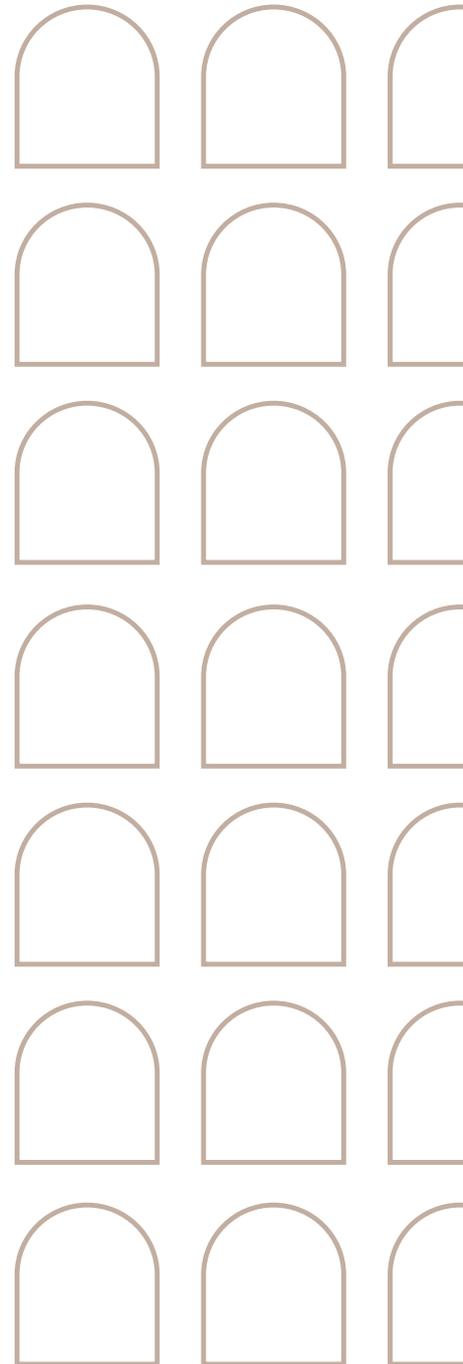


STG Policy Papers
POLICY BRIEF

**APPLYING THE ONE HEALTH
APPROACH TO MITIGATE
ZOOONOTIC DISEASE RISK IN
FORCED MIGRATION**

Author:

Dorien Hanneke Braam

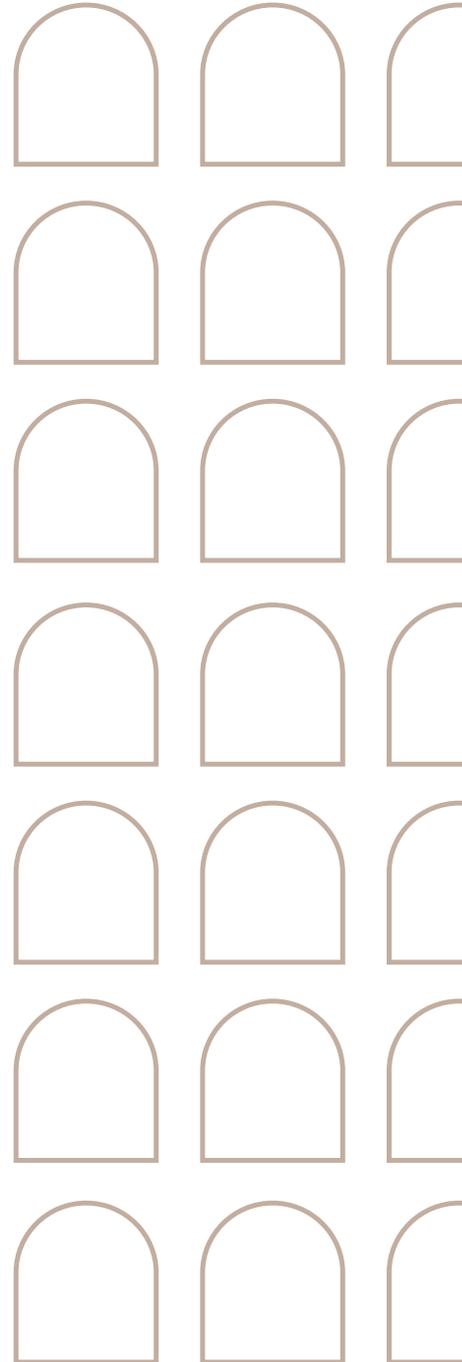


EXECUTIVE SUMMARY

This policy paper presents an overview of the currently available evidence on the connection between forced migration and zoonotic disease risks and vulnerabilities, based on primary and secondary research into zoonoses in displacement. These interconnected areas will become increasingly urgent in the face of accelerating climate change, conflict, and increased interaction between wildlife, domestic animals and humans during forced migration. The paper highlights how global health security requires an interdisciplinary and multilevel One Health approach to address human, animal and environmental health simultaneously. The approach allows for addressing policy and programming gaps in the human mobility and global health security nexus, especially relevant in the context of increasing conflict, disasters and climate change emergencies. This policy brief provides key recommendations to policy makers and practitioners in the area of global health security, migration and wider humanitarian policy and responses.

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- The exclusion of animals from formal humanitarian assistance results in unequal access to protection, linked to age and gender, and may increase vulnerability to zoonotic disease.
- The complexity of zoonotic disease drivers requires more holistic and flexible humanitarian approaches, including the knowledge and voices of displaced people in developing, monitoring and evaluating policies and responses.
- The interdependence between animals and humans needs to be central in emergency responses, and calls for a multi stakeholder, multidisciplinary and open-ended One Health approach.
- The important interrelationships between animal, human and environmental health, and the central role of animals in households and community lives and livelihoods needs to be considered.

1. INTRODUCTION

The COVID-19 pandemic, a disease which may have originated in animals, once again highlighted the interconnectedness of human and animal health. Animals are essential to human health and lives in many ways, through providing food, nutrition, livelihoods, mental health and companionship. However, an estimated 60 per cent of human infectious diseases [originate in animals](#). These so-called 'zoonoses' affect over two billion people, causing 2.7 million human deaths annually. Global outbreaks of Avian Influenza (more commonly known as bird flu), for example, highlight the risk of zoonoses with the potential to become a pandemic.

Zoonotic disease outbreaks are [linked to the exponential growth of human activities](#), for instance the spread of human settlements during forced migration. Currently, an unprecedented [89.3 million people are displaced globally](#). Most of this displacement occurs in low and middle income settings where people are highly dependent on their animals, often the only moveable asset during forced migration. Simultaneously, global migration policies are becoming more restrictive, with increasingly hostile environments and militarisation of external borders, hampering human and livestock movement. These responses to displacement are unsustainable in the context

of future large population movements, especially where these include livestock.

Domestic and international policies are riddled with protection gaps. While the 1951 Refugee Convention provides basic standards to protect refugees, it does not cover those displaced within national borders, and provides little guidance on how to deal with (livestock) assets. The Global Compact on Refugees (GCR) has renewed the focus on responsibility sharing as a key element of global refugee protection, but is used by countries in the global North to 'externalise' their humanitarian responses to prevent the arrival of refugees, for instance through the adoption of the EU - Jordan Compact. As a result of gaps in legislation and jurisdictions, displaced populations face exclusion, structural inequality and discrimination. This affects their access to health and veterinary services, sometimes further hampered through language barriers.

Complex interactions of environmental, political and socio-economic processes therefore affect people's vulnerability to zoonotic disease, demanding multilevel, interdisciplinary responses in both policy and programming. Increasingly, the 'One Health' framework is used for an interdisciplinary consideration of global health security by addressing environmental, human and animal health simultaneously, however significant gaps remain. In particular,

to date, the One Health concept is rarely extended to displacement situations. In these contexts, an interdisciplinary approach is essential to address the additional burden of forced migration in terms of human, livestock and wildlife interactions, as well as changes in pathogen burden and built environments.

2. DISPLACEMENT, ANIMALS AND HEALTH

Research shows that the [majority of emerging infectious diseases](#) in humans have animal origins, with increased interspecies transmission risks in areas where domestic animals, wildlife and humans live close together. Domestic animals may act as an intermediary host for emerging zoonotic pathogens, facilitating transmission from wild animals to humans. The global burden of zoonotic disease is expected to increase as climate change destroys precarious ecological systems, which may increase forced migration of humans and livestock, and encroachment on wildlife habitats. Indirect effects of climate change may include a collapse in disease surveillance, vaccinations and food supply. Furthermore, during disaster, conflict and displacement, the reduction in preventive measures such as vector control, in combination with environmental changes and the destruction of infrastructure, increases the risk of infectious diseases.

and spread of zoonotic disease pathogens. The focus on pathogen spillover from wildlife to livestock and humans ignores data that often neglected zoonotic diseases, such as brucellosis, are a much larger burden to rural livestock keepers most at risk of displacement. Meanwhile, the connection between zoonoses and ecological changes following disaster, conflict and related displacement remains much less well understood and requires further research.

As forced migration is associated with the increased mixing of displaced and host populations and their livestock, animals are [rarely facilitated](#), and livestock is often banned from humanitarian relief and refugee camps. Rather than being based on primary research data however, this exclusion is largely a reflection of camps being a generally poor solution to humanitarian crises. The exacerbation of public health risks in crowded living conditions was once again highlighted by the early [COVID-19 outbreaks in Greece](#) and elsewhere. Rather than addressing these challenges, for instance through safely facilitating livestock movement, responses to animals in emergencies and forced migration remain based on anthropocentric¹ approaches, ignoring the important positions of animals in displaced households and communities.

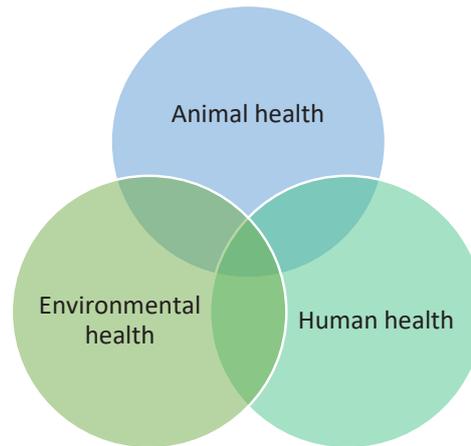
Contrary to assumptions regarding the association between forced migration of livestock and zoonoses, there is [little primary evidence](#) of increased zoonotic disease outbreaks related to the movement of refugees and their animals. For example in Jordan, zoonotic disease outbreaks are instead associated with the [collapse of veterinary and public health services](#), including surveillance and quarantine at border control.

Climate change and environmental degradation will uproot and displace not only people and domestic animals, but also wildlife. This increases the risk of [infectious disease emergence](#) where the displaced connect with host populations and their livestock. There is ample literature on the impact of ecological changes through livestock intensification, expansion and deforestation on the emergence

Research shows that livestock is often an [important decisive factor](#) in displacement decisions either in terms of transportation, movement route, and/or destination location. Forced migrants may have to sell, or abandon all their livestock to obtain food and transportation during displacement, while regular border crossings remain closed to animals. Faced with the exclusion of their animals from relief camps,

¹ Defined as: [regarding humankind as the central or most important element of existence.](#)

FIGURE 1: THE ONE HEALTH FRAMEWORK



Source: Adapted from [WOAH \(2022\)](#).

displaced communities and households may split up to find remote and safe locations for their livestock to retain access to their animals. In practice, this means that while women and children may access relief camps, men and boys herd their animals elsewhere. This results in unequal access to protection access, linked to age and gender. Those without humanitarian protection depend on local, social and political connections for access to shelter and resources during displacement.

To rebuild their livelihood, refugees may acquire new animals which may remain excluded [public veterinary services](#), in turn affecting health status of animal- and human populations alike through increasing zoonotic disease transmission risks. Women are particularly at risk of disease through their role as caretaker of sick animals and humans. Meanwhile, access to services, including veterinary and health centres often decreases during displacement. In many rural areas, [local community \(animal\) health worker programmes](#) are the only way to provide a basic level of primary healthcare and vaccinations.

3. THE ONE HEALTH APPROACH

The complex interlinkages of zoonotic pathogens and changing environments, in combination with the underlying historical, political and socio-economic drivers of forced migration, call for a comprehensive framework for developing policy and programmatic responses. In recent years, the One Health framework has gained traction in addressing the complex issues surrounding zoonoses.² By underscoring the devastating impact on lives and livelihoods of newly emerging diseases of animal origin, the COVID-19 pandemic highlighted the urgency to adopt the One Health approach, allowing for improved cooperation between the human, animal and environmental health sectors.

At the global level, the World Organisation for Animal Health (WOAH), the UN Food and Agriculture Organization (FAO) and the World Health Organization (WHO) established the tripartite for One Health in 2017, joined by the UN Environmental Programme (UNEP) becoming a 'quadripartite' in 2021. The COVID-19 pandemic accelerated the development of its One Health Joint Plan for Action, the establishment of a One Health

² The formal definition of One Health developed by the High Level Expert Panel: "One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. It recognizes the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and inter-dependent. The approach mobilizes multiple sectors, disciplines and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change, and contributing to sustainable development." (OHHLEP, 2021).

The One Health framework addresses biomedical and ecological risk factors at the intersection of animal, human and environmental health. These relationships are shaped by external influences such as globalisation, climate change and forced migration.

High-Level Expert Panel (OHHLEP) and the drafting of a new pandemic treaty.

While at global governance level One Health increasingly includes animal and environmental health, the actual implementation of the approach remains limited. This is a result of gaps in animal health system investments and awareness of the broader public health and economic benefits.

One Health aims to 'obtain optimal health for people, animals, and the environment', through enhanced collaboration between medical, veterinary, and ecological actors, allowing for wider input from social, economic and other sectors. One Health advocates argue that the health of the environment, animals and humans require equal consideration, in that the well-being of one affects the health of the others. By further inclusion of environmental and ecosystem approaches, One Health can be used to [mitigate complex health problems](#).

This approach is still under development. Recently, scholars have started challenging the [anthropocentrism in the One Health philosophy](#), and criticising its one-sided focus on human interests reflected in its implementation. Where animals are excluded, or even sacrificed, for the purpose of human health, the One Health definition of 'optimising' human, animal and environmental health no longer holds true. One Health therefore needs a [corresponding ethical framework](#) for policy to consider the moral status of animals by policy makers. This is particularly relevant when considering displaced populations and their animals that are dependent on host communities and governments. A new paradigm requires compassion and solidarity with both humans and animals, thus mitigating

social exclusion and increasing the agency of affected populations.

4. PARTICIPATION AND INCLUSION

In any emergency, aid is provided by a mix of formal and informal responders, including relatives, neighbours, charitable organisations, governments and non-profit organisations. Access to these services depends on the status of individuals within communities and households.

International frameworks acknowledge the agency of disaster-affected communities in risk mitigation and adaptation, defined as 'the capacity, condition, or state of acting or of exerting power over your own circumstances'.³ However, traditional knowledge is [rarely comprehensively included](#) in policy development around disaster, displacement and disease preparedness and response. This would require more strategic partnerships distributing resources and power.

Displaced people themselves play an important role in zoonotic disease prevention, based on traditional knowledge and lived experience of animal disease prevention and detection.

Recognising that all stakeholders have [agency and responsibility](#) is essential in addressing disaster, displacement and zoonotic disease dynamics. Collective solidarities help displaced people gain access to social and economic capital, including through more equitable resource sharing and respect to both human and non-human animal lives. The interdependence between animals and humans needs to be [central to emergency responses](#), and calls for a multi stakeholder, multidisciplinary and open-ended One Health approach which focuses on the inclusion of affected displaced populations in developing, monitoring and evaluating policies and responses.

5. CONCLUSION

Climate crises, disasters and conflict increasingly displaces humans and their animals. This has

3 E.g. [Sendai Framework](#) and the [Paris Agreement](#)

important implications for zoonotic disease risk and vulnerability. Studies on displacement, veterinary and public health rarely cross disciplinary boundaries however. The lack of scientific evidence on the intersections of these complex interconnected global existential threats has resulted in policies and practices of exclusion. Zoonotic and other disease risk in displacement is associated with the move to new environments, reduced health and veterinary services, crowded and unsanitary living conditions. As a result, humanitarian responders rarely accommodate animal and livestock access to refugee and relief camps, as animals are seen and positioned as a threat to human health. Trade-offs between livelihoods, nutrition, resilience and health are thereby ignored.

Policies and practices of exclusion may create and exacerbate zoonotic and other health challenges during displacement. While complex emergencies, forced migration and zoonotic diseases primarily affect livestock-dependent rural populations in low and middle income settings, affected communities themselves are rarely involved in developing policies and response. This results in exclusory *ad-hoc* human-centred approaches to potential zoonotic disease risks, and ignores the central position and value of animals in those communities and households most at risk. The interconnectedness and the integral position of animals in societies remains underacknowledged, and the relationships between humans and animals disregarded.

Dismissing the direct and indirect health benefits of livestock from nutrition to mental health, such exclusion also ignores the existing local knowledge and practices communities apply to protect themselves and animals against disease. Excluding livestock in refugee and relief camps may in some cases in fact be counterproductive to public safety, food- and biosecurity if animal owners engage in risky behaviours to retain access to their animals.

Zoonotic disease dynamics during displacement are influenced by multilevel historical, political and socio-economic processes. The complexity of drivers calls for more holistic humanitarian policies and responses to livestock in

displacement through a One Health approach. This allows for a recognition of the important interrelationships between animal, human and environmental health, and understanding the central role of animals in households and community lives and livelihoods.

6. RECOMMENDATIONS

Zoonotic disease risks, and the underlying defining processes, call for sustained support to animals and humans before, during and after displacement. Excluding animals from humanitarian responses impacts not only global health security but also causes protection gaps that affect food, nutrition, livelihoods and opportunities for resettlement and return. The trade-offs between benefits and potential positive contribution of animals in forced migration need to be urgently considered. The One Health approach allows for including animals in humanitarian responses while protecting human health through addressing biological, ecological and environmental risk factors related to sanitation, shelter and services. In order to break down professional silos and barriers to collaboration, there is a need for updated policies and legislative changes, including rights-based approaches to mitigate social exclusion. Meanwhile, there needs to be a consideration of the underlying processes and structures causing vulnerability, through addressing gaps in international and national legal frameworks and humanitarian policies and programs. The recommendations below need to be tailored to the local context, by adopting the most relevant and suitable policy instruments:

To policy makers:

- Animal health needs to be included in institutional and policy frameworks focusing on migration, public health, and humanitarian emergencies.
- Adapt legal frameworks on disaster management, human and animal health to allow for structural changes in land use and ownership.
- Develop evidence-informed policy through conducting further primary research, raising awareness on the interlinkages of human

and non-human animal species, to enhance solidarity and compassion, particularly during emergencies such as forced migration.

- Address the structural processes that lead to inequalities while empowering communities to increase their agency through more equitable resource distribution.⁴

To practitioners:

- Animals need to be facilitated in displacement through adapting shelters, and providing veterinary services, feed and water.
- Contextualise and ensure adaptive responses, based on local context, knowledge and priorities of displaced and host communities.
- Ensure suitable destination locations for relief and refugee camps, based on local knowledge of disease prevention and livelihood needs.

To donors:

- Provide flexible, unearmarked bi- and multilateral funding towards prevention, adaptation and resilience in order to prevent displacement and disease.
- Ensure investments in veterinary and public health processes and changes are locally meaningful and self-sustaining.
- Support community agency to respond by providing monetary and/ or physical resources.
- Bridge the gap between humanitarian and development assistance through providing participatory and flexible funding for short and long-term solutions.

Global and national leadership is required to address the larger existential threats to future generations posed by the compound challenges of climate change, forced migration and health. A collaborative effort to address climate change-related loss and damage, human movement and cross-border conflict needs to include states, regional and local authorities, private and non-profit sectors to treat the causes rather than the symptoms of zoonotic disease in displacement. Most importantly, the affected and displaced populations themselves need to be consulted and included in the implementation, monitoring and evaluating of responses.

⁴ This may include: policies aimed at adaptation and resilience through poverty reduction, locally-led, inclusive, participatory responses and projects, including nature-based solutions.

FURTHER READING

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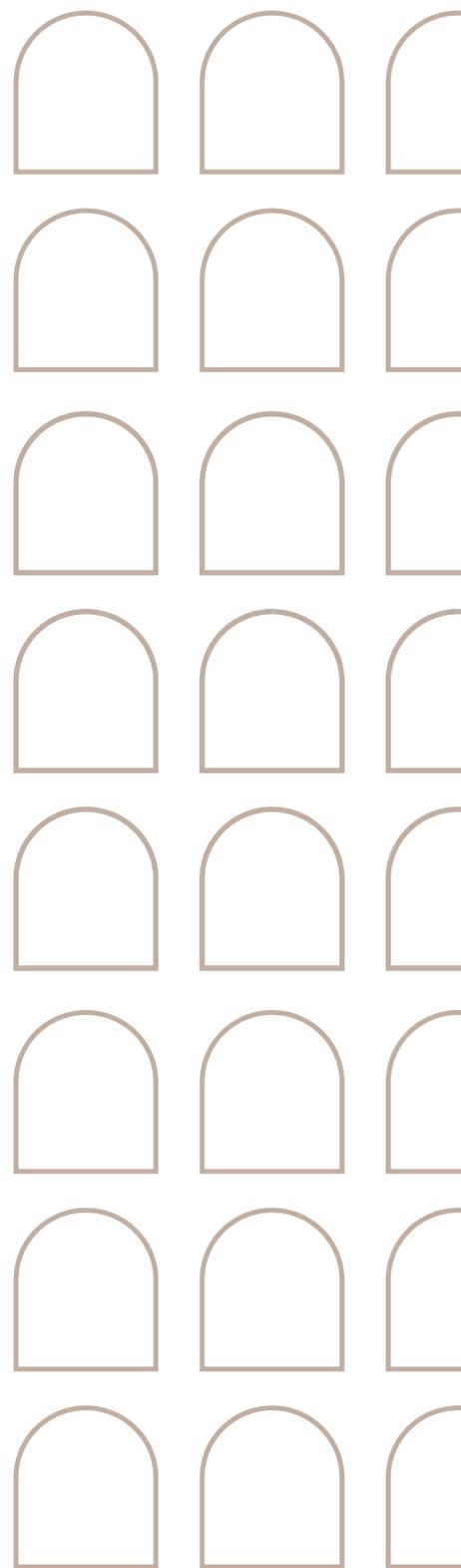
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