

# Brief on climate, land rights and agroecological links to pandemics in East and Southern Africa



## Regional Network for Equity in Health in east and southern Africa (EQUINET) through Southern and Eastern Africa Trade Information and Negotiations Institute (SEATINI) with Training and Research Support Centre November 2024

### Background

Climate justice and equity, is an urgent issue for communities, countries, and the region, and intersects with, impacts on and is intensified by other areas of inequality that the Regional Network for Equity in Health in east and southern Africa (EQUINET) is focused on. Given this, EQUINET is sharing knowledge, experiences and learning on health equity impacts of climate in [webinars on various areas of health equity](#). The webinars include voices and expertise at community, local, national and regional levels within East and Southern Africa (ESA), as well as from global level actors to better understand the health equity impact of climate trends, the intersect with the other drivers/ determinants of inequity, and the implications for policy, research and action that links climate to health equity.

The sixth webinar and this brief from it focuses on the interplay between land rights, climate agro-ecology, and pandemic risks. In recent years, the east and southern Africa region has seen an increase in zoonotic diseases exacerbated by the encroachment of humans into the habitats of wildlife, including in the outbreak of Ebola, COVID-19 and Mpox viral diseases. Agro-ecology practices that promote sustainable farming help to enhance ecosystem resilience and mitigate climate change impacts, with potential to reduce the risk of future pandemics. Secure land rights, especially for indigenous communities, help to preserve biodiversity and natural habitats, reducing the chances of viral spill-over from wildlife to humans.

The webinar on Climate, land rights and agroecological links to pandemics held on 28 November 2024 hosted by SEATINI with TARSC interrogated these relationships at the local, national and global levels and suggested actions to be taken to mitigate the impacts particularly on these drivers of health and well-being of people and natural resources. The webinar involved 22 participants from eight different countries (Botswana, Kenya, South Africa, Netherlands, Tanzania, Uganda, Zambia and Zimbabwe). It was moderated by Rangarirai Machedzwe of SEATINI Southern Africa, with technical support from Belinda Ncube, TARSC Consultant. Three panellists explored the issues from local, national and regional/global level respectively: Mr Cidi Otieno, Kenyan Peasants League; Mr. Joe Mzinga, Eastern and Southern Africa Federation of Small Scale Farmers, Tanzania, and Mr. Fernando Hernandez Espino from Both ENDS, Netherlands. The presentations were followed by participant discussions.

This brief summarises key issues raised in the webinar related to:

- Climate links to land and agro-ecology in the region and the impacts on health equity and pandemics
- Actions proposed to address these issues at local, national, regional and in global level processes;
- Issues for further research and discussion

### Health and pandemic impacts related to climate links to land and agro-ecology

Agriculture is key for livelihoods in the ESA region and agricultural practices impact on the environment. With food production systems increasingly reliant on chemical pesticides to increase crop and animal yields, and pesticide use a source of soil, water and air pollution and destruction of specific biodiversity, such as pollinating bees, these practices compound climate

change in speeding biodiversity loss, and have their own direct health impacts in chronic illnesses such as cancer, and heart, respiratory and neurological diseases. Added to this urbanisation and construction projects are eroding land availability and biodiversity, affecting animal habitats and migration routes. This is increasing the contact and conflicts between humans and animals, and the spread of zoonotic diseases. Already 60% of human infectious diseases are zoonotic in nature and new pandemics emerge from zoonotic pathogens. This risk is added to when commercial food systems promote the double burden of under-nutrition, obesity and food related diseases, that also make people more vulnerable to pandemics. An economic model that favours corporations and industrial agriculture for export over local farmers and domestic food production is being promoted in many ESA countries, with limited regard for the impact on environment, or food availability, further exacerbating these intersecting climate and agro-ecological risks. It also affects health through loss of dietary quality, as tax subsidies to food corporations to stimulate investment make poorer quality imported food cheaper than locally produced foods and driving local farmers out of business.

These trends take place in the context of inequality in land ownership and access to resources to productively use farm land, including in response to changing climate. A snapshot of existing land tenure systems in Southern Africa indicated a variation in the share of private and communal land in countries. While national constitutions, such as that of Kenya, state that land belongs to the people, commercialisation, leasing and sale of land in ESA countries for industrial agriculture and mining is undermining local people's access and generating conflict over land. The meeting noted however that women, youth and low income men are usually marginalized when land is commercialised and sold for large scale industrial agriculture. This is particularly the case when communities are evicted or displaced, with loss of homes and farm incomes due to changing land use, negatively affecting their health and wellbeing.

Table 1: Land ownership in Southern Africa

Country	Ownership (% of land)		
	Public	Private	Community/customary
Botswana	State Land (24.9%)	Freehold Land (4.2%) and Tribal land (granted and leased rights)	Tribal land (70.9%) including private and communal tenure
Lesotho	State land		
Malawi	Public land (21%)	Freehold and Leasehold	Customary Lands (65%)
Mauritius	State land	Freehold	
Mozambique	State land	Leasehold	
Namibia	State Land (13%)	Freehold (44%)	Communal (43%)
South Africa	State Land	Freehold	Ex-homelands 13%
eSwatini	Swazi National Land owned by the King (74%) Crown land 0.4%	Freehold and Leasehold (25.5%)	Customary (in Swazi National Land) 42%
Tanzania	General Land 60% Reserved land 40%	Granted rights in general and reserved land. Customary rights in reserved & village lands	Village lands
Zambia	State land	Leasehold	Customary land
Zimbabwe	State land (21.8%)	Freehold and Leasehold (36.2%)	Customary land (41.8%)

Source: [FAO, 2001](#)

Multinational corporations, particularly in Kenya are annexing land for huge coffee, tea, sugar and timber plantations, among others, as industrial mono-cropping activities on these lands. These farming practices use pesticides, herbicides and inorganic fertilisers and there is report of them growing genetically modified organism (GMO) crops. While these practices are promoted as having economic returns, they have many impacts on ecosystems and health, intersecting with climate change. The land clearing for these activities and cutting down of trees is noted to be leading to soil erosion, river siltation, reduction of grazing land for family livestock and indigenous communities who lived in forests being forced out of their land. As noted earlier, with climate change these land appropriations are unequally benefiting large corporations practising industrial agriculture over local farmers. In doing this they are widening social inequalities and making local communities more vulnerable to climate change.

The webinar speakers and participants noted that land is more than a resource in ESA. For millions of small-scale farmers, it's their home, their culture, and their livelihood. Without secure rights to their land, farmers cannot invest in practices that restore ecosystems and help them adapt to climate change. Climate change is already disrupting weather patterns, causing droughts, floods, and unpredictable growing seasons. These changes are not just inconvenient—they're catastrophic for farmers who depend on consistent weather to plant, grow, and harvest their crops. When farmers lose their land or face restrictive policies, generations of wisdom essential for biodiversity and climate resilience are lost. Rising debts and reduced incomes have forced some farmers to abandon traditional practices in favour of short-term survival strategies, facing escalating costs of fertilisers and imported high yield seed varieties, further exacerbating indebtedness and climate vulnerability. With local food producers playing a major role in health in ESA, these challenges make healthy foods more costly, deepen food insecurity, and have an impact on population health. Agroecology thus depends on secure land access for farmers, and protection of local knowledge, traditional farming systems, and natural ecosystems.

These domestic and regional trends are driven or influenced by global trade and investment policies that undermine local farmer independence and favour industrial agriculture. These global trade regimes are embedded in the agreements made by wealthy countries with ESA governments that embed conditions that favour industrial agriculture. For example, the International Union for the Protection of New Varieties of Plants (UPOV) termed UPOV 91 gives seed companies exclusive rights over certain seeds they develop, prohibits farmers from saving, sharing, or replanting these seeds without paying fees for the intellectual property rights of the developers, and can make seed-saving and sharing—a practice passed down for generations—illegal if the seeds are owned by companies. For the ESA region, UPOV 91 raises seed costs for farmers who must buy new seeds every season, while the fewer seed varieties and loss of indigenous seeds affects biodiversity and limits the ability to adapt to changing conditions; particularly those climate related conditions that may be better addressed by indigenous seeds.

Social inequalities in climate impacts, the emergence of zoonotic pandemics and poor nutrition were thus traced in the webinar to shifts in land use towards forms of industrial agriculture that are depleting biodiversity, undermining local seed stocks and farmers, and displacing or indebting local farmers. These are identified to be increasing the humans-animal contact promoting viral transfer and the spread of zoonotic diseases. This is seen to make local farmers and low income communities more vulnerable to climate change, and with poor quality and costly food imports in commercial food systems to lead to a double burden of under-nutrition, obesity and food related diseases that also make people more vulnerable to pandemics. The discussion thus turned to what actions will reduce these pandemic and health risks.

## **Actions to address health equity, pandemics in climate links to land and agroecology**

An agroecology that preserves and sustainably uses a country's biodiversity (plant and animal), that works with local farmers and protects pertinent local seed stocks, indigenous knowledge and experience and promotes production, processing, marketing and consumption of local foods is desirable to address health inequalities and pandemic risks linked to climate change.. For this ESA countries need to move away from industrial agriculture policies and investments that are acquiring significant land areas, displacing local farmers, shifting from food to export crops and

harming biodiversity. There was a perception that there is still an opportunity for ESA countries to rebuild ecosystems damaged by climate change, reduce dependence on costly agroindustry seed and chemical inputs, and support access to land for and invest in locally grown food. This was seen as a path toward resilience—not just for farmers but for the planet.

For agroecology to succeed, however, the right policies need to be in place. ESA policies need to reorient towards agroecology and provide land security for smallholder farmers and livestock keepers; and particularly for women, youth and low income households. Trade agreements must allow farmers to maintain control over their seeds and land. Investment policies must prioritise local, sustainable food systems rather than industrial export-driven agriculture. The region should advocate for just trade policies and agreements that protect these agro-economic approaches and promote food sovereignty. This include rejecting rules such as the UPOV 91 that undermine seed sovereignty, and ensuring that farmer led voices and solutions are at the centre of trade, investment, and climate policy discussions. ESA countries should push for trade agreements that protect seed sovereignty, uphold land rights, and reduce dependency on imported inputs like fertilisers, shield small farmers from global market and climate shocks and geopolitical instability.

For this, farmers and civil society organisations need to be included in trade and investment negotiations to ensure that their needs are heard and reflected. Farmer-led solutions in global platforms call for the direct inclusion of small-scale farmers representatives and agro-ecological information and voices in key global forums, including in World Trade Organisation and climate summits. This also calls for outreach of information and evidence on the issues for local communities and at national and regional level.

It was also noted that agroecology, food and seed sovereignty and land issues need to be recognised as key issues in climate change and pandemic prevention, including in global and regional treaties and measures for pandemic prevention. This implies overcoming siloes, ensuring that gains in one platform are not reversed in another, and making connections between treaty forums that address the commercial determinants that are drivers of pandemics. This is necessary to pay attention to pandemic prevention, to not only react to pandemics, and to ensure that fair benefit and distributed technologies for both prevention and treatment. The integrated One Health approach linking animal and human health and managing zoonotic disease emergence and transmission was seen to be an important development to reduce risks of epidemics and pandemics and increase preparedness, and should be strengthened within comprehensive public health systems. Climate related risks, impacts and responses should be integrated within One Health approaches, as should the land and agroecology measures that promote food sovereignty and reduce human-animal exposure. Countries need to develop a comprehensive plan to manage wildlife and human conflicts, such as Zimbabwe's CAMPFIRE programme. Local authorities and central government plans for management of population, urbanisation, construction, and agriculture need to integrate assessment of health equity impacts and include One Health approaches to address zoonotic and pandemic risks and integrate climate adaptation and food security in their plans. One health policies being designed in the SADC region, supported by FAO and the Southern African Programme for One Health (SAPOH) offers entry points for engagement to ensure this holistic lens.

## **Issues for further research and discussion**

The information shared and discussion in the webinar raised a number of issues for follow up research and discussion. Seed banks are facilities that store seeds to preserve genetic diversity and protect plant species from extinction. It would be useful to better understand this role particularly in relation to food sovereignty and climate change, and the challenges that need to be addressed to promote them. An earlier webinar discussed urban food security within the context of climate change and urban health, This webinar pointed to the need for a more comprehensive analysis of the role of food sovereignty in climate and health, across land, production, processing, marketing, consumption, conservation and waste-related processes and the different economic models that support more climate adaptive and health promoting practices. This includes, for example, the role of food co-operatives that link members to sustainably produced food, that reinvest surplus incomes into the community, and that promote more direct democracy in food systems. Linked to this are sustainable strategies for water security in the context of climate change.