Africa. Led by the [University of Liverpool](http://www.liverpool.ac.uk) in the UK, HORN is working with universities and other institutions in Ethiopia, Kenya, Eritrea, & Somalia/Somaliland. The project commenced in October 2017. HORN is a GCRF: Grow project funded by the BBSRC; find out more about the Global Challenges Research Fund by clicking [here](#).

Our Partners

The HORN Project gratefully acknowledges our Project Partners for their assistance in supporting the project's aims and objectives:



[Addis Ababa University, Ethiopia](#)



[Liverpool School of Tropical Medicine, United Kingdom](#)



[Amoud University, Somaliland](#)



[Mekelle University, Ethiopia](#)



Hamelmo Agricultural College,
Eritrea



[Jimma University, Ethiopia](#)



[IGAD Sheikh Technical Veterinary School, Somaliland](#)



[Red Sea University, Somalia](#)



[International Livestock & Research Institute, Ethiopia & Kenya](#)



[University of Nairobi, Kenya](#)

HORN events and training

Past events and training sessions:

- ["Zero Hunger"](#) Sandpit, 8th-12th October, 2018, Ethiopia
- [Leadership Training](#), 19th-21st February, 2019, United Kingdom
- [Summer School](#), 11th-15th March, 2019, Kenya
- One Health in Health and Demographic Surveillance System (HDSS) sites, May & July 2019, Ethiopia



Hamer women dancing at a coming-of-age ceremony, Ethiopia, 2019

HORN events and training cont.

Past events and training sessions:

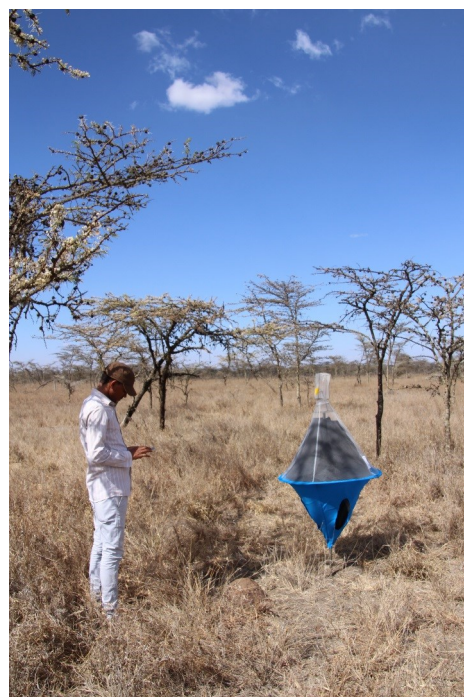
- Annual Scientific Meeting, 10th June, 2019, Ethiopia
- Mosquito Identification Workshop, 13th-15th June, 2019, Kenya
- [“Good Health & Well-Being” Sandpit](#), 29th September- 3rd October, 2019, Kenya
- [One Health Social Science Workshop](#), 18th– 20th November, 2019, Ethiopia
- [One Health Masterclass](#), 25th November– 6th December, 2019, Kenya
- [“COVID-19” Sandpit](#), 1st– 5th June, 2020, Online event
- WOHC Conference, 30th October– 3rd November, 2020, Online event
- Research Writing Course, 8th September– 3rd November, 2020, Online event

Upcoming events & training

- Project Management/ Finance Management, 2020
- HORN EAB meeting, February, 2021
- “No Poverty” Sandpit, March 2021
- Masterclass and Summer School, June/July 2021
- Leadership Training, 2021
- Grant & Scientific Writing Workshops, 2021
- Annual Scientific Meeting, 2021



Laboratory training at the HORN Masterclass, ILRI laboratories, Kenya, 2019



Deploying traps for tsetse flies, Summer School, Mpala Research Centre, Kenya, 2019



Donkeys crossing the Ewaso Ng'iro River, Kenya, 2017

Recent news - November 2020

Fellowship Success for HORN PDRAs

THE SOULSBY FOUNDATION

The main activity of the [Soulsby Foundation](#) is to provide for Travelling Research Fellowships known as "Soulsby Fellowships". The Trustees aim to award one or two annually through a competitive application process. This year five Fellowships were awarded internationally, two of which were awarded to our very own postdoctoral associates [Dr Lisa Cavalerie](#) and [Dr Mark Nanyingi](#). Lisa will be using the fellowship to study the benefits and risks of livestock ownership to maternal health in women in Ethiopia, and Mark is investigating the presence of Rift Valley fever virus in people, livestock and mosquitoes in Kenya.

You can find out more about their research through their blogs on the Soulsby Foundation website. Please click [here](#) for Lisa's blog and [here](#) for Mark's.

Welcome to...

Dr Nigatu Kebede, an Associate Professor and Head of Animal Health and Zoonotic Diseases Research Unit at Aklilu Lemma Institute of Pathobiology, Addis Ababa University. Dr Kebede joins the HORN team as a co-investigator. We look forward to working closely with him over the coming months. Find out more about his academic profile [here](#).

Farewell to...

Dr Dinka Ayana who has been a HORN co-investigator from the beginning of the project. Based at the College of Veterinary Medicine & Agriculture at Addis Ababa University, Dinka has been a key collaborator on the project. Although we are sad to see him leave, we wish him all the best for his future endeavors.

Congratulations....

...to our own Postdoctoral associate Olivia Howland who has recently had her article on indigenous medicine in contemporary Kenya published in the International Journal for Equity in Health. You can read more about her research, and find a link to the publication, [here](#).



All photos by Biko Wesa, Kenya, 2019

Congratulations...

... to the team of Bedilu A. Ejigu, Manalebish D. Asfaw and Tilahun Abebaw, who, as part of our [third sandpit event](#) focusing on COVID-19, completed a mathematical modelling study assessing the impact of non-pharmaceutical interventions (NPIs) on the dynamics of Covid-19 in the Horn of Africa. Their work is described in a publication available online, [here](#).



Blood sample collection, Summer School, Mpala Nature Reserve, Kenya, 2019

In focus - Dr Ruth Omani

In this newsletter, Ruth Omani, HORN Sandpit Fellow, tells us how COVID-19 is affecting Kenya and her HORN research.



My name is Ruth Omani and I am one of the 2018 sandpit research fellows. I am currently involved in exploring the epidemiology and transmission dynamics of Rift Valley Fever in Kenya.

On March 12, 2020, the Government of Kenya confirmed the first case of COVID 19. The government immediately instituted precautionary measures aimed at 'flattening the curve'. The first measures were aimed at encouraging people to maintain personal hygiene and to social distance from coughing and sneezing individuals; employers were encouraged to let their non-essential staff work remotely. As cases increased, so did the precautionary measures to further slow the spread: a total ban on international travel, a nationwide night curfew, and a cessation of movement in and out of Nairobi, Kwale, Kilifi, and Mombasa counties were all introduced to stem the spread of COVID 19. Kenyans were encouraged to wear face masks.

As of October 7, 2020, Kenya has recorded 39,907 confirmed cases of COVID-19 from which 31,569 people have recovered and 748 people have died. COVID positivity rate has fallen from 13% in June, 7% in August and is now at 4.4% in September. Although Kenya is still under a nationwide curfew, the country is gradually opening her economy. Both local and international travel have resumed; education institutions are re-opening in phases; places of worship have re-opened; eateries have been allowed to have sit-in patrons; all of this under strict COVID-19 rules. It is still a public health offense to be found in public without a facemask.

I have been working from home since March 13, 2020. Despite the current benefits of working remotely, such as no more morning commutes, there have been challenges in adjusting to this system. As an example, at the beginning of the pandemic my home was not designed as a suitable working space; as a result distractions were negatively impacting my productivity. Although not a very common occurrence in Nairobi where I am currently quarantined, power outage and a lack of (or outage of) the internet also present a challenge. I have at one point lost internet supply for up to 48 hours.

The challenges I am experiencing do not represent those experienced by most Kenyans though - some have lost their sources of livelihood due to the global restrictions of movement of people and goods. The situation in Kenya, like most parts of the world, is still uncertain; the country is worried



County workers practise social distancing and wear masks as they queue to renew their employment contracts in Uhuru Park in downtown Nairobi, Kenya, 2019

Impact of COVID-19 on HORN

COVID-19 has affected HORN's 2020 plans to host a number of events in person; however, we haven't let it stop us - we adapted and hosted an online Sandpit, and two online training events are currently underway.

Travel restrictions in partner countries and institutions have meant the majority of our research projects were postponed. Its only now, over six months after the initial lockdown measures were implemented, that we're seeing the possibility of field-work re-starting.

For another view on the impact of Covid-19, click [here](#) for a report from Dr Farah Isse Mumin of Red Sea University, Somalia



Cattle, Summer School, Mpala Research Centre, Kenya, 2019

HORN research

The Project funds research that primarily focuses on disease and disease control; agricultural systems, livelihoods and economics; and health in a changing world. To achieve this, we fund Sandpit Fellows who were successfully awarded funding through one of our Sandpit events; through our own Post-Doctoral Research Associates; and in response to the global pandemic, we have solicited our partner institutes to undertake Covid-19 research in their respective countries.

Sandpit fellow research by country

Ethiopia

- **Assessing the Impact of Non-pharmaceutical Interventions (NPIs) on the dynamics of Covid-19 in the Horn of Africa: A mathematical modelling study in the case of Ethiopia, Kenya and Djibouti** *Bedilu Alamirie Ejigu* (bedilu.alamirie@aau.edu.et); AAU, Ethiopia
- **Assessment of the effects of meteorological factors, land-use and human activities on the prevalence of animal and human fascioliasis in Ethiopia** *Samson Wakumu* (samson_wakuma@yahoo.com); AAU & JU, Ethiopia
- **Childhood diarrhoea in Butajira Health and Demographic Surveillance System: risks, bacterial agents and antimicrobial resistance profile in human-animal-water interface** *Adey Desta* (adey.desta@gmail.com); AAU, Ethiopia
- **Covid-19 and its indirect impact on essential and routine healthcare services in Ethiopia** *Esete Habtemariam* (esete.f@gmail.com); AAU, EPHI, & HU, Ethiopia
- **Eco-epidemiology of vector and vector-borne diseases in the Horn of Africa: Its implication for vector borne disease control** *Samson Leta* (samiwude@gmail.com); AAU, & HU, Ethiopia
- **OHWASH (One health water sanitation and hygiene): Integrated surveillance of human and animal faeces management and its determinants in HDSS sites of 3 regions of Ethiopia** *Birhanu Hadush Abera* (birhanu.hadush@mu.edu.et); AAU, JU, & MeU Ethiopia
- **The effect of Covid-19 and response measures on health, economic and social wellbeing of communities in HDSS sites** *Mache Adhana* (adhana2008@gmail.com); AAU, JU & MeU, Ethiopia

Kenya

- **Analysis of respiratory virus and bacteria shedding in exhaled breath and mass masking behaviour in a Kenyan community** *Lorren Alumasa* (LAlumasa@cgiar.org); ILRI, MoH, & UoN, Kenya
- **Associations between milk quality, animal husbandry and childhood morbidity in pastoral systems, Kenya** *Grace Watene*, (gracewatene23@gmail.com); EU, JoU, & UoN, Kenya
- **Covid-19 pandemic and the impact of mitigation measures on dietary diversity and health outcomes in Uasin Gishu county, Kenya** *Susan Keino* (susankeino@gmail.com); MoU, Kenya
- **Developing a community-led zoonotic disease prioritisation framework in Oloitokitok sub-county, Kajiado county, Kenya** *Caroline Mwhiki Mburu* (mwhikicarol@gmail.com); UoN, Kenya
- **Exploring the epidemiology and transmission dynamics of Rift Valley Fever in the Horn of Africa** *Ruth Omani* (ruthomani2010@gmail.com); UoN, Kenya
- **Relationships between livestock and vegetable production and consumption practices on health and nutritional outcomes in children under five years in Laikipia, Kenya** *Esther Omosa*; (E.Omosa@cgiar.org) EU, ILRI, & UoN, Kenya
- **The perceived effects of epilepsy: Impact on people with epilepsy and their families, stigma and gaps in management** *Mary Inziani Muyeku* (inzianimatilu@gmail.com); AAU & ILRI Ethiopia, & KEMRI Kenya



Camel caravan, Eritrea, 2018

HORN research continued

Sandpit fellow research by country

Somalia/Somaliland

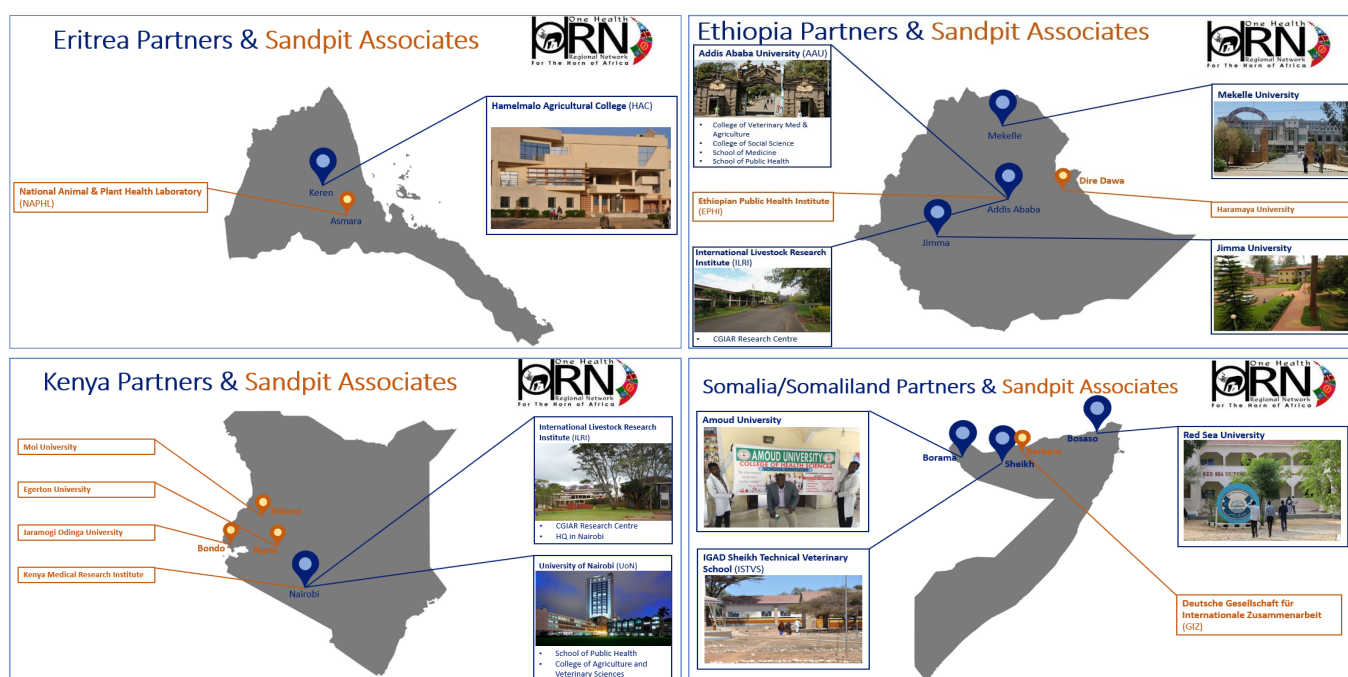
- Investigating prevalence and risk factors of bovine tuberculosis in cattle and agro-pastoral community in Awdal region, Somaliland Djibril Ibrahim Moussa Handuleh (djibril@amoud.edu.so); AU & ISTVS, Somaliland
- Responding to Covid-19: The case of Somali-land pastoral societies Jabir Abdullahi Hussein (jiibka@yahoo.com); GIZ & STVS, Somaliland

Multi-Country

Eritrea, Ethiopia, Kenya, & Somalia/Somaliland

- Risk mapping and assessment of knowledge, attitude and practices of anthrax among high risk groups in the Horn of Africa John Njeru (mwanikij@gmail.com); ILRI Kenya, ISTVS Somaliland, KEMRI Kenya, NAPHL Eritrea, & RSU Somalia

HORN partner & Sandpit associates by location



HORN research continued

Postdoctoral research by country

Ethiopia

- **Biocodicology of Ethiopian manuscripts** *Ophelie Lebrasseur; ILRI, Ethiopia*
- **Examining local perspectives on the influence of climate change on the health of pastoralists and their livestock in Hamar, Ethiopia** *Samuel Lumborg; LSTM, UK*
- **Genetic diversity of ancient and contemporary Ethiopian goat breeds** *Shumeye Teklebrhan; ILRI, Ethiopia*
- **Impacts on animal and human health from food insecurity due to climate change in Ethiopia** *Mulugeta Tamir; AAU, Ethiopia*
- **Livestock and maternal and child health: a One Health pilot study in Butajira** *Lisa Cavalerie; ILRI, Ethiopia*
- **A systematic review of rabies in Ethiopia** *Aga Edema; AAU, Ethiopia*
- **Study of population diversity of toxoplasma gondii in human and livestock** *Tadesse Kebede; AAU, Ethiopia*
- **The nexus between human, environment and livestock Interfaces: Investigating the experiences of resettled pastoralists in Ethiopia** *Samuel Tefera; AAU, Ethiopia*
- **Tracking genetic diversity and zoonoses in ancient livestock and their implication for bio-cultural evolution and health** *Ophelie Lebrasseur; ILRI, Ethiopia*
- **Zoonoses research in the Horn of Africa: a scoping review** *Lisa Cavalerie; ILRI, Ethiopia*

Kenya

- **An investigation of important zoonotic risks (foodborne diseases) in the ruminants value chain and their implication to pastoral livelihoods in Kajiado Country, Kenya** *Kennedy Mochabo; UoN, Kenya*
- **Designing interventions to control cysticercosis** *Annie Cook; ILRI, Kenya*
- **Everyday Clean: Understanding one health hygiene practices in Kenya** *Olivia Howland; ILRI, Kenya*
- **Indigenous healing in contemporary Kenya** *Olivia Howland; ILRI, Kenya*
- **One Health surveillance and molecular epidemiology of Rift Valley Fever** *Mark Nanyingi; UoN, Kenya*

UK

- **Survey of One Health research capacity in the Horn of Africa** *Marie McIntyre; UoL, UK*



Statistical Modelling at the HORN Masterclass, ILRI, Kenya, 2019



Cattle market, Somaliland, 2019

HORN research continued

Partner Covid-19 research by country

Kenya

- **Factors associated with uptake of and adherence to recommended public health measures against Covid-19 in Siaya and Kajiado counties, Kenya** *Dismas Ongore; UoN, Kenya*

Somalia/Somaliland

- **An assessment of the impact of Covid-19 on the pastoralists livelihoods, community welfare and response to the pandemic in Somaliland** *Fred Wesonga; ISTVS, Somaliland*
- **Covid-19 and its prevention in Internally Displaced Person (IDP) camps In Somalia/ Somaliland: Impact on livelihoods, Mental Health and Wellbeing** *Farah Isse Mumin, RSU, Somalia*
- **Knowledge and perceptions of Covid-19 among health care workers in Somaliland: Cross-sectional study** *Yusuf Hareed; AU, Somaliland*

Institute Abbreviations

Addis Ababa University, Ethiopia (AAU)	Amoud University, Somaliland (AU)	Egerton University Kenya (EU)	Ethiopian Public Health Institute Ethiopia (EPHI)	Deutsche Gesellschaft für Internationale Zusammenarbeit, Somaliland (GIZ)	Haramaya University, Ethiopia (HU)
International Livestock Research Institute, Ethiopia & Kenya (ILRI)	IGAD Sheikh Technical Veterinary School, Somaliland (ISTVS)	Jaramogi Odinga University, Kenya (JOU)	Jimma University, Ethiopia (JU)	Kenya Medical Research (KEMRI)	Mekelle University, Ethiopia (MeU)
Ministry of Health, Kenya (MoH)	Moi University, Ethiopia (MoU)	National Animal and Plant Health Laboratory, Eritrea (NAPHL)	Red Sea University, Somalia (RSU)	University of Nairobi, Kenya (UoN)	