



One Health in Somalia: Present status, opportunities, and challenges

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ABSTRACT

One Health (OH) is an integrated approach aiming at improving the health of people, animals, and ecosystems. It recognizes the interconnectedness of human health with the health of animals, plants, and the environment. Since Somali people's livelihoods are mainly based on livestock, agriculture, marine resources, and their shared environment, OH-oriented initiatives could significantly impact the country toward reducing complex problems affecting the health of humans, animals, and the environment. The term "One Health" was first introduced into the global scientific community in September 2004 and in 2013 in Somalia. After ten years, there is still a long road ahead for implementing the OH approach in the country. Herein, we present the status, opportunities, and challenges of OH in Somalia and recommend ways to promote and institutionalize it. The country has been involved in various OH initiatives solely driven by external funding, focusing on research, capacity development, and community interventions, apart from university-led initiatives such as Somali One Health Centre. In Somalia, OH initiatives face numerous challenges, ranging from limited infrastructure and resources to weak governance and institutional capacity. We urge the Somali government to address these challenges and prioritize OH as the main approach to tackling critical health issues. We suggest the Somali government institutionalize and implement OH actions at all administrative levels, including Federal, State, District, and community, through a mechanism to improve multisectoral coordination and collaboration to predict, prevent, detect, control, and respond to communicable and non-communicable diseases at the human-animal-ecosystem interface for improving health outcomes for all.

Abbreviations: AFROHUN, Africa One Health University Network; AMR, Antimicrobial Resistance; AU, Abrar University; BEP, Department of State's Biosecurity Engagement Program; CAEP, Centre of Excellence for Climate Change Adaptation and Environmental Protection; CAHWs, Community Animal Health Workers; CDC, Centers for Disease Control and Prevention; CHWS, Community Health Workers; FDFA, Federal Department of Foreign Affairs; GCRF, Global Challenges Research Fund; GIS, Global Implementation Solutions; HORN, One Health regional network for the Horn of Africa; ICOPHAI, International Congress on Pathogens at the Human-Animal Interface; IGAD, Intergovernmental Authority on Development; ISHF, *Imam* Shafi'i Foundation; MERS-CoV, Middle East respiratory syndrome coronavirus; MoAI, Ministry of Agriculture and Irrigation; MoECC, Ministry of Environment and Climate Change; MoH, Ministry of Health; MoLFR, Ministry of Livestock, Forestry and Range; MoU, Memorandum of Understanding; OH, One Health; OH4HEAL, One Health for Humans, Environment, Animals and Livelihoods; OHCEA, One Health Central and Eastern Africa; OHNLTWG, One Health National-Level Technical Working Group; OHTWG, One Health Technical Working Group; OHU, One Health Unit; OHZDB, One Health Zoonotic Disease Prioritization; Ph.D, Doctor of Philosophy; PPEs, personal protective equipment; RVF, Rift Valley Fever; SDC, Swiss Development Corporation; SOHC, Somali One Health Centre; Swiss TPH, Swiss Tropical Public Health Institute; UFPB, Federal University of Paraíba; UFPR, Federal University of Parana; UKRI, UK Research and Innovation; VSF, *Vétérinaires Sans Frontières Suisse*; ZDU, Zoonotic Disease Unit.

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1. Introduction

One Health (OH) is a collaborative and multidisciplinary approach that aims for the optimal health of people, animals, and the environment. It recognizes that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent [1]. OH is not a new idea or principle. Still, it has simply gained broader recognition in the past two decades since its introduction to the scientific community in September 2004 to promote a culture of working together sustainably, particularly in resource-constrained countries, to address health risks at the human–animal–environment interface [2]. The increase in human population, industrialization, urbanization, climate and land use changes, intensive farming practices, deforestation, and accelerated exploitation of wildlife and geopolitical problems compromise the ecosystem biodiversity and improve migratory movements of both humankind and species, leading to the emergence and re-emergence of infectious and non-infectious diseases [3,4]. Complex health problems require holistic and multidisciplinary approaches, particularly in countries with limited resources [5]. The rapid acceptance of the OH concept globally has resulted in more than 100 OH networks, with at least 24 initiatives reported from Africa [6]. However, to the best of our knowledge, the term “One Health” was first used in Somalia in 2013. After ten years, there is still a long road ahead for OH initiatives to be implemented in the country located on the top of the Horn of Africa region that would promote a direct impact on the health of people, animals, plants, and the environment.

Globally, about 60% of known infectious diseases and up to 75% of emerging and re-emerging diseases are zoonotic in origin [7]. Since these diseases can affect both humans and animals, and the environment plays a role in mixing vessels, a multi-sectoral approach is necessary to minimize the transmission and spread of these zoonotic diseases [8,9]. With the increasing threat of global health challenges, such as antimicrobial resistance (AMR) and emerging infectious diseases, there is an urgent need to adopt a OH approach that brings together multiple disciplines and sectors to tackle these challenges effectively [3].

Somalia has faced a brutal civil war that lasts more than 30 years and destroyed educational, research, economic, and social structures, making the country score very low for most humanitarian indicators. Currently, Somali communities and their livestock are experiencing a famine and suffering from preventable diseases due to geographical and political isolation and lack of state-of-the-art knowledge, poor governance, protracted internal conflict, underdevelopment, economic decline, poverty, social and gender inequality, and environmental degradation [10,11]. Somali people’s livelihoods are mainly based on livestock, agriculture, marine resources, and their shared environment. Therefore, a holistic and integrated approach such as OH is relevant to the country. Moreover, the country’s population has increased by 125% in the past 25 years, reaching 18 million in 2022, and is projected to increase by an additional 89% in the next 25 years [12]. It is estimated that 60% of the population is involved in pastoralism, moving from place to place in search of water and pastures to feed their animals. Thus, a large part of the Somali population is exposed to biological zoonotic hazards that can be disastrous to livestock and humans. In addition, the increased number of people with a lack of livestock extension services and continuous contact with production animals associated with the presence of stray dogs, cats, rodents, and vectors sharing the same environment, as well as environmental degradation and limited awareness of AMR, may exacerbate the health challenges in Somalia. Despite the vulnerabilities of Somali communities to zoonotic diseases, AMR, negative environmental impacts, and food and feed insecurity, OH actions are limited to capacity building and have not yet been institutionalized in the country. The present status, opportunities, and challenges of OH in Somalia are discussed in this paper, along with recommendations on institutionalizing and promoting OH in action in the country.

2. Status of OH in Somalia

The OH concept is still at an early stage in Somalia since its introduction in 2013 (Fig. 1, Table 1) when the Somalia Federal Ministry of Livestock was invited to participate and inform the country’s OH situation at the 1st Africa One Health Conference in Ethiopia, promoted by the Africa One Health University Network [AFROHUN, formerly One Health Central and Eastern Africa (OHCEA)]. Since then, several efforts have been made to promote OH in the country, primarily dependent on external funding. However, Somalia is grossly underrepresented in the global and African OH networks and initiatives. Still, it is represented in the One Health regional network for the Horn of Africa (HORN), which was recently formed in 2023 [13].

Global Implementation Solutions (GIS) supported OH programs in Somalia (2015–2018) to improve healthcare systems in resource-limited countries. While the Somalia One Health Technical Working Group (OHTWG) was established under this initiative, it primarily depended on external support. The GIS also supported a workshop to begin the formation of a One Health Surveillance Network between the OHTWG and the Kenya Zoonotic Disease Unit (ZDU) to develop a strategic communication plan to help mitigate transboundary zoonotic disease outbreaks [14].

In 2015, the Jijiga OH Initiative was established as a collaborative effort involving the Swiss Tropical Public Health Institute (Swiss TPH), Jigjiga University, and Armauer Hansen Research Institute. This initiative received funding from the Swiss Development Corporation (SDC) and aimed to enhance the health and resilience of Somali pastoralists and their livestock [15]. As part of this project, the University of Hargeisa and the Somalia National University were incorporated, expanding the reach and impact of the initiative. Through that collaborative effort, the initiative provided comprehensive training to strengthen the capacity and knowledge of participants in addressing health challenges within the context of the Somali pastoralist community.

In 2017, the HORN project funded by the Global Challenges Research Fund (GCRF) Growing Research Capability call, through UK Research and Innovation (UKRI) aimed to improve the health and wealth of the people of the Horn of Africa by increasing the local capacity to undertake high-quality research at the interactions between people and animals [13]. Within its framework, the first regional networking conference dedicated to fostering collaboration and knowledge exchange on OH among universities in the Horn of Africa was held in Borama, Somaliland, in January 2022, which culminated in the “Borama Declaration for the Horn of Africa Universities for One Health Initiative”. The declaration, which was signed by 21 universities that were present, was a mark of commitment to cooperate for the advancement of One Health in the Horn of Africa [16,17]. Then, in 2023, “One Health Regional Network for the Horn of Africa” was established, an interconnected network comprising diverse stakeholders and institutions operating within the region that can undertake high-quality research into the link between people’s health and wealth and that of livestock and the environment.

Since the introduction of the OH concept in Somalia, our research group at Abrar University has been actively involved in implementing and expanding OH initiatives in the country. In 2015, we published the first study on *Brucella* spp. in animals and humans, shedding light on the epidemiology and impact of this zoonotic pathogen [18]. In 2017, we participated in the 4th International Congress on Pathogens at the Human-Animal Interface (ICOPHA), fostering a memorandum of understanding (MoU) between Abrar University (AU), Somalia, and the Federal University of Parana (UFPR), Brazil. Established in 2018, this partnership has facilitated extensive capacity-building initiatives on OH in Somalia. Notably, the collaborative efforts resulted in students’ graduation at various academic levels, including four master’s and two Ph.D., and two postdoctoral training, empowering them to contribute meaningfully to the field. In parallel, multiple meetings and webinars have been organized to raise awareness about the importance of OH in

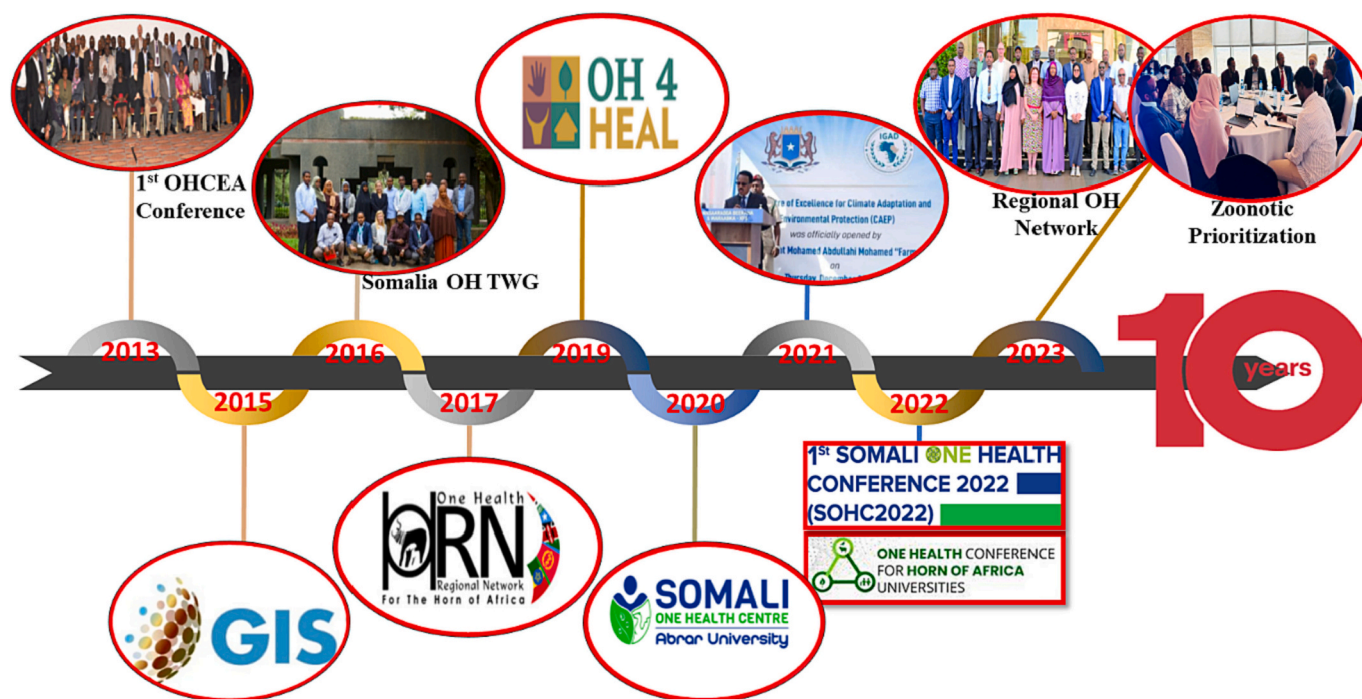


Fig. 1. Summary of the One Health activities in Somalia, 2013–2023. Top row (left to right): first One Health Central and Eastern Africa (OHCEA) conference, Somalia One Health Technical Working Group, One Health for Humans, Environment, Animals and Livelihoods (OH4HEAL), Intergovernmental Authority on Development (IGAD) Centre of Excellence for Climate Change Adaptation and Environmental Protection (IGAD CAEP) in Somalia, One Health Regional Network for the Horn of Africa (HORN Network), Zoonotic Prioritization for Somalia. Bottom row (left to right): Global Implementation Solutions (GIS), HORN Project, Somali One Health Centre of Abrar University, One Health Conference for Horn of Africa University, First Somali One Health Conference 2022.

the country. Our research efforts have resulted in several notable scientific publications on zoonotic diseases, including the first molecular investigations of animal trypanosomiasis in Somalia [19,20]. Data provided by our studies on brucellosis and toxoplasmosis in pregnant women emphasized the significance of understanding zoonotic abortifacient pathogens in the Somali community [21]. Additionally, our recent data exploring Rift Valley Fever (RVF) and *Brucella* sp. in ruminants [22]. and the first comprehensive study on ticks infesting cattle and molecular characterization of hemoplasmas [23] will contribute to future evolutionary and epidemiologic investigations in the country. Notably, our collaborative partnership remains active and steadfast as we strive to generate various scientific articles to fortify disease prevention and control strategies across the Somali community's animal and human populations. A memorandum of understanding between AU and the Federal University of Paraiba (UFPB), Brazil, is in progress and aims to facilitate extensive capacity-building initiatives on AMR and omics.

In 2019, the One Health for Humans, Environment, Animals and Livelihoods (OH4HEAL) VSF-Suisse's program funded by the SDC, Federal Department of Foreign Affairs (FDFA), was established to enhance the well-being and resilience of vulnerable communities in pastoralist and agropastoralist areas of Ethiopia, Somalia, and Kenya. The One Health Unit (OHU) and One Health Task Force Unit (OHTFU) were established and trained as part of this initiative. Furthermore, they provided medications for humans and animals through trained community health workers (CHWs) and community animal health workers (CAHWs) [24].

The Federal Ministry of Health (MoH) and Ministry of Livestock, Forestry and Range (MoLFR) of Somalia have developed and approved the Somalia One Health strategic plan for 2017–2021 (Somalia OH Strategy 2017–2021). The strategic plan does not incorporate the OH approach due to underrepresentation in other related ministries, which endorses linkages between human, animal, agriculture, and environmental sectors to achieve better health outcomes. This is lacking in

Somalia as the OH strategies developed to support human resource improvement have not been implemented.

In 2020, the Somali One Health Centre (SOHC) of Abrar University established and organized an international OH conference in Somalia in 2022, laying the foundation for operationalizing and institutionalizing OH action in Somalia [25]. The conference was opened by the current president of Somalia, H.E. Dr. Hassan Sheikh Mohamud, marking the first initiation of OH in Somalia at the federal level. After this conference, emphasis has been placed on institutionalizing and implementing the OH approach to effectively address health challenges and put biodiversity and ecosystem health, human health, and animal health at the forefront of Somalia's development goals. Every year, the SOHC celebrates the 3rd of November as Global One Health Day [26]. This global campaign celebrates and brings attention to the need for an OH approach to address shared health threats at the human-animal-environment interface to effectively improve the health of people, animals, plants, and the shared environment and prevent future pandemics.

In 2021, The Intergovernmental Authority on Development (IGAD) Centre of Excellence for Climate Change Adaptation and Environmental Protection (IGAD CAEP) was established in Somalia with the mission to engage in critical research and data collection on climate change in the Horn of Africa, supporting the implementation of climate risk planning and environmental protection in the IGAD member states [27]. In 2023, Somali experts from human, animal, plant, and environmental health sectors prioritized the seven top zoonotic diseases of great national importance using CDC One Health Zoonotic Disease Prioritization (OHZDP) tool. The recently prioritized zoonotic diseases include RVF, Middle East respiratory syndrome coronavirus (MERS-CoV), Anthrax, Trypanosomiasis, Brucellosis, Zoonotic Enteric Parasites, and Avian Influenza [28]. To address these health challenges, the SOHC organized and executed a webinar series on prioritized zoonosis in Somalia in collaboration with international research partners [28].

In April 2023, the SOHC organized a meeting with the OH stakeholder's ministries, including MoH, MoLFR, and the Ministry of

Table 1
Summary of One Health actions implemented over ten years in Somalia.

Action	Organizations	Funding Agency	Year	Aims
Participating 1st OHCEA conference	Ministry of Livestock, Forestry, and Range, Somalia	FAO	2013	Presenting OH activities from Somalia at regional level
Education, Research and Outreach of One Health domains	Abrar University (AU)	Imam Shafi'i Foundation (ISHF)	2015-Present	Educating the next generation of professionals in the field of One Health, conducting targeted research on pathogens of One Health importance, and disseminating findings locally, regionally, and internationally
Establishing OH programs in Somalia	GIS	Department of State's Biosecurity Engagement Program (BEP)	2015–2018	To improve healthcare systems in resource-limited countries.
Establishing Jijiga OH Initiative	Swiss TPH, Armauer Hansen Research Institute, and Jijiga University	SDC	2015–2026	To improve the health and resilience of Somali pastoralists and livestock.
Establishing Somalia OH strategic plan	MoH and MoLFR	N/A	2017–2019	To promote interconnectedness for improved health outcomes.
Establishing HORN project	HORN partners	GCRF	2017–2022	Enhance research capacity for health, wealth, and animal interactions in the Horn of Africa.
Memorandum of Understanding	Federal University of Parana (UFPR), Brazil, and AU	N/A	2018-Present	To perform research and research-training capacity-building initiatives on OH in Somalia
Establishing OH4HEAL program	VSF-Suisse	SDC and FDFA	2019–2024	To improve well-being and resilience in pastoralist, agropastoral areas.
Establishing SOHC	Abrar University (AU)	Imam Shafi'i Foundation (ISHF)	2020	Establishing an excellence center for OH academic, research, training, and outreach programs in Somalia.
Establishing IGAD CAEP	IGAD CAEP	IGAD CAEP	2021	To support the implementation of climate risk planning and environmental protection in the IGAD member states
Establishing the first Somalia OH conference	SOHC, AU	Abrar University and ISHF	2022	Operationalization and institutionalization of OH action in Somalia
Establishing regional OH networking conference	HORN partners and other national and international organizations and NGO's	GCRF	2022	To foster collaboration and knowledge exchange on OH among universities in Africa.
Memorandum of Understanding	School of Biosciences, University of Kent and SOHC, AU	N/A	2022–2025	To perform research and research-training capacity-building initiatives on OH in Somalia
Establishing OH Regional Network for the Horn of Africa	HORN partners and other universities in the Horn of Africa	GCRF	2023	To create an interconnected network for research on health, wealth, livestock, environment, and people's health and wealth.
Formation of One Health National-Level Technical Working Group	MoH, MoLFR, MoECC, and MOAI	N/A	2023	To develop a long-term strategic approach, monitoring, early warning frameworks, and advocacy strategies.
Meeting with the OH stakeholders	MoH, MoLFR, MoECC, and SOHC	N/A	2023	To institutionalize OH in the government system
One Health Zoonotic Disease Prioritization	OH stakeholders from Somalia and International organizations	GCRF	2023	To prioritize the top zoonotic diseases of national importance
Memorandum of Understanding	UFPB and AU	N/A	In progress	To perform research and research-training capacity-building initiatives on OH in Somalia

Environment and Climate Change (MoECC) of Somalia. The meeting discussed the institutionalization of OH in the government system as a follow-up to one of the recommendations of the 1st Somali One Health Conference 2022 [26]. After this meeting, One Health National-Level Technical Working Group (OHNLWG) was formed to promote OH in Somalia with the involvement of MoH, MoLFR, MoECC, and Ministry of Agriculture and Irrigation (MoAI) at the federal level with the mandate of guiding the development of a long-term strategic approach, monitoring, and early warning frameworks, and developing advocacy and resource mobilization strategies. The functioning of these committees is primarily dependent on external support. Moreover, there have been no institutional arrangements for OH activities at the state and local government levels until now. Despite several efforts to promote OH in Somalia, there is no specific institutional framework for implementing OH in the country. There is a need for leadership, government support, community engagement, and resources to institutionalize it.

3. Opportunities for OH in Somalia

Somalia faces risks of emerging pandemic threats and other global threats such as AMR, endemic and transboundary zoonotic diseases, food and water-borne illness, and biohazards. The country is home to pastoral communities, which move from place-to-place seeking water and pastures to feed their animals. Movement is not limited to the

national borders; therefore, pastoralists are at risk of picking up animal pathogens that can be disastrous to the livestock population and/or humans in Somalia, such as RVF and anthrax, which have a negative impact on the health and livelihood of the community. Due to the high mortality associated with these diseases, the nomads' food security and economic well-being can be drastically affected.

Local practices of drinking raw milk and dealing with aborted or dead animals without personal protective equipment (PPEs) in the community create an enabling environment facilitating the transmission of zoonotic pathogens [21,22]. Moreover, slaughtering livestock under poor hygienic conditions and proper meat inspection, sometimes in inappropriate places like rivers and water points, and mismanaging animal by-products can lead to environmental pollution and zoonotic diseases spreading throughout the community (Fig. 2). Additionally, the misuse of antibiotics in humans and animals, including using outdated veterinary drugs in livestock for therapeutic purposes, might contribute to the AMR problem in Somalia [29]. It is becoming evident that governmental, nongovernmental, and educational organizations must collaborate to solve global health challenges, particularly AMR. To achieve adequate health for people, animals, plants, and the environment, many disciplines and sectors must collaborate locally, nationally, and internationally.

Successful strategies include multidisciplinary surveillance, reporting, laboratory collaboration, coordinated data sharing and analysis,



Fig. 2. Open-air animal slaughter in Somalia drains directly to the river, where residents also get their drinking water (Courtesy of A. Hassan-Kadle).

and effective communication routes for disease reporting and quick response [30]. The ability of countries to quickly identify pathogens of a public health concern and other disease pathogens requires investments in robust laboratory capacity and the development of cooperation across laboratories in the human and animal sectors. Rapid and accurate detection is essential for the control of a disease, whether known or unknown, resulting in shorter social disruptions in the many industries that may be impacted during an epidemic, such as educational systems, immunization programs, tourism, supply chains, and agricultural commerce [30].

4. Challenges for OH in Somalia

The implementation of OH is growing in Somalia with limited understanding at the government, professionals, higher education institutions, and community levels. While OH is broadly accepted across stakeholders, the lack of knowledge of its core concept, leadership, proper communication, and the absence of specific objectives can compromise its effectiveness. Therefore, governmental commitment to encourage ownership across all professions must be advocated at the highest level. The OH concept must be initiated by the community and consider regional requirements and the overall scenario [5].

Somalia's OH institutional capacity remains fragile, posing significant challenges to implementing a coordinated approach. Effective collaboration and coordination across multiple sectors, such as health, agriculture, environment, and veterinary services, require strong governance, policies, and institutions. Collaboration has been recommended to achieve the most significant level of sustainable health and economic benefits [30]. Weak coordination mechanisms and limited institutional capacity hinder the integration of efforts and information sharing among stakeholders. Additionally, policies that could facilitate cross-sector collaboration or coordinated activities across OH stakeholders are scarce [31]. Each of the sectors has its own sectoral priorities. In consequence, OH does not get as much attention as it should. Each sector conducts surveillance, but cross-sectoral data-sharing mechanisms and combined planning are absent. Allied agencies have separate chains of command, making collaboration across sectors impossible.

Limited infrastructure and resources are the primary challenges associated with OH initiatives in Somalia. The country's healthcare system has been severely affected by years of conflict and instability, resulting in a lack of healthcare facilities, trained personnel, diagnostic

capabilities, and laboratory services. Insufficient resources and infrastructure impede the timely detection, surveillance, and response to health threats at the human-animal-environment interface.

The current achievements in Somalia's OH, including prioritizing the zoonotic diseases and being part of the OH regional network described above, have been solely driven by external funding. The government's commitment to overseeing OH activities appear to be limited. This lack of intention significantly hampers the reformulation of the OH Strategic Plan and the initiation of efforts toward its implementation. According to the World Bank, the global program must be led by individual nations; neither international organizations nor donors can accomplish it independently. While the international community can provide critical advice and support, implementation and sustaining the programs remain the countries' responsibility [30].

Zoonotic diseases are a major concern in Somalia. Diseases like brucellosis, RVF, Q fever, and toxoplasmosis pose significant health risks and economic burdens [21,22,32]. However, the surveillance, prevention, and control of zoonotic diseases face challenges due to limited resources, inadequate diagnostic capabilities, and weak surveillance systems. The lack of intersectoral collaboration makes identifying and responding to outbreaks difficult. Although the MoH has a modest surveillance system, the disease detection, reporting, and responding mechanisms are slower [31]. There is also no surveillance of zoonotic diseases which would lead to early detection, prevention, and response to outbreaks.

Another critical challenge is the limited capacity of public health workers and veterinarians. The country has a shortage of trained professionals in human and animal health, which hampers the ability to implement OH effectively. Additionally, challenges in disseminating accurate health information and raising awareness among communities, such as limited access to healthcare services, low literacy rates, cultural beliefs, and nomadic livelihoods, make it difficult to reach and educate the population on the importance of OH practices, disease prevention, and the interdependence of human, animal, and environmental health. Further, surveillance coverage, research data, and OH publications are limited due to insecurity in disease-endemic areas [33].

Finally, the country is highly vulnerable to the impacts of climate change and environmental degradation, which exacerbate health challenges. Increased frequency and intensity of droughts, flooding, and desertification directly impact human and animal populations, leading to displacement, food insecurity, and the emergence of diseases [34]. Adapting to these environmental changes and mitigating their health

impacts requires a multidisciplinary and collaborative approach. In Somalia, government and non-government institutions and professionals operate disconnected and compete for limited resources. Thus, the applicability of the OH concept in the country is challenging if not institutionalized.

5. The way forward

Effective prevention, detection, and response to health threats require multisectoral coordination, collaboration, communication, local community engagement, capacity building, and collaborative research. Practicing the OH concept in Somalia requires policymakers and all health and environment-related professionals to work together to institutionalize OH in the government and education system and engage the community. It suggests governmental power in implementing OH, budgets, and benefit distributions across sectors to effectively address health challenges and put biodiversity and ecosystem health, human health, and animal health at the forefront of development agendas. Using OH as a framework is critical to post-COVID-19 green economic recovery, reaching the Somalia Agenda 2060, the African Union's Agenda 2063, the United Nations' Sustainable Development Goals, and global health security [35–37]. Key actions include strengthening healthcare infrastructure, improving disease surveillance and response systems, conducting health education and awareness campaigns, and integrating climate change adaptation and mitigation strategies into health policies and programs collaboratively.

6. Conclusion

Somalia has a long road ahead to achieve better health outcomes for people, animals, plants, and the environment by implementing OH practices. The country has been involved in various OH initiatives solely driven by external funding, focusing on research, capacity development, and community interventions, apart from university-led initiatives such as SOHC. The government's current plans regarding the assumption of OH activities are yet to be fully clarified. While there is room for improvement, ongoing discussions and engagement with stakeholders are expected to pave the way for the operationalization and effective implementation of OH principles in the near future. We suggest the Somali Federal Government institutionalize and implement OH actions at the State, District, and local community traditional institutions levels with a mechanism to improve multisectoral coordination and collaboration to prevent, detect, control, and respond to zoonotic diseases and other health threats at the human-animal-ecosystem interface for improving health outcomes for all.

CRedit authorship contribution statement

Ahmed A. Hassan-Kadle: Conceptualization, Writing – original draft, Writing – review & editing. **Aamir M. Osman:** Writing – original draft, Writing – review & editing. **Abdalla M. Ibrahim:** Conceptualization, Writing – review & editing. **Ahmed A. Mohamed:** Writing – review & editing. **Celso J. B. de Oliveira:** Writing – review & editing. **Rafael F. C. Vieira:** Conceptualization, Writing – review & editing.

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in our paper “One Health in Somalia: Present Status, Opportunities, and Challenges”.

Data availability

No data was used for the research described in the article.

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